



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

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

THIS MEETING WILL BE CONDUCTED VIA TELECONFERENCE [EXECUTIVE ORDER N-29-20]

ACERA MISSION:

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

Thursday, June 18, 2020
1:00 p.m.

Zoom Instructions	COMMITTEE MEMBERS	
The public can view the teleconference and comment via audio. To join the teleconference, please click the link below: https://zoom.us/join Meeting ID: 826 0508 3587 Password: 569500 For help joining a Zoom meeting, see: https://support.zoom.us/hc/en-us/articles/201362193	TARRELL GAMBLE, CHAIR	APPOINTED
	HENRY LEVY, VICE-CHAIR	EX-OFFICIO
	DALE AMARAL	ELECTED SAFETY
	OPHELIA BASGAL	APPOINTED
	KEITH CARSON	APPOINTED

Should a quorum of the Board attend this meeting, this meeting shall be deemed a joint meeting of the Board and Committee.

The order of agenda items is subject to change without notice. Board and Committee agendas and minutes 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

NOTICE and AGENDA, Page 2 of 3 - Thursday, June 18, 2020

Call to Order: 1:00 p.m.

Public Comment:

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

External Audit:

- 1. Discussion and possible motion to adopt the audited Schedules of Employer Allocations and Schedules of Pension Amounts by Employer with Related Notes, based on the Addendum to Governmental Accounting Standards Board (GASB) Statement No. 67 Valuation as of December 31, 2019**

- Margo Allen
- Audrey Elbert

Recommendation:

The Audit Committee recommends to the Board of Retirement that the Board adopt the audited Schedules of Employer Allocations and Schedules of Pension Amounts by Employer with Related Notes, based on the Addendum to GASB Statement No. 67 Valuation as of December 31, 2019.

- 2. Discussion and possible motion to adopt the audited Schedules of Employer OPEB Allocations and Schedules of OPEB Amounts by Employer with Related Notes, based on the Addendum to GASB Statement No. 74 Valuation as of December 31, 2019**

- Margo Allen
- Audrey Elbert

Recommendation:

The Audit Committee recommends to the Board of Retirement that the Board adopt the audited Schedules of Employer OPEB Allocations and Schedules of OPEB Amounts by Employer with Related Notes, based on the Addendum to GASB Statement No. 74 Valuation as of December 31, 2019.

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 68 Valuation and Employer Schedules as of December 31, 2019**

- Margo Allen

- 2. Presentation and discussion of the GASB 75 Valuation and Employer Schedules as of December 31, 2019**

- Margo Allen

AUDIT COMMITTEE/BOARD MEETING

NOTICE and AGENDA, Page 3 of 3 - Thursday, June 18, 2020

Internal Audit

3. Progress report on the Internal Audit Plan

- Harsh Jadhav

Trustee Comment:

Future Discussion Items

External Audit

1. None

Internal Audit

1. Progress report on the Internal Audit Plan
2. Review complete audits

Establishment of Next Meeting Date


October 15, 2020, at 1:00 pm



MEMORANDUM TO THE AUDIT COMMITTEE

DATE: June 18, 2020

TO: Members of the Audit Committee

FROM: Margo Allen, Fiscal Services Officer 

SUBJECT: **Audited Schedule of Employer Allocations (Pension and OPEB) and Schedule of Pension Amounts by Employer and Schedule of OPEB Amounts by Employer Based on the Governmental Accounting Standards Board (GASB) Statement No. 67 and Statement No. 74, as of December 31, 2019**

Executive Summary

Attached for review and discussion are the 2019 audited schedules of employer allocations (pension and OPEB) and schedules of pension amounts by employer and schedules of OPEB amounts by employer.

During the June 18, 2020, Audit Committee meeting, Williams Adley & Company-CA (WACO), will present and discuss the audit opinions of the set of schedules that ACERA staff prepared using Segal's Addenda to the GASB Statement No. 67 and GASB Statement No. 74 Actuarial Valuations as of December 31, 2019. These worksheets included the Schedule of Employer Allocations (Pension and OPEB) and the Schedule of Pension Amounts by Employer and the Schedule of OPEB Amounts by Employer, with related notes.

In combination with the GASB Statement No. 68 and GASB Statement No. 75 actuarial valuations, the audited allocation schedules contain all the required pension and OPEB liability reporting information employers need to complete their June 30, 2020, fiscal year-end reporting requirements. Once the Board has adopted the audited set of schedules, staff will distribute the audited schedules and the GASB Statement No. 68 and Statement No. 75 actuarial valuations to ACERA's participating employers.

Recommendations

1. Staff recommends that the Audit Committee recommend to the Board of Retirement that the Board adopt the audited Schedule of Employer Allocations and Schedule of Pension Amounts by Employer with Related Notes, based on the Addendum to GASB Statement No. 67 Valuation as of December 31, 2019.
2. Staff recommends that the Audit Committee recommend to the Board of Retirement that the Board adopt the audited Schedule of Employer Allocations and Schedule of OPEB Amounts by Employer with Related Notes, based on the Addendum to GASB Statement No. 74 Valuation as of December 31, 2019.

Attachments: Schedule of Employer Allocations and Schedule of Pension Amounts by Employer
Schedule of Employer Allocations and Schedule of OPEB Amounts by Employer

**Alameda County Employees' Retirement Association
(ACERA)**

**Schedule of Employer Allocations and Schedule of Pension Amounts
by Employer**

As of and for the Year Ended December 31, 2019

Alameda County Employees' Retirement Association (ACERA)
Schedule of Employer Allocations and Schedule of Pension Amounts by Employer
As of and for the Year Ended December 31, 2019

	<i>Pages</i>
Independent Auditor's Report	1
Schedule of Employer Allocations - Contributions	3
Schedule of Employer Allocations - Net Pension Liability	4
Schedule of Pension Amounts by Employer	5
Notes to the Schedule of Employer Allocations and Schedule of Pension Amounts by Employer	6

Independent Auditor's Report

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

We have audited the accompanying schedule of employer allocations of the Alameda County Employees' Retirement Association (ACERA), as of and for the year ended December 31, 2019, and the related notes. We have also audited the columns titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, and the total pension expense (specified column totals) included in the accompanying schedule of pension amounts by employer of ACERA as of and for the year ended December 31, 2019, and the related notes.

Management's Responsibility for the Schedules

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

Auditor's Responsibility

Our responsibility is to express opinions on the schedule of employer allocations and the specified column totals included in the schedule of pension amounts by employer based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the schedule of employer allocations and specified column totals included in the schedule of pension amounts by employer are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the schedule of employer allocations and specified column totals included in the schedule of pension amounts by employer. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the schedule of employer allocations and specified column totals included in the schedule of pension amounts by employer, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the schedule of employer allocations and specified column totals included in the schedule of pension amounts by employer in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the schedule of employer allocations and specified column totals included in the schedule of pension amounts by employer.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the schedules referred to above present fairly, in all material respects, the employer allocations and net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total pension expense for ACERA as of and for the year ended December 31, 2019, in accordance with accounting principles generally accepted in the United States of America.

Other Matter

We have audited, in accordance with auditing standards generally accepted in the United States of America, the financial statements of ACERA as of and for the year ended December 31, 2019, and our report thereon, dated June __, 2020, expressed an unmodified opinion on those financial statements.

Restriction on Use

Our report is intended solely for the information and use of ACERA management, the Board of Retirement, ACERA employers and their auditors, and is not intended to be and should not be used by anyone other than these specified parties.

Oakland, California
June __, 2020

Alameda County Employees' Retirement Association (ACERA)
Schedule of Employer Allocations as of and for the Year Ended December 31, 2019
Actual Employer Contributions by Employer and Membership Class

Employer	Excluding ACOE and LARPD		ACOE Members Only		LARPD Members Only		All General Members Combined	
	General Contributions	Contribution Percentage ¹	General Contributions	Contribution Percentage	General Contributions	Contribution Percentage	General Contributions	General NPL Percentage
Alameda County	\$ 124,398,408	64.606%	\$ -	\$ -	\$ -	0.000%	\$ 124,398,408	63.924%
Alameda Health System	54,239,577	28.169%	-	-	-	0.000%	54,239,577	27.872%
Superior Court	11,501,609	5.973%	-	-	-	0.000%	11,501,609	5.910%
First 5	1,200,993	0.624%	-	-	-	0.000%	1,200,993	0.617%
Housing Authority	1,208,258	0.628%	-	-	-	0.000%	1,208,258	0.621%
LARPD	-	0.000%	-	-	1,306,574	100.000%	1,306,574	0.671%
ACOE ²	-	0.000%	750,000	100.000%	-	0.000%	750,000	0.385%
Total for All Employers	\$ 192,548,845	100.000%	\$ 750,000	100.000%	\$ 1,306,574	100.000%	\$ 194,605,419	100.000%

Employer	Safety Members		General and Safety Total		Adjusted Total ²	
	Safety Contributions	Contribution Percentage	Total Contributions	Contribution Percentage	Adjusted Total Contributions	Adjusted Contribution Percentage ¹
Alameda County	\$ 103,921,531	100.000%	\$ 228,319,939	76.482%	\$ 228,319,939	76.639%
Alameda Health System	-	0.000%	54,239,577	18.169%	54,239,577	18.207%
Superior Court	-	0.000%	11,501,609	3.853%	11,501,609	3.861%
First 5	-	0.000%	1,200,993	0.402%	1,200,993	0.403%
Housing Authority	-	0.000%	1,208,258	0.405%	1,208,258	0.406%
LARPD	-	0.000%	1,306,574	0.438%	1,306,574	0.439%
ACOE ²	-	0.000%	750,000	0.251%	1,328,832 ²	0.045%
Total for All Employers	\$ 103,921,531	100.000%	\$ 298,526,950	100.000%	\$ 299,105,782	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 to determine ACOE's proportionate share of the non-OPEB SRBR NPL by using the total annual UAAL contribution ACOE would have made of \$132,883 in 2019 if they did not make the additional contribution to partially pay off their UAAL.

See accompanying notes, pages 6 -8.

Alameda County Employees' Retirement Association (ACERA)
Schedule of Employer Allocations as of and for the Year Ended December 31, 2019
Allocation of Net Pension Liability (NPL)

Employer	General NPL, Excluding ACOE and LARPD (Excl. non-OPEB SRBR NPL)		ACOE Members Only (Excl. non-OPEB SRBR NPL)		LARPD Members Only (Excl. non-OPEB SRBR NPL)		All General Members Combined (Excl. non-OPEB SRBR NPL)	
	NPL	Percentage ¹	NPL	Percentage ¹	NPL	Percentage ¹	NPL	General NPL Percentage
Alameda County	\$ 750,950,156	64.606%	\$ -	\$ -	\$ -	0.000%	\$ 750,950,156	63.849%
Alameda Health System	327,425,563	28.169%	-	-	-	0.000%	327,425,563	27.838%
Superior Court	69,431,235	5.973%	-	-	-	0.000%	69,431,235	5.903%
First 5	7,249,979	0.624%	-	-	-	0.000%	7,249,979	0.616%
Housing Authority	7,293,836	0.628%	-	-	-	0.000%	7,293,836	0.620%
LARPD	-	0.000%	-	-	13,024,823	100.000%	13,024,823	1.107%
ACOE ²	-	0.000%	793,504	100.000%	-	0.000%	793,504	0.067%
Total for All Employers	\$ 1,162,350,769	100.000%	\$ 793,504	100.000%	\$ 13,024,823	100.000%	\$ 1,176,169,096	100.000%

Employer	Safety Members (Excl. non-OPEB SRBR NPL)		General and Safety Total (Excl. non-OPEB SRBR NPL)		General and Safety Non-OPEB SRBR NPL		Total	
	NPL	Percentage ¹	NPL	Percentage	NPL	Percentage ²	NPL	Percentage
Alameda County	\$ 810,219,254	100.000%	\$ 1,561,169,410	78.594%	\$ 118,260,007	76.639%	\$ 1,679,429,417	78.452%
Alameda Health System	-	0.000%	327,425,563	16.483%	28,093,792	18.207%	355,519,355	16.608%
Superior Court	-	0.000%	69,431,235	3.495%	5,957,344	3.861%	75,388,579	3.522%
First 5	-	0.000%	7,249,979	0.365%	622,063	0.403%	7,872,042	0.368%
Housing Authority	-	0.000%	7,293,836	0.367%	625,826	0.406%	7,919,662	0.370%
LARPD	-	0.000%	13,024,823	0.656%	676,750	0.439%	13,701,573	0.640%
ACOE ²	-	0.000%	793,504	0.040%	68,828	0.045%	862,332	0.040%
Total for All Employers	\$ 810,219,254	100.000%	\$ 1,986,388,350	100.000%	\$ 154,304,610	100.000%	\$ 2,140,692,960	100.000%

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

² Allocation based on the actual employer contributions in total, with an adjustment to reflect the total annual UAAL contribution ACOE would have made of \$132,883 in 2019 if they did not make the additional contribution to partially pay of their UAAL.

See accompanying notes, pages 6 -8.

Alameda County Employees' Retirement Association (ACERA)
Schedule of Pension Amounts by Employer
As of and for the Year Ended December 31, 2019

Schedule of Employer Allocations	Deferred Outflows of Resources						Deferred Inflows of Resources					Pension Expense			
	Net Pension Liability	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of	Total Deferred Inflows of Resources	Proportionate Share of Plan Pension Expense	Proportionate Share of Contributions	Total Employer Pension Expense	Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and
Alameda County	\$ 1,679,429,417	\$ 29,709,753	\$ -	\$ 163,207,471	\$ 6,558,962	\$ 199,476,186	\$ 17,068,065	\$ 248,325,745	\$ 20,653,973	\$ 4,280,444	\$ 290,328,227	\$ 323,282,627	\$ 513,620	\$ 323,796,247	
Alameda Health System	355,519,355	3,236,186	-	38,885,514	6,333,639	48,455,339	6,184,756	74,608,604	4,906,548	9,176,298	94,876,206	74,923,370	44,478	74,967,848	
Superior Court	75,388,579	686,240	-	8,245,750	4,077,438	13,009,428	1,311,490	15,820,901	1,040,443	3,103,677	21,276,511	15,887,646	(399,040)	15,488,606	
First 5 of Alameda County	7,872,042	71,657	-	861,018	591,593	1,524,268	136,945	1,652,012	108,643	17,133	1,914,733	1,658,980	136,431	1,795,411	
Housing Authority	7,919,662	72,090	-	866,226	43,631	981,947	137,773	1,662,004	109,300	942,801	2,851,878	1,669,016	(257,947)	1,411,069	
LARPD	13,701,573	4,084,482	-	934,042	34,430	5,052,954	489,776	2,128,324	118,194	88,639	2,824,933	2,657,273	(19,698)	2,637,575	
ACOE	862,332	909,027	-	19,203	35,469	963,699	22	38,063	12,021	66,170	116,276	381,986	(17,844)	364,142	
Total for All Employers	\$ 2,140,692,960	\$ 38,769,435	\$ -	\$ 213,019,224	\$ 17,675,162	\$ 269,463,821	\$ 25,328,827	\$ 344,235,653	\$ 26,949,122	\$ 17,675,162	\$ 414,188,764	\$ 420,460,898	\$ -	\$ 420,460,898	

See accompanying notes, pages 6 -8.

Alameda County Employees' Retirement Association (ACERA)

Notes to the Schedule of Employer Allocations and Schedule of Pension Amounts by Employer As of and for the Year Ended December 31, 2019

1. PLAN DESCRIPTION

ACERA is a cost-sharing multiple-employer defined benefit pension plan. The pension plan provides basic lifetime retirement, disability, and death benefits to members who meet the minimum age and length-of-service requirements. ACERA meets member and beneficiary obligations through member contributions, participating employer contributions, and investment income.

2. SUMMARY OF SIGNIFICANT ACCOUNTING AND REPORTING POLICIES

Basis of Accounting

ACERA follows generally accepted accounting principles and reporting guidelines set forth by the Governmental Accounting Standards Board (GASB). The schedule of employer allocations and schedule of pension amounts by employer are prepared on the accrual basis of accounting. Employer and employee contributions are recognized when due, pursuant to formal commitments as well as statutory or contractual requirements.

Estimates

The preparation of the schedule of employer allocations and schedule of pension amounts by employer in accordance with generally accepted accounting principles in the United States requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results may differ from those estimates.

Contributions

Member and employer contribution rates are based on recommendations made by an independent actuary and adopted by the Board of Retirement. These rates are based on membership type (General and Safety) and tier (Tiers 1, 2, 3, and 4). Active members are required by statute to contribute toward pension plan benefits. Participating employers are required by statute to contribute the necessary amounts to fund estimated benefits not otherwise funded by member contributions or expected investment earnings.

3. ACTUARIAL METHODS AND ASSUMPTIONS

An actuarial valuation is performed for the pension plan on an annual basis. ACERA retains an independent actuarial firm to conduct the actuarial valuations and to establish the contribution rate requirements for the plan.

Actuarial Methods and Assumptions Used to Determine Total Pension Liability

The components of the collective net pension liability of the plan as of December 31, 2019 and December 31, 2018 are as follows:

<i>(Dollars in thousands)</i>	<u>12/31/2019</u>	<u>12/31/2018</u>
Total Pension Liability	\$9,959,792	\$9,535,149
Less: Plan Fiduciary Net Position	<u>7,819,099</u>	<u>6,771,147</u>
Net Pension Liability	<u>\$2,140,693</u>	<u>\$2,764,002</u>

The Net Pension Liability (NPL) was measured as of December 31, 2019 and 2018. Plan Fiduciary Net Position (FNP) was valued as of the measurement date while the Total Pension Liability (TPL) was determined by rolling forward the TPL from actuarial valuations as of December 31, 2018 and 2017, respectively.

Alameda County Employees' Retirement Association (ACERA)

Notes to the Schedule of Employer Allocations and Schedule of Pension Amounts by Employer As of and for the Year Ended December 31, 2019

The TPL and plan FNP include liabilities and assets for non-health postemployment benefits (non-OPEB). The assets for non-OPEB are held in the SRBR to pay non-vested Supplemental COLA and the retired death benefit. The TPL as of December 31, 2019 has been adjusted to include an additional \$198.5 million, calculated by rolling forward the total unlimited non-OPEB Actuarial Accrued Liability (AAL) as of December 31, 2018. The TPL as of December 31, 2018 has been adjusted to include an additional \$164.1 million, calculated by rolling forward the total unlimited non-OPEB AAL as of December 31, 2017.

The plan FNP as of December 31, 2019 was also adjusted to include \$44.2 million (\$40.4 million set aside in the SRBR reserve to pay non-OPEB benefits and by adding \$3.8 million to reflect the proportionate share of one-half of the net deferred investment gains that is commensurate with the size of the non-OPEB reserve). The plan FNP as of December 31, 2018 was also adjusted to include \$36.6 million (\$39.3 million set aside in the SRBR reserve to pay non-OPEB benefits and by subtracting \$2.7 million to reflect the proportion of deferred investment losses that is commensurate with the size of the non-OPEB reserve).

The liability and assets associated with the OPEB component of the SRBR have been excluded from the total pension liability and the fiduciary net position reported above.

The TPLs as of December 31, 2019 and 2018 were determined by actuarial valuations as of December 31, 2018 and 2017, respectively. The actuarial assumptions used to develop the December 31, 2019 and 2018 TPLs are the same assumptions used in the December 31, 2019 and 2018 funding valuations, respectively. These assumptions were applied to all periods included in the measurement:

Measurement Date	December 31, 2019	December 31, 2018
Investment Rate of Return	7.25% , net of pension plan investment expense, including inflation	7.25% , net of pension plan investment expense, including inflation
Inflation Rate	3.00%	3.00%
Real Across-the-Board Salary Increases	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: 8.30% to 3.90% and Safety: 11.30% to 4.30%, 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	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
Date of Experience Study	December 1, 2013 through November 30, 2016	December 1, 2013 through November 30, 2016

Changes to NPL Allocation Methodology

The Board of Retirement adopted the Declining Employer Payroll Policy on October 18, 2018 and determined that the Policy applied to the Alameda County Office of Education (ACOE) and the Livermore Area Recreation and Park District (LARPD) Tier-1 members who were included as part of the General (non-LARPD Tier-3 and Tier-4) membership class in prior funding and GASB valuations. As a result, an asset share calculated in accordance with the Policy was allocated to each of these two employers as of December 31, 2017. In addition, because the allocated assets were less than the actuarial accrued liability (AAL) attributable to these Tier-1 members for each of the two employers, there was also an implicit allocation of unfunded actuarial accrued liability (UAAL).

Alameda County Employees' Retirement Association (ACERA)

Notes to the Schedule of Employer Allocations and Schedule of Pension Amounts by Employer As of and for the Year Ended December 31, 2019

Pursuant to the Declining Employer Payroll Policy, (1) changes in assets and AAL for ACOE have been tracked separately since January 1, 2018, and effective with the December 31, 2018 valuation, ACOE is in its own separate membership class and ACOE's NPL was determined separately; (2) changes in assets and AAL for LARPD Tier-1 members have been tracked separately since January 1, 2018, and effective with the December 31, 2018 valuation, the assets and AAL for LARPD Tier-1 members were combined with the assets and AAL for LARPD Tier-3 and Tier-4, forming a new combined membership class that includes LARPD members from all tiers.

In 2019, the ACOE made a lump sum contribution of \$750,000 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. The non-OPEB SRBR NPL is allocated to the employers in proportion to the total employer contributions made by those employers to the Pension Plan. In order to have a more level allocation of the NPL to ACOE, ACERA approved an approach which determines ACOE's proportionate share of the non-OPEB SRBR NPL by using the total annual UAAL contribution ACOE would have made of \$132,883 in 2019 if they did not make the additional contribution to partially pay off their UAAL.

Discount Rate

The discount rate used to measure the TPL as of December 31, 2019 and 2018 was 7.25%. In order to reflect the provisions of Article 5.5 of the Statute, future allocations of 50% excess earnings to the Supplemental Retiree Benefits Reserve (SRBR) have been treated as an additional outflow against the plan's FNP in the Governmental Accounting Standards Board (GASB) crossover test. It is estimated that the additional outflow would average approximately 0.60% of assets over time, based on the results of the actuary's stochastic modeling of the 50% allocation of future excess earnings to the SRBR.

The projection of cash flows used to determine the discount rates assumes plan member contributions will be made at the current member contribution rates, and that employer contributions will be made at rates equal to the actuarially determined contributions rates¹ 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 cost 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 FNP was projected to be available to make all projected future benefit payments for the 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 TPL as of December 31, 2019 and 2018.

4. ADDITIONAL FINANCIAL AND ACTUARIAL INFORMATION

Additional financial and actuarial information supporting the schedule of employer allocations and schedule of pension amounts by employer can be obtained from ACERA's Comprehensive Annual Financial Report for the year ended December 31, 2019, and ACERA's GASB 68 Actuarial Valuation Based on December 31, 2019 Measurement Date for Employer Reporting as of June 30, 2020.

¹ For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included.

**Alameda County Employees' Retirement Association
(ACERA)**

**Schedule of Employer Allocations and Schedule of OPEB Amounts by
Employer**

As of and for the Year Ended December 31, 2019

Alameda County Employees' Retirement Association (ACERA)
Schedule of Employer Allocations and Schedule of OPEB Amounts by Employer
As of and for the Year Ended December 31, 2019

	<i>Pages</i>
Independent Auditor's Report	1
Schedule of Employer Allocations	3
Schedule of OPEB Amounts by Employer	4
Notes to the Schedule of Employer Allocations and Schedule of OPEB Amounts by Employer	5

Independent Auditor's Report

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

We have audited the accompanying schedule of employer allocations of the Alameda County Employees' Retirement Association (ACERA), as of and for the year ended December 31, 2019, and the related notes. We have also audited the columns titled net OPEB liability, total deferred outflows of resources, total deferred inflows of resources, and the total OPEB expense (specified column totals) included in the accompanying schedule of OPEB amounts by employer of ACERA as of and for the year ended December 31, 2019, and the related notes.

Management's Responsibility for the Schedules

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

Auditor's Responsibility

Our responsibility is to express opinions on the schedule of employer allocations and the specified column totals included in the schedule of OPEB amounts by employer based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the schedule of employer allocations and specified column totals included in the schedule of OPEB amounts by employer are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the schedule of employer allocations and specified column totals included in the schedule of OPEB amounts by employer. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the schedule of employer allocations and specified column totals included in the schedule of OPEB amounts by employer, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the schedule of employer allocations and specified column totals included in the schedule of OPEB amounts by employer in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the schedule of employer allocations and specified column totals included in the schedule of OPEB amounts by employer.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the schedules referred to above present fairly, in all material respects, the employer allocations and net OPEB liability, total deferred outflows of resources, total deferred inflows of resources, and total OPEB expense for ACERA as of and for the year ended December 31, 2019, in accordance with accounting principles generally accepted in the United States of America.

Other Matter

We have audited, in accordance with auditing standards generally accepted in the United States of America, the financial statements of ACERA as of and for the year ended December 31, 2019, and our report thereon, dated June __, 2020, expressed an unmodified opinion on those financial statements.

Restriction on Use

Our report is intended solely for the information and use of ACERA management, the Board of Retirement, ACERA employers and their auditors, and is not intended to be and should not be used by anyone other than these specified parties.

Oakland, California
June __, 2020

Alameda County Employees' Retirement Association (ACERA)
Schedule of Employer Allocations as of and for the Year Ended December 31, 2019
Actual Employer Contributions by Employer and Net OPEB Liability (NOL) Allocation

<u>Employer</u>	<u>Actual Employer Contributions by Employer for the Year Ended December 31, 2019</u>		<u>Allocation of Net OPEB Liability as of December 31, 2019</u>	
	<u>Contributions¹</u>	<u>Contribution Percentage[*]</u>	<u>NOL</u>	<u>Contribution Percentage</u>
Alameda County	\$ 228,319,939	76.639%	\$ 86,553,526	76.639%
Alameda Health System	54,239,577	18.207%	20,561,615	18.207%
Superior Court	11,501,609	3.861%	4,360,131	3.861%
First 5	1,200,993	0.403%	455,283	0.403%
Housing Authority	1,208,258	0.406%	458,037	0.406%
LARPD	1,306,574	0.439%	495,308	0.439%
Office of Education (ACOE) ²	132,883	0.045%	50,374	0.045%
Total for All Employers	\$ 297,909,833	100.000%	\$ 112,934,274	100.000%

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

Notes:

1. With the exception of an adjustment for the lump sum contribution made by ACOE (see item 2.), the above is based on the January 1, 2019 through December 31, 2019 employer contributions in total as provided by ACERA.
2. ACOE made a lump sum contribution of \$750,000 in 2019 to partially pay off their liability. That lump sum is greater than the amount that ACOE would have had to make on an installment basis over 20 years. In order to have a more level allocation of the NOL to ACOE, ACERA approved an approach to determine ACOE's proportionate share of OPEB SRBR NOL by using the total annual UAAL contribution ACOE would have made of \$132,883 in 2019 if they did not make the additional contribution to partially pay off their UAAL.

See accompanying notes, pages 5 - 7.

Alameda County Employees' Retirement Association (ACERA)
Schedule of OPEB Amounts by Employer
As of and for the Year Ended December 31, 2019

Schedule of Employer Allocations	Deferred Outflows of Resources						Deferred Inflows of Resources						OPEB Expense		
	Net OPEB Liability	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Earnings on OPEB Plan Investments	Changes of Assumptions	Changes in Proportion of Employer Contributions	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Earnings on OPEB Plan Investments	Changes of Assumptions	Changes in Proportion of Employer Contributions	Total Deferred Inflows of Resources	Proportionate Share of Plan OPEB Expense	Net Amortization of Deferred Amounts from Changes in Proportion of Employer Contributions	Total Employer OPEB Expense	
Alameda County	\$ 86,553,526	\$ -	\$ -	\$ 33,045,891	\$ 511,790	\$ 33,557,681	\$ 51,130,217	\$ 43,329,122	\$ 6,133,287	\$ 369,658	\$ 100,962,284	\$ 13,941,938	\$ (7,019)	\$ 13,934,919	
Alameda Health System	20,561,615	-	-	7,850,366	662,956	8,513,322	12,146,471	10,293,245	1,457,021	893,328	24,790,065	3,312,041	16,308	3,328,349	
Superior Court	4,360,131	-	-	1,664,686	358,019	2,022,705	2,575,683	2,182,703	308,964	269,204	5,336,554	702,324	(1,649)	700,675	
First 5 of Alameda County	455,283	-	-	173,826	47,639	221,465	268,952	227,917	32,262	2,018	531,149	73,337	8,325	81,662	
Housing Authority	458,037	-	-	174,877	-	174,877	270,579	229,296	32,457	89,187	621,519	73,780	(17,713)	56,067	
LARPD	495,308	-	-	189,107	47,508	236,615	292,596	247,953	35,098	67,054	642,701	79,785	(8,773)	71,012	
ACOE	50,374	-	-	19,233	69,232	88,465	29,758	25,218	3,570	6,695	65,241	8,114	10,521	18,635	
Total for All Employers	\$ 112,934,274	\$ -	\$ -	\$ 43,117,986	\$ 1,697,144	\$ 44,815,130	\$ 66,714,256	\$ 56,535,454	\$ 8,002,659	\$ 1,697,144	\$ 132,949,513	\$ 18,191,319	\$ -	\$ 18,191,319	

See accompanying notes, pages 5 - 7.

Alameda County Employees' Retirement Association (ACERA)
Notes to the Schedule of Employer Allocations and Schedule of OPEB Amounts by Employer
As of and for the Year Ended December 31, 2019

1. PLAN DESCRIPTION

ACERA administers a non-vested medical benefits program for eligible retired members. The benefits include medical, dental and vision subsidies as well as Medicare Part B premium reimbursement. The subsidies are paid from the 401(h) account in the form of a monthly medical allowance. The maximum levels of the monthly medical allowances are reviewed annually by the Board of Retirement.

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

2. SUMMARY OF SIGNIFICANT ACCOUNTING AND REPORTING POLICIES

Basis of Accounting

ACERA follows generally accepted accounting principles and reporting guidelines set forth by the Governmental Accounting Standards Board (GASB). The schedule of employer allocations and schedule of OPEB amounts by employer are prepared on the accrual basis of accounting. Employer and employee contributions are recognized when due, pursuant to formal commitments as well as statutory or contractual requirements.

Estimates

The preparation of the schedule of employer allocations and schedule of OPEB amounts by employer in accordance with generally accepted accounting principles in the United States requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results may differ from those estimates.

Contributions

There are no legal or contractual contribution requirements for the OPEB plan. Funding for the OPEB plan relies entirely on semi-annual earnings allocations from the total fund to the Supplemental Retiree Benefits Reserve (SRBR) as mandated by Article 5.5 of the 1937 Act. The OPEB assets are held in the 401(h) account and the SRBR to pay the non-vested benefits.

3. ACTUARIAL METHODS AND ASSUMPTIONS

An actuarial valuation is performed for the OPEB plan on an annual basis. ACERA retains an independent actuarial firm to conduct the actuarial valuations.

Actuarial Methods and Assumptions Used to Determine Total OPEB Liability

The components of the collective Net OPEB Liability of the plan as of December 31, 2019 and December 31, 2018 are as follows:

<i>(Dollars in thousands)</i>	<u>12/31/2019</u>	<u>12/31/2018</u>
Total OPEB Liability	\$1,083,114	\$ 1,054,337
Less: Plan Fiduciary Net Position	<u>970,180</u>	<u>821,440</u>
Net OPEB Liability	<u>\$ 112,934</u>	<u>\$ 232,897</u>

The TOL as of December 31, 2019 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, 2018. The TOL has been adjusted to reflect the health care trend assumptions recommended for the sufficiency study for the SRBR as of December 31, 2019.

Alameda County Employees' Retirement Association (ACERA)
Notes to the Schedule of Employer Allocations and Schedule of OPEB Amounts by Employer
As of and for the Year Ended December 31, 2019

The TOL as of December 31, 2018 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, 2017. The TOL has been adjusted to reflect the health care trend assumptions used for the sufficiency study for the SRBR as of December 2018.

The OPEB plan's FNP as of December 31, 2019 of \$970.2 million was calculated by taking the \$888.2 million in the SRBR and 401(h) account set aside by the Retirement Board to pay OPEB benefits as of December 31, 2019, reduced by the estimated implicit subsidy SRBR transfer to Employer Advance Reserve of \$6.5 million, 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 of \$82.0 million, after first replenishing the Contingency Reserve from \$0 to \$89.4 million (1% of total assets). In determining the OPEB plan's FNP as of December 31, 2018 of \$821.4 million, the assets set aside in the OPEB SRBR reserve and the 401(h) account of \$890.0 million reduced by the estimated implicit subsidy SRBR transfer to the Employers Advance Reserve of \$6.9 million, less a proportionate share of the deferred market losses (after adjustment to include the balance in the Contingency Reserve) commensurate with the size of the OPEB reserve of \$61.6 million.

These assumptions were applied to all periods included in the measurement:

Valuation Date	December 31, 2019	December 31, 2018
Investment Rate of Return	7.25% , net of pension plan investment expense, including inflation	7.25% , net of pension plan investment expense, including inflation
Inflation	3.00%	3.00%
Health Care Premium Trend Rates^{1,2}		
Non-Medicare Medical Plan	Graded from 6.75% to ultimate 4.50% over 9 years	Graded from 7.00% to ultimate 4.50% over 10 years
Medicare Medical Plan	Graded from 6.25% to ultimate 4.50% over 7 years	Graded from 6.50% to ultimate 4.50% over 8 years
Dental / Vision	4.00%	4.00%
Medicare Part B	4.50%	4.00%
Other Assumptions	Same as those proposed in the experience study for the period December 1, 2013 through November 30, 2016	Same as those proposed in the experience study for the period December 1, 2013 through November 30, 2016

¹ The trend rates shown above for 2020 as of the December 31, 2019 measurement do not include a one-time reduction of 1.20% to the first year non-Medicare trend of 6.75% and 0.90% to the first year Medicare trend of 6.25% to reflect the recent repeal of the Health Insurance Tax (HIT) taking effect in 2021.

² The trend rates shown above for 2019 as of the December 31, 2018 measurement are before reflecting a one-time adjustment to reflect the impact of the Health Insurance Tax (HIT). The weighted average increase amongst all carriers is approximately 1.2% for Non-Medicare and 0.9% for Medicare plans.

Discount Rate

The discount rate used to measure the TOL as of December 31, 2019 and 2018 was 7.25%. In order to reflect the provisions of Article 5.5 of the Statute, future allocation of excess earnings to the SRBR have been treated as an additional outflow against the pension plan's FNP. Based on the results of the actuary's stochastic modeling of 50% allocation of future excess earnings to the SRBR would have the same impact as an outflow that would average approximately 0.60% of pension plan assets over time. This approximated outflow along with the additional future employer contributions that would result from those future allocations of excess earnings to the SRBR were incorporated into the GASB 67 crossover test for

Alameda County Employees' Retirement Association (ACERA)
Notes to the Schedule of Employer Allocations and Schedule of OPEB Amounts by Employer
As of and for the Year Ended December 31, 2019

the pension plan. The crossover test for the OPEB SRBR includes projected benefits which equal to the OPEB assets currently available in the SRBR as the remaining OPEB SRBR benefits would be paid from future excess earnings.

The projection of cash flows used to determine the discount rates 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 benefit payments for the current plan members. Therefore the long-term expected rate of return on the OPEB plan investments was applied to all periods of projected benefits payments to determine the Total OPEB Liability as of December 31, 2019 and December 31, 2018.

4. ADDITIONAL FINANCIAL AND ACTUARIAL INFORMATION


Additional financial and actuarial information supporting the schedule of employer allocations and schedule of OPEB amounts by employer can be obtained from ACERA's Comprehensive Annual Financial Report for the year ended December 31, 2019, and ACERA's GASB 75 Actuarial Valuation Based on December 31, 2019 Measurement Date for Employer Reporting as of June 30, 2020.



MEMORANDUM TO THE AUDIT COMMITTEE

DATE: June 18, 2019

TO: Members of the Audit Committee

FROM: Margo Allen, Fiscal Services Officer 

SUBJECT: **Governmental Accounting Standards Board (GASB) Statement No. 68 and GASB Statement No. 75 Actuarial Valuations Based on December 31, 2019, Measurement Date for Employer Reporting as of June 30, 2020**

Executive Summary

Attached for review and discussion are the GASB Statement No. 68 and Statement No. 75 Actuarial Valuations Based on December 31, 2019, Measurement Date for Employer Reporting as of June 30, 2020 (i.e., GASB 68/75 actuarial valuations). The purpose of the GASB 68/75 actuarial valuations is to provide information required for employer pension and OPEB liability reporting, respectively.

During the June 18, 2020, Audit Committee meeting, Andy Yeung and Eva Yum, Segal, will present and discuss the GASB 68/75 actuarial valuations, which include a complete set of schedules, note disclosures, and required supplementary information necessary for the participating employers to complete their June 30, 2020, fiscal year-end financial reporting requirements.

Once the Board adopts the audited set of schedules, staff will distribute the schedules and the GASB 68/75 actuarial valuations to ACERA's participating employers accompanied by the following disclaimer:

“To complete financial statements, each participating employer will need to record its own proportionate share of the collective pension and OPEB amounts for all benefits provided through the Alameda County Employees' Retirement Association's (ACERA) cost-sharing, multi-employer, defined-benefit pension plan. ACERA has provided the *Schedule of Employer Allocations* and the *Schedule of Pension Amounts by Employer*, with related notes, prepared by ACERA using Segal's Addenda to the Governmental Accounting Standards Board Statement No. 67 and Statement No. 74 Valuations as of December 31, 2019, and audited by independent auditor Williams, Adley & Company-CA, LLP, in accordance with the AICPA recommendation. The Governmental Accounting Standards Board Statement No. 68 and Statement No. 75 Actuarial Valuations Based on December 31, 2019, Measurement Date for Employer Reporting as of June 30, 2020, were prepared in accordance with the methodology set forth in the Governmental Accounting Standards Board Statement No. 68 and Statement No. 75 and are based on data maintained and provided by ACERA. Please note that ACERA is not responsible for employers' compliance with the requirements of Governmental Accounting Standards Board Statement No. 68 and Statement No. 75. Employers are solely responsible for accurately presenting financial statements within the requirements of the Governmental Accounting Standards Board Statement No. 68 and Statement No. 75.”

Alameda County Employees' Retirement Association (ACERA)

Governmental Accounting Standards Board Statement 68 (GASB 68) Actuarial Valuation

Actuarial Valuation Based on December 31, 2019
Measurement Date for Employer Reporting
as of June 30, 2020



This report has been prepared at the request of the Board of Retirement to assist the sponsors of the Fund in preparing their financial report for their liabilities associated with the ACERA pension plan. 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.

© 2020 by The Segal Group, Inc.

Segal



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

June 9, 2020

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 68 (GASB 68) Actuarial Valuation based on December 31, 2019 measurement date for employer reporting as of June 30, 2020. It contains various information that will need to be disclosed in order for ACERA employers to comply with GASB 68.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist the sponsors in preparing their financial report for their liabilities associated with the ACERA pension plan. 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; 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); 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 the Retirement Association.

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

Sincerely,

Segal

A handwritten signature in black ink that reads "Andy Yeung".

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

A handwritten signature in black ink that reads "Eva Yum".

Eva Yum, FSA, MAAA, EA
Senior Actuary

JB/jl

Table of Contents

- Section 1: Actuarial Valuation Summary 4
 - Purpose and basis 4
 - General observations on GASB 68 actuarial valuation 4
 - Highlights of the valuation 5
 - Summary of key valuation results 8
 - Important information about actuarial valuations 9

- Section 2: GASB 68 Information 11
 - General information about the pension plan 11
 - Net Pension Liability 15
 - Determination of discount rate and investment rates of return 17
 - Discount rate sensitivity 19
 - Schedule of changes in Net Pension Liability — Last two plan years 20
 - Schedule of employer contributions — Last ten plan years 21
 - Determination of proportionate share 24
 - Pension expense 31
 - Deferred outflows of resources and deferred inflows of resources 39
 - Schedule of proportionate share of the net pension liability 48
 - Schedule of reconciliation of net pension liability 56
 - Schedule of recognition of changes in total Net Pension Liability 64
 - Allocation of changes in total Net Pension Liability 68

- Section 3: Actuarial Assumptions and Methods and Appendices 75
 - Actuarial assumptions and methods 75
 - Appendix A: Projection of Plan’s Fiduciary Net Position for Use in the Calculation of Discount Rate as of December 31, 2019 83
 - Appendix B: Definition of Terms 85

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 68 (GASB 68) for employer reporting as of June 30, 2020. The results used in preparing this GASB 68 report are comparable to those used in preparing the Governmental Accounting Standards Board (GASB) Statement 67 report for the plan based on a reporting date and a measurement date as of December 31, 2019. This valuation is based on:

- The benefit provisions of ACERA, 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, 2018, provided by ACERA;
- The assets of the Plan as of December 31, 2019, provided by ACERA;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board for the December 31, 2019 valuation; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc. adopted by the Board for the December 31, 2019 valuation.

General observations on GASB 68 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 determined on generally 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) calculated on a market value basis.

Section 1: Actuarial Valuation Summary

4. For this report, the reporting dates for the employers are June 30, 2020 and June 30, 2019. The NPL's measured as of December 31, 2019 and 2018 have been determined by rolling forward the TPL as of December 31, 2018 and 2017, respectively. The Plan's Fiduciary Net Positions were valued as of the measurement dates. Consistent with the provisions of GASB 68, the assets and liabilities measured as of December 31, 2019 and 2018 are not adjusted or rolled forward to the June 30, 2020 and June 30, 2019 reporting dates, respectively.

Highlights of the valuation

1. As we disclosed in our December 31, 2019 funding valuation report, the 7.25% investment return assumption that the Board approved on December 21, 2017 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 7.25%.

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 0.60% of assets over time. This approximated outflow was incorporated into our GASB crossover test¹ (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 NPL measured as of December 31, 2019 was determined by rolling forward the TPL for the funded benefits as of December 31, 2018. Similar to last year, we have included in the TPL as of December 31, 2019 the non-OPEB unlimited Actuarial Accrued Liability (AAL) of \$198.5 million, which was calculated by rolling forward the total unlimited non-OPEB AAL as of December 31, 2018.
3. We have also continued the practice of adjusting the Plan's Fiduciary Net Position as of December 31, 2019 to include the \$40.4 million set aside by the Retirement Board in the SRBR reserve to pay non-vested Supplemental COLA and retired member

¹ The purpose of the GASB crossover test is to determine if the full expected return (or 7.25% 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 7.25% investment rate of return assumption can be used as the discount rate to determine the TPL and the resulting NPL.

Section 1: Actuarial Valuation Summary

death benefits¹ as of December 31, 2019. It should be noted that as of December 31, 2019, the deferred investment gain for the entire Plan was \$260.7 million. Consequently, after first replenishing the Contingency Reserve from \$0 to \$89.4 million (1% of total assets), 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 non-OPEB SRBR reserve, or \$3.8 million. The net effect of the adjustments to the Plan's Fiduciary Net Position as of December 31, 2019 for non-OPEB SRBR benefits was an addition of \$44.2 million.

Note that the proportionate share of one-half of the net deferred market gain as of December 31, 2019 for the Pension Plan was equal to \$85.5 million, and in calculating the Plan's Fiduciary Net Position we have adjusted the Pension Plan's valuation value of assets in the funding valuation to reflect that amount.

4. The \$154.3 million difference between the \$198.5 million added to the TPL and the net \$44.2 million added to the Plan's Fiduciary Net Position as of December 31, 2019 represents the NPL attributable to non-OPEB SRBR benefits.
5. In 2019, the Alameda County Office of Education (ACOE) made a lump sum contribution of \$750,000 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. The non-OPEB SRBR NPL is allocated to the employers in proportion to the total employer contributions made by those employers to the Pension Plan. 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 the total annual UAAL contribution ACOE would have made of \$132,883 in 2019 if they did not make the additional contribution to partially pay off their UAAL.
6. The NPL decreased from \$2,764 million as of December 31, 2018 to \$2,141 million as of December 31, 2019 primarily as a result of the favorable investment return during calendar year 2019 of about \$679 million. Changes in these values during the last two fiscal years ending December 31, 2018 and December 31, 2019 can be found in *Section 2, Schedule of Changes in Net Pension Liability* on page 20.
7. There was a decrease in the total employer pension expense from \$544.8 million calculated last year to \$420.5 million calculated this year. The primary cause of the decrease was due to an investment gain of \$679.1 million with \$135.8 million being recognized in this year's expense.
8. The discount rate used to measure the TPL and NPL as of December 31, 2019 and December 31, 2018 was 7.25%, following the same assumptions used by ACERA in the pension funding valuations as of December 31, 2019 and December 31, 2018, respectively. The detailed calculations used in this derivation can be found in *Section 3, Appendix A*. Various other information that is required to be disclosed can be found throughout *Section 2*.

¹ We have excluded the liability and the assets associated with the OPEB component of the SRBR reserve account because it is our understanding that those amounts are reportable under GASB 74/75.

Section 1: Actuarial Valuation Summary

9. The Coronavirus (COVID-19) pandemic is rapidly evolving and is having a significant impact on the US economy in 2020, including most retirement 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, 2019
 - Changes in interest rates since December 31, 2019
 - 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 these results. The above factors generally will not have an impact on the December 31, 2019 valuation, since that is based on a snapshot of assets and liabilities prior to recent events. Given the high level of uncertainty and fluidity of the current events, you may wish to consider updated estimates to monitor the plan's financial status. We will keep you updated on emerging developments.

Section 1: Actuarial Valuation Summary

Summary of key valuation results

Reporting Date for Employer under GASB 68 ¹		June 30, 2020	June 30, 2019
Measurement Date for Employer under GASB 68		December 31, 2019	December 31, 2018
Disclosure elements for fiscal year ending December 31:	• Service cost ²	\$215,625,191	\$209,890,150
	• Total Pension Liability	9,959,791,606	9,535,148,109
	• Plan's Fiduciary Net Position ³	7,819,098,646	6,771,146,134
	• Net Pension Liability	2,140,692,960	2,764,001,975
	• Pension expense	420,460,898	544,785,350
Schedule of contributions For plan year ending December 31:	• Actuarially determined contributions	\$298,526,950	\$269,684,809
	• Actual contributions ⁴	298,526,950	269,684,809
	• Contribution deficiency / (excess)	0	0
Demographic data for plan year ending December 31:⁵	• Number of retired members and beneficiaries	10,078	9,783
	• Number of inactive vested members ⁶	2,821	2,568
	• Number of active members	11,336	11,349
Key assumptions as of December 31:	• Investment rate of return	7.25%	7.25%
	• Inflation rate	3.00%	3.00%
	• Projected salary increases ⁷	General: 8.30% to 3.90% and Safety: 11.30% to 4.30%	General: 8.30% to 3.90% and Safety: 11.30% to 4.30%

¹ The reporting date and measurement date for the plan are December 31, 2019 and December 31, 2018, respectively.

² The Service Cost is based on the previous year's valuation, meaning the December 31, 2019 and December 31, 2018 measurement date values are based on the valuations as of December 31, 2018 and December 31, 2017, respectively. Both service costs have been calculated using the assumptions shown in the December 31, 2018 measurement date column, as there had been no changes in the actuarial assumptions between the December 31, 2017 and December 31, 2018 valuations.

³ For the December 31, 2019 measurement date, the Plan's Fiduciary Net Position amount shown (\$7,819,098,646) includes the net fair value of assets (\$8,789,279,051) less OPEB-related SRBR assets (\$970,180,405). The OPEB-related SRBR assets include \$877,769,175 in the SRBR-OPEB reserve (after reducing the reserve by the \$6,510,876 SRBR implicit subsidy transfer), and \$10,415,538 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 (\$81,995,692). For the December 31, 2018 measurement date, the Plan's Fiduciary Net Position amount shown (\$6,771,146,134) includes the net fair value of assets (\$7,592,586,569) less OPEB-related SRBR assets (\$821,440,435). The OPEB-related SRBR assets include \$873,183,258 in the SRBR-OPEB reserve (after reducing the reserve by the \$6,939,808 SRBR implicit subsidy transfer), and \$9,830,102 in the 401(h) reserve, less a proportionate share of the deferred market losses (after adjustment to include the balance in the Contingency Reserve) commensurate with the size of the OPEB and 401(h) reserves (\$61,572,926). Note that amounts may not total properly due to rounding.

⁴ 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).

⁵ Data as of December 31, 2018 is used in the measurement of the TPL as of December 31, 2019.

⁶ Includes members who left their contributions on deposit even though they have less than five years of service.

⁷ For measurement dates December 31, 2019 and December 31, 2018, includes inflation at 3.00% plus real across-the-board salary increase of 0.50% plus merit and promotional increases.

Section 1: Actuarial Valuation Summary

Important information about actuarial valuations

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

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

Plan 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	This valuation is based on the fair value of assets as of the measurement date, as provided by ACERA.
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 of 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.

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 the sponsors of the Fund 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 68 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), and 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, 2019, pension plan membership consisted of the following:

Retired members or beneficiaries currently receiving benefits	10,078
Inactive vested members entitled to but not yet receiving benefits ¹	2,821
Active members	<u>11,336</u>
Total	24,235

Note: Data as of December 31, 2019 is not used in the measurement of the TPL as of December 31, 2019.

¹ Includes terminated members due a refund of member contributions.

Section 2: GASB 68 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, 2019 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 68 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 68 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, 2019 for 2019 (based on the December 31, 2017 valuation for the second half of 2018/2019 and on the December 31, 2018 valuation for the first half of 2019/2020) was 27.60% 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, 2019 for 2019 (based on the December 31, 2017 valuation for the second half of 2018/2019 and on the December 31, 2018 valuation for the first half of 2019/2020) was 9.53% of compensation.

Section 2: GASB 68 Information

Net Pension Liability

Reporting Date for Employer under GASB 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GASB 68	December 31, 2019	December 31, 2018
Components of the Net Pension Liability		
Total Pension Liability	\$9,959,791,606	\$9,535,148,109
Plan's Fiduciary Net Position	<u>(7,819,098,646)</u>	<u>(6,771,146,134)</u>
Net Pension Liability	\$2,140,692,960	\$2,764,001,975
Plan's Fiduciary Net Position as a percentage of the Total Pension Liability	78.51%	71.01%

The Net Pension Liability (NPL) was measured as of December 31, 2019 and 2018. The Plan's Fiduciary Net Position (plan assets) was valued as of the measurement date while the Total Pension Liability (TPL) was determined based upon rolling forward the TPL from actuarial valuations as of December 31, 2018 and 2017, respectively.

Plan provisions. The plan provisions used in the measurement of the NPL as of December 31, 2019 and 2018 are the same as those used in the ACERA actuarial valuations as of December 31, 2018 and 2017, respectively.

Actuarial assumptions. The TPL as of December 31, 2019 that was measured by an actuarial valuation as of December 31, 2018 used the following actuarial assumptions, which were based on the results of an experience study for the period December 1, 2013 through November 30, 2016, applied to all periods included in the measurement. They are the same assumptions used in the December 31, 2019 funding valuation for ACERA.

Inflation	3.00%
Salary Increases	General: 8.30% to 3.90% and Safety: 11.30% to 4.30%, vary by service, including inflation
Investment Rate of Return	7.25%, net of pension plan investment expense, including inflation
Other Assumptions	See analysis of actuarial experience during the period December 1, 2013 through November 30, 2016

Section 2: GASB 68 Information

The TPL as of December 31, 2018, that was measured by an actuarial valuation as of December 31, 2017, used the following actuarial assumptions, which were based on the results of an experience study for the period December 1, 2013 through November 30, 2016, applied to all periods included in the measurement. They are the same assumptions used in the December 31, 2018 funding valuation for ACERA.

Inflation	3.00%
Salary Increases	General: 8.30% to 3.90% and Safety: 11.30% to 4.30%, vary by service, including inflation
Investment Rate of Return	7.25%, net of pension plan investment expense, including inflation
Other Assumptions	See analysis of actuarial experience during the period December 1, 2013 through November 30, 2016

Section 2: GASB 68 Information

Determination of discount rate and investment rates of return

The long-term expected rate of return on pension plan investments¹ was determined in 2017 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, 2019 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
Domestic Large Cap Equity	22.40%	5.75%
Domestic Small Cap Equity	5.60%	6.37%
Developed International Equity	19.50%	6.89%
Emerging Markets Equity	6.50%	9.54%
U.S. Core Fixed Income	11.25%	1.03%
High Yield Bonds	1.50%	3.99%
International Bonds	2.25%	0.19%
TIPS	2.00%	0.98%
Real Estate	8.00%	4.47%
Commodities	3.00%	3.78%
Hedge Funds	9.00%	4.30%
Private Equity	9.00%	7.60%
Total	100.00%	

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

Section 2: GASB 68 Information

Discount rate. The discount rate used to measure the Total Pension Liability (TPL) was 7.25% as of December 31, 2019 and December 31, 2018. 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 0.60% 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 rates¹ 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, 2019 and December 31, 2018.

¹ For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included.

Section 2: GASB 68 Information

Discount rate sensitivity

Sensitivity of the Net Pension Liability to changes in the discount rate. The following presents the NPL as of December 31, 2019, calculated using the discount rate of 7.25%, as well as what the NPL would be if it were calculated using a discount rate that is 1-percentage-point lower (6.25%) or 1-percentage-point higher (8.25%) than the current rate:

	1% Decrease (6.25%)	Current Discount Rate (7.25%)	1% Increase (8.25%)
Alameda County	\$2,642,725,604	\$1,679,429,417	\$886,383,377
Health System	611,076,932	355,519,355	144,053,031
Superior Court	129,580,065	75,388,579	30,546,729
First 5	13,530,694	7,872,042	3,189,676
Housing Authority	13,612,544	7,919,662	3,208,971
LARPD	21,803,613	13,701,573	7,811,014
ACOE	<u>1,286,280</u>	<u>862,332</u>	<u>495,965</u>
Total for all Employers	\$3,433,615,732	\$2,140,692,960	\$1,075,688,763

Section 2: GASB 68 Information

Schedule of changes in Net Pension Liability — Last two plan years

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
Total Pension Liability		
• Service cost	\$215,625,191	\$209,890,150
• Interest	688,654,389	659,591,792
• Change of benefit terms	0	0
• Differences between expected and actual experience	24,548,056	13,710,084
• Changes of assumptions	0	0
• Benefit payments, including refunds of member contributions	(504,184,139)	(471,943,181)
Net change in Total Pension Liability	\$424,643,497	\$411,248,845
Total Pension Liability – beginning	<u>9,535,148,109</u>	<u>9,123,899,264</u>
Total Pension Liability – ending	<u>\$9,959,791,606</u>	<u>\$9,535,148,109</u>
Plan’s Fiduciary Net Position		
• Contributions – employer ¹	\$298,526,950	\$269,684,809
• Contributions – member	103,117,022	94,735,673
• Net investment income	1,165,766,104	(216,308,362)
• Benefit payments, including refunds of member contributions	(504,184,139)	(471,943,181)
• Administrative expense	(15,273,425)	(15,246,130)
• Other	0	0
Net change in Plan’s Fiduciary Net Position	\$1,047,952,512	\$(339,077,191)
Plan’s Fiduciary Net Position² – beginning	<u>6,771,146,134</u>	<u>7,110,223,325</u>
Plan’s Fiduciary Net Position³ – ending	<u>\$7,819,098,646</u>	<u>\$6,771,146,134</u>
Net Pension Liability – ending	<u>\$2,140,692,960</u>	<u>\$2,764,001,975</u>
Plan’s Fiduciary Net Position as a percentage of the Total Pension Liability	78.51%	71.01%
Covered payroll³	\$1,081,586,887	\$1,046,033,851
Plan Net Pension Liability as percentage of covered payroll	197.92%	264.24%

¹ 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).

² See footnote (3) on page 8 for a discussion on the development of the December 31, 2019 measurement date “Plan’s Fiduciary Net Position – beginning” amount of \$6,771,146,134 and the December 31, 2019 measurement date “Plan’s Fiduciary Net Position – ending” amount of \$7,819,098,646.

³ Covered payroll represents Compensation Earnable and Pensionable Compensation and is defined as the payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Schedule of employer contributions — Last ten plan 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 ¹
2010	\$147,543,301	\$147,543,301	\$0	\$839,617,361	17.57%
2011	162,879,221	162,879,221	0	837,482,162	19.45%
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%

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.

Section 2: GASB 68 Information

Notes to Schedule:

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

Valuation Date:	Actuarially determined contribution rates for the first six months of calendar year 2019 (or the second half of fiscal year 2018/2019) are calculated based on the December 31, 2017 valuation. Actuarially determined contribution rates for the last six months of calendar year 2019 (or the first half of fiscal year 2019/2020) are calculated based on the December 31, 2018 valuation.
Actuarial Cost Method:	Entry Age Actuarial Cost Method
Amortization Method	Level percent of payroll (3.50% payroll growth assumed in the December 31, 2018 valuation and 3.50% payroll growth assumed in the December 31, 2017 valuation)
Remaining Amortization Period:	<p><u>December 31, 2017 valuation</u></p> <p>Prior to January 1, 2012, the total UAAL was amortized on a 30-year decreasing period, with 21 years remaining as of December 31, 2011 (and 15 years remaining as of December 31, 2017). 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.</p> <p><u>December 31, 2018 valuation</u></p> <p>Prior to January 1, 2012, the total UAAL was amortized on a 30-year decreasing period, with 21 years remaining as of December 31, 2011 (and 14 years remaining as of December 31, 2018). 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.</p>
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.

Section 2: GASB 68 Information

Actuarial assumptions		
Valuation Date	December 31, 2017 Valuation	December 31, 2018 Valuation
Investment rate of return:	7.25%, net of pension plan administrative and investment expense, including inflation	7.25%, net of pension plan administrative and investment expense, including inflation
Inflation rate:	3.00%	3.00%
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: 8.30% to 3.90% and Safety: 11.30% to 4.30%, 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	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
Other assumptions:	Same as those used in the December 31, 2017 funding actuarial valuation	Same as those used in the December 31, 2018 funding actuarial valuation

Section 2: GASB 68 Information

Determination of proportionate share

Schedule of Employer Allocations as of December 31, 2018

Actual Employer Contributions by Employer and Membership Class January 1, 2018 to December 31, 2018

Employer	General Members, Excluding ACOE and LARP		General ACOE Members Only		General LARP Members Only		All General Members Combined	
	Contributions	Percentage ¹	Contributions	Percentage	Contributions	Percentage	Contributions	Percentage
Alameda County	\$112,075,994	64.134%	\$0	N/A	\$0	0.000%	\$112,075,994	63.731%
Health System	50,652,924	28.985%	0	N/A	0	0.000%	50,652,924	28.804%
Superior Court	9,789,834	5.602%	0	N/A	0	0.000%	9,789,834	5.567%
First 5	1,022,889	0.585%	0	N/A	0	0.000%	1,022,889	0.582%
Housing Authority	1,213,308	0.694%	0	N/A	0	0.000%	1,213,308	0.690%
LARP	0	0.000%	0	N/A	1,100,236	100.000%	1,100,236	0.626%
ACOE	0	0.000%	0	N/A	0	0.000%	0	0.000%
Total for all Employers	\$174,754,949	100.000%	\$0	N/A	\$1,100,236	100.000%	\$175,855,185	100.000%

Actual Employer Contributions by Employer and Membership Class January 1, 2018 to December 31, 2018

Employer	Safety Members		Total	
	Contributions	Percentage	Contributions	Percentage ^{1,2}
Alameda County	\$93,829,624	100.000%	\$205,905,618	76.351%
Health System	0	0.000%	50,652,924	18.782%
Superior Court	0	0.000%	9,789,834	3.630%
First 5	0	0.000%	1,022,889	0.379%
Housing Authority	0	0.000%	1,213,308	0.450%
LARP	0	0.000%	1,100,236	0.408%
ACOE	0	0.000%	0	0.000%
Total for all Employers	\$93,829,624	100.000%	\$269,684,809	100.000%

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

² In prior years, we used the unrounded percentages above in estimating the allocation of member contributions for purposes of determining pension expense amongst the employers. We had continued that practice through December 31, 2017 even though ACERA has since provided us with the actual member contributions by employer, as the difference between the actual and the estimated member contributions would only have the primary impact of changing the timing on when pension expense would have to be recognized by individual employers. Starting with the December 31, 2018 actuarial valuation, ACERA has provided us with actual Pension Plan benefit payments by General (excluding ACOE and LARP), General ACOE, General LARP and Safety membership classes (in addition to the actual member contributions by employers). Therefore, we now use the actual Pension Plan benefit payments by those four membership classes and actual member contributions by employer within each of the four membership class for purposes of determining pension expense amongst the employers. This is consistent with how we developed the valuation value of assets in the funding actuarial valuation.

Section 2: GASB 68 Information

Schedule of Employer Allocations as of December 31, 2018

Allocation of December 31, 2018 Net Pension Liability

Employer	General NPL, Excluding ACOE and LARPD (Excl. non-OPEB SRBR NPL)		General ACOE NPL Only (Excl. non-OPEB SRBR NPL)		General LARPD NPL Only (Excl. non-OPEB SRBR NPL)		Total General NPL (Excl. non-OPEB SRBR NPL)	
	NPL	Percentage ¹	NPL	Percentage ¹	NPL	Percentage ¹	NPL	Percentage
Alameda County	\$1,056,842,788	64.134%	\$0	0.000%	\$0	0.000%	\$1,056,842,788	63.481%
Health System	477,641,781	28.985%	0	0.000%	0	0.000%	477,641,781	28.690%
Superior Court	92,315,179	5.602%	0	0.000%	0	0.000%	92,315,179	5.545%
First 5	9,645,534	0.585%	0	0.000%	0	0.000%	9,645,534	0.579%
Housing Authority	11,441,128	0.694%	0	0.000%	0	0.000%	11,441,128	0.687%
LARPD	0	0.000%	0	0.000%	15,284,738	100.000%	15,284,738	0.918%
ACOE	0	0.000%	1,666,157	100.000%	0	0.000%	1,666,157	0.100%
Total for all Employers	\$1,647,886,410	100.000%	\$1,666,157	100.000%	\$15,284,738	100.000%	\$1,664,837,305	100.000%

Allocation of December 31, 2018 Net Pension Liability

Employer	Safety NPL (Excl. non-OPEB SRBR NPL)		General & Safety Total (Excl. non-OPEB SRBR NPL)		General & Safety Non-OPEB SRBR NPL		Total	
	NPL	Percentage ¹	NPL	Percentage	NPL	Percentage ²	NPL	Percentage
Alameda County	\$971,674,335	100.000%	\$2,028,517,123	76.940%	\$97,339,469	76.351%	\$2,125,856,592	76.913%
Health System	0	0.000%	477,641,781	18.116%	23,945,577	18.782%	501,587,358	18.147%
Superior Court	0	0.000%	92,315,179	3.501%	4,628,029	3.630%	96,943,208	3.507%
First 5	0	0.000%	9,645,534	0.366%	483,559	0.379%	10,129,093	0.366%
Housing Authority	0	0.000%	11,441,128	0.434%	573,577	0.450%	12,014,705	0.435%
LARPD	0	0.000%	15,284,738	0.580%	520,124	0.408%	15,804,862	0.572%
ACOE	0	0.000%	1,666,157	0.063%	0	0.000%	1,666,157	0.060%
Total for all Employers	\$971,674,335	100.000%	\$2,636,511,640	100.000%	\$127,490,335	100.000%	\$2,764,001,975	100.000%

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

² Allocated based on the actual employer contributions in total. ACOE was not required to make any Pension Plan contributions during 2018 because their payroll was \$0. However, they were required to make a contribution under the Declining Employer Payroll Policy starting in 2019. As they would be expected to make a large lump sum contribution to partially pay off their liability, we would consult with the auditor on whether any special adjustment needs to be made when we report their non-OPEB SRBR NPL next year.

Section 2: GASB 68 Information

Notes regarding determination of proportionate share as of December 31, 2018 measurement date

Based on the January 1, 2018 through December 31, 2018 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. 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, 2018 includes the net market 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, less a proportionate share of the deferred market losses (after adjustment to include the balance in the Contingency Reserve) commensurate with the size of those SRBR 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, less a proportionate share of the deferred market losses (after adjustment to include the balance in the Contingency Reserve) commensurate with the size of those Non-OPEB SRBR reserves.

For non-OPEB SRBR, the NPL is allocated based on the actual employer contributions in total. 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 As of December 31, 2018, the total Plan's Fiduciary Net Position for Pension (excluding non-OPEB SRBR) is \$504.8 million **lower** than the valuation value of assets as of the same date due to the inclusion of deferred market **losses** and no available Contingency Reserve.

Section 2: GASB 68 Information

Schedule of Employer Allocations as of December 31, 2019

Actual Employer Contributions by Employer and Membership Class January 1, 2019 to December 31, 2019

Employer	General Members, Excluding ACOE and LARP		General ACOE Members Only		General LARP Members Only		All General Members Combined	
	Contributions	Percentage ¹	Contributions	Percentage	Contributions	Percentage	Contributions	Percentage
Alameda County	\$124,398,408	64.606%	\$0	0.000%	\$0	0.000%	\$124,398,408	63.924%
Health System	54,239,577	28.169%	0	0.000%	0	0.000%	54,239,577	27.872%
Superior Court	11,501,609	5.973%	0	0.000%	0	0.000%	11,501,609	5.910%
First 5	1,200,993	0.624%	0	0.000%	0	0.000%	1,200,993	0.617%
Housing Authority	1,208,258	0.628%	0	0.000%	0	0.000%	1,208,258	0.621%
LARP	0	0.000%	0	0.000%	1,306,574	100.000%	1,306,574	0.671%
ACOE	0	0.000%	750,000	100.000%	0	0.000%	750,000	0.385%
Total for all Employers	\$192,548,845	100.000%	\$750,000	100.000%	\$1,306,574	100.000%	\$194,605,419	100.000%

Actual Employer Contributions by Employer and Membership Class January 1, 2019 to December 31, 2019

Employer	Safety Members		Total		Adjusted Total ²	
	Contributions	Percentage	Contributions	Percentage	Contributions	Percentage ¹
Alameda County	\$103,921,531	100.000%	\$228,319,939	76.482%	\$228,319,939	76.639%
Health System	0	0.000%	54,239,577	18.169%	54,239,577	18.207%
Superior Court	0	0.000%	11,501,609	3.853%	11,501,609	3.861%
First 5	0	0.000%	1,200,993	0.402%	1,200,993	0.403%
Housing Authority	0	0.000%	1,208,258	0.405%	1,208,258	0.406%
LARP	0	0.000%	1,306,574	0.438%	1,306,574	0.439%
ACOE	0	0.000%	750,000	0.251%	132,883 ²	0.045%
Total for all Employers	\$103,921,531	100.000%	\$298,526,950	100.000%	\$297,909,833	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 the total annual UAAL contribution ACOE would have made of \$132,883 in 2019 if they did not make the additional contribution to partially pay off their UAAL.

Section 2: GASB 68 Information

Schedule of Employer Allocations as of December 31, 2019

Allocation of December 31, 2019 Net Pension Liability

Employer	General NPL, Excluding ACOE and LARPD (Excl. non-OPEB SRBR NPL)		General ACOE NPL Only (Excl. non-OPEB SRBR NPL)		General LARPD NPL Only (Excl. non-OPEB SRBR NPL)		Total General NPL (Excl. non-OPEB SRBR NPL)	
	NPL	Percentage ¹	NPL	Percentage ¹	NPL	Percentage ¹	NPL	Percentage
Alameda County	\$750,950,156	64.606%	\$0	0.000%	\$0	0.000%	\$750,950,156	63.849%
Health System	327,425,563	28.169%	0	0.000%	0	0.000%	327,425,563	27.838%
Superior Court	69,431,235	5.973%	0	0.000%	0	0.000%	69,431,235	5.903%
First 5	7,249,979	0.624%	0	0.000%	0	0.000%	7,249,979	0.616%
Housing Authority	7,293,836	0.628%	0	0.000%	0	0.000%	7,293,836	0.620%
LARPD	0	0.000%	0	0.000%	13,024,823	100.000%	13,024,823	1.107%
ACOE	0	0.000%	793,504	100.000%	0	0.000%	793,504	0.067%
Total for all Employers	\$1,162,350,769	100.000%	\$793,504	100.000%	\$13,024,823	100.000%	\$1,176,169,096	100.000%

Allocation of December 31, 2019 Net Pension Liability

Employer	Safety NPL (Excl. non-OPEB SRBR NPL)		General & Safety Total (Excl. non-OPEB SRBR NPL)		General & Safety Non-OPEB SRBR NPL		Total	
	NPL	Percentage ¹	NPL	Percentage	NPL	Percentage ²	NPL	Percentage
Alameda County	\$810,219,254	100.000%	\$1,561,169,410	78.594%	\$118,260,007	76.639%	\$1,679,429,417	78.452%
Health System	0	0.000%	327,425,563	16.483%	28,093,792	18.207%	355,519,355	16.608%
Superior Court	0	0.000%	69,431,235	3.495%	5,957,344	3.861%	75,388,579	3.522%
First 5	0	0.000%	7,249,979	0.365%	622,063	0.403%	7,872,042	0.368%
Housing Authority	0	0.000%	7,293,836	0.367%	625,826	0.406%	7,919,662	0.370%
LARPD	0	0.000%	13,024,823	0.656%	676,750	0.439%	13,701,573	0.640%
ACOE	0	0.000%	793,504	0.040%	68,828	0.045%	862,332	0.040%
Total for all Employers	\$810,219,254	100.000%	\$1,986,388,350	100.000%	\$154,304,610	100.000%	\$2,140,692,960	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 made of \$132,883 in 2019 if they did not make the additional contribution to partially pay off their UAAL. This approach is outlined in our March 2, 2020 letter and is approved by ACERA.

Section 2: GASB 68 Information

Notes regarding determination of proportionate share as of December 31, 2019 measurement date

Based on the January 1, 2019 through December 31, 2019 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. 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, 2019 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.

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) 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.

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 As of December 31, 2019, the total Plan's Fiduciary Net Position for Pension (excluding non-OPEB SRBR) is \$174.9 million **higher** than the valuation value of assets as of the same date due to the inclusion of deferred market **gains**.

² Includes an adjustment to reflect the total annual UAAL contribution ACOE would have made of \$132,883 in 2019 if they did not make the additional contribution to partially pay off their UAAL. This approach is outlined in our March 2, 2020 letter and is approved by ACERA.

Section 2: GASB 68 Information

The following items are allocated based on the corresponding proportionate share within each membership class:

- a. Net Pension Liability
- b. Service cost
- c. Interest on the Total Pension Liability
- d. Expensed portion of current-period benefit changes
- e. Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability
- f. Expensed portion of current-period changes of assumptions or other inputs
- g. Member contributions
- h. Projected earnings on plan investments
- i. Expensed portion of current-period differences between actual and projected earnings on plan investments
- j. Administrative expense
- k. Recognition of beginning of year deferred outflows of resources as pension expense
- l. Recognition of beginning of year deferred inflows of resources as pension expense

Section 2: GASB 68 Information

Pension expense

Total for All Employers

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Components of Pension Expense	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Service cost	\$215,625,191	\$209,890,150
• Interest on the Total Pension Liability	688,654,390	659,591,792
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
• Expensed portion of current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	4,571,332	2,524,878
• Expensed portion of current-period changes of assumptions or other inputs	0	0
• Member contributions	(103,117,022)	(94,735,673)
• Projected earnings on plan investments	(486,637,351)	(511,040,821)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(135,825,750)	145,469,836
• Administrative expense	15,273,425	15,246,130
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	382,022,415	282,332,350
• Recognition of beginning of year deferred inflows of resources as pension expense	(160,105,732)	(164,493,292)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>0</u>	<u>0</u>
Pension Expense	\$420,460,898	\$544,785,350

Section 2: GASB 68 Information

Pension expense (continued)

Alameda County

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Components of Pension Expense	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Service cost	\$159,236,640	\$154,855,811
• Interest on the Total Pension Liability	510,276,761	486,567,087
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	1,180,474	320,097
• Expensed portion of current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	3,459,048	1,632,110
• Expensed portion of current-period changes of assumptions or other inputs	0	0
• Member contributions	(76,031,473)	(69,722,923)
• Projected earnings on plan investments	(354,645,313)	(370,163,258)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(98,960,399)	105,461,873
• Administrative expense	11,119,868	11,050,528
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	283,996,588	211,362,379
• Recognition of beginning of year deferred inflows of resources as pension expense	(115,169,093)	(117,684,655)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>(666,854)</u>	<u>(760,647)</u>
Pension Expense	\$323,796,247	\$412,918,402

Section 2: GASB 68 Information

Pension expense (continued)

Health System

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
Components of Pension Expense		
• Service cost	\$44,033,928	\$43,656,653
• Interest on the Total Pension Liability	138,387,364	136,626,835
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	(2,049,027)	125,393
• Expensed portion of current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	643,663	(112,331)
• Expensed portion of current-period changes of assumptions or other inputs	0	0
• Member contributions	(21,137,887)	(19,812,901)
• Projected earnings on plan investments	(102,473,282)	(111,084,921)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(28,628,281)	31,584,268
• Administrative expense	3,224,607	3,329,437
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	75,664,473	56,444,009
• Recognition of beginning of year deferred inflows of resources as pension expense	(34,791,215)	(36,820,885)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>2,093,505</u>	<u>1,896,660</u>
Pension Expense	\$74,967,848	\$105,832,217

Section 2: GASB 68 Information

Pension expense (continued)

Superior Court

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Components of Pension Expense	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Service cost	\$9,337,481	\$8,437,645
• Interest on the Total Pension Liability	29,345,313	26,406,255
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	927,309	(467,238)
• Expensed portion of current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	136,489	(21,711)
• Expensed portion of current-period changes of assumptions or other inputs	0	0
• Member contributions	(4,482,331)	(3,829,296)
• Projected earnings on plan investments	(21,729,661)	(21,469,697)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(6,070,683)	6,104,380
• Administrative expense	683,784	643,490
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	16,044,800	10,909,094
• Recognition of beginning of year deferred inflows of resources as pension expense	(7,377,546)	(7,116,477)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>(1,326,349)</u>	<u>(976,414)</u>
Pension Expense	\$15,488,606	\$18,620,031

Section 2: GASB 68 Information

Pension expense (continued)

First 5

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Components of Pension Expense	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Service cost	\$975,015	\$881,606
• Interest on the Total Pension Liability	3,064,225	2,759,053
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	95,915	32,275
• Expensed portion of current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	14,252	(2,268)
• Expensed portion of current-period changes of assumptions or other inputs	0	0
• Member contributions	(468,043)	(400,103)
• Projected earnings on plan investments	(2,269,002)	(2,243,258)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(633,898)	637,815
• Administrative expense	71,400	67,235
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	1,675,391	1,139,834
• Recognition of beginning of year deferred inflows of resources as pension expense	(770,360)	(743,563)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>40,516</u>	<u>(7,552)</u>
Pension Expense	\$1,795,411	\$2,121,074

Section 2: GASB 68 Information

Pension expense (continued)

Housing Authority

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Components of Pension Expense	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Service cost	\$980,914	\$1,045,723
• Interest on the Total Pension Liability	3,082,761	3,272,673
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	(167,260)	(8,649)
• Expensed portion of current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	14,339	(2,690)
• Expensed portion of current-period changes of assumptions or other inputs	0	0
• Member contributions	(470,874)	(474,586)
• Projected earnings on plan investments	(2,282,728)	(2,660,858)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(637,733)	756,549
• Administrative expense	71,832	79,751
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	1,685,526	1,352,024
• Recognition of beginning of year deferred inflows of resources as pension expense	(775,021)	(881,984)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>(90,687)</u>	<u>(103,402)</u>
Pension Expense	\$1,411,069	\$2,374,551

Section 2: GASB 68 Information

Pension expense (continued)

LARPD

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Components of Pension Expense	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Service cost	\$1,059,073	\$1,012,712
• Interest on the Total Pension Liability	4,174,391	3,726,119
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	5,123	(1,878)
• Expensed portion of current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	288,337	786,419
• Expensed portion of current-period changes of assumptions or other inputs	0	0
• Member contributions	(526,414)	(495,864)
• Projected earnings on plan investments	(3,011,917)	(3,185,059)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(834,913)	858,169
• Administrative expense	95,324	75,689
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	2,630,272	1,125,010
• Recognition of beginning of year deferred inflows of resources as pension expense	(1,216,880)	(1,245,728)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>(24,821)</u>	<u>(23,020)</u>
Pension Expense	\$2,637,575	\$2,632,569

Section 2: GASB 68 Information

Pension expense (continued)

ACOE

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Components of Pension Expense	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Service cost	\$2,140	\$0
• Interest on the Total Pension Liability	323,575	233,770
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	7,466	0
• Expensed portion of current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	15,204	245,349
• Expensed portion of current-period changes of assumptions or other inputs	0	0
• Member contributions	0	0
• Projected earnings on plan investments	(225,448)	(233,770)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(59,843)	66,782
• Administrative expense	6,610	0
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	325,365	0
• Recognition of beginning of year deferred inflows of resources as pension expense	(5,617)	0
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>(25,310)</u>	<u>(25,625)</u>
Pension Expense	\$364,142	\$286,506

Section 2: GASB 68 Information

Deferred outflows of resources and deferred inflows of resources

Total For All Employers

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
Deferred Outflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$17,675,162	\$11,749,924
• Changes of assumptions or other inputs	213,019,224	360,441,014
• Difference between projected and actual earnings on pension plan investments	0	306,808,831
• Difference between expected and actual experience in the Total Pension Liability	<u>38,769,435</u>	<u>25,255,560</u>
• Total Deferred Outflows of Resources	\$269,463,821	\$704,255,329
Deferred Inflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$17,675,162	\$11,749,924
• Changes of assumptions or other inputs	26,949,122	37,859,697
• Difference between projected and actual earnings on pension plan investments	344,235,653	0
• Difference between expected and actual experience in the Total Pension Liability	<u>25,328,827</u>	<u>54,127,688</u>
• Total Deferred Inflows of Resources	\$414,188,764	\$103,737,309
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GASB 68 Year Ended June 30:		
2020	N/A	\$221,916,683
2021	\$(28,021,962)	103,232,456
2022	(33,685,247)	97,569,171
2023	45,459,598	176,714,016
2024	(130,168,727)	1,085,694
2025	1,691,395	0
Thereafter	0	0

¹ Calculated in accordance with Paragraphs 54 and 55 of GASB 68.

Section 2: GASB 68 Information

Deferred outflows of resources and deferred inflows of resources (continued)

Alameda County

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
Deferred Outflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$6,558,962	\$2,466,421
• Changes of assumptions or other inputs	163,207,471	273,034,940
• Difference between projected and actual earnings on pension plan investments	0	227,497,573
• Difference between expected and actual experience in the Total Pension Liability	<u>29,709,753</u>	<u>19,752,967</u>
• Total Deferred Outflows of Resources	\$199,476,186	\$522,751,901
Deferred Inflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$4,280,444	\$6,013,423
• Changes of assumptions or other inputs	20,653,973	28,906,056
• Difference between projected and actual earnings on pension plan investments	248,325,745	0
• Difference between expected and actual experience in the Total Pension Liability	<u>17,068,065</u>	<u>36,780,980</u>
• Total Deferred Inflows of Resources	\$290,328,227	\$71,700,459
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GASB 68 Year Ended June 30:		
2020	N/A	\$167,477,086
2021	\$(14,167,610)	79,881,492
2022	(19,997,698)	74,051,658
2023	35,078,873	128,801,761
2024	(93,482,224)	839,445
2025	1,716,618	0
Thereafter	0	0

¹ Calculated in accordance with Paragraphs 54 and 55 of GASB 68.

Section 2: GASB 68 Information

Deferred outflows of resources and deferred inflows of resources (continued)

Health System

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
Deferred Outflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$6,333,639	\$8,849,129
• Changes of assumptions or other inputs	38,885,514	69,408,590
• Difference between projected and actual earnings on pension plan investments	0	62,503,140
• Difference between expected and actual experience in the Total Pension Liability	<u>3,236,186</u>	<u>609,653</u>
• Total Deferred Outflows of Resources	\$48,455,339	\$141,370,512
Deferred Inflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$9,176,298	\$644,039
• Changes of assumptions or other inputs	4,906,548	7,110,910
• Difference between projected and actual earnings on pension plan investments	74,608,604	0
• Difference between expected and actual experience in the Total Pension Liability	<u>6,184,756</u>	<u>13,240,156</u>
• Total Deferred Inflows of Resources	\$94,876,206	\$20,995,105
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GASB 68 Year Ended June 30:		
2020	N/A	\$44,158,803
2021	\$(11,363,434)	19,151,874
2022	(11,317,932)	19,188,842
2023	6,807,158	37,870,269
2024	(30,026,678)	5,619
2025	(519,981)	0
Thereafter	0	0

¹ Calculated in accordance with Paragraphs 54 and 55 of GASB 68.

Section 2: GASB 68 Information

Deferred outflows of resources and deferred inflows of resources (continued)

Superior Court

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
Deferred Outflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$4,077,438	\$64,308
• Changes of assumptions or other inputs	8,245,750	13,414,795
• Difference between projected and actual earnings on pension plan investments	0	12,080,159
• Difference between expected and actual experience in the Total Pension Liability	<u>686,240</u>	<u>117,829</u>
• Total Deferred Outflows of Resources	\$13,009,428	\$25,677,091
Deferred Inflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$3,103,677	\$4,469,239
• Changes of assumptions or other inputs	1,040,443	1,374,346
• Difference between projected and actual earnings on pension plan investments	15,820,901	0
• Difference between expected and actual experience in the Total Pension Liability	<u>1,311,490</u>	<u>2,558,963</u>
• Total Deferred Inflows of Resources	\$21,276,511	\$8,402,548
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GASB 68 Year Ended June 30:		
2020	N/A	\$6,803,729
2021	\$(2,631,873)	2,161,138
2022	(2,634,423)	2,159,101
2023	1,823,355	6,360,819
2024	(5,217,750)	(210,244)
2025	393,608	0
Thereafter	0	0

¹ Calculated in accordance with Paragraphs 54 and 55 of GASB 68.

Section 2: GASB 68 Information

Deferred outflows of resources and deferred inflows of resources (continued)

First 5

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
Deferred Outflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$591,593	\$253,455
• Changes of assumptions or other inputs	861,018	1,401,642
• Difference between projected and actual earnings on pension plan investments	0	1,262,193
• Difference between expected and actual experience in the Total Pension Liability	<u>71,657</u>	<u>12,311</u>
• Total Deferred Outflows of Resources	\$1,524,268	\$2,929,601
Deferred Inflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$17,133	\$57,626
• Changes of assumptions or other inputs	108,643	143,598
• Difference between projected and actual earnings on pension plan investments	1,652,012	0
• Difference between expected and actual experience in the Total Pension Liability	<u>136,945</u>	<u>267,373</u>
• Total Deferred Inflows of Resources	\$1,914,733	\$468,597
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GASB 68 Year Ended June 30:		
2020	N/A	\$889,984
2021	\$(93,805)	407,805
2022	(119,900)	381,763
2023	293,376	768,552
2024	(510,896)	12,900
2025	40,760	0
Thereafter	0	0

¹ Calculated in accordance with Paragraphs 54 and 55 of GASB 68.

Section 2: GASB 68 Information

Deferred outflows of resources and deferred inflows of resources (continued)

Housing Authority

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
Deferred Outflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$43,631	\$80,751
• Changes of assumptions or other inputs	866,226	1,662,569
• Difference between projected and actual earnings on pension plan investments	0	1,497,161
• Difference between expected and actual experience in the Total Pension Liability	<u>72,090</u>	<u>14,603</u>
• Total Deferred Outflows of Resources	\$981,947	\$3,255,084
Deferred Inflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$942,801	\$339,684
• Changes of assumptions or other inputs	109,300	170,330
• Difference between projected and actual earnings on pension plan investments	1,662,004	0
• Difference between expected and actual experience in the Total Pension Liability	<u>137,773</u>	<u>317,147</u>
• Total Deferred Inflows of Resources	\$2,851,878	\$827,161
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GASB 68 Year Ended June 30:		
2020	N/A	\$916,918
2021	\$(477,732)	351,872
2022	(499,082)	330,126
2023	(41,117)	833,886
2024	(795,422)	(4,879)
2025	(56,578)	0
Thereafter	0	0

¹ Calculated in accordance with Paragraphs 54 and 55 of GASB 68.

Section 2: GASB 68 Information

Deferred outflows of resources and deferred inflows of resources (continued)

LARPD

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
Deferred Outflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹⁽¹⁾	\$34,430	\$30,864
• Changes of assumptions or other inputs	934,042	1,518,478
• Difference between projected and actual earnings on pension plan investments	0	1,701,476
• Difference between expected and actual experience in the Total Pension Liability	<u>4,084,482</u>	<u>3,661,300</u>
• Total Deferred Outflows of Resources	\$5,052,954	\$6,912,118
Deferred Inflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$88,639	\$132,281
• Changes of assumptions or other inputs	118,194	154,457
• Difference between projected and actual earnings on pension plan investments	2,128,324	0
• Difference between expected and actual experience in the Total Pension Liability	<u>489,776</u>	<u>963,069</u>
• Total Deferred Inflows of Resources	\$2,824,933	\$1,249,807
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GASB 68 Year Ended June 30:		
2020	N/A	\$1,383,342
2021	\$454,777	991,004
2022	631,897	1,171,424
2023	1,236,861	1,779,189
2024	(204,093)	337,352
2025	108,579	0
Thereafter	0	0

¹ Calculated in accordance with Paragraphs 54 and 55 of GASB 68.

Section 2: GASB 68 Information

Deferred outflows of resources and deferred inflows of resources (continued)

ACOE

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
Deferred Outflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$35,469	\$4,996
• Changes of assumptions or other inputs	19,203	0
• Difference between projected and actual earnings on pension plan investments	0	267,129
• Difference between expected and actual experience in the Total Pension Liability	<u>909,027</u>	<u>1,086,897</u>
• Total Deferred Outflows of Resources	\$963,699	\$1,359,022
Deferred Inflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$66,170	\$93,632
• Changes of assumptions or other inputs	12,021	0
• Difference between projected and actual earnings on pension plan investments	38,063	0
• Difference between expected and actual experience in the Total Pension Liability	<u>22</u>	<u>0</u>
• Total Deferred Inflows of Resources	\$116,276	\$93,632
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GASB 68 Year Ended June 30:		
2020	N/A	\$286,821
2021	\$257,715	287,271
2022	251,891	286,257
2023	261,092	299,540
2024	68,336	105,501
2025	8,389	0
Thereafter	0	0

¹ Calculated in accordance with Paragraphs 54 and 55 of GASB 68.

Section 2: GASB 68 Information

Deferred outflows of resources and deferred inflows of resources (continued)

There are changes in each employer's proportionate share of the total NPL during the measurement period ended December 31, 2019. The net effect of the change on the employer's proportionate share of the collective NPL and collective deferred outflows of resources and deferred inflows of resources for the current period (i.e., 2019) is recognized over the average of the expected remaining service lives of all employees that are provided with pensions through ACERA which is 5.37 years determined as of December 31, 2018 (the beginning of the measurement period ended December 31, 2019). This is described in Paragraph 33a. of GASB 68.

In addition, the difference between the actual employer contributions and the proportionate share of the employer contributions during the measurement period ended December 31, 2019 is recognized over the same period.

The net effects of the change on the employer's proportionate share of the collective NPL and collective deferred outflows of resources and deferred inflows of resources for prior periods 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 service lives of all employees is determined by:

- Calculating each active employees' 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 employee, nonactive and retired members.

Section 2: GASB 68 Information

Schedule of proportionate share of the net pension liability

Total for All Employers

Reporting Date for Employer under GASB 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered payroll ¹	Proportionate share of the Net Pension Liability as a percentage of its covered payroll	Plan's Fiduciary Net Position as a percentage of the Total Pension Liability
2014	100.000%	\$1,282,020,543	\$853,349,657	150.23%	81.62%
2015	100.000%	1,740,642,540	886,924,862	196.26%	77.26%
2016	100.000%	2,118,448,018	945,858,017	223.97%	73.43%
2017	100.000%	2,243,194,227	947,567,631	236.73%	73.33%
2018	100.000%	2,013,675,939	995,178,209	202.34%	77.93%
2019	100.000%	2,764,001,975	1,046,033,851	264.24%	71.01%
2020	100.000%	2,140,692,960	1,081,586,887	197.92%	78.51%

¹ For reporting dates on or after June 30, 2018, covered payroll shown represents Compensation Earnable and Pensionable Compensation and is defined as the payroll on which contributions to the pension plan are based. For reporting dates before June 30, 2018, 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.

Section 2: GASB 68 Information

Schedule of proportionate share of the net pension liability (continued)

Alameda County

Reporting Date for Employer under GASB 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered payroll ¹	Proportionate share of the Net Pension Liability as a percentage of its covered payroll	Plan's Fiduciary Net Position as a percentage of the Total Pension Liability
2014	79.664%	\$1,021,302,378	\$597,886,511	170.82%	80.13%
2015	78.293%	1,362,794,384	624,890,234	218.09%	75.95%
2016	77.434%	1,640,381,401	669,324,559	245.08%	72.23%
2017	77.697%	1,742,898,513	670,675,915	259.87%	72.10%
2018	78.526%	1,581,250,705	696,359,743	227.07%	76.50%
2019	76.913%	2,125,856,592	728,698,264	291.73%	69.77%
2020	78.452%	1,679,429,417	757,563,567	221.69%	77.25%

¹ For reporting dates on or after June 30, 2018, covered payroll shown represents Compensation Earnable and Pensionable Compensation and is defined as the payroll on which contributions to the pension plan are based. For reporting dates before June 30, 2018, 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.

Section 2: GASB 68 Information

Schedule of proportionate share of the net pension liability (continued)

Health System

Reporting Date for Employer under GASB 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered payroll ¹	Proportionate share of the Net Pension Liability as a percentage of its covered payroll	Plan's Fiduciary Net Position as a percentage of the Total Pension Liability
2014	15.499%	\$198,700,381	\$197,865,572	100.42%	85.92%
2015	16.779%	292,060,821	205,303,352	142.26%	81.06%
2016	17.436%	369,372,264	217,863,121	169.54%	76.89%
2017	17.285%	387,733,901	216,685,931	178.94%	76.88%
2018	16.959%	341,501,682	239,207,087	142.76%	81.93%
2019	18.147%	501,587,358	255,247,270	196.51%	74.56%
2020	16.608%	355,519,355	257,591,438	138.02%	82.22%

¹ For reporting dates on or after June 30, 2018, covered payroll shown represents Compensation Earnable and Pensionable Compensation and is defined as the payroll on which contributions to the pension plan are based. For reporting dates before June 30, 2018, 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.

Section 2: GASB 68 Information

Schedule of proportionate share of the net pension liability (continued)

Superior Court

Reporting Date for Employer under GASB 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered payroll ¹	Proportionate share of the Net Pension Liability as a percentage of its covered payroll	Plan's Fiduciary Net Position as a percentage of the Total Pension Liability
2014	3.554%	\$45,564,584	\$45,426,844	100.30%	85.92%
2015	3.695%	64,323,516	44,783,132	143.63%	81.06%
2016	3.880%	82,205,987	45,883,436	179.16%	76.89%
2017	3.806%	85,372,076	46,866,752	182.16%	76.88%
2018	3.413%	68,718,793	46,437,348	147.98%	81.93%
2019	3.507%	96,943,208	48,293,563	200.74%	74.56%
2020	3.522%	75,388,579	52,163,782	144.52%	82.22%

¹ For reporting dates on or after June 30, 2018, covered payroll shown represents Compensation Earnable and Pensionable Compensation and is defined as the payroll on which contributions to the pension plan are based. For reporting dates before June 30, 2018, 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.

Section 2: GASB 68 Information

Schedule of proportionate share of the net pension liability (continued)

First 5

Reporting Date for Employer under GASB 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered payroll ¹	Proportionate share of the Net Pension Liability as a percentage of its covered payroll	Plan's Fiduciary Net Position as a percentage of the Total Pension Liability
2014	0.321%	\$4,116,118	\$4,191,989	98.19%	85.92%
2015	0.326%	5,674,306	3,957,401	143.38%	81.06%
2016	0.349%	7,383,341	4,239,645	174.15%	76.89%
2017	0.358%	8,035,666	4,416,769	181.94%	76.88%
2018	0.334%	6,731,962	4,562,701	147.54%	81.93%
2019	0.366%	10,129,093	4,952,333	204.53%	74.56%
2020	0.368%	7,872,042	5,423,220	145.15%	82.22%

¹ For reporting dates on or after June 30, 2018, covered payroll shown represents Compensation Earnable and Pensionable Compensation and is defined as the payroll on which contributions to the pension plan are based. For reporting dates before June 30, 2018, 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.

Section 2: GASB 68 Information

Schedule of proportionate share of the net pension liability (continued)

Housing Authority

Reporting Date for Employer under GASB 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered payroll ¹	Proportionate share of the Net Pension Liability as a percentage of its covered payroll	Plan's Fiduciary Net Position as a percentage of the Total Pension Liability
2014	0.423%	\$5,418,947	\$4,112,203	131.78%	85.92%
2015	0.428%	7,455,335	4,002,650	186.26%	81.06%
2016	0.455%	9,644,104	4,272,082	225.75%	76.89%
2017	0.460%	10,314,924	4,354,275	236.89%	76.88%
2018	0.409%	8,244,509	4,299,288	191.76%	81.93%
2019	0.435%	12,014,705	4,512,036	266.28%	74.56%
2020	0.370%	7,919,662	4,347,895	182.15%	82.22%

¹ For reporting dates on or after June 30, 2018, covered payroll shown represents Compensation Earnable and Pensionable Compensation and is defined as the payroll on which contributions to the pension plan are based. For reporting dates before June 30, 2018, 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.

Section 2: GASB 68 Information

Schedule of proportionate share of the net pension liability (continued)

LARPD

Reporting Date for Employer under GASB 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered payroll ¹	Proportionate share of the Net Pension Liability as a percentage of its covered payroll	Plan's Fiduciary Net Position as a percentage of the Total Pension Liability
2014	0.532%	\$6,824,150	\$3,796,820	179.73%	78.70%
2015	0.471%	8,203,447	3,919,778	209.28%	76.82%
2016	0.438%	9,288,497	4,203,012	221.00%	75.39%
2017	0.385%	8,644,696	4,487,952	192.62%	77.76%
2018	0.359%	7,228,288	4,312,042	167.63%	82.99%
2019	0.572%	15,804,862	4,330,385	364.98%	72.74%
2020	0.640%	13,701,573	4,496,985	304.68%	77.82%

¹ For reporting dates on or after June 30, 2018, covered payroll shown represents Compensation Earnable and Pensionable Compensation and is defined as the payroll on which contributions to the pension plan are based. For reporting dates before June 30, 2018, 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.

Section 2: GASB 68 Information

Schedule of proportionate share of the net pension liability (continued)

ACOE

Reporting Date for Employer under GASB 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered payroll ¹	Proportionate share of the Net Pension Liability as a percentage of its covered payroll	Plan's Fiduciary Net Position as a percentage of the Total Pension Liability
2014	0.007%	\$93,985	\$69,718	134.81%	85.92%
2015	0.008%	130,731	68,314	191.37%	81.06%
2016	0.008%	172,424	72,162	238.94%	76.89%
2017	0.009%	194,451	80,037	242.95%	76.88%
2018	0.000%	0	0	N/A	N/A
2019	0.060%	1,666,157	0	N/A	63.63%
2020	0.040%	862,332	0	N/A	81.56%

¹ For reporting dates on or after June 30, 2018, covered payroll shown represents Compensation Earnable and Pensionable Compensation and is defined as the payroll on which contributions to the pension plan are based. For reporting dates before June 30, 2018, 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.

Section 2: GASB 68 Information

Schedule of reconciliation of net pension liability

Total for All Employer

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Reconciliation of Net Pension Liability	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Beginning Net Pension Liability	\$2,764,001,975	\$2,013,675,939
• Pension Expense	420,460,898	544,785,350
• Employer Contributions	(298,526,950)	(269,684,809)
• New Net Deferred Inflows/Outflows	(523,326,280)	593,064,553
• Change in Allocation of Prior Deferred Inflows/Outflows	0	0
• New Net Deferred Flows Due to Change in Proportion ¹	0	0
• Recognition of Prior Deferred Inflows/Outflows	(221,916,683)	(117,839,058)
• Recognition of Prior Deferred Flows Due to Change in Proportion ¹	<u>0</u>	<u>0</u>
• Ending Net Pension Liability	\$2,140,692,960	\$2,764,001,975

¹ Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Schedule of reconciliation of net pension liability (continued)

Alameda County

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Reconciliation of Net Pension Liability	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Beginning Net Pension Liability	\$2,125,856,592	\$1,581,250,705
• Pension Expense	323,796,247	412,918,402
• Employer Contributions	(228,319,939)	(205,905,618)
• New Net Deferred Inflows/Outflows	(380,725,563)	429,077,731
• Change in Allocation of Prior Deferred Inflows/Outflows	1,824,055	14,420
• New Net Deferred Flows Due to Change in Proportion ¹	5,158,666	1,418,030
• Recognition of Prior Deferred Inflows/Outflows	(168,827,495)	(93,677,725)
• Recognition of Prior Deferred Flows Due to Change in Proportion ¹	<u>666,854</u>	<u>760,647</u>
• Ending Net Pension Liability	\$1,679,429,417	\$2,125,856,592

¹ Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Schedule of reconciliation of net pension liability (continued)

Health System

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Reconciliation of Net Pension Liability	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Beginning Net Pension Liability	\$501,587,358	\$341,501,682
• Pension Expense	74,967,848	105,832,217
• Employer Contributions	(54,239,577)	(50,652,924)
• New Net Deferred Inflows/Outflows	(111,700,315)	125,839,447
• Change in Allocation of Prior Deferred Inflows/Outflows	(3,174,953)	31,227
• New Net Deferred Flows Due to Change in Proportion ¹	(8,954,244)	555,492
• Recognition of Prior Deferred Inflows/Outflows	(40,873,257)	(19,623,123)
• Recognition of Prior Deferred Flows Due to Change in Proportion ¹	<u>(2,093,505)</u>	<u>(1,896,660)</u>
• Ending Net Pension Liability	\$355,519,355	\$501,587,358

¹ Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Schedule of reconciliation of net pension liability (continued)

Superior Court

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Reconciliation of Net Pension Liability	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Beginning Net Pension Liability	\$96,943,208	\$68,718,793
• Pension Expense	15,488,606	18,620,031
• Employer Contributions	(11,501,609)	(9,789,834)
• New Net Deferred Inflows/Outflows	(23,686,271)	24,321,347
• Change in Allocation of Prior Deferred Inflows/Outflows	1,433,208	(41,065)
• New Net Deferred Flows Due to Change in Proportion ¹	4,052,343	(2,069,861)
• Recognition of Prior Deferred Inflows/Outflows	(8,667,255)	(3,792,617)
• Recognition of Prior Deferred Flows Due to Change in Proportion ¹	<u>1,326,349</u>	<u>976,414</u>
• Ending Net Pension Liability	\$75,388,579	\$96,943,208

¹ Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Schedule of reconciliation of net pension liability (continued)

First 5

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Reconciliation of Net Pension Liability	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Beginning Net Pension Liability	\$10,129,093	\$6,731,962
• Pension Expense	1,795,411	2,121,074
• Employer Contributions	(1,200,993)	(1,022,889)
• New Net Deferred Inflows/Outflows	(2,473,310)	2,541,212
• Change in Allocation of Prior Deferred Inflows/Outflows	148,241	3,478
• New Net Deferred Flows Due to Change in Proportion ¹	419,147	142,975
• Recognition of Prior Deferred Inflows/Outflows	(905,031)	(396,271)
• Recognition of Prior Deferred Flows Due to Change in Proportion ¹	(40,516)	<u>7,552</u>
• Ending Net Pension Liability	\$7,872,042	\$10,129,093

¹ Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Schedule of reconciliation of net pension liability (continued)

Housing Authority

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Reconciliation of Net Pension Liability	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Beginning Net Pension Liability	\$12,014,705	\$8,244,509
• Pension Expense	1,411,069	2,374,551
• Employer Contributions	(1,208,258)	(1,213,308)
• New Net Deferred Inflows/Outflows	(2,488,271)	3,014,279
• Change in Allocation of Prior Deferred Inflows/Outflows	(258,841)	(370)
• New Net Deferred Flows Due to Change in Proportion ¹	(730,924)	(38,318)
• Recognition of Prior Deferred Inflows/Outflows	(910,505)	(470,040)
• Recognition of Prior Deferred Flows Due to Change in Proportion ¹	<u>90,687</u>	<u>103,402</u>
• Ending Net Pension Liability	\$7,919,662	\$12,014,705

¹ Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Schedule of reconciliation of net pension liability (continued)

LARPD

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Reconciliation of Net Pension Liability	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Beginning Net Pension Liability	\$15,804,862	\$7,228,288
• Pension Expense	2,637,575	2,632,569
• Employer Contributions	(1,306,574)	(1,100,236)
• New Net Deferred Inflows/Outflows	(2,079,619)	6,916,511
• Change in Allocation of Prior Deferred Inflows/Outflows	11,513	(7,690)
• New Net Deferred Flows Due to Change in Proportion ¹	22,387	(8,318)
• Recognition of Prior Deferred Inflows/Outflows	(1,413,392)	120,718
• Recognition of Prior Deferred Flows Due to Change in Proportion ¹	<u>24,821</u>	<u>23,020</u>
• Ending Net Pension Liability	\$13,701,573	\$15,804,862

¹ Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Schedule of reconciliation of net pension liability (continued)

ACOE

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Reconciliation of Net Pension Liability	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Beginning Net Pension Liability	\$1,666,157	\$0
• Pension Expense	364,142	286,506
• Employer Contributions	(750,000)	0
• New Net Deferred Inflows/Outflows	(172,931)	1,354,026
• Change in Allocation of Prior Deferred Inflows/Outflows	16,777	0
• New Net Deferred Flows Due to Change in Proportion ¹	32,625	0
• Recognition of Prior Deferred Inflows/Outflows	(319,748)	0
• Recognition of Prior Deferred Flows Due to Change in Proportion ¹	<u>25,310</u>	<u>25,625</u>
• Ending Net Pension Liability	\$862,332	\$1,666,157

¹ Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Schedule of recognition of changes in total Net Pension Liability

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Differences between Expected and Actual Experience on Total Pension Liability

Reporting Date for Employer Under GASB 68 Year Ended June 30	Differences between Expected and Actual Experience	Recognition Period (Years)	Reporting Date for Employer under GASB 68 Year Ended June 30:							
			2015	2016	2017	2018	2019	2020	2021	2022
2015	\$(85,378,608)	5.68	\$(15,031,445)	\$(15,031,445)	\$(15,031,445)	\$(15,031,445)	\$(15,031,445)	\$(10,221,383)	\$0	\$0
2016	(31,964,793)	5.64	N/A	(5,667,516)	(5,667,516)	(5,667,516)	(5,667,516)	(5,667,516)	(3,627,213)	0
2017	(68,175,766)	5.60	N/A	N/A	(12,174,244)	(12,174,244)	(12,174,244)	(12,174,244)	(12,174,244)	(7,304,546)
2018	17,516,316	5.47	N/A	N/A	N/A	3,202,252	3,202,252	3,202,252	3,202,252	3,202,252
2019	13,710,084	5.43	N/A	N/A	N/A	N/A	2,524,878	2,524,878	2,524,878	2,524,878
2020	24,548,055	5.37	N/A	N/A	N/A	N/A	N/A	4,571,332	4,571,332	4,571,332
Net increase (decrease) in pension expense			\$(15,031,445)	\$(20,698,961)	\$(32,873,205)	\$(29,670,953)	\$(27,146,075)	\$(17,764,681)	\$(5,502,995)	\$2,993,916

Reporting Date for Employer Under GASB 68 Year Ended June 30	Differences between Expected and Actual Experience	Recognition Period (Years)	Reporting Date for Employer under GASB 68 Year Ended June 30:							
			2023	2024	2025	2026	2027	2028	2029	2030
2015	\$(85,378,608)	5.68	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2016	(31,964,793)	5.64	0	0	0	0	0	0	0	0
2017	(68,175,766)	5.60	0	0	0	0	0	0	0	0
2018	17,516,316	5.47	1,505,056	0	0	0	0	0	0	0
2019	13,710,084	5.43	2,524,878	1,085,694	0	0	0	0	0	0
2020	24,548,055	5.37	4,571,332	4,571,332	1,691,395	0	0	0	0	0
Net increase (decrease) in pension expense			\$8,601,266	\$5,657,026	\$1,691,395	\$0	\$0	\$0	\$0	\$0

As described in the Schedule of Deferred Outflows of Resources and Deferred Inflows of Resources, for the current period, the average of the expected remaining service lives of all employees that are provided with pensions through ACERA (active and inactive employees) determined as of December 31, 2018 (the beginning of the measurement period ending December 31, 2019) is 5.37 years.

Section 2: GASB 68 Information

Schedule of recognition of changes in total Net Pension Liability (continued)

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Assumption Changes

Reporting Date for Employer Under GASB 68 Year Ended June 30	Effects of Assumption Changes	Recognition Period (Years)	Reporting Date for Employer under GASB 68 Year Ended June 30:							
			2015	2016	2017	2018	2019	2020	2021	2022
2015	\$431,863,478	5.68	\$76,032,302	\$76,032,302	\$76,032,302	\$76,032,302	\$76,032,302	\$51,701,968	\$0	\$0
2016	0	5.64	N/A	0	0	0	0	0	0	0
2017	150,676,929	5.60	N/A	N/A	26,906,594	26,906,594	26,906,594	26,906,594	26,906,594	16,143,959
2018	316,727,508	5.47	N/A	N/A	N/A	57,902,653	57,902,653	57,902,653	57,902,653	57,902,653
2019	0	5.43	N/A	N/A	N/A	N/A	0	0	0	0
2020	0	5.37	N/A	N/A	N/A	N/A	N/A	0	0	0
Net increase (decrease) in pension expense			\$76,032,302	\$76,032,302	\$102,938,896	\$160,841,549	\$160,841,549	\$136,511,215	\$84,809,247	\$74,046,612

Reporting Date for Employer Under GASB 68 Year Ended June 30	Effects of Assumption Changes	Recognition Period (Years)	Reporting Date for Employer under GASB 68 Year Ended June 30:							
			2023	2024	2025	2026	2027	2028	2029	2030
2015	\$431,863,478	5.68	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2016	0	5.64	0	0	0	0	0	0	0	0
2017	150,676,929	5.60	0	0	0	0	0	0	0	0
2018	316,727,508	5.47	27,214,243	0	0	0	0	0	0	0
2019	0	5.43	0	0	0	0	0	0	0	0
2020	0	5.37	0	0	0	0	0	0	0	0
Net increase (decrease) in pension expense			\$27,214,243	\$0	\$0	\$0	\$0	\$0	\$0	\$0

As described in the Schedule of Deferred Outflows of Resources and Deferred Inflows of Resources, for the current period, the average of the expected remaining service lives of all employees that are provided with pensions through ACERA (active and inactive employees) determined as of December 31, 2018 (the beginning of the measurement period ending December 31, 2019) is 5.37 years.

Section 2: GASB 68 Information

Schedule of recognition of changes in total Net Pension Liability (continued)

Increase (Decrease) in Pension Expense Arising from the Recognition of Differences between Projected and Actual Earnings on Pension Plan Investments

Reporting Date for Employer Under GASB 68 Year Ended June 30	Differences between Projected and Actual Earnings	Recognition Period (Years)	Reporting Date for Employer under GASB 68 Year Ended June 30:							
			2015	2016	2017	2018	2019	2020	2021	2022
2015	\$121,984,072	5.00	\$24,396,814	\$24,396,814	\$24,396,814	\$24,396,814	\$24,396,816	\$0	\$0	\$0
2016	396,219,729	5.00	N/A	79,243,946	79,243,946	79,243,946	79,243,946	79,243,945	0	0
2017	16,987,820	5.00	N/A	N/A	3,397,564	3,397,564	3,397,564	3,397,564	3,397,564	0
2018	(601,849,317)	5.00	N/A	N/A	N/A	(120,369,864)	(120,369,864)	(120,369,864)	(120,369,864)	(120,369,861)
2019	727,349,183	5.00	N/A	N/A	N/A	N/A	145,469,836	145,469,836	145,469,836	145,469,836
2020	(679,128,753)	5.00	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>(135,825,750)</u>	<u>(135,825,750)</u>	<u>(135,825,750)</u>
Net increase (decrease) in pension expense			\$24,396,814	\$103,640,760	\$107,038,324	\$(13,331,540)	\$132,138,298	\$(28,084,269)	\$(107,328,214)	\$(110,725,775)

Reporting Date for Employer Under GASB 68 Year Ended June 30	Differences between Projected and Actual Earnings	Recognition Period (Years)	Reporting Date for Employer under GASB 68 Year Ended June 30:							
			2023	2024	2025	2026	2027	2028	2029	2030
2015	\$121,984,072	5.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2016	396,219,729	5.00	0	0	0	0	0	0	0	0
2017	16,987,820	5.00	0	0	0	0	0	0	0	0
2018	(601,849,317)	5.00	0	0	0	0	0	0	0	0
2019	727,349,183	5.00	145,469,839	0	0	0	0	0	0	0
2020	(679,128,753)	5.00	<u>(135,825,750)</u>	<u>(135,825,753)</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Net increase (decrease) in pension expense			\$9,644,089	\$(135,825,753)	\$0	\$0	\$0	\$0	\$0	\$0

The differences between projected and actual earnings on pension plan investments are recognized over a five-year period per Paragraph 33b. of GASB 68.

Section 2: GASB 68 Information

Schedule of recognition of changes in total Net Pension Liability (continued)

Total Increase (Decrease) in Pension Expense

Reporting Date for Employer Under GASB 68 Year Ended June 30	Total Differences and Changes	Reporting Date for Employer under GASB 68 Year Ended June 30:							
		2015	2016	2017	2018	2019	2020	2021	2022
		2015	\$468,468,942	\$85,397,671	\$85,397,671	\$85,397,671	\$85,397,671	\$85,397,673	\$41,480,585
2016	364,254,936	N/A	73,576,430	73,576,430	73,576,430	73,576,430	73,576,429	(3,627,213)	0
2017	99,488,983	N/A	N/A	18,129,914	18,129,914	18,129,914	18,129,914	18,129,914	8,839,413
2018	(267,605,493)	N/A	N/A	N/A	(59,264,959)	(59,264,959)	(59,264,959)	(59,264,959)	(59,264,956)
2019	741,059,267	N/A	N/A	N/A	N/A	147,994,714	147,994,714	147,994,714	147,994,714
2020	(654,580,698)	N/A	N/A	N/A	N/A	N/A	(131,254,418)	(131,254,418)	(131,254,418)
Net increase (decrease) in pension expense		\$85,397,671	\$158,974,101	\$177,104,015	\$117,839,056	\$265,833,772	\$90,662,265	\$(28,021,962)	\$(33,685,247)

Reporting Date for Employer under GASB 68 Year Ended June 30	Total Differences and Changes	Reporting Date for Employer under GASB 68 Year Ended June 30:							
		2023	2024	2025	2026	2027	2028	2029	2030
		2015	\$468,468,942	\$0	\$0	\$0	\$0	\$0	\$0
2016	364,254,936	0	0	0	0	0	0	0	0
2017	99,488,983	0	0	0	0	0	0	0	0
2018	(267,605,493)	28,719,299	0	0	0	0	0	0	0
2019	741,059,267	147,994,717	1,085,694	0	0	0	0	0	0
2020	(654,580,698)	(131,254,418)	(131,254,421)	1,691,395	0	0	0	0	0
Net increase (decrease) in pension expense		\$45,459,598	\$(130,168,727)	\$1,691,395	\$0	\$0	\$0	\$0	\$0

Section 2: GASB 68 Information

Allocation of changes in total Net Pension Liability

In addition to the amounts shown in the Schedule of Recognition of Changes in Total Net Pension Liability, there are changes in each employer's proportionate share of the total Net Pension Liability (NPL) during the measurement period ending on December 31, 2019. The net effect of the change in the employer's proportionate share of the collective NPL and collective deferred outflows of resources and deferred inflows of resources is also recognized over the average of the expected remaining service lives of all employees shown above. The difference between the actual employer contributions and the proportionate share of the employer contributions during the measurement period ending on December 31, 2019 is recognized over the same periods. These amounts are shown on the following table, with the corresponding amounts for the measurement periods ending on December 31 beginning in 2014 shown on the following pages. While these amounts are different for each employer, they sum to zero over the entire ACERA.

Section 2: GASB 68 Information

Allocation of changes in total Net Pension Liability (continued)

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer Contributions for the Year Ended December 31, 2019

	Total Change to be Recognized	Recognition Period (Years)	2020	2021	2022	2023	2024	2025	Thereafter
Alameda County	\$6,339,140	5.37	\$1,180,474	\$1,180,474	\$1,180,474	\$1,180,474	\$1,180,474	\$436,770	\$0
Health System	(11,003,271)	5.37	(2,049,027)	(2,049,027)	(2,049,027)	(2,049,027)	(2,049,027)	(758,136)	0
Superior Court	4,979,652	5.37	927,309	927,309	927,309	927,309	927,309	343,107	0
First 5	515,062	5.37	95,915	95,915	95,915	95,915	95,915	35,487	0
Housing Authority	(898,184)	5.37	(167,260)	(167,260)	(167,260)	(167,260)	(167,260)	(61,884)	0
LARPD	27,510	5.37	5,123	5,123	5,123	5,123	5,123	1,895	0
ACOE	<u>40,091</u>	5.37	<u>7,466</u>	<u>7,466</u>	<u>7,466</u>	<u>7,466</u>	<u>7,466</u>	<u>2,761</u>	<u>0</u>
Total for all Employers	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0

Section 2: GASB 68 Information

Allocation of changes in total Net Pension Liability (continued)-

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer Contributions for the Year Ended December 31, 2018

	Total Change to be Recognized	Recognition Period (Years)	2019	2020	2021	2022	2023	2024	Thereafter
Alameda County	\$1,738,127	5.43	\$320,097	\$320,097	\$320,097	\$320,097	\$320,097	\$137,642	\$0
Health System	680,885	5.43	125,393	125,393	125,393	125,393	125,393	53,920	0
Superior Court	(2,537,099)	5.43	(467,238)	(467,238)	(467,238)	(467,238)	(467,238)	(200,909)	0
First 5	175,250	5.43	32,275	32,275	32,275	32,275	32,275	13,875	0
Housing Authority	(46,967)	5.43	(8,649)	(8,649)	(8,649)	(8,649)	(8,649)	(3,722)	0
LARPD	(10,196)	5.43	(1,878)	(1,878)	(1,878)	(1,878)	(1,878)	(806)	0
ACOE	<u>0</u>	5.43	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total for all Employers	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0

Section 2: GASB 68 Information

Allocation of changes in total Net Pension Liability (continued)

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer Contributions for the Year Ended December 31, 2017

	Total Change to be Recognized	Recognition Period (Years)	2018	2019	2020	2021	2022	2023	Thereafter
Alameda County	\$(9,479,381)	5.47	\$(1,732,979)	\$(1,732,979)	\$(1,732,979)	\$(1,732,979)	\$(1,732,979)	\$(814,486)	\$0
Health System	13,073,831	5.47	2,390,097	2,390,097	2,390,097	2,390,097	2,390,097	1,123,346	0
Superior Court	(2,908,250)	5.47	(531,672)	(531,672)	(531,672)	(531,672)	(531,672)	(249,890)	0
First 5	(37,941)	5.47	(6,936)	(6,936)	(6,936)	(6,936)	(6,936)	(3,261)	0
Housing Authority	(403,509)	5.47	(73,767)	(73,767)	(73,767)	(73,767)	(73,767)	(34,674)	0
LARPD	(98,213)	5.47	(17,954)	(17,954)	(17,954)	(17,954)	(17,954)	(8,443)	0
ACOE	<u>(146,537)</u>	5.47	<u>(26,789)</u>	<u>(26,789)</u>	<u>(26,789)</u>	<u>(26,789)</u>	<u>(26,789)</u>	<u>(12,592)</u>	<u>0</u>
Total for all Employers	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0

Section 2: GASB 68 Information

Allocation of changes in total Net Pension Liability (continued)

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer Contributions for the Year Ended December 31, 2016

	Total Change to be Recognized	Recognition Period (Years)	2017	2018	2019	2020	2021	2022	Thereafter
Alameda County	\$773,839	5.60	\$138,186	\$138,185	\$138,185	\$138,185	\$138,185	\$82,913	\$0
Health System	(286,750)	5.60	(51,206)	(51,205)	(51,205)	(51,205)	(51,205)	(30,724)	0
Superior Court	(657,369)	5.60	(117,388)	(117,387)	(117,387)	(117,387)	(117,387)	(70,433)	0
First 5	178,251	5.60	31,831	31,830	31,830	31,830	31,830	19,100	0
Housing Authority	115,948	5.60	20,705	20,705	20,705	20,705	20,705	12,423	0
LARPD	(132,463)	5.60	(23,653)	(23,654)	(23,654)	(23,654)	(23,654)	(14,194)	0
ACOE	<u>8,544</u>	5.60	<u>1,525</u>	<u>1,526</u>	<u>1,526</u>	<u>1,526</u>	<u>1,526</u>	<u>915</u>	<u>0</u>
Total for all Employers	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0

Section 2: GASB 68 Information

Allocation of changes in total Net Pension Liability (continued)

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer Contributions for the Year Ended December 31, 2015

	Total Change to be Recognized	Recognition Period (Years)	2016	2017	2018	2019	2020	2021	Thereafter
Alameda County	\$716,115	5.64	\$126,970	\$126,970	\$126,970	\$126,970	\$126,970	\$81,265	\$0
Health System	(1,234,870)	5.64	(218,949)	(218,949)	(218,949)	(218,949)	(218,949)	(140,125)	0
Superior Court	221,160	5.64	39,213	39,213	39,213	39,213	39,213	25,095	0
First 5	95,336	5.64	16,904	16,904	16,904	16,904	16,904	10,816	0
Housing Authority	92,578	5.64	16,415	16,415	16,415	16,415	16,415	10,503	0
LARPD	106,148	5.64	18,821	18,821	18,821	18,821	18,821	12,043	0
ACOE	<u>3,533</u>	5.64	<u>626</u>	<u>626</u>	<u>626</u>	<u>626</u>	<u>626</u>	<u>403</u>	<u>0</u>
Total for all Employers	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0

Section 2: GASB 68 Information

Allocation of changes in total Net Pension Liability (continued)

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer Contributions for the Year Ended December 31, 2014

	Total Change to be Recognized	Recognition Period (Years)	2015	2016	2017	2018	2019	2020	Thereafter
Alameda County	\$4,016,758	5.68	\$707,177	\$707,177	\$707,177	\$707,177	\$707,177	\$480,873	\$0
Health System	(1,268,246)	5.68	(223,283)	(223,283)	(223,283)	(223,283)	(223,283)	(151,831)	0
Superior Court	(2,082,105)	5.68	(366,568)	(366,568)	(366,568)	(366,568)	(366,568)	(249,265)	0
First 5	(280,307)	5.68	(49,350)	(49,350)	(49,350)	(49,350)	(49,350)	(33,557)	0
Housing Authority	(379,166)	5.68	(66,755)	(66,755)	(66,755)	(66,755)	(66,755)	(45,391)	0
LARPD	(1,321)	5.68	(233)	(233)	(233)	(233)	(233)	(156)	0
ACOE	<u>(5,613)</u>	5.68	<u>(988)</u>	<u>(988)</u>	<u>(988)</u>	<u>(988)</u>	<u>(988)</u>	<u>(673)</u>	<u>0</u>
Total for all Employers	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0

Section 3: Actuarial Assumptions and Methods and Appendices

Actuarial assumptions and methods

For December 31, 2019 Measurement Date and Employer Reporting as of June 30, 2020

Rationale for Assumptions:	The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in the December 1, 2013 through November 30, 2016 Actuarial Experience Study report dated September 6, 2017. Unless otherwise noted, all actuarial assumptions and methods shown below apply to all tiers. These assumptions were adopted by the Board.
<u>Economic Assumptions</u>	
Net Investment Return:	7.25%; net of investment expenses.
Employee Contribution Crediting Rate:	7.25%, compounded semi-annually.
Consumer Price Index:	Increase of 3.00% per year. Retiree COLA increases due to CPI are subject to a 3% maximum change per year for General Tier 1, General Tier 3, and Safety Tier 1, and 2% maximum change per year for General Tier 2, General Tier 4, Safety Tier 2, Safety Tier 2C, Safety Tier 2D, and Safety Tier 4.
Payroll Growth:	Inflation of 3.00% per year plus real “across the board” salary increases of 0.50% per year, used to amortize the Unfunded Actuarial Accrued Liability as a level percentage of payroll.
Increase in Internal Revenue Code Section 401(a)(17) Compensation Limit:	Increase of 3.00% per year from the valuation date.
Increase in Section 7522.10 Compensation Limit:	Increase of 3.00% per year from the valuation date.

Section 3: Actuarial Assumptions and Methods and Appendices

Salary Increases:

The annual rate of compensation increase includes:

- Inflation at 3.00%, plus
- “Across the board” salary increases of 0.50% per year, plus
- The following merit and promotion increases:

Years of Service	Rate (%)	
	General	Safety
0-1	4.80	7.80
1-2	4.80	7.80
2-3	3.90	7.00
3-4	2.40	4.40
4-5	1.90	3.50
5-6	1.60	2.30
6-7	1.50	1.60
7-8	1.10	1.00
8-9	0.80	1.00
9-10	0.80	0.90
10-11	0.50	0.80
11 & Over	0.40	0.80

Terminal Pay Assumptions:

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

	Service Retirement	Disability Retirement
General Tier 1	8.0%	6.5%
General Tier 2	3.0%	1.4%
General Tier 3	8.0%	6.5%
General Tier 4	N/A	N/A
Safety Tier 1	8.5%	6.4%
Safety Tier 2	3.5%	2.1%
Safety Tier 2C	3.5%	2.1%
Safety Tier 2D	3.5%	2.1%
Safety Tier 4	N/A	N/A

Section 3: Actuarial Assumptions and Methods and Appendices

Demographic Assumptions:

Post-Retirement Mortality Rates:

Healthy

- **General Members and All Beneficiaries:** Headcount-Weighted RP-2014 (RPH-2014) Healthy Annuitant Mortality Tables, with no setback for males and females, projected generationally with the two-dimensional MP-2016 projection scale.
- **Safety Members:** Headcount-Weighted RP-2014 (RPH-2014) Healthy Annuitant Mortality Tables, with no setback for males and females, projected generationally with the two-dimensional MP-2016 projection scale.

Disabled

- **General Members:** Headcount-Weighted RP-2014 (RPH-2014) Healthy Annuitant Mortality Tables, set forward seven years for males and set forward four years for females, projected generationally with the two-dimensional MP-2016 projection scale.
- **Safety Members:** Headcount-Weighted RP-2014 (RPH-2014) Healthy Annuitant Mortality Tables, set forward two years for males and with no set forward for females, projected generationally with the two-dimensional MP-2016 projection scale.

The RPH-2014 mortality tables and adjustments as shown above reasonably reflect the mortality experience as of the measurement date. These mortality tables were adjusted to future years using the generational projection to reflect future mortality improvement between the measurement date and those years.

Pre-Retirement Mortality Rates:

- **General and Safety Members:** Headcount-Weighted RP-2014 (RPH-2014) Employee Mortality Tables multiplied by 80%, projected generationally with the two-dimensional MP-2016 projection scale.

Age	Rate (%)			
	General ¹		Safety ¹	
	Male	Female	Male	Female
20	0.05	0.02	0.05	0.02
25	0.05	0.02	0.05	0.02
30	0.05	0.02	0.05	0.02
35	0.05	0.03	0.05	0.03
40	0.06	0.04	0.06	0.04
45	0.10	0.07	0.10	0.07
50	0.17	0.11	0.17	0.11
55	0.27	0.17	0.27	0.17
60	0.45	0.24	0.45	0.24
65	0.78	0.36	0.78	0.36

All pre-retirement deaths are assumed to be non-service connected.

¹ Generational projections beyond the base year (2014) are not reflected in the above mortality rates.

Section 3: Actuarial Assumptions and Methods and Appendices

Mortality Rates for Member Contributions:

- **General Members:** Headcount-Weighted RP-2014 (RPH-2014) Healthy Annuitant Mortality Tables, with no setback for males and females, projected 20 years with the two-dimensional mortality improvement Scale MP-2016, weighted 30% male and 70% female.
- **Safety Members:** Headcount-Weighted RP-2014 (RPH-2014) Healthy Annuitant Mortality Tables, with no setback for males and females, projected 20 years with the two-dimensional mortality improvement Scale MP-2016, weighted 75% male and 25% female.

Optional Forms of Benefit:

Service Retirement and All Beneficiaries

- **General Members:** Headcount-Weighted RP-2014 (RPH-2014) Healthy Annuitant Mortality Tables, with no setback for males and females, projected 20 years with the two-dimensional mortality improvement Scale MP-2016, weighted 30% male and 70% female.
- **General Beneficiaries:** Headcount-Weighted RP-2014 (RPH-2014) Healthy Annuitant Mortality Tables, with no setback for males and females, projected 20 years with the two-dimensional mortality improvement Scale MP-2016, weighted 70% male and 30% female.
- **Safety Members:** Headcount-Weighted RP-2014 (RPH-2014) Healthy Annuitant Mortality Tables, with no setback for males and females, projected 20 years with the two-dimensional mortality improvement Scale MP-2016, weighted 75% male and 25% female.
- **Safety Beneficiaries:** Headcount-Weighted RP-2014 (RPH-2014) Healthy Annuitant Mortality Tables, with no setback for males and females, projected 20 years with the two-dimensional mortality improvement Scale MP-2016, weighted 25% male and 75% female.

Disability Retirement

- **General Members:** Headcount-Weighted RP-2014 (RPH-2014) Healthy Annuitant Mortality Tables, set forward seven years for males and set forward four years for females, projected 20 years with the two-dimensional mortality improvement Scale MP-2016, weighted 30% male and 70% female.
- **Safety Members:** Headcount-Weighted RP-2014 (RPH-2014) Healthy Annuitant Mortality Tables, set forward two years for males and with no set forward for females, projected 20 years with the two-dimensional mortality improvement Scale MP-2016, weighted 75% male and 25% female.

Section 3: Actuarial Assumptions and Methods and Appendices

Disability Incidence:

Age	Rate (%)	
	General	Safety
20	0.00	0.00
25	0.01	0.03
30	0.03	0.26
35	0.05	0.58
40	0.08	0.73
45	0.19	0.78
50	0.31	1.52
55	0.38	2.00
60	0.43	2.60

60% of General disabilities are assumed to be service connected disabilities. The other 40% are assumed to be non-service connected disabilities.

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

Section 3: Actuarial Assumptions and Methods and Appendices

Termination:

Less Than Five Years of Service

Years of Service	Rate (%)	
	General	Safety
0-1	11.00	4.00
1-2	9.00	3.50
2-3	8.00	3.50
3-4	6.00	2.50
4-5	6.00	2.00

60% of all terminated members with less than 5 years of service are assumed to choose a refund of contributions. The other 40% are assumed to choose a deferred vested benefit.

Five or More Years of Service

Age	Rate (%)	
	General	Safety
20	6.00	2.00
25	6.00	2.00
30	5.40	2.00
35	4.40	1.70
40	3.40	1.20
45	3.00	1.00
50	3.00	1.00
55	3.00	1.00
60	3.00	0.40

35% of all terminated members with 5 or more years of service are assumed to choose a refund of contributions. The other 65% are assumed to choose a deferred vested benefit.

No termination is assumed after a member is eligible for retirement (as long as a retirement rate is present).

Section 3: Actuarial Assumptions and Methods and Appendices

Retirement Rates:

Age	Rate (%) ¹							
	General				Safety			
	Tier 1	Tier 2	Tier 3	Tier 4	Tier 1 ²	Tier 2, 2D ²	Tier 2C ²	Tier 4
49	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.00
50	4.00	2.00	6.00	0.00	35.00	15.00	4.00	4.00
51	4.00	2.00	3.00	0.00	30.00	15.00	2.00	2.00
52	4.00	2.00	5.00	4.00	25.00	15.00	2.00	2.00
53	4.00	2.00	6.00	1.50	35.00	15.00	3.00	3.00
54	4.00	2.00	6.00	1.50	45.00	15.00	6.00	6.00
55	6.00	2.00	12.00	2.00	45.00	15.00	10.00	10.00
56	8.00	3.00	13.00	2.50	45.00	15.00	12.00	12.00
57	10.00	4.00	13.00	3.50	45.00	15.00	20.00	20.00
58	12.00	4.00	14.00	3.50	45.00	20.00	10.00	10.00
59	14.00	5.00	16.00	4.50	45.00	20.00	15.00	15.00
60	20.00	7.00	21.00	6.00	45.00	30.00	60.00	60.00
61	20.00	9.00	20.00	8.00	45.00	30.00	60.00	60.00
62	35.00	15.00	30.00	18.00	45.00	30.00	60.00	60.00
63	30.00	16.00	25.00	15.00	45.00	30.00	60.00	60.00
64	30.00	18.00	25.00	17.00	45.00	50.00	60.00	60.00
65	35.00	25.00	30.00	22.00	100.00	100.00	100.00	100.00
66	35.00	25.00	25.00	25.00	100.00	100.00	100.00	100.00
67	30.00	25.00	25.00	25.00	100.00	100.00	100.00	100.00
68	30.00	30.00	25.00	30.00	100.00	100.00	100.00	100.00
69	35.00	35.00	50.00	35.00	100.00	100.00	100.00	100.00
70	65.00	50.00	65.00	50.00	100.00	100.00	100.00	100.00
71	65.00	50.00	65.00	50.00	100.00	100.00	100.00	100.00
72	65.00	50.00	65.00	50.00	100.00	100.00	100.00	100.00
73	65.00	50.00	65.00	50.00	100.00	100.00	100.00	100.00
74	65.00	50.00	65.00	50.00	100.00	100.00	100.00	100.00
75	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

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

² Retirement rate is 100% after a member accrues a benefit of 100% of final average earnings.

Retirement Age and Benefit for Deferred Vested Members:

General Retirement Age: 61
 Safety Retirement Age: 56

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

Section 3: Actuarial Assumptions and Methods and Appendices

	30% of future General and 60% of future Safety deferred vested members are assumed to continue to work for a reciprocal employer. For reciprocals, 3.90% and 4.30% compensation increases are assumed per annum for General and Safety, respectively.
Future Benefit Accruals:	1.0 year of service per year of employment, plus 0.003 years of additional service for General members and 0.006 years of additional service for Safety members, to anticipate conversion of unused sick leave for each year of employment.
Unknown Data for Members:	Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male.
Inclusion of Deferred Vested Members:	All deferred vested members are included in the valuation.
Data Adjustment:	Data as of November 30 has been adjusted to December 31 by adding one month of age and, for active members, one month of service.
Form of Payment:	All active and inactive vested members are assumed to elect the unmodified option at retirement.
Percent Married:	70% of male members; 50% of female members.
Age and Gender of Spouse:	For all active and inactive members, male members are assumed to have a female spouse who is 3 years younger than the member and female members are assumed to have a male spouse who is 2 years older than the member.
Actuarial Cost Method:	Entry Age Actuarial Cost Method. Entry Age is the age on the valuation date minus years of service. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are based on costs allocated as a level percentage of compensation.
Expected Remaining Service Lives:	<p>The average of the expected service lives of all employees is determined by:</p> <ul style="list-style-type: none"> • 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. <p>Dividing the sum of the above amounts by the total number of active employee, nonactive and retired members.</p>
Justification for Change in Actuarial Assumptions:	There have been no changes in actuarial assumptions since the last valuation.

Section 3: Actuarial Assumptions and Methods and Appendices

Appendix A: Projection of Plan's Fiduciary Net Position for Use in the Calculation of Discount Rate as of December 31, 2019 (\$ in millions)

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)
2019	6,771	402	504	15	1,076	7,730
2020	7,730 **	391	581	18	550	8,071
2021	8,071	395	609	19	574	8,413
2022	8,413	397	638	19	597	8,749
2023	8,749	402	668	20	621	9,083
2024	9,083	405	698	21	644	9,412
2025	9,412	411	729	22	666	9,739
2026	9,739	418	759	22	689	10,064
2027	10,064	426	790	23	712	10,389
2043	11,818	226	1,155	27	816	11,678
2044	11,678	231	1,164	27	806	11,524
2045	11,524	230	1,171	27	794	11,351
2046	11,351	229	1,177	26	782	11,158
2047	11,158	227	1,181	26	767	10,945
2089	237	35	102	1	14	184
2090	184	32	86	0 *	11	140
2091	140	28	72	0 *	8	104
2092	104	25	59	0 *	6	76
2093	76	22	48	0 *	4	54
2094	54	20	39	0 *	3	37
2095	37	17	31	0 *	2	25
2096	25	15	25	0 *	1	16
2097	16	13	19	0 *	1	10
2098	10	11	15	0 *	1	7
2099	7	9	12	0 *	0 *	4
2109	2	1	1	0 *	0 *	1
2110	1	1	1	0 *	0 *	1
2111	1	1	1	0 *	0 *	1
2112	1	0 *	1	0 *	0 *	0
2113	0 *	0 *	0 *	0 *	0 *	0
2133	0 *	0 *	0 *	0 *	0 *	0
2134	0 *	0 *	0 *	0 *	0 *	0
2134	Discounted Value: 0 **, **					

* Less than \$1M, when rounded.

** Excludes \$89.4 million required to bring the Contingency Reserve to 1% of total assets as of December 31, 2019. See Note 2.

Section 3: Actuarial Assumptions and Methods and Appendices

Notes

1. Amounts may not total exactly due to rounding.
2. Amounts shown in the year beginning January 1, 2019 row are actual amounts, based on the financial statements provided by ACERA. The Plan Fiduciary Net Position as of December 31, 2019 differs from the amount used for other GASB 67 purposes in that it excludes \$89,388,911 of the Gross Market Stabilization Reserve expected to be used to bring the Contingency Reserve up to 1% of total assets. These assets are not used in developing the projected total contributions in column (b).
3. Years 2028-2042, 2048-2088, 2100-2108, and 2114-2132 have been omitted from this table.
4. Column (a): Except for the "discounted value" shown for 2134, 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, 2018); 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, 2018. The projected benefit payments reflect the cost of living increase assumption of 3.00% 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 7.25% 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 0.60% 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 \$0.84 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 \$0.19 billion as well as the remaining present value of the OPEB SRBR benefits of \$0.34 billion.
7. Column (d): Projected administrative expenses are calculated as approximately 0.23% of the beginning plan fiduciary net position amount. The 0.23% portion was based on the actual fiscal year 2019 administrative expenses as a percentage of the beginning plan fiduciary net position amount as of January 1, 2019. 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 7.25% 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 7.25% per annum was applied to all periods of projected benefit payments to determine the total pension liability as of December 31, 2019 shown earlier in this report, pursuant to paragraph 44 of GASB Statement No. 67.

Section 3: Actuarial Assumptions and Methods and Appendices

Appendix B: Definition of Terms

Definitions of certain terms as they are used in Statement 68. The terms may have different meanings in other contexts.

Active Employees	Individuals employed at the end of the reporting or measurement period, as applicable.
Actual Contributions	Cash contributions recognized as additions to a Pension Plan's Fiduciary Net Position.
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).
Closed Period	A specific number of years that is counted from one date and declines to zero with the passage of time. For example, if the recognition period initially is five years on a closed basis, four years remain after the first year, three years after the second year, and so forth.
Collective Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions	Deferred outflows of resources and deferred inflows of resources related to pensions arising from certain changes in the collective Net Pension Liability.
Collective Net Pension Liability	The Net Pension Liability for benefits provided through (1) a cost-sharing pension plan or (2) a single-employer or agent pension plan in circumstances in which there is a special funding situation.

Section 3: Actuarial Assumptions and Methods and Appendices

Collective Pension Expense	Pension expense arising from certain changes in the collective Net Pension Liability.
Contributions	Additions to a Pension Plan's Fiduciary Net Position for amounts from employers, nonemployer contributing entities (for example, state government contributions to a local government pension plan), or employees. Contributions can result from cash receipts by the pension plan or from recognition by the pension plan of a receivable from one of these sources.
Cost-of-Living Adjustments	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
Cost-Sharing Employer	An employer whose employees are provided with pensions through a cost-sharing multiple-employer defined benefit pension plan.
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 68.)
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: <ol style="list-style-type: none"> 1. The actuarial present value of benefit payments projected to be made in future periods in which (a) the amount of the pension Plan's Fiduciary Net Position is projected (under the requirements of Statement 67) to be greater than the benefit payments that are projected to be made in that period and (b) pension plan assets up to that point are expected to be invested using a strategy to achieve the long-term expected rate of return, calculated using the long-term expected rate of return on pension plan investments. 2. The actuarial present value of projected benefit payments not included in (1), calculated using the municipal bond rate.

Section 3: Actuarial Assumptions and Methods and Appendices

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 <i>normal cost</i> . 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 <i>actuarial accrued liability</i> .
Inactive Employees	Terminated individuals that have accumulated benefits but are not yet receiving them, and retirees or their beneficiaries currently receiving benefits.
Measurement Period	The period between the prior and the current measurement dates.
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	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.
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.

Section 3: Actuarial Assumptions and Methods and Appendices

Service Costs	The portions of the actuarial present value of projected benefit payments that are attributed to valuation years.
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	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 68.

5643523v4/05579.026

Alameda County Employees' Retirement Association

**Governmental Accounting Standards Board (GASB)
Statement 75 Actuarial Valuation of the Benefits
Provided by the Supplemental Retiree Benefits Reserve
Other Postemployment Benefits (OPEB) Based on
December 31, 2019 Measurement Date for Employer
Reporting as of June 30, 2020**



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. The measurements shown in this actuarial valuation may not be applicable for other purposes.



Andy Yeung, ASA, MAAA, FCA, EA
Vice President & Actuary
T 415.263.8283
ayeung@segalco.com

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

Thomas Bergman, ASA, MAAA, EA
Retiree Health Actuary
T 415.263.8262
tbergman@segalco.com

June 9, 2020

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 No. 75 Actuarial Valuation of Other Postemployment Benefits (OPEB) based on a December 31, 2019 measurement date for employer reporting as of June 30, 2020. It contains various information that will need to be disclosed in order for ACERA employers to comply with GASB 75.

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; changes in health care trend, and changes in plan provisions or applicable law.

The actuarial calculations were completed under the supervision of Thomas Bergman, ASA, MAAA, Enrolled Actuary and Andy Yeung ASA, MAAA, FCA, Enrolled Actuary. The health care trend and other related medical assumptions have been reviewed by Paul Sadro, ASA, MAAA. We are members of the American Academy of Actuaries and we collectively meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in the actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and expectations for the Association.

Board of Retirement
June 9, 2020
Page 2

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



Thomas Bergman, ASA, MAAA, EA
Retiree Health Actuary

TJH/jl

SECTION 1

VALUATION SUMMARY

Purpose	i
General Observations on GASB 75 Actuarial Valuation	i
Significant Issues in Valuation Year	ii
Summary of Key Valuation Results	v
Important Information About Actuarial Valuations	vii

SECTION 2

GASB 75 INFORMATION

EXHIBIT 1	
General Information – “Financial Statements”, Note Disclosures and Required Supplementary Information for a Cost-Sharing OPEB Plan.....	1
EXHIBIT 2	
Net OPEB Liability	5
EXHIBIT 3	
Target Asset Allocation.....	7
EXHIBIT 4	
Discount Rate and Trend Sensitivity.....	9
EXHIBIT 5	
Schedule of Changes in Net OPEB Liability – Last Two Fiscal Years.....	10
EXHIBIT 6	
Schedule of Employer Contributions – Last Ten Fiscal Years.....	11
EXHIBIT 7	
Determination of Proportionate Share.....	12

SECTION 2 (CONTINUED)

EXHIBIT 8	
OPEB Expense	15
EXHIBIT 9	
Deferred Outflows of Resources and Deferred Inflows of Resources	23
EXHIBIT 10	
Schedule of Proportionate Share of the Net OPEB Liability	32
EXHIBIT 11	
Schedule of Reconciliation of Net OPEB Liability	40
EXHIBIT 12	
Schedule of Recognition of Changes in Total Net OPEB Liability	48
EXHIBIT 13	
Allocation of Changes in Total Net OPEB Liability	52

SECTION 3

ACTUARIAL ASSUMPTIONS AND METHODS

Actuarial Assumptions and Methods	55
Appendix A Calculation of Discount Rate as of December 31, 2019	69

SECTION 1: Valuation Summary for Alameda County Employees' Retirement Association

Purpose

This report has been prepared by Segal to present certain disclosure information required for “Other Postemployment Benefits (OPEB)” plans by Statement No. 75 of the Governmental Accounting Standards Board for employer reporting as of June 30, 2020. The results used in preparing this GASB 75 report are comparable to those used in preparing the Governmental Accounting Standard Board Statement 74 report for the plan based on a measurement date and a reporting date as of December 31, 2019. 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, 2018, provided by ACERA;
- The assets of the Plan as of December 31, 2019, provided by ACERA;
- Economic assumptions regarding future salary increases and investment earnings; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, and health care trends, etc.

General Observations on GASB 75 Actuarial Valuation

The following points should be considered when reviewing this GASB 75 report:

- 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.
- 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.
- The Net OPEB Liability (NOL) is equal to the difference between the TOL and the Plan’s Fiduciary Net Position. The Plan’s Fiduciary Net Position is equal to the fair value of assets. The NOL reflects all investment gains and losses as of the measurement date.

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

SECTION 1: Valuation Summary for Alameda County Employees' Retirement Association

Significant Issues in Valuation Year

The following key findings were the result of this actuarial valuation:

- The NOL decreased from \$232.9 million as of December 31, 2018 to \$112.9 million as of December 31, 2019 primarily as a result of favorable investment results during calendar year 2019 of about \$135.7 million (for an actual market return of 24.2%² versus 7.25% assumed in the valuation), offset somewhat by updating the health trend assumptions³ (which on a net basis increase the NOL by about \$12.5 million). Changes in these values during the last two fiscal years ending December 31, 2019 and 2018 can be found in Exhibit 5.
- The OPEB expense decreased from \$39.9 million as of December 31, 2018 to \$18.2 million as of December 31, 2019 primarily as a result of the expensed portion of the investment gain in 2019 of \$27.1 million. Components of the OPEB expense during the last two plan years ending December 31, 2019 and 2018 can be found in Exhibit 8.
- As we disclosed in our December 31, 2019 pension funding valuation report, the 7.25% investment return assumption that the Board approved on December 21, 2017 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 7.25%.

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 0.60% of assets over time. This approximated outflow was incorporated into our GASB crossover test for the pension benefits (reference: Exhibit 5 of our GASB 67 report as of December 31, 2019), 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 Note that the 24.2% market value investment return mentioned above for the SRBR is higher than the 17.9% investment return included in the December 31, 2019 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, 2019.

³ In particular, there is an increase in the long term annual trend from 4.00% to 4.50% for Medicare Part B which increased the NOL by \$17.1 million. Also, the repeal of the Health Insurance Tax (HIT) effective in 2021 reduced the 2020 non-Medicare and Medicare trends which decreased the NOL by \$4.6 million.

SECTION 1: Valuation Summary for Alameda County Employees' Retirement Association

Furthermore, note (6) provided in Exhibit 5 of the GASB 67 report indicates that the present value of outflows from the 0.60% 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 Appendix A of this report, we have only included the projected benefits so that on a present value basis they are equal to the OPEB assets currently available in the SRBR as the remaining OPEB SRBR benefits would be paid from future excess earnings.

- The NOLs for the employers in ACERA as of December 31, 2018 and December 31, 2019 are allocated based on the actual employer contributions made during 2018 and 2019, respectively.⁴ The steps we used for the allocation are as follows:
 - First calculate the ratio of the employer's contributions to the total contributions.
 - Then multiply this ratio by the NOL to determine the employer's proportionate share of the NOL. The NOL allocation can be found in Exhibit 7 in Section 2.
- In 2019, the Alameda County Office of Education (ACOE) made a lump sum contribution of \$750,000 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. Again, the OPEB SRBR NOL is allocated to the employers in proportion to the total employer contributions made by those employers to the Pension Plan. In order to have a more level allocation of the 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 the total annual UAAL contribution ACOE would have made of \$132,883 in 2019 if they did not make the additional contribution to partially pay off their UAAL.
- The TOL as of December 31, 2019 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, 2018. 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, 2019 (reference: our letter dated May 6, 2020).
- We have also continued the practice of adjusting the Plan's Fiduciary Net Position as of December 31, 2019 to include the \$888.2 million set aside by the Retirement Board in the SRBR reserve to pay OPEB benefits as of December 31, 2019. This includes \$877.8 million in the OPEB-related SRBR reserve (after reducing the reserve by the \$6.5 million SRBR implicit subsidy transfer), and \$10.4 million in the 401(h) reserve. It should be noted that as of December 31, 2019, the deferred investment gain for the entire Plan was \$260.7 million. Consequently, after first replenishing the Contingency Reserve from \$0 to \$89.4 million (1% of total assets), we have added to the Plan's Fiduciary Net Position

⁴ The December 31, 2018 and December 31, 2019 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 2018 and 2019, respectively, based on discussions and approval provided by the Board.

SECTION 1: Valuation Summary for Alameda County Employees' Retirement Association

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 \$82.0 million (which will cause the future interest crediting rate to the SRBR reserve to be raised above 7.25% per year).

- The Coronavirus (COVID-19) pandemic is rapidly evolving and is having a significant impact on the US economy in 2020, 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, 2019
 - Changes in interest rates since December 31, 2019
 - Short-term or long-term impacts on mortality of the covered population
 - The potential for federal or state fiscal relief
 - Short-term increases in health plan costs related to the testing or treatment of COVID-19

Each of the above factors could significantly impact these results. The above factors generally will not have an impact on the December 31, 2019 valuation, since that is based on a snapshot of assets and liabilities prior to recent events. Given the high level of uncertainty and fluidity of the current events, you may wish to consider updated estimates to monitor the plan's financial status. We will keep you updated on emerging developments.

SECTION 1: Valuation Summary for Alameda County Employees' Retirement Association

Summary of Key Valuation Results

Reporting Date for Employer under GASB 75	June 30, 2020	June 30, 2019
Measurement Date for Employer under GASB 75	December 31, 2019	December 31, 2018
Disclosure elements for plan year ending December 31:		
Service cost ⁽¹⁾	\$27,678,194	\$31,577,168
Total OPEB Liability	1,083,114,679	1,054,337,014
Plan's Fiduciary Net Position ⁽²⁾	970,180,405	821,440,435
Net OPEB Liability	112,934,274	232,896,579
OPEB expense	18,191,319	39,920,817
Schedule of contributions for plan 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⁾	6,575	6,385
Number of retired members receiving dental and vision benefits	7,741	7,519
Number of vested terminated members	430	410
Number of active members	11,336	11,349
Key assumptions as of December 31:		
Discount rate	7.25%	7.25%
Health care premium trend rates ⁽⁶⁾		
Non-Medicare medical plan	Graded from 6.75% to ultimate 4.50% over 9 years	Graded from 7.00% to ultimate 4.50% over 10 years
Medicare medical plan	Graded from 6.25% to ultimate 4.50% over 7 years	Graded from 6.50% to ultimate 4.50% over 8 years
Dental/Vision	4.00%	4.00%
Medicare Part B	4.50%	4.00%

⁽¹⁾ The service cost is based on the previous year's valuation, meaning the 2019 and 2018 values are based on the valuations as of December 31, 2018 and December 31, 2017 measurements, respectively. The 2019 service cost has been calculated using the assumptions shown in the 2018 column, and the 2018 service cost has been calculated using the following assumptions:

Key assumptions as of December 31, 2017:

Discount rate	7.25%
Health care premium trend rates	
Non-Medicare medical plan	Graded from 7.00% to ultimate 4.50% over 10 years
Medicare medical plan	Graded from 6.50% to ultimate 4.50% over 8 years
Dental/Vision and Medicare Part B	4.50%

⁽²⁾ For 2019, the Plan's Fiduciary Net Position shown (\$970,180,405) includes the OPEB-related SRBR reserve of \$877,769,175 (after reducing the reserve by the SRBR implicit subsidy transfer of \$6,510,876) and 401(h) reserve (\$10,415,538), 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 (\$81,995,692), after first replenishing the Contingency Reserve from \$0 to \$89.4 million (1% of total assets). For 2018, the Plan's Fiduciary

SECTION 1: Valuation Summary for Alameda County Employees' Retirement Association

Net Position amount shown (\$821,440,435) includes the SRBR and 401(h) account (\$889,953,169), less the SRBR implicit subsidy transfer (\$6,939,808), less a proportionate share of the deferred market losses (after adjustment to include the balance in the Contingency Reserve) commensurate with the size of the OPEB reserves (\$61,572,926). Note that amounts may not total properly 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, 2018 data is used in the measurement of the TOL as of December 31, 2019. The following data as of December 31, 2017 was used in the measurement of the TOL as of December 31, 2018:

<i>Number of retired members receiving medical benefits</i>	<i>6,225</i>
<i>Number of retired members receiving dental and vision benefits</i>	<i>7,270</i>
<i>Number of vested terminated members</i>	<i>381</i>
<i>Number of active members</i>	<i>11,323</i>

The demographic data as of December 31, 2019 will be used in the sufficiency study for the SRBR as of December 31, 2019 as well as in the next year's GASB 74 and 75 valuation when we roll forward the liability from December 31, 2019 to December 31, 2020.

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

(6) The trends for 2020 as of the December 31, 2019 measurement are before reflecting the recent 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 6.50%. The trends for 2019 as of the December 31, 2018 measurement are before reflecting a one-time adjustment to reflect the estimated impact of the reinstatement of the HIT. The weighted average increase amongst all carriers is approximately 1.20% for Non-Medicare plans and 0.90% for Medicare plans.

SECTION 1: Valuation Summary for Alameda County Employees' Retirement Association

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. It is an estimated forecast – the actual cost of the plan will be determined by the benefits and expenses paid, not by the actuarial valuation.

In order to prepare an actuarial 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 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** 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. This projection requires actuarial assumptions as to the probability of death, disability, termination, 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 health care trends. The projected benefits are then discounted to a present value, based on the assumed rate of return that is expected to be achieved on the plan's assets. 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.

SECTION 1: Valuation Summary for Alameda County Employees' Retirement Association

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 sponsors of the Fund 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.
- 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. ACERA 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 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 1

General Information – “Financial Statements”, Note Disclosures and Required Supplementary Information for a Cost-Sharing 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, 2019, OPEB plan membership consisted of the following:

Retired members currently receiving medical benefits	6,575
Retired members currently receiving dental and vision benefits	7,741
Vested terminated members entitled to, but not yet receiving benefits	430
Active members	11,336

Note: Data as of December 31, 2019 is not used in the measurement of the TOL as of December 31, 2019. It will be used for the sufficiency study for the SRBR as of December 31, 2019 as well as in next year's GASB 74 and 75 valuation.

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

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

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

Membership 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 10⁵ years of service is required for non-duty disability.
There is no minimum service requirement for duty disability.

Benefit Eligibility:

1. Monthly Medical Allowance

Service Retirees: For retirees not purchasing individual insurance through the Individual Medicare Insurance Exchange, a Maximum Monthly Medical Allowance of \$558.00 per month was provided, effective January 1, 2019 and through December 31, 2019. For the period January 1, 2020 through December 31, 2020, the maximum allowance is \$578.65 per month.

For those purchasing insurance through the Individual Medicare Exchange, the Maximum Monthly Medical Allowance was \$427.46 per month for 2019 and is \$443.28 for 2020.

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.

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

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

2. 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.

3. Dental and Vision Plans:

The SRBR provides dental and vision benefits for retirees only. The maximum combined monthly dental and vision premium was \$48.39 in 2019 and is \$46.28 in 2020. 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.

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

- 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 are calculated together with active participants for purposes of underwriting, the surviving spouses/domestic partners receive an implicit subsidy, which creates a liability for the SRBR.

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 2

Net OPEB Liability

Reporting Date for Employer under GASB 75	June 30, 2020	June 30, 2019
Measurement Date for Employer under GASB 75	December 31, 2019	December 31, 2018
The components of the Net OPEB Liability are as follows:		
Total OPEB Liability	\$1,083,114,679	\$1,054,337,014
Plan's Fiduciary Net Position	<u>970,180,405</u>	<u>821,440,435</u>
Net OPEB Liability	\$112,934,274	\$232,896,579
Plan's Fiduciary Net Position as a Percentage of the Total OPEB Liability	89.57%	77.91%

The Net OPEB Liability was measured as of December 31, 2019 and 2018. The Plan's Fiduciary Net Position (plan assets) was valued as of the measurement date, while the Total OPEB Liability was determined by rolling forward the Total OPEB Liability as of December 31, 2018 and 2017, respectively.

Plan provisions. The plan provisions used in the measurement of the NOL as of December 31, 2019 and 2018 are the same as those used in ACERA's SRBR sufficiency valuation as of December 31, 2018 and 2017, respectively.

Actuarial assumptions. The actuarial assumptions used for the December 31, 2019 valuation were based on the results of the experience study for the period from December 1, 2013 through November 30, 2016 that were approved by the Board effective with the December 31, 2017 valuation and the health care trend assumptions recommended for the upcoming sufficiency study for the SRBR as of December 31, 2019 (reference: our letter dated May 6, 2020). The assumptions used in the December 31, 2019 SRBR OPEB actuarial valuation for ACERA were applied to all periods included in the measurement:

December 31, 2019

Investment rate of return	7.25%, net of OPEB plan investment expense, including inflation
Inflation	3.00%
Health care premium trend rates*	
Non-Medicare medical plan	Graded from 6.75% to ultimate 4.50% over 9 years
Medicare medical plan	Graded from 6.25% to ultimate 4.50% over 7 years
Dental/Vision	4.00%
Medicare Part B	4.50%
Other assumptions	Same as those proposed in the experience study for the period December 1, 2013 through November 30, 2016

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

December 31, 2018

Investment rate of return	7.25%, net of OPEB plan investment expense, including inflation
Inflation	3.00%
Health care premium trend rates**	
Non-Medicare medical plan	Graded from 7.00% to ultimate 4.50% over 10 years
Medicare medical plan	Graded from 6.50% to ultimate 4.50% over 8 years
Dental/Vision and Medicare Part B	4.00%
Other assumptions	Same as those proposed in the experience study for the period December 1, 2013 through November 30, 2016

* The trend rates shown above for 2020 as of the December 31, 2019 measurement do not include a one-time reduction of 1.20% to the first year non-Medicare trend of 6.75% and 0.90% to the first year Medicare trend of 6.25% to reflect the recent repeal of the Health Insurance Tax (HIT) taking effect in 2021.

** The trend rates shown above for 2019 as of the December 31, 2018 measurement are before reflecting a one-time adjustment to reflect the impact of the Health Insurance Tax (HIT). The weighted average increase amongst all carriers is approximately 1.2% for Non-Medicare and 0.9% for Medicare plans.

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 3

Target Asset Allocation

The long-term expected rate of return on OPEB plan investments⁶ was determined using a building-block method in which expected future real rates of return (expected returns, net of pension plan investment expense and 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 and by adding expected inflation and subtracting expected investment expenses and a risk margin. This information will change every three years based on the results of an actuarial experience study.

The target allocation and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before deducting investment expenses and a risk margin, used in the derivation of the long-term expected investment rate of return assumption for the December 31, 2019 valuation are summarized in the following table. This information is subject to change every three years.

Asset Class	Target Allocation	Long-Term (Arithmetic) Expected Real Rate of Return
Domestic Large Cap Equity	22.40%	5.75%
Domestic Small Cap Equity	5.60%	6.37%
Developed International Equity	19.50%	6.89%
Emerging Markets Equity	6.50%	9.54%
U.S. Core Fixed Income	11.25%	1.03%
High Yield Bonds	1.50%	3.99%
International Bonds	2.25%	0.19%
TIPS	2.00%	0.98%
Real Estate	8.00%	4.47%
Commodities	3.00%	3.78%
Hedge Funds	9.00%	4.30%
Private Equity	9.00%	7.60%
Total	100.00%	

⁶ Note that the investment return assumption for SRBR sufficiency testing (and pension plan funding) purposes was developed net of both investment and administrative expenses; however, the same investment return assumption was used for financial reporting purposes, and it was considered gross of administrative expenses for financial reporting purposes. (This resulted in an increase in the margin for adverse deviation when using that investment return assumption for financial reporting.)

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

Discount rate: The discount rate used to measure the Total OPEB Liability was 7.25% as of December 31, 2019 and December 31, 2018. 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, 2019 and December 31, 2018.

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

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 4

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, 2019, calculated using the discount rate of 7.25%, as well as what ACERA's Net OPEB Liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.25%) or 1-percentage-point higher (8.25%) than the current rate:

Net OPEB Liability	1% Decrease (6.25%)	Current Discount Rate (7.25%)	1% Increase (8.25%)
Alameda County	\$193,268,261	\$86,553,526	-\$2,038,113
Health System	45,912,718	20,561,615	- 484,173
Superior Court	9,735,882	4,360,131	-102,670
First 5	1,016,617	455,283	-10,721
Housing Authority	1,022,766	458,037	-10,786
LARPD	1,105,990	495,308	-11,663
ACOE	<u>112,482</u>	<u>50,374</u>	<u>-1,186</u>
Total for all Employers	\$252,174,716	\$112,934,274	-\$2,659,312

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, 2019, 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:

Net OPEB Liability	1% Decrease	Current Trend Rates*	1% Increase
Alameda County	-\$11,864,927	\$86,553,526	\$207,794,075
Health System	-2,818,627	20,561,615	49,363,463
Superior Court	-597,695	4,360,131	10,467,620
First 5	-62,411	455,283	1,093,024
Housing Authority	-62,789	458,037	1,099,636
LARPD	-67,898	495,308	1,189,115
ACOE	<u>-6,905</u>	<u>50,374</u>	<u>120,936</u>
Total for all Employers	-\$15,481,252	\$112,934,274	\$271,127,869

* Current trend rates: 6.75% graded down to 4.50% over 9 years for Non-Medicare medical plan costs; 6.25% graded down to 4.50% over 7 years for Medicare medical plan costs, 4.00% for all years for Dental and Vision costs, and 4.50% for all years for Medicare Part B costs. The medical trend rates shown above for 2020 (6.75% and 6.25% for non-Medicare and Medicare plans, respectively) do not include a one-time reduction of 1.20% to the non-Medicare plan trend of 6.75% and 0.90% to the Medicare plan trend of 6.50% to reflect the recent repeal of the Health Insurance Tax (HIT) taking effect in 2021.

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 5

Schedules of Changes in Net OPEB Liability – Last Two Fiscal Years

Reporting Date for Employer under GASB 75	June 30, 2020	June 30, 2019
Measurement Date for Employer under GASB 75	December 31, 2019	December 31, 2018
Total OPEB Liability		
Service cost ⁽¹⁾	\$27,678,194	\$31,577,168
Interest	73,843,280	73,426,531
Change of benefit terms	0	0
Differences between expected and actual experience	-41,706,128	-27,712,610
Changes of assumptions	12,524,469	-11,429,923
Benefit payments	<u>-43,562,150</u>	<u>-40,878,670</u>
Net change in Total OPEB Liability	\$28,777,665	\$24,982,496
Total OPEB Liability – beginning	<u>1,054,337,014</u>	<u>1,029,354,518</u>
Total OPEB Liability – ending (a)	<u>\$1,083,114,679</u>	<u>\$1,054,337,014</u>
Plan's Fiduciary Net Position		
Contributions – employer ⁽²⁾	N/A	N/A
Contributions – employee	N/A	N/A
Net investment income	\$193,656,620	-\$138,332,627
Benefit payments	-43,562,150	-40,878,670
Administrative expense	-1,354,500	-1,224,500
Other	<u>0</u>	<u>0</u>
Net change in Plan's Fiduciary Net Position	\$148,739,970	-\$180,435,797
Plan's Fiduciary Net Position – beginning⁽³⁾	<u>821,440,435</u>	<u>1,001,876,232</u>
Plan's Fiduciary Net Position – ending (b)⁽³⁾	\$970,180,405	\$821,440,435
Net OPEB Liability – ending (a) – (b)	<u>\$112,934,274</u>	<u>\$232,896,579</u>
Plan's Fiduciary Net Position as a percentage of the Total OPEB Liability	89.57%	77.91%
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 always based on the previous year's valuation, meaning the valuation as of December 31, 2018 and 2017, 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 v for a discussion on the development of the 2019 "Plan's Fiduciary Net Position – beginning" amount of \$821,440,435 and the 2019 "Plan's Fiduciary Net Position – ending" amount of \$970,180,405.

⁽⁴⁾ Covered-employee payroll is not shown as contributions to the OPEB plan are not based on a measure of pay. Covered-employee payroll represents Compensation Earnable and Pensionable Compensation. Only Compensation Earnable and Pensionable Compensation that would go into the determination of retirement benefits would otherwise be included.

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 6

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
2010	N/A	N/A	0	N/A	N/A
2011	N/A	N/A	0	N/A	N/A
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

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

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

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 7

Determination of Proportionate Share

**Actual Employer Contributions by Employer
January 1, 2018 to December 31, 2018**

Employer	Contributions	Percentage*
Alameda County	\$205,905,618	76.351%
Health System	50,652,924	18.782%
Superior Court	9,789,834	3.630%
First 5	1,022,889	0.379%
Housing Authority	1,213,308	0.450%
LARPD	1,100,236	0.408%
ACOE	<u>0</u>	<u>0.000%</u>
Total for all Employers	\$269,684,809	100.000%

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

Allocation of December 31, 2018 Net OPEB Liability

Employer	NOL	Percentage
Alameda County	\$177,817,632	76.351%
Health System	43,743,260	18.782%
Superior Court	8,454,384	3.630%
First 5	883,354	0.379%
Housing Authority	1,047,799	0.450%
LARPD	950,150	0.408%
ACOE	<u>0</u>	<u>0.000%</u>
Total for all Employers	\$232,896,579	100.000%

Notes:

1. Based on the January 1, 2018 through December 31, 2018 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.
4. ACOE was not required to make any Pension Plan contributions during 2018 because their payroll was \$0 in 2018. However, they are required to make a contribution under the Declining Employer Payroll Policy starting in 2019. As they would be expected to make a large lump sum contribution to partially pay off their liability in 2019, we would consult with the auditor on whether any special adjustment needs to be made when we report their NOL next year.

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 7 (continued)

Determination of Proportionate Share

Actual Employer Contributions by Employer January 1, 2019 to December 31, 2019		
Employer	Contributions	Percentage*
Alameda County	\$228,319,939	76.639%
Health System	54,239,577	18.207%
Superior Court	11,501,609	3.861%
First 5	1,200,993	0.403%
Housing Authority	1,208,258	0.406%
LARPD	1,306,574	0.439%
ACOE	<u>132,883</u>	<u>0.045%</u>
Total for all Employers	\$297,909,833	100.000%

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

Allocation of December 31, 2019 Net OPEB Liability		
Employer	NOL	Percentage
Alameda County	\$86,553,526	76.639%
Health System	20,561,615	18.207%
Superior Court	4,360,131	3.861%
First 5	455,283	0.403%
Housing Authority	458,037	0.406%
LARPD	495,308	0.439%
ACOE	<u>50,374</u>	<u>0.045%</u>
Total for all Employers	\$112,934,274	100.000%

Notes:

1. With the exception of an adjustment for the lump sum contribution made by ACOE (see item 4.), the above is based on the January 1, 2019 through December 31, 2019 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.
4. ACOE made a lump sum contribution of \$750,000 in 2019 to partially pay off their liability. That lump sum is greater than the amount that ACOE would have had to make on an installment basis over 20 years. In order to have a more level allocation of the NOL to ACOE, ACERA approved an approach outlined in our letter dated March 2, 2020 to determine ACOE's proportionate share of OPEB SRBR NOL by using the total annual UAAL contribution ACOE would have made of \$132,883 in 2019 if they did not make the additional contribution to partially pay off their UAAL.

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 7 (continued)

Determination of Proportionate Share

Notes:

For purposes of the results in this exhibit, the reporting date for the employer under GASB 75 is June 30, 2020. The reporting date and measurement date for the plan under GASB 74 are December 31, 2019. Consistent with the provisions of GASB 75, the assets and liabilities measured as of December 31, 2019 are not adjusted or rolled forward to the June 30, 2020 reporting date. Other results, such as the total deferred inflows and outflows would also be allocated based on the same proportionate shares determined above.

The following items are allocated based on the corresponding proportionate share:

- 1) Net OPEB Liability
- 2) Service Cost
- 3) Interest on the Total OPEB Liability
- 4) Current-period benefit changes
- 5) Expensed portion of current-period difference between actual and expected experience in the Total OPEB Liability
- 6) Expensed portion of current-period changes of assumptions or other inputs
- 7) Member contributions
- 8) Projected earnings on plan investments
- 9) Expensed portion of current-period differences between actual and projected earnings on plan investments
- 10) Administrative expense
- 11) Recognition of beginning of year deferred outflows of resources as OPEB expense
- 12) Recognition of beginning of year deferred inflows of resources as OPEB expense

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 8

OPEB Expense – Total for all Employers

Reporting Date for Employer under GASB 75	June 30, 2020	June 30, 2019
Measurement Date for Employer under GASB 75	December 31, 2019	December 31, 2018
Components of OPEB Expense		
1. Service cost	\$27,678,194	\$31,577,168
2. Interest on the Total OPEB Liability	73,843,280	73,426,531
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
4. Current-period benefit changes	0	0
5. Expensed portion of current-period difference between actual and expected experience in the Total OPEB Liability	-6,309,550	-4,154,814
6. Expensed portion of current-period changes of assumptions or other inputs	1,894,776	-1,713,632
7. Member contributions	0	0
8. Projected earnings on plan investments	-57,926,203	-71,109,787
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	-27,146,083	41,888,483
10. Administrative expense	1,354,500	1,224,500
11. Other	0	0
12. Recognition of beginning of year deferred outflows of resources as OPEB expense	50,716,824	8,828,341
13. Recognition of beginning of year deferred inflows of resources as OPEB expense	-45,914,419	-40,045,973
14. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
OPEB Expense	<u>\$18,191,319</u>	<u>\$39,920,817</u>

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

**EXHIBIT 8 (Continued)
OPEB Expense – Alameda County**

Reporting Date for Employer under GASB 75	June 30, 2020	June 30, 2019
Measurement Date for Employer under GASB 75	December 31, 2019	December 31, 2018
Components of OPEB Expense		
1. Service cost	\$21,212,740	\$24,109,319
2. Interest on the Total OPEB Liability	56,593,947	56,061,501
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	80,275	13,157
4. Current-period benefit changes	0	0
5. Expensed portion of current-period difference between actual and expected experience in the Total OPEB Liability	-4,835,680	-3,172,221
6. Expensed portion of current-period changes of assumptions or other inputs	1,452,168	-1,308,365
7. Member contributions	0	0
8. Projected earnings on plan investments	-44,395,000	-54,292,656
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	-20,804,926	31,982,053
10. Administrative expense	1,038,096	934,911
11. Other	0	0
12. Recognition of beginning of year deferred outflows of resources as OPEB expense	38,869,688	6,740,479
13. Recognition of beginning of year deferred inflows of resources as OPEB expense	-35,189,095	-30,575,288
14. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>-87,294</u>	<u>-100,451</u>
OPEB Expense	<u>\$13,934,919</u>	<u>\$30,392,439</u>

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

**EXHIBIT 8 (Continued)
OPEB Expense – Health System**

Reporting Date for Employer under GASB 75	June 30, 2020	June 30, 2019
Measurement Date for Employer under GASB 75	December 31, 2019	December 31, 2018
Components of OPEB Expense		
1. Service cost	\$5,039,288	\$5,930,907
2. Interest on the Total OPEB Liability	13,444,431	13,791,168
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	-159,239	17,117
4. Current-period benefit changes	0	0
5. Expensed portion of current-period difference between actual and expected experience in the Total OPEB Liability	-1,148,761	-780,368
6. Expensed portion of current-period changes of assumptions or other inputs	344,976	-321,859
7. Member contributions	0	0
8. Projected earnings on plan investments	-10,546,455	-13,356,031
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	-4,942,408	7,867,607
10. Administrative expense	246,610	229,989
11. Other	0	0
12. Recognition of beginning of year deferred outflows of resources as OPEB expense	9,233,865	1,658,163
13. Recognition of beginning of year deferred inflows of resources as OPEB expense	-8,359,505	-7,521,542
14. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>175,547</u>	<u>158,430</u>
OPEB Expense	<u>\$3,328,349</u>	<u>\$7,673,581</u>

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 8 (Continued)

OPEB Expense – Superior Court

Reporting Date for Employer under GASB 75	June 30, 2020	June 30, 2019
Measurement Date for Employer under GASB 75	December 31, 2019	December 31, 2018
Components of OPEB Expense		
1. Service cost	\$1,068,590	\$1,146,283
2. Interest on the Total OPEB Liability	2,850,918	2,665,458
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	63,818	-28,569
4. Current-period benefit changes	0	0
5. Expensed portion of current-period difference between actual and expected experience in the Total OPEB Liability	-243,597	-150,824
6. Expensed portion of current-period changes of assumptions or other inputs	73,153	-62,207
7. Member contributions	0	0
8. Projected earnings on plan investments	-2,236,397	-2,581,358
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	-1,048,047	1,520,595
10. Administrative expense	52,294	44,451
11. Other	0	0
12. Recognition of beginning of year deferred outflows of resources as OPEB expense	1,958,059	320,478
13. Recognition of beginning of year deferred inflows of resources as OPEB expense	-1,772,649	-1,453,710
14. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>-65,467</u>	<u>-36,898</u>
OPEB Expense	<u>\$700,675</u>	<u>\$1,383,699</u>

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

**EXHIBIT 8 (Continued)
OPEB Expense – First 5**

Reporting Date for Employer under GASB 75	June 30, 2020	June 30, 2019
Measurement Date for Employer under GASB 75	December 31, 2019	December 31, 2018
Components of OPEB Expense		
1. Service cost	\$111,581	\$119,771
2. Interest on the Total OPEB Liability	297,692	278,500
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	6,598	2,275
4. Current-period benefit changes	0	0
5. Expensed portion of current-period difference between actual and expected experience in the Total OPEB Liability	-25,436	-15,759
6. Expensed portion of current-period changes of assumptions or other inputs	7,639	-6,500
7. Member contributions	0	0
8. Projected earnings on plan investments	-233,524	-269,713
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	-109,437	158,879
10. Administrative expense	5,461	4,644
11. Other	0	0
12. Recognition of beginning of year deferred outflows of resources as OPEB expense	204,460	33,485
13. Recognition of beginning of year deferred inflows of resources as OPEB expense	-185,099	-151,891
14. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>1,727</u>	<u>-548</u>
OPEB Expense	<u>\$81,662</u>	<u>\$153,143</u>

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

**EXHIBIT 8 (Continued)
OPEB Expense – Housing Authority**

Reporting Date for Employer under GASB 75	June 30, 2020	June 30, 2019
Measurement Date for Employer under GASB 75	December 31, 2019	December 31, 2018
Components of OPEB Expense		
1. Service cost	\$112,257	\$142,064
2. Interest on the Total OPEB Liability	299,492	330,345
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	-12,262	-346
4. Current-period benefit changes	0	0
5. Expensed portion of current-period difference between actual and expected experience in the Total OPEB Liability	-25,590	-18,692
6. Expensed portion of current-period changes of assumptions or other inputs	7,685	-7,710
7. Member contributions	0	0
8. Projected earnings on plan investments	-234,936	-319,922
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	-110,099	188,456
10. Administrative expense	5,494	5,509
11. Other	0	0
12. Recognition of beginning of year deferred outflows of resources as OPEB expense	205,696	39,719
13. Recognition of beginning of year deferred inflows of resources as OPEB expense	-186,219	-180,166
14. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>-5,451</u>	<u>-5,105</u>
OPEB Expense	<u>\$56,067</u>	<u>\$174,152</u>

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

**EXHIBIT 8 (Continued)
OPEB Expense – LARPD**

Reporting Date for Employer under GASB 75	June 30, 2020	June 30, 2019
Measurement Date for Employer under GASB 75	December 31, 2019	December 31, 2018
Components of OPEB Expense		
1. Service cost	\$121,392	\$128,824
2. Interest on the Total OPEB Liability	323,862	299,559
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	8,469	-3,634
4. Current-period benefit changes	0	0
5. Expensed portion of current-period difference between actual and expected experience in the Total OPEB Liability	-27,672	-16,950
6. Expensed portion of current-period changes of assumptions or other inputs	8,310	-6,991
7. Member contributions	0	0
8. Projected earnings on plan investments	-254,053	-290,107
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	-119,057	170,893
10. Administrative expense	5,941	4,996
11. Other	0	0
12. Recognition of beginning of year deferred outflows of resources as OPEB expense	222,434	36,017
13. Recognition of beginning of year deferred inflows of resources as OPEB expense	-201,372	-163,376
14. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>-17,242</u>	<u>-13,608</u>
OPEB Expense	<u>\$71,012</u>	<u>\$145,623</u>

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

**EXHIBIT 8 (Continued)
OPEB Expense – ACOE**

Reporting Date for Employer under GASB 75	June 30, 2020	June 30, 2019
Measurement Date for Employer under GASB 75	December 31, 2019	December 31, 2018
Components of OPEB Expense		
1. Service cost	\$12,346	\$0
2. Interest on the Total OPEB Liability	32,938	0
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	12,341	0
4. Current-period benefit changes	0	0
5. Expensed portion of current-period difference between actual and expected experience in the Total OPEB Liability	-2,814	0
6. Expensed portion of current-period changes of assumptions or other inputs	845	0
7. Member contributions	0	0
8. Projected earnings on plan investments	-25,838	0
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	-12,109	0
10. Administrative expense	604	0
11. Other	0	0
12. Recognition of beginning of year deferred outflows of resources as OPEB expense	22,622	0
13. Recognition of beginning of year deferred inflows of resources as OPEB expense	-20,480	0
14. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>-1,820</u>	<u>-1,820</u>
OPEB Expense	<u>\$18,635</u>	<u>-\$1,820</u>

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 9

Deferred Outflows of Resources and Deferred Inflows of Resources – Total for all Employers

Reporting Date for Employer under GASB 75 Measurement Date for Employer under GASB 75	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
Deferred Outflows of Resources		
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$1,697,144	\$926,006
2. Changes of assumptions or other inputs	43,117,986	41,316,634
3. Net excess of projected over actual earnings on OPEB plan investments (if any)	0	57,129,080
4. Difference between actual and expected experience in the Total OPEB Liability	<u>0</u>	<u>0</u>
5. Total Deferred Outflows of Resources	\$44,815,130	\$99,371,720
Deferred Inflows of Resources		
6. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$1,697,144	\$926,006
7. Changes of assumptions or other inputs	8,002,659	9,716,291
8. Net excess of actual over projected earnings on OPEB plan investments (if any)	56,535,454	0
9. Difference between expected and actual experience in the Total OPEB Liability	<u>66,714,256</u>	<u>38,710,182</u>
10. Total Deferred Inflows of Resources	\$132,949,513	\$49,352,479

Deferred outflows of resources and deferred inflows of resources related to OPEB expense will be recognized as follows:

Reporting Date for Employer under GASB 75 Year Ended June 30:

2020	N/A	\$4,802,405
2021	-\$26,758,452	4,802,405
2022	-26,758,454	4,802,403
2023	10,049,830	41,610,687
2024	-33,627,661	-2,066,802
2025	-8,346,631	-3,931,857
2026	-2,693,015	0
Thereafter	0	0

⁽¹⁾ Calculated in accordance with Paragraphs 64 and 65 of GASB 75.

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 9 (continued)

Deferred Outflows of Resources and Deferred Inflows of Resources – Alameda County

Reporting Date for Employer under GASB 75 Measurement Date for Employer under GASB 75	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
Deferred Outflows of Resources		
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$511,790	\$74,606
2. Changes of assumptions or other inputs	33,045,891	31,545,444
3. Net excess of projected over actual earnings on OPEB plan investments (if any)	0	43,618,321
4. Difference between actual and expected experience in the Total OPEB Liability	<u>0</u>	<u>0</u>
5. Total Deferred Outflows of Resources	\$33,557,681	\$75,238,371
Deferred Inflows of Resources		
6. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$369,658	\$470,109
7. Changes of assumptions or other inputs	6,133,287	7,418,434
8. Net excess of actual over projected earnings on OPEB plan investments (if any)	43,329,122	0
9. Difference between expected and actual experience in the Total OPEB Liability	<u>51,130,217</u>	<u>29,555,406</u>
10. Total Deferred Inflows of Resources	\$100,962,284	\$37,443,949

Deferred outflows of resources and deferred inflows of resources related to OPEB expense will be recognized as follows:

Reporting Date for Employer under GASB 75 Year Ended June 30:

2020	N/A	\$3,579,365
2021	-\$20,514,861	3,579,365
2022	-20,514,863	3,579,364
2023	7,695,232	31,682,661
2024	-25,747,321	-1,633,161
2025	-6,307,813	-2,993,172
2026	-2,014,977	0
Thereafter	0	0

⁽¹⁾ Calculated in accordance with Paragraphs 64 and 65 of GASB 75.

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 9 (continued)

Deferred Outflows of Resources and Deferred Inflows of Resources – Health System

Reporting Date for Employer under GASB 75 Measurement Date for Employer under GASB 75	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
Deferred Outflows of Resources		
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$662,956	\$838,503
2. Changes of assumptions or other inputs	7,850,366	7,760,201
3. Net excess of projected over actual earnings on OPEB plan investments (if any)	0	10,730,137
4. Difference between actual and expected experience in the Total OPEB Liability	<u>0</u>	<u>0</u>
5. Total Deferred Outflows of Resources	\$8,513,322	\$19,328,841
Deferred Inflows of Resources		
6. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$893,328	\$0
7. Changes of assumptions or other inputs	1,457,021	1,824,940
8. Net excess of actual over projected earnings on OPEB plan investments (if any)	10,293,245	0
9. Difference between expected and actual experience in the Total OPEB Liability	<u>12,146,471</u>	<u>7,270,650</u>
10. Total Deferred Inflows of Resources	\$24,790,065	\$9,095,590

Deferred outflows of resources and deferred inflows of resources related to OPEB expense will be recognized as follows:

Reporting Date for Employer under GASB 75 Year Ended June 30:

2020	N/A	\$1,077,548
2021	-\$4,855,526	1,077,548
2022	-4,855,526	1,077,547
2023	1,846,051	7,990,978
2024	-6,156,880	-263,343
2025	-1,667,420	-727,027
2026	-587,442	0
Thereafter	0	0

⁽¹⁾ Calculated in accordance with Paragraphs 64 and 65 of GASB 75.

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 9 (continued)

Deferred Outflows of Resources and Deferred Inflows of Resources – Superior Court

Reporting Date for Employer under GASB 75 Measurement Date for Employer under GASB 75	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
Deferred Outflows of Resources		
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$358,019	\$0
2. Changes of assumptions or other inputs	1,664,686	1,499,836
3. Net excess of projected over actual earnings on OPEB plan investments (if any)	0	2,073,844
4. Difference between actual and expected experience in the Total OPEB Liability	<u>0</u>	<u>0</u>
5. Total Deferred Outflows of Resources	\$2,022,705	\$3,573,680
Deferred Inflows of Resources		
6. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$269,204	\$334,671
7. Changes of assumptions or other inputs	308,964	352,711
8. Net excess of actual over projected earnings on OPEB plan investments (if any)	2,182,703	0
9. Difference between expected and actual experience in the Total OPEB Liability	<u>2,575,683</u>	<u>1,405,219</u>
10. Total Deferred Inflows of Resources	\$5,336,554	\$2,092,601

Deferred outflows of resources and deferred inflows of resources related to OPEB expense will be recognized as follows:

Reporting Date for Employer under GASB 75 Year Ended June 30:

2020	N/A	\$108,865
2021	-\$1,034,731	108,865
2022	-1,034,731	108,865
2023	386,352	1,445,044
2024	-1,288,130	-128,689
2025	-277,567	-161,871
2026	-65,042	0
Thereafter	0	0

⁽¹⁾ Calculated in accordance with Paragraphs 64 and 65 of GASB 75.

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 9 (continued)

Deferred Outflows of Resources and Deferred Inflows of Resources – First 5

Reporting Date for Employer under GASB 75 Measurement Date for Employer under GASB 75	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
Deferred Outflows of Resources		
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$47,639	\$12,897
2. Changes of assumptions or other inputs	173,826	156,710
3. Net excess of projected over actual earnings on OPEB plan investments (if any)	0	216,685
4. Difference between actual and expected experience in the Total OPEB Liability	<u>0</u>	<u>0</u>
5. Total Deferred Outflows of Resources	\$221,465	\$386,292
Deferred Inflows of Resources		
6. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$2,018	\$2,566
7. Changes of assumptions or other inputs	32,262	36,853
8. Net excess of actual over projected earnings on OPEB plan investments (if any)	227,917	0
9. Difference between expected and actual experience in the Total OPEB Liability	<u>268,952</u>	<u>146,824</u>
10. Total Deferred Inflows of Resources	\$531,149	\$186,243

Deferred outflows of resources and deferred inflows of resources related to OPEB expense will be recognized as follows:

Reporting Date for Employer under GASB 75 Year Ended June 30:

2020	N/A	\$19,942
2021	-\$99,549	19,942
2022	-99,549	19,942
2023	48,840	159,552
2024	-127,067	-5,938
2025	-25,529	-13,391
2026	-6,830	0
Thereafter	0	0

⁽¹⁾ Calculated in accordance with Paragraphs 64 and 65 of GASB 75.

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 9 (continued)

Deferred Outflows of Resources and Deferred Inflows of Resources – Housing Authority

Reporting Date for Employer under GASB 75	June 30, 2020	June 30, 2019
Measurement Date for Employer under GASB 75	December 31, 2019	December 31, 2018
Deferred Outflows of Resources		
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$0	\$0
2. Changes of assumptions or other inputs	174,877	185,883
3. Net excess of projected over actual earnings on OPEB plan investments (if any)	0	257,023
4. Difference between actual and expected experience in the Total OPEB Liability	<u>0</u>	<u>0</u>
5. Total Deferred Outflows of Resources	\$174,877	\$442,906
Deferred Inflows of Resources		
6. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$89,187	\$25,849
7. Changes of assumptions or other inputs	32,457	43,713
8. Net excess of actual over projected earnings on OPEB plan investments (if any)	229,296	0
9. Difference between expected and actual experience in the Total OPEB Liability	<u>270,579</u>	<u>174,157</u>
10. Total Deferred Inflows of Resources	\$621,519	\$243,719

Deferred outflows of resources and deferred inflows of resources related to OPEB expense will be recognized as follows:

Reporting Date for Employer under GASB 75 Year Ended June 30:

2020	N/A	\$16,155
2021	-\$126,240	16,155
2022	-126,240	16,155
2023	23,047	181,755
2024	-152,464	-13,114
2025	-46,344	-17,919
2026	-18,401	0
Thereafter	0	0

⁽¹⁾ Calculated in accordance with Paragraphs 64 and 65 of GASB 75.

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 9 (continued)

Deferred Outflows of Resources and Deferred Inflows of Resources – LARPD

Reporting Date for Employer under GASB 75 Measurement Date for Employer under GASB 75	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
Deferred Outflows of Resources		
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$47,508	\$0
2. Changes of assumptions or other inputs	189,107	168,560
3. Net excess of projected over actual earnings on OPEB plan investments (if any)	0	233,070
4. Difference between actual and expected experience in the Total OPEB Liability	<u>0</u>	<u>0</u>
5. Total Deferred Outflows of Resources	\$236,615	\$401,630
Deferred Inflows of Resources		
6. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$67,054	\$84,296
7. Changes of assumptions or other inputs	35,098	39,640
8. Net excess of actual over projected earnings on OPEB plan investments (if any)	247,953	0
9. Difference between expected and actual experience in the Total OPEB Liability	<u>292,596</u>	<u>157,926</u>
10. Total Deferred Inflows of Resources	\$642,701	\$281,862

Deferred outflows of resources and deferred inflows of resources related to OPEB expense will be recognized as follows:

Reporting Date for Employer under GASB 75 Year Ended June 30:

2020	N/A	\$2,350
2021	-\$126,130	2,350
2022	-126,130	2,350
2023	35,304	152,517
2024	-151,905	-21,322
2025	-30,576	-18,477
2026	-6,649	0
Thereafter	0	0

⁽¹⁾ Calculated in accordance with Paragraphs 64 and 65 of GASB 75.

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 9 (continued)

Deferred Outflows of Resources and Deferred Inflows of Resources – ACOE

Reporting Date for Employer under GASB 75 Measurement Date for Employer under GASB 75	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
Deferred Outflows of Resources		
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$69,232	\$0
2. Changes of assumptions or other inputs	19,233	0
3. Net excess of projected over actual earnings on OPEB plan investments (if any)	0	0
4. Difference between actual and expected experience in the Total OPEB Liability	<u>0</u>	<u>0</u>
5. Total Deferred Outflows of Resources	\$88,465	\$0
Deferred Inflows of Resources		
6. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$6,695	\$8,515
7. Changes of assumptions or other inputs	3,570	0
8. Net excess of actual over projected earnings on OPEB plan investments (if any)	25,218	0
9. Difference between expected and actual experience in the Total OPEB Liability	<u>29,758</u>	<u>0</u>
10. Total Deferred Inflows of Resources	\$65,241	\$8,515

Deferred outflows of resources and deferred inflows of resources related to OPEB expense will be recognized as follows:

Reporting Date for Employer under GASB 75 Year Ended June 30:

2020	N/A	-\$1,820
2021	-\$1,415	-1,820
2022	-1,415	-1,820
2023	15,004	-1,820
2024	-3,894	-1,235
2025	8,618	0
2026	6,326	0
Thereafter	0	0

⁽¹⁾ Calculated in accordance with Paragraphs 64 and 65 of GASB 75.

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 9 (continued)

Deferred Outflows of Resources and Deferred Inflows of Resources

There are changes in each employer's proportionate share of the total Net OPEB Liability (NOL) during the measurement period ended December 31, 2019. The net effect of the change on the employer's proportionate share of the collective NOL and collective deferred outflows of resources and deferred inflows of resources is recognized over the average of the expected remaining service lives of all employees that are provided with benefits through ACERA which is 6.61⁸ years determined as of December 31, 2018 (the beginning of the measurement period ended December 31, 2019). This is described in Paragraph 64 of GASB 75.

The average of the expected service lives of all employees is 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 employee, nonactive and retired members.

⁸ The remaining service lives of all employees of 6.61 years used here for GASB 75 is different from the 5.37 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.

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 10

Schedule of Proportionate Share of the Net OPEB Liability – Total for all Employers

Reporting Date for Employer under GASB 75 as of June 30	Proportion of the Net OPEB Liability	Proportionate share of Net OPEB Liability	Covered-employee payroll⁽¹⁾	Proportionate share of the Net OPEB Liability as a percentage of its covered-employee payroll	Plan's Fiduciary Net Position as a percentage of the Total OPEB Liability
2017	100.000%	\$135,247,221	\$947,567,631	14.27%	85.50%
2018	100.000%	\$27,478,286	\$995,178,209	2.76%	97.33%
2019	100.000%	\$232,896,579	\$1,046,033,851	22.26%	77.91%
2020	100.000%	\$112,934,274	\$1,081,586,887	10.44%	89.57%

⁽¹⁾ Covered-employee payroll shown represents Compensation Earnable and Pensionable Compensation and is defined as the payroll of employees that are provided with OPEB through the OPEB plan.

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 10 (continued)

Schedule of Proportionate Share of the Net OPEB Liability – Alameda County

Reporting Date for Employer under GASB 75 as of June 30	Proportion of the Net OPEB Liability	Proportionate share of Net OPEB Liability	Covered-employee payroll⁽¹⁾	Proportionate share of the Net OPEB Liability as a percentage of its covered-employee payroll	Plan's Fiduciary Net Position as a percentage of the Total OPEB Liability
2017	76.785%	\$103,849,869	\$670,675,915	15.48%	85.50%
2018	76.289%	\$20,962,931	\$696,359,743	3.01%	97.33%
2019	76.351%	\$177,817,632	\$728,698,264	24.40%	77.91%
2020	76.641%	\$86,553,526	\$757,563,567	11.43%	89.57%

⁽¹⁾ Covered-employee payroll shown represents Compensation Earnable and Pensionable Compensation and is defined as the payroll of employees that are provided with OPEB through the OPEB plan.

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 10 (continued)

Schedule of Proportionate Share of the Net OPEB Liability – Health System

Reporting Date for Employer under GASB 75 as of June 30	Proportion of the Net OPEB Liability	Proportionate share of Net OPEB Liability	Covered-employee payroll⁽¹⁾	Proportionate share of the Net OPEB Liability as a percentage of its covered-employee payroll	Plan's Fiduciary Net Position as a percentage of the Total OPEB Liability
2017	17.920%	\$24,236,173	\$216,685,931	11.18%	85.50%
2018	18.702%	\$5,139,101	\$239,207,087	2.15%	97.33%
2019	18.782%	\$43,743,260	\$255,247,270	17.14%	77.91%
2020	18.207%	\$20,561,615	\$257,591,438	7.98%	89.57%

⁽¹⁾ Covered-employee payroll shown represents Compensation Earnable and Pensionable Compensation and is defined as the payroll of employees that are provided with OPEB through the OPEB plan.

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 10 (continued)

Schedule of Proportionate Share of the Net OPEB Liability – Superior Court

Reporting Date for Employer under GASB 75 as of June 30	Proportion of the Net OPEB Liability	Proportionate share of Net OPEB Liability	Covered-employee payroll⁽¹⁾	Proportionate share of the Net OPEB Liability as a percentage of its covered-employee payroll	Plan's Fiduciary Net Position as a percentage of the Total OPEB Liability
2017	3.946%	\$5,336,372	\$46,866,752	11.39%	85.50%
2018	3.763%	\$1,034,117	\$46,437,348	2.23%	97.33%
2019	3.630%	\$8,454,384	\$48,293,563	17.51%	77.91%
2020	3.861%	\$4,360,131	\$52,163,782	8.36%	89.57%

⁽¹⁾ Covered-employee payroll shown represents Compensation Earnable and Pensionable Compensation and is defined as the payroll of employees that are provided with OPEB through the OPEB plan.

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 10 (continued)

Schedule of Proportionate Share of the Net OPEB Liability – First 5

Reporting Date for Employer under GASB 75 as of June 30	Proportion of the Net OPEB Liability	Proportionate share of Net OPEB Liability	Covered-employee payroll⁽¹⁾	Proportionate share of the Net OPEB Liability as a percentage of its covered-employee payroll	Plan's Fiduciary Net Position as a percentage of the Total OPEB Liability
2017	0.371%	\$502,287	\$4,416,769	11.37%	85.50%
2018	0.369%	\$101,306	\$4,562,701	2.22%	97.33%
2019	0.379%	\$883,354	\$4,952,333	17.84%	77.91%
2020	0.403%	\$455,283	\$5,423,220	8.40%	89.57%

⁽¹⁾ Covered-employee payroll shown represents Compensation Earnable and Pensionable Compensation and is defined as the payroll of employees that are provided with OPEB through the OPEB plan.

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 10 (continued)

Schedule of Proportionate Share of the Net OPEB Liability – Housing Authority

Reporting Date for Employer under GASB 75 as of June 30	Proportion of the Net OPEB Liability	Proportionate share of Net OPEB Liability	Covered-employee payroll⁽¹⁾	Proportionate share of the Net OPEB Liability as a percentage of its covered-employee payroll	Plan's Fiduciary Net Position as a percentage of the Total OPEB Liability
2017	0.477%	\$644,757	\$4,354,275	14.81%	85.50%
2018	0.452%	\$124,068	\$4,299,288	2.89%	97.33%
2019	0.450%	\$1,047,799	\$4,512,036	23.22%	77.91%
2020	0.406%	\$458,037	\$4,347,895	10.53%	89.57%

⁽¹⁾ Covered-employee payroll shown represents Compensation Earnable and Pensionable Compensation and is defined as the payroll of employees that are provided with OPEB through the OPEB plan.

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 10 (continued)

Schedule of Proportionate Share of the Net OPEB Liability – LARPD

Reporting Date for Employer under GASB 75 as of June 30	Proportion of the Net OPEB Liability	Proportionate share of Net OPEB Liability	Covered-employee payroll⁽¹⁾	Proportionate share of the Net OPEB Liability as a percentage of its covered-employee payroll	Plan's Fiduciary Net Position as a percentage of the Total OPEB Liability
2017	0.492%	\$665,608	\$4,487,952	14.83%	85.50%
2018	0.425%	\$116,763	\$4,312,042	2.71%	97.33%
2019	0.408%	\$950,150	\$4,330,385	21.94%	77.91%
2020	0.439%	\$495,308	\$4,496,985	11.01%	89.57%

⁽¹⁾ Covered-employee payroll shown represents Compensation Earnable and Pensionable Compensation and is defined as the payroll of employees that are provided with OPEB through the OPEB plan.

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 10 (continued)

Schedule of Proportionate Share of the Net OPEB Liability – ACOE

Reporting Date for Employer under GASB 75 as of June 30	Proportion of the Net OPEB Liability	Proportionate share of Net OPEB Liability	Covered-employee payroll⁽¹⁾	Proportionate share of the Net OPEB Liability as a percentage of its covered-employee payroll	Plan's Fiduciary Net Position as a percentage of the Total OPEB Liability
2017	0.009%	\$12,155	\$80,037	15.19%	85.50%
2018	0.000%	\$0	\$0	N/A	N/A
2019	0.000%	\$0	\$0	N/A	N/A
2020	0.045%	\$50,374	\$0	N/A	N/A

⁽¹⁾ Covered-employee payroll shown represents Compensation Earnable and Pensionable Compensation and is defined as the payroll of employees that are provided with OPEB through the OPEB plan.

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 11

Schedule of Reconciliation of Net OPEB Liability – Total for all Employers

Reporting Date for Employer under GASB 75	June 30, 2020	June 30, 2019
Measurement Date for Employer under GASB 75	December 31, 2019	December 31, 2018
Reconciliation of Net OPEB Liability		
1. Beginning Net OPEB Liability	\$232,896,579	\$27,478,286
2. OPEB Expense	18,191,319	39,920,817
3. Employer Contributions	0	0
4. New Net Deferred Inflows/Outflows	-133,351,219	134,279,844
5. Change in Allocation of Prior Deferred Inflows/Outflows	0	0
6. New Net Deferred Flows Due to Change in Proportion	0	0
7. Recognition of Prior Deferred Inflows/Outflows	-4,802,405	31,217,632
8. Recognition of Prior Deferred Flows Due to Change in Proportion	<u>0</u>	<u>0</u>
9. Ending Net OPEB Liability	<u>\$112,934,274</u>	<u>\$232,896,579</u>

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 11 (continued)

Schedule of Reconciliation of Net OPEB Liability – Alameda County

Reporting Date for Employer under GASB 75	June 30, 2020	June 30, 2019
Measurement Date for Employer under GASB 75	December 31, 2019	December 31, 2018
Reconciliation of Net OPEB Liability		
1. Beginning Net OPEB Liability	\$177,817,632	\$20,962,931
2. OPEB Expense	13,934,919	30,392,439
3. Employer Contributions	0	0
4. New Net Deferred Inflows/Outflows	-102,201,198	102,523,290
5. Change in Allocation of Prior Deferred Inflows/Outflows	145,131	-70,894
6. New Net Deferred Flows Due to Change in Proportion	450,341	74,606
7. Recognition of Prior Deferred Inflows/Outflows	-3,680,593	23,834,809
8. Recognition of Prior Deferred Flows Due to Change in Proportion	<u>87,294</u>	<u>100,451</u>
9. Ending Net OPEB Liability	<u>\$86,553,526</u>	<u>\$177,817,632</u>

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 11 (continued)

Schedule of Reconciliation of Net OPEB Liability – Health System

Reporting Date for Employer under GASB 75	June 30, 2020	June 30, 2019
Measurement Date for Employer under GASB 75	December 31, 2019	December 31, 2018
Reconciliation of Net OPEB Liability		
1. Beginning Net OPEB Liability	\$43,743,260	\$5,139,101
2. OPEB Expense	3,328,349	7,673,581
3. Employer Contributions	0	0
4. New Net Deferred Inflows/Outflows	-24,278,869	25,220,801
5. Change in Allocation of Prior Deferred Inflows/Outflows	-287,890	-92,223
6. New Net Deferred Flows Due to Change in Proportion	-893,328	97,051
7. Recognition of Prior Deferred Inflows/Outflows	-874,360	5,863,379
8. Recognition of Prior Deferred Flows Due to Change in Proportion	<u>-175,547</u>	<u>-158,430</u>
9. Ending Net OPEB Liability	<u>\$20,561,615</u>	<u>\$43,743,260</u>

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 11 (continued)

Schedule of Reconciliation of Net OPEB Liability – Superior Court

Reporting Date for Employer under GASB 75	June 30, 2020	June 30, 2019
Measurement Date for Employer under GASB 75	December 31, 2019	December 31, 2018
Reconciliation of Net OPEB Liability		
1. Beginning Net OPEB Liability	\$8,454,384	\$1,034,117
2. OPEB Expense	700,675	1,383,699
3. Employer Contributions	0	0
4. New Net Deferred Inflows/Outflows	-5,148,381	4,874,496
5. Change in Allocation of Prior Deferred Inflows/Outflows	115,377	153,928
6. New Net Deferred Flows Due to Change in Proportion	358,019	-161,986
7. Recognition of Prior Deferred Inflows/Outflows	-185,410	1,133,232
8. Recognition of Prior Deferred Flows Due to Change in Proportion	<u>65,467</u>	<u>36,898</u>
9. Ending Net OPEB Liability	<u>\$4,360,131</u>	<u>\$8,454,384</u>

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 11 (continued)

Schedule of Reconciliation of Net OPEB Liability – First 5

Reporting Date for Employer under GASB 75	June 30, 2020	June 30, 2019
Measurement Date for Employer under GASB 75	December 31, 2019	December 31, 2018
Reconciliation of Net OPEB Liability		
1. Beginning Net OPEB Liability	\$883,354	\$101,306
2. OPEB Expense	81,662	153,143
3. Employer Contributions	0	0
4. New Net Deferred Inflows/Outflows	-537,591	509,310
5. Change in Allocation of Prior Deferred Inflows/Outflows	11,929	-12,256
6. New Net Deferred Flows Due to Change in Proportion	37,017	12,897
7. Recognition of Prior Deferred Inflows/Outflows	-19,361	118,406
8. Recognition of Prior Deferred Flows Due to Change in Proportion	<u>-1,727</u>	<u>548</u>
9. Ending Net OPEB Liability	<u>\$455,283</u>	<u>\$883,354</u>

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 11 (continued)

Schedule of Reconciliation of Net OPEB Liability – Housing Authority

Reporting Date for Employer under GASB 75	June 30, 2020	June 30, 2019
Measurement Date for Employer under GASB 75	December 31, 2019	December 31, 2018
Reconciliation of Net OPEB Liability		
1. Beginning Net OPEB Liability	\$1,047,799	\$124,068
2. OPEB Expense	56,067	174,152
3. Employer Contributions	0	0
4. New Net Deferred Inflows/Outflows	-540,845	604,124
5. Change in Allocation of Prior Deferred Inflows/Outflows	-22,169	1,863
6. New Net Deferred Flows Due to Change in Proportion	-68,789	-1,960
7. Recognition of Prior Deferred Inflows/Outflows	-19,477	140,447
8. Recognition of Prior Deferred Flows Due to Change in Proportion	<u>5,451</u>	<u>5,105</u>
9. Ending Net OPEB Liability	<u>\$458,037</u>	<u>\$1,047,799</u>

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 11 (continued)

Schedule of Reconciliation of Net OPEB Liability – LARPD

Reporting Date for Employer under GASB 75	June 30, 2020	June 30, 2019
Measurement Date for Employer under GASB 75	December 31, 2019	December 31, 2018
Reconciliation of Net OPEB Liability		
1. Beginning Net OPEB Liability	\$950,150	\$116,763
2. OPEB Expense	71,012	145,623
3. Employer Contributions	0	0
4. New Net Deferred Inflows/Outflows	-584,853	547,823
5. Change in Allocation of Prior Deferred Inflows/Outflows	15,311	19,582
6. New Net Deferred Flows Due to Change in Proportion	47,508	-20,608
7. Recognition of Prior Deferred Inflows/Outflows	-21,062	127,359
8. Recognition of Prior Deferred Flows Due to Change in Proportion	<u>17,242</u>	<u>13,608</u>
9. Ending Net OPEB Liability	<u>\$495,308</u>	<u>\$950,150</u>

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 11 (continued)

Schedule of Reconciliation of Net OPEB Liability – ACOE

Reporting Date for Employer under GASB 75	June 30, 2020	June 30, 2019
Measurement Date for Employer under GASB 75	December 31, 2019	December 31, 2018
Reconciliation of Net OPEB Liability		
1. Beginning Net OPEB Liability	\$0	\$0
2. OPEB Expense	18,635	-1,820
3. Employer Contributions	0	0
4. New Net Deferred Inflows/Outflows	-59,482	0
5. Change in Allocation of Prior Deferred Inflows/Outflows	22,311	0
6. New Net Deferred Flows Due to Change in Proportion	69,232	0
7. Recognition of Prior Deferred Inflows/Outflows	-2,142	0
8. Recognition of Prior Deferred Flows Due to Change in Proportion	<u>1,820</u>	<u>1,820</u>
9. Ending Net OPEB Liability	<u>\$50,374</u>	<u>\$0</u>

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 12

Schedule of Recognition of Changes in Total Net OPEB Liability

Increase (Decrease) in OPEB Expense Arising from the Recognition of the Effects of Differences between Actual and Expected Experience on Total OPEB Liability

Reporting Date for Employer under GASB 75 Year Ended June 30	Differences Between Actual and Expected Experience	Recognition Period (Years)	Reporting Date for Employer under GASB 75, Year Ended June 30							
			2018	2019	2020	2021	2022	2023	2024	2025
2018	-\$21,627,766	6.68	-\$3,237,690	-\$3,237,690	-\$3,237,690	-\$3,237,690	-\$3,237,690	-\$3,237,690	-\$2,201,626	\$0
2019	-\$27,712,610	6.67	N/A	-4,154,814	-4,154,814	-4,154,814	-4,154,814	-4,154,814	-4,154,814	-2,783,726
2020	-\$41,706,128	6.61	<u>N/A</u>	<u>N/A</u>	<u>-6,309,550</u>	<u>-6,309,550</u>	<u>-6,309,550</u>	<u>-6,309,550</u>	<u>-6,309,550</u>	<u>-6,309,550</u>
Net increase (decrease) in OPEB expense			-\$3,237,690	-\$7,392,504	-\$13,702,054	-\$13,702,054	-\$13,702,054	-\$13,702,054	-\$12,665,990	-\$9,093,276

Reporting Date for Employer under GASB 75 Year Ended June 30	Differences Between Actual and Expected Experience	Recognition Period (Years)	Reporting Date for Employer under GASB 75, Year Ended June 30							
			2026	2027	2028	2029	2030	2031	2032	2033
2018	-\$21,627,766	6.68	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2019	-\$27,712,610	6.67	0	0	0	0	0	0	0	0
2020	-\$41,706,128	6.61	<u>-3,848,828</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Net increase (decrease) in OPEB expense			-\$3,848,828	\$0	\$0	\$0	\$0	\$0	\$0	\$0

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 12 (continued)

Schedule of Recognition of Changes in Total Net OPEB Liability

Increase (Decrease) in OPEB Expense Arising from the Recognition of the Effects of Assumption Changes

Reporting Date for Employer under GASB 75 Year Ended June 30	Effect of Assumption Changes	Recognition Period (Years)	Reporting Date for Employer under GASB 75, Year Ended June 30							
			2018	2019	2020	2021	2022	2023	2024	2025
2018	\$58,973,316	6.68	\$8,828,341	\$8,828,341	\$8,828,341	\$8,828,341	\$8,828,341	\$8,828,341	\$6,003,270	\$0
2019	-\$11,429,923	6.67	N/A	-1,713,632	-1,713,632	-1,713,632	-1,713,632	-1,713,632	-1,713,632	-1,148,131
2020	\$12,524,469	6.61	N/A	N/A	<u>1,894,776</u>	<u>1,894,776</u>	<u>1,894,776</u>	<u>1,894,776</u>	<u>1,894,776</u>	<u>1,894,776</u>
Net increase (decrease) in OPEB expense			\$8,828,341	\$7,114,709	\$9,009,485	\$9,009,485	\$9,009,485	\$9,009,485	\$6,184,414	\$746,645

Increase (Decrease) in OPEB Expense Arising from the Recognition of the Effects of Assumption Changes

Reporting Date for Employer under GASB 75 Year Ended June 30	Effect of Assumption Changes	Recognition Period (Years)	Reporting Date for Employer under GASB 75, Year Ended June 30							
			2026	2027	2028	2029	2030	2031	2032	2033
2018	\$58,973,316	6.68	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2019	-\$11,429,923	6.67	0	0	0	0	0	0	0	0
2020	\$12,524,469	6.61	<u>1,155,813</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Net increase (decrease) in OPEB expense			\$1,155,813	\$0	\$0	\$0	\$0	\$0	\$0	\$0

As described in Exhibit 9, the average of the expected remaining service lives of all employees that are provided with benefits through ACERA (active and inactive employees) determined as of December 31, 2018 (the beginning of the measurement period ending December 31, 2019) is 6.61 years.

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 12 (continued)

Schedule of Recognition of Changes in Total Net OPEB Liability

Increase (Decrease) in OPEB Expense Arising from the Recognition of Differences between Projected and Actual Earnings on OPEB Plan Investments

Reporting Date for Employer under GASB 75 Year Ended June 30	Differences between Projected and Actual Earnings	Recognition Period (Years)	Reporting Date for Employer under GASB 75, Year Ended June 30						
			2018	2019	2020	2021	2022	2023	2024
2018	-\$184,041,417	5.00	-\$36,808,283	-\$36,808,283	-\$36,808,283	-\$36,808,283	-\$36,808,285	\$0	\$0
2019	\$209,442,414	5.00	N/A	41,888,483	41,888,483	41,888,483	41,888,483	41,888,482	0
2020	-\$135,730,417	5.00	<u>N/A</u>	<u>N/A</u>	<u>-27,146,083</u>	<u>-27,146,083</u>	<u>-27,146,083</u>	<u>-27,146,083</u>	<u>-27,146,085</u>
Net increase (decrease) in OPEB expense			-\$36,808,283	\$5,080,200	-\$22,065,883	-\$22,065,883	-\$22,065,885	\$14,742,399	-\$27,146,085

The differences between projected and actual earnings on OPEB plan investments are recognized over a five-year period per Paragraph 43b. of GASB 75.

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 12 (continued)

Schedule of Recognition of Changes in Total Net OPEB Liability

Total Increase (Decrease) in OPEB Expense

Reporting Date for Employer under GASB 75 Year Ended June 30	Total Differences	Reporting Date for Employer under GASB 75, Year Ended June 30							
		2018	2019	2020	2021	2022	2023	2024	2025
2018	-\$146,695,867	-\$31,217,632	-\$31,217,632	-\$31,217,632	-\$31,217,632	-\$31,217,634	\$5,590,651	\$3,801,644	\$0
2019	\$170,299,881	N/A	36,020,037	36,020,037	36,020,037	36,020,037	36,020,036	-5,868,446	-3,931,857
2020	-\$164,912,076	N/A	N/A	-31,560,857	-31,560,857	-31,560,857	-31,560,857	-31,560,859	-4,414,774
Net increase (decrease) in OPEB expense		-\$31,217,632	\$4,802,405	-\$26,758,452	-\$26,758,452	-\$26,758,454	\$10,049,830	-\$33,627,661	-\$8,346,631

Reporting Date for Employer under GASB 75 Year Ended June 30	Total Differences	Reporting Date for Employer under GASB 75, Year Ended June 30							
		2026	2027	2028	2029	2030	2031	2032	2033
2018	-\$146,695,867	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2019	\$170,299,881	0	0	0	0	0	0	0	0
2020	-\$164,912,076	-2,693,015	0	0	0	0	0	0	0
Net increase (decrease) in OPEB expense		-\$2,693,015	\$0	\$0	\$0	\$0	\$0	\$0	\$0

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 13

Allocation of Changes in Total Net OPEB Liability

In addition to the amounts shown in Exhibit 12, there are changes in each employer's proportionate share of the total Net OPEB Liability (NOL) during the measurement period ending on December 31, 2019. The net effect of the change on the employer's proportionate share of the collective NOL and collective deferred outflows of resources and deferred inflows of resources is also recognized over the average of the expected remaining service lives of all employees shown previously. These amounts are shown in the table, with the corresponding amounts for the measurement periods ending on December 31 beginning in 2018 shown on the following pages. While these amounts are different for each employer, they sum to zero for ACERA.

Increase (Decrease) in OPEB Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer Contributions for the Reporting Year Ended June 30, 2020

	Total Change to be Recognized	Recognition Period (Years)	Reporting Date for Employer under GASB 75, Year Ended June 30							
			2020	2021	2022	2023	2024	2025	2026	
Alameda County	\$530,616	6.61	\$80,275	\$80,275	\$80,275	\$80,275	\$80,275	\$80,275	\$80,275	\$48,966
Health System	-1,052,567	6.61	-159,239	-159,239	-159,239	-159,239	-159,239	-159,239	-159,239	-97,133
Superior Court	421,837	6.61	63,818	63,818	63,818	63,818	63,818	63,818	63,818	38,929
First 5	43,615	6.61	6,598	6,598	6,598	6,598	6,598	6,598	6,598	4,027
Housing Authority	-81,051	6.61	-12,262	-12,262	-12,262	-12,262	-12,262	-12,262	-12,262	-7,479
LARPD	55,977	6.61	8,469	8,469	8,469	8,469	8,469	8,469	8,469	5,163
ACOE	<u>81,573</u>	6.61	<u>12,341</u>	<u>12,341</u>	<u>12,341</u>	<u>12,341</u>	<u>12,341</u>	<u>12,341</u>	<u>12,341</u>	<u>7,527</u>
Total for all Employers	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 13 (continued)

Allocation of Changes in Total Net OPEB Liability

Increase (Decrease) in OPEB Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer Contributions for the Reporting Year Ended June 30, 2019

	Total Change to be Recognized	Recognition Period (Years)	Reporting Date for Employer under GASB 75, Year Ended June 30						
			2019	2020	2021	2022	2023	2024	2025
Alameda County	\$87,763	6.67	\$13,157	\$13,157	\$13,157	\$13,157	\$13,157	\$13,157	\$8,821
Health System	114,168	6.67	17,117	17,117	17,117	17,117	17,117	17,117	11,466
Superior Court	-190,555	6.67	-28,569	-28,569	-28,569	-28,569	-28,569	-28,569	-19,141
First 5	15,172	6.67	2,275	2,275	2,275	2,275	2,275	2,275	1,522
Housing Authority	-2,306	6.67	-346	-346	-346	-346	-346	-346	-230
LARPD	-24,242	6.67	-3,634	-3,634	-3,634	-3,634	-3,634	-3,634	-2,438
ACOE	<u>0</u>	6.67	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total for all Employers	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0

SECTION 2: GASB 75 Information for Alameda County Employees' Retirement Association

EXHIBIT 13 (continued)

Allocation of Changes in Total Net OPEB Liability

Increase (Decrease) in OPEB Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer Contributions for the Reporting Year Ended June 30, 2018

	Total Change to be Recognized	Recognition Period (Years)	Reporting Date for Employer under GASB 75, Year Ended June 30						
			2018	2019	2020	2021	2022	2023	2024
Alameda County	-\$671,011	6.68	-\$100,451	-\$100,451	-\$100,451	-\$100,451	-\$100,451	-\$100,451	-\$68,305
Health System	1,058,312	6.68	158,430	158,430	158,430	158,430	158,430	158,430	107,732
Superior Court	-246,481	6.68	-36,898	-36,898	-36,898	-36,898	-36,898	-36,898	-25,093
First 5	-3,662	6.68	-548	-548	-548	-548	-548	-548	-374
Housing Authority	-34,099	6.68	-5,105	-5,105	-5,105	-5,105	-5,105	-5,105	-3,469
LARPD	-90,904	6.68	-13,608	-13,608	-13,608	-13,608	-13,608	-13,608	-9,256
ACOE	<u>-12,155</u>	6.68	<u>-1,820</u>	<u>-1,820</u>	<u>-1,820</u>	<u>-1,820</u>	<u>-1,820</u>	<u>-1,820</u>	<u>-1,235</u>
Total for all Employers	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0

SECTION 3: Actuarial Assumptions and Methods for Alameda County Employees' Retirement Association

Actuarial Assumptions and Actuarial Cost Method

For December 31, 2019 Measurement Date and Employer Reporting as of June 30, 2020

Data: Detailed census data and summary plan descriptions for postretirement benefits were provided by ACERA.

Rationale for Assumptions: The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in the December 1, 2013 through November 30, 2016 Actuarial Experience Study report dated September 6, 2017, and in our letter dated May 6, 2020 regarding the health trend assumptions for the December 31, 2019 SRBR retiree health actuarial valuation. Unless otherwise noted, all actuarial assumptions and methods shown below apply to all tiers. These assumptions were adopted by the Board.

Post-Retirement Mortality Rates - Healthy

*General Members and
All Beneficiaries:*

Headcount-Weighted RP-2014 (RPH-2014) Healthy Annuitant Mortality Tables, with no setback for males and females, projected generationally with the two-dimensional MP-2016 projection scale.

Safety Members:

Headcount-Weighted RP-2014 (RPH-2014) Healthy Annuitant Mortality Tables, with no setback for males and females, projected generationally with the two-dimensional MP-2016 projection scale.

Post-Retirement Mortality Rates - Disabled

General Members:

Headcount-Weighted RP-2014 (RPH-2014) Healthy Annuitant Mortality Tables, set forward seven years for males and set forward four years for females, projected generationally with the two-dimensional MP-2016 projection scale.

Safety Members:

Headcount-Weighted RP-2014 (RPH-2014) Healthy Annuitant Mortality Tables, set forward two years for males and with no set forward for females, projected generationally with the two-dimensional MP-2016 projection scale.

The RPH-2014 mortality tables and adjustments as shown above reasonably reflect the mortality experience as of the measurement date. These mortality tables were adjusted to future years using the generational projection to reflect future mortality improvement between the measurement date and those years.

SECTION 3: Actuarial Assumptions and Methods for Alameda County Employees' Retirement Association

Pre-Retirement Mortality Rates

General and Safety Members: Headcount-Weighted RP-2014 (RPH-2014) Employee Mortality Tables times 80%, projected generationally with the two-dimensional MP-2016 projection scale.

Termination Rates Before Retirement⁽¹⁾:

Age	Rate (%) Mortality			
	General ⁽²⁾		Safety ⁽²⁾	
	Male	Female	Male	Female
25	0.05	0.02	0.05	0.02
30	0.05	0.02	0.05	0.02
35	0.05	0.03	0.05	0.03
40	0.06	0.04	0.06	0.04
45	0.10	0.07	0.10	0.07
50	0.17	0.11	0.17	0.11
55	0.27	0.17	0.27	0.17
60	0.48	0.24	0.45	0.24
65	0.78	0.36	0.78	0.36

⁽¹⁾ Note that generational projections beyond the base year (2014) are not reflected in the above mortality rates. All pre-retirement deaths are assumed to be non-service connected.

⁽²⁾ Based on the Headcount-Weighted RP-2014 (RPH-2014) Employee Mortality Tables times 80%, projected generationally with the two-dimensional MP-2016 projection scale.

SECTION 3: Actuarial Assumptions and Methods for Alameda County Employees' Retirement Association

Termination Rates Before Retirement (continued):

Age	Rate (%)	
	Disability	
	General⁽¹⁾	Safety⁽²⁾
20	0.00	0.00
25	0.01	0.03
30	0.03	0.26
35	0.05	0.58
40	0.08	0.73
45	0.19	0.78
50	0.31	1.52
55	0.38	2.00
60	0.43	2.60

⁽¹⁾ 60% of General disabilities are assumed to be service connected disabilities. The other 40% are assumed to be non-service connected disabilities.

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

SECTION 3: Actuarial Assumptions and Methods for Alameda County Employees' Retirement Association

Termination Rates Before Retirement (continued):

Years of Service	Rate (%)	
	Termination (< 5 Years of Service) ⁽¹⁾	
	General	Safety
0	11.00	4.00
1	9.00	3.50
2	8.00	3.50
3	6.00	2.50
4	6.00	2.00

Age	Termination (5+ Years of Service) ⁽²⁾	
	General	Safety
	20	6.00
25	6.00	2.00
30	5.40	2.00
35	4.40	1.70
40	3.40	1.20
45	3.00	1.00
50	3.00	1.00
55	3.00	1.00
60	3.00	0.40

⁽¹⁾ 60% of all terminated members are assumed to choose a refund of contributions. The other 40% are assumed to choose a deferred vested benefit.

⁽²⁾ 35% of all terminated members are assumed to choose a refund of contributions. The other 65% are assumed to choose a deferred vested benefit. No termination is assumed after a member is eligible for retirement (as long as a retirement rate is present).

SECTION 3: Actuarial Assumptions and Methods for Alameda County Employees' Retirement Association

Retirement Rates:

Age	Rate ⁽¹⁾ (%)							
	General Tier 1	General Tier 2	General Tier 3	General Tier 4	Safety Tier 1 ⁽²⁾	Safety Tier 2, 2D ⁽²⁾	Safety Tier 2C ⁽²⁾	Safety Tier 4
49	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.00
50	4.00	2.00	6.00	0.00	35.00	15.00	4.00	4.00
51	4.00	2.00	3.00	0.00	30.00	15.00	2.00	2.00
52	4.00	2.00	5.00	4.00	25.00	15.00	2.00	2.00
53	4.00	2.00	6.00	1.50	35.00	15.00	3.00	3.00
54	4.00	2.00	6.00	1.50	45.00	15.00	6.00	6.00
55	6.00	2.00	12.00	2.00	45.00	15.00	10.00	10.00
56	8.00	3.00	13.00	2.50	45.00	15.00	12.00	12.00
57	10.00	4.00	13.00	3.50	45.00	15.00	20.00	20.00
58	12.00	4.00	14.00	3.50	45.00	20.00	10.00	10.00
59	14.00	5.00	16.00	4.50	45.00	20.00	15.00	15.00
60	20.00	7.00	21.00	6.00	45.00	30.00	60.00	60.00
61	20.00	9.00	20.00	8.00	45.00	30.00	60.00	60.00
62	35.00	15.00	30.00	18.00	45.00	30.00	60.00	60.00
63	30.00	16.00	25.00	15.00	45.00	30.00	60.00	60.00
64	30.00	18.00	25.00	17.00	45.00	50.00	60.00	60.00
65	35.00	25.00	30.00	22.00	100.00	100.00	100.00	100.00
66	35.00	25.00	25.00	25.00	100.00	100.00	100.00	100.00
67	30.00	25.00	25.00	25.00	100.00	100.00	100.00	100.00
68	30.00	30.00	25.00	30.00	100.00	100.00	100.00	100.00
69	35.00	35.00	50.00	35.00	100.00	100.00	100.00	100.00
70	65.00	50.00	65.00	50.00	100.00	100.00	100.00	100.00
71	65.00	50.00	65.00	50.00	100.00	100.00	100.00	100.00
72	65.00	50.00	65.00	50.00	100.00	100.00	100.00	100.00
73	65.00	50.00	65.00	50.00	100.00	100.00	100.00	100.00
74	65.00	50.00	65.00	50.00	100.00	100.00	100.00	100.00
75	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

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

⁽²⁾ Retirement rate is 100% after a member accrues a benefit of 100% of final average earnings.

SECTION 3: Actuarial Assumptions and Methods for Alameda County Employees' Retirement Association

Retirement Age and Benefit for Deferred Vested Members:

General Retirement Age: 61
Safety Retirement Age: 56

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

30% of future General and 60% of future Safety deferred vested members are assumed to continue to work for a reciprocal employer. For reciprocals, 3.90% and 4.30% compensation increases are assumed per annum for General and Safety, respectively.

Measurement Date: December 31, 2019

Discount Rate: 7.25%

Future Benefit Accruals: 1.0 year of service per year of employment plus 0.003 year of additional service for General members and 0.006 year of additional service for Safety members, to anticipate conversion of unused sick leave for each year of employment.

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

Inclusion of Deferred Vested Members: All deferred vested members are included in the valuation.

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

Consumer Price Index: Increase of 3.00% per year, retiree COLA increases due to CPI subject to a 3% maximum change per year for General Tier 1, General Tier 3, and Safety Tier 1 and 2% maximum change per year for General Tier 2, General Tier 4, Safety Tier 2, Safety Tier 2C, Safety Tier 2D, and Safety Tier 4.

Increase in Internal Revenue Code Section 401(a)(17) Compensation Limit: Increase of 3.00% per year from the valuation date.

Increase in Section 7522.10 Compensation Limit: Increase of 3.00% per year from the valuation date.

SECTION 3: Actuarial Assumptions and Methods for Alameda County Employees' Retirement Association

Actuarial Cost Method: Entry Age Cost Method.

Salary Increases: The annual rate of compensation increase includes: inflation at 3.00%, plus “across the board” salary increases of 0.50% per year, plus the following merit and promotion increases:

Years of Service	General	Safety
0 - 1	4.80%	7.80%
1 - 2	4.80	7.80
2 - 3	3.90	7.00
3 - 4	2.40	4.40
4 - 5	1.90	3.50
5 - 6	1.60	2.30
6 - 7	1.50	1.60
7 - 8	1.10	1.00
8 - 9	0.80	1.00
9 - 10	0.80	0.90
10 - 11	0.50	0.80
11 & Over	0.40	0.80

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

	<u>Service Retirement</u>	<u>Disability Retirement</u>
General Tier 1	8.0%	6.5%
General Tier 2	3.0%	1.4%
General Tier 3	8.0%	6.5%
General Tier 4	N/A	N/A
Safety Tier 1	8.5%	6.4%
Safety Tier 2	3.5%	2.1%
Safety Tier 2C	3.5%	2.1%
Safety Tier 2D	3.5%	2.1%
Safety Tier 4	N/A	N/A

SECTION 3: Actuarial Assumptions and Methods for Alameda County Employees' Retirement Association

Per Capita Health Costs:

The combined monthly per capita dental and vision claims cost for plan year 2019 was assumed to be \$48.39. The monthly Medicare Part B premium reimbursement for 2019 is \$135.50. For calendar year 2019, medical costs for a retiree were assumed to be as follows:

Medical Plan⁽¹⁾	Election Assumption	Monthly Premium	Maximum Monthly Medical Allowance⁽²⁾
Under Age 65⁽³⁾			
Kaiser HMO	80%	\$765.06	\$558.00
United Healthcare HMO Current Network	10%	\$1,047.16	\$558.00
Via Benefits Individual Insurance Exchange ⁽⁴⁾	10%	N/A ⁽⁴⁾	\$558.00
Age 65 and Older			
Kaiser Senior Advantage	75%	\$394.07	\$558.00
Via Benefits Individual Insurance Exchange	25%	\$314.19 ⁽⁵⁾	\$427.46

- ⁽¹⁾ There are other plans available to retirees under age 65, and age 65 and older, that have a range of premiums. We have assumed the same costs as Kaiser HMO and Kaiser Senior Advantage for current non-Medicare and Medicare retirees, respectively.
- ⁽²⁾ The Maximum Monthly Medical Allowance of \$558.00 (\$427.46 for retirees purchasing individual insurance from the Medicare exchange) is subject to the following subsidy schedule:

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

- ⁽³⁾ Current retirees under 65 are assumed to elect medical plans in the same proportion as future retirees upon age 65.
- ⁽⁴⁾ Via Benefits individual insurance coverage is available to retirees under age 65 residing outside of ACERA medical plans' coverage area. We have assumed that these current retirees under 65 will draw the Maximum Monthly Subsidy (\$558.00).
- ⁽⁵⁾ The derivation of amount expected to be paid in 2019 from the Health Reimbursement Account for members with 20 plus years of service is shown in the table on the following page. We have also derived the amount expected to be paid for members with 10-14 and 15-19 years of service.

SECTION 3: Actuarial Assumptions and Methods for Alameda County Employees' Retirement Association

**Per Capita
Health Costs (continued):**

Derivation of Via Benefits Monthly Per Capita Costs

	(Years of Service Category)	<u>10-14</u>	<u>15-19</u>	<u>20+</u>
1.	Maximum MMA for 2018	\$207.00	\$310.50	\$414.00
2.	Total of Maximum MMA (From Jan. 2018 to Dec. 2018)	\$428,904	\$721,688	\$4,497,500
3.	Total of Actual Reimbursement (From Jan. 2018 to Dec. 2018)	\$325,204	\$525,411	\$2,821,789
4.	Ratio of Actual Reimbursement to Maximum 2018 MMA [(3) / (2)]	75.82%	72.80%	62.74%
5.	Average Monthly Per Capita Cost for 2018 [(1) x (4)]	\$156.95	\$226.05	\$259.75
6.	Maximum MMA for 2019	\$213.73	\$320.59	\$427.46
7.	Increase in Average Monthly per Capita Cost due to the Change in Maximum MMA from 2018 to 2019 [(6) / (1)] x (5)	\$162.05	\$233.40	\$268.19
8.	Increased for Expected Medical Trend (6.50%) from 2018 to 2019 [(7) x 1.065]	\$172.59	\$248.57	\$285.63
9.	Increase for Additional 10% Margin for 2018 Expenses Incurred in 2018 but Reimbursed after December 2018 [(8) x 1.10]	\$189.85	\$273.43	\$314.19

SECTION 3: Actuarial Assumptions and Methods for Alameda County Employees' Retirement Association

Per Capita Health Costs (continued): Implicit Subsidy

We have estimated the average per capita premium for retirees under age 65 to be \$9,557 per year. Because premiums for retirees under age 65 include active participants for purposes of underwriting, the retirees receive an implicit subsidy from the actives. Had the retirees under age 65 been underwritten as a separate group, their age-based premiums would be higher for most individuals. The excess of the age-based premium over the per capita premium charged makes up the subsidy. Below is a sample of the age-based costs for the retirees under age 65.

Age	Average Medical			
	Retiree		Spouse	
	Male	Female	Male	Female
50	\$10,222	\$11,643	\$7,140	\$9,349
55	12,140	12,533	9,554	10,821
60	14,417	13,509	12,790	12,551
64	16,540	14,331	16,146	14,126

Not all ACERA employers are receiving an implicit subsidy reimbursement from the Association. For SRBR sufficiency purposes, we have adjusted (by about a 2% reduction of the costs shown above) our projected implicit subsidy payments to account for this fact, based on data provided by the County of Alameda's health consultant.

For calculating the Actuarial Present Value of Projected Benefits and Actuarial Accrued Liability, we have not applied the adjustment.

SECTION 3: Actuarial Assumptions and Methods for Alameda County Employees' Retirement Association

Participation and Coverage Election:

Retired members and beneficiaries as of valuation date:

MMA	Under Age 65	Upon Attaining Age 65
<u>MMA on Record</u>		
Current Retirees Under 65 on Valuation Date	100%	100% and assumed to choose carrier in same proportion as future retirees
Current Retirees 65 and Over on Valuation Date	N/A	100%
<u>No MMA on Record</u>		
Less than 10 Years of Service	0%	0%
10+ Years of Service		
Current Retirees Under 65 on Valuation Date	0%	50%
Current Retirees 65 and Over on Valuation Date	N/A	0%
 Medicare Part B Premium Subsidy		
	Under Age 65	Upon Attaining Age 65
<u>MMA on Record</u>		
Current Retirees Under 65 on Valuation Date	N/A	100%
Current Retirees 65 and Over on Valuation Date	N/A	100% if Part B reimbursement on record or purchasing individual insurance from the Medicare exchange
<u>No MMA on Record</u>		
Less than 10 Years of Service	N/A	0%
10+ Years of Service		
Current Retirees Under 65 on Valuation Date	N/A	50%
Current Retirees 65 and Over on Valuation Date	N/A	0%

SECTION 3: Actuarial Assumptions and Methods for Alameda County Employees' Retirement Association

Implicit Subsidy	Current retirees, married dependents and surviving beneficiaries under age 65 and enrolled in an ACERA non-Medicare plan are assumed to have an implicit subsidy liability.	
Dental and Vision Subsidy	Current retirees not self-paying ("Voluntary" or "Under 10 YOS" dental or vision code).	
Active and inactive vested members as of the valuation date:		
Medical Plan Subsidy (i.e., MMA)	Under Age 65	Upon Attaining Age 65
	80% of eligible members.	90% of eligible members.
Part B Subsidy	Under Age 65	Upon Attaining Age 65
	80% of eligible members.	90% of eligible members.
Implicit Subsidy	(disabled only) 80% of eligible members under age 65 are assumed to have an implicit subsidy liability.	
Dental and Vision Subsidy	100% of eligible members.	

SECTION 3: Actuarial Assumptions and Methods for Alameda County Employees' Retirement Association

Health Care Cost Trend Rates:

Health care trend measures the anticipated overall rate at which health plan costs are expected to increase in future years. The rates shown below are “net” and are applied to the net per capita costs shown above. The trend shown for a particular plan year is the rate that is to be applied to the premium for the shown calendar year to calculate the next calendar year’s projected premium. For example, the projected 2020 calendar year premium for Kaiser (under age 65) is \$785.44 per month (\$765.06 increased by 2.66%).

Calendar Year	United Healthcare HMO & Kaiser HMO Early Retiree ⁽⁴⁾	Via Benefits & Kaiser Senior Advantage ⁽⁵⁾	Dental and Vision	Medicare Part B
2019	7.00% ⁽¹⁾	6.50% ⁽¹⁾	4.00% ⁽¹⁾	6.72% ⁽³⁾
2020	6.75 ⁽²⁾	6.25 ⁽²⁾	4.00	4.50
2021	6.50	6.00	4.00	4.50
2022	6.25	5.75	4.00	4.50
2023	6.00	5.50	4.00	4.50
2024	5.75	5.25	4.00	4.50
2025	5.50	5.00	4.00	4.50
2026	5.25	4.75	4.00	4.50
2027	5.00	4.50	4.00	4.50
2028	4.75	4.50	4.00	4.50
2029 & Later	4.50	4.50	4.00	4.50

⁽¹⁾ The actual trends are shown below, based on premium renewals for 2020 as reported by ACERA.

Kaiser HMO Early Retiree	United Healthcare HMO Early Retiree	Kaiser Senior Advantage	Dental and Vision
2.66%	3.88%	4.43%	-4.36%

⁽²⁾ In addition, we reduced the first-year non-Medicare trend by 1.20% and the first-year Medicare trend by 0.90% to reflect the repeal of the Health Insurance Tax (HIT).

⁽³⁾ The actual calendar year 2019 trend of 6.72% reflecting the standard 2020 calendar year premium of \$144.60 per month, consistent with Segal’s Medicare Part B memo dated November 26, 2019 was reflected.

⁽⁴⁾ Non-Medicare plans.

⁽⁵⁾ Medicare plans.

SECTION 3: Actuarial Assumptions and Methods for Alameda County Employees' Retirement Association

Assumed Increase in Annual Maximum Benefits:

For the “substantive plan design” shown in this report, we have assumed:

- a) Maximum medical allowance for 2020 will increase to \$578.65 per month, then increase with 50% of trend for medical plans, or 3.125%, graded down to the ultimate rate of 2.25% over 7 years.
- b) Dental and vision premium reimbursement will increase with full trend.
- c) Medicare B premium reimbursement will increase with full trend.

Dependents:

Demographic data was available for spouses of current retirees. For future retirees, male members were assumed to be three years older than their wives, and female members were assumed to be two years younger than their husbands. Of the future retirees who elect to continue their medical coverage at retirement, 35% males and 20% females were assumed to have an eligible spouse who also opts for health coverage at that time.

Please note that these assumptions are only used to determine the cost of the implicit subsidy.

Plan Design:

Development of plan liabilities was based on the plan of benefits in effect as described in Exhibit 1.

Administrative Expenses:

An administrative expense load was not added to projected incurred claim costs in developing per capita health costs.

Missing Participant Data:

Any missing census items for a given participant was set to equal to the average value of that item over all other participants of the same membership status for whom the item is known.

SECTION 3: Actuarial Assumptions and Methods for Alameda County Employees' Retirement Association

APPENDIX A

**Projection of OPEB Plan's Fiduciary Net Position for Use in Calculation of Discount Rate as of December 31, 2019
(\$ in millions)**

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 Position (f) = (a) + (b) - (c) - (d) + (e)
2019	\$821	\$0	\$44	\$1	\$194	\$970
2020	970	0	54	2	68	983
2021	983	0	57	2	69	994
2022	994	0	61	2	70	1,001
2023	1,001	0	65	2	70	1,004
2024	1,004	0	69	2	70	1,004
2025	1,004	0	73	2	70	999
2026	999	0	77	2	70	989
2027	989	0	81	2	69	975
2028	975	0	85	2	68	956
2029	956	0	89	2	66	931
2030	931	0	93	2	64	901
2031	901	0	97	1	62	864
2032	864	0	101	1	59	821
2033	821	0	105	1	56	771
2034	771	0	108	1	52	714
2035	714	0	111	1	48	649
2036	649	0	114	1	43	576
2037	576	0	117	1	38	496
2038	496	0	120	1	32	407
2039	407	0	122	1	25	309
2040	309	0	125	1	18	201
2041	201	0	127	0 *	10	84
2042	84	0	87	0 *	3	0
2043	0	0	0	0	0	0
2044	0	0	0	0	0	0
2045	0	0	0	0	0	0
2046	0	0	0	0	0	0
2133	0	0	0	0	0	0
2134	0	0	0	0	0	0
2134	Discounted Value:	0				

* Less than \$1 M, when rounded.

SECTION 3: Actuarial Assumptions and Methods for Alameda County Employees' Retirement Association

APPENDIX A (continued)

Projection of OPEB Plan's Fiduciary Net Position for Use in Calculation of Discount Rate as of December 31, 2019 (\$ in millions) - continued

Notes:

- (1) Amounts may not total exactly due to rounding.
- (2) Amounts shown in the year beginning January 1, 2019 row are actual amounts, based on the financial statements provided by ACERA.
- (3) Years 2047 - 2132 have been omitted from this table.
- (4) Column (a): Except for the "discounted value" shown for 2134, 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, 2018. 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, 2019 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 7.25% 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 0.16% of the beginning OPEB SRBR Plan's Fiduciary Net Position amount. The 0.16% portion was based on the actual fiscal year 2019 administrative expenses as a percentage of the beginning OPEB SRBR Plan's Fiduciary Net Position amount as of January 1, 2019. 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 7.25% 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 7.25% per annum was applied to all periods of projected benefit payments to determine the total OPEB liability as of December 31, 2019 shown earlier in this report, pursuant to paragraph 48 of GASB Statement No. 74.

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

5643706v3/05579.027



MEMORANDUM TO THE AUDIT COMMITTEE

DATE: June 18, 2020

TO: Members of the Audit Committee

FROM: Harsh Jadhav, Chief of Internal Audit

SUBJECT: 2020 Internal Audit Program

Executive Summary

The 2020 Internal Audit Program was revised to account for the business impact and delays caused by the COVID pandemic. Several audits and business initiatives were postponed or extended to allow the organization to focus on providing essential services. In addition, internal audit staff were deployed as Disaster Service Workers to serve Alameda County, and therefore unable to perform audits. We are expecting to resume at full capacity by Q4 2020, at which point we will reassess the audit program.

We are making steady progress on the Retiree Payroll Deduction Policy Audit and recently launched the Final Year Salary Calculation Audit. We expect that several internal audits and key initiatives will carry into 2021. We are also making headway on the employer audits, with the completion of the Superior Courts PEPRA Employer Audit in Q1 2020. We have resumed performing limited testing on the Alameda Health System PEPRA Employer Audit through the duration of the public healthcare crisis.

2020 Audit Schedule

Internal Audit Plan (2020)	Service Line	Assigned	Status	Q1	Q2	Q3	Q4
Retiree Payroll Deduction Policy Audit	Policy Audit	Lyndon/Harsh	In Progress				
Felony Forfeiture Policy Audit	Policy Audit	Caxton	Postponed				
Member Identity Theft Audit	Internal Audit	Lyndon/Caxton	Not Started				
Cash Management (Positive Pay) Audit	Internal Audit	Caxton	Postponed				
Final Year Salary Calculation Audit	Internal Audit	Lyndon/Caxton	In Progress				
Cybersecurity Incident Response Review	Internal Audit	Harsh	Postponed				
Employer Audit - Alameda Health	Employer Audit	Caxton/Harsh	In Progress				
Employer Audit - Superior Courts	Employer Audit	Caxton	Completed				
2020 Annual Risk Assessment	Administration	Harsh	Completed				
2021 Annual Risk Assessment	Administration	Harsh	Not Started				
Fraud Hotline Management	Administration	Lyndon	In Progress				
Fraud Training	Administration	Lyndon/Caxton	Not Started				
Enterprise Risk Management	Special Project	Margo/Harsh	In Progress				
Cybersecurity and Data Security Self-Assessment	Special Project	Vijay/Harsh	Not Started				
Internal Audit Internship Program	Special Project	Vicki/Harsh	Postponed				

We continue to advise management on implementing an agency-wide enterprise risk management process to understand and address entity-level risk as a component of strategic planning. We postponed implementing the Internal Audit Internship Program until 2021. Finally, the Internal Audit Department will be working with PRISM to conduct a Cybersecurity and Data Security Self-Assessment.

2020 Audit Program

Policy Audits

Audit - Retiree Payroll Deduction Policy

The purpose of this audit is to review compliance with the ACERA Retiree Payroll Deduction Policy. This policy provides guidance on the administration of pension benefits by listing approved benefit deductions and prohibiting the assignment of benefits for any purpose other than those authorized by statute.

Audit - Felony Forfeiture Policy (Postponed)

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 all public employees convicted of felonies on or after January 1, 2013. The audit also examines participating employer compliance by selecting a sample of employers to determine if the employer implemented effective procedures to report felony forfeitures to ACERA.

Internal Audits

Audit – Prevent Member Identity Theft (Postponed)

The purpose of this audit is 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.

Audit – Cash Management Process Review (Postponed)

The purpose of the audit is to identify internal control weaknesses and recommend strategies to improve cash management. Since cash management is an organization-wide process, the impact of having effective internal controls is crucial to meeting ACERA's mission of providing ACERA members and employers with flexible, cost-effective, participant-oriented benefits through prudent investment management and superior member services. The organization must ensure adequate funds to meet daily operational needs, funding for investments, and retiree payroll.

Audit – Final Pensionable Salary Calculation

The purpose of the audit is to sample retired members to verify if the final pensionable salary calculation was accurate. The amount of final pensionable salary depends on member type and membership tier. It is a function of the highest salary earned over the qualifying period (i.e., highest salary earned over 36 months for Tier II General Members).

Audit – Cybersecurity Incident Response Review (Postponed)

The purpose of this audit is to test ACERA's organization-wide cybersecurity incident response plan. ACERA has implemented the CIS control framework, which includes basic, foundational, and organizational controls that collectively form a defense-in-depth set of best practices that mitigate the most common attacks against systems and networks. This audit would examine whether the incident response plans would allow the business to recover critical functions within an acceptable time frame adequately.

Employer Audits

Audit – PEPRA Employer Audit of Alameda Health System

The employer audit of the Alameda Health System will assess the participating employer's compliance with state laws, rules, regulations and administrative policies regarding the enrollment of members, reporting of member data, and the reporting and remittance of employer contributions in accordance with the Public Employees' Pension Reform Act of 2013.

Audit – PEPRA Employer Audit of Superior Courts of California

The employer audit of Superior Courts of California will assess the participating employer's compliance with state laws, rules, regulations and administrative policies regarding the enrollment of members, reporting of member data, and the reporting and remittance of employer contributions in accordance with the Public Employees' Pension Reform Act of 2013.

Special Projects

Special Project - Enterprise Risk Assessment

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 roles out the enterprise risk assessment process to the organization.

Special Project -Cybersecurity and Data Security Self-Assessment

The objective of this special project will be to work with the PRISM Department to determine if adequate firewall, 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 are protected and secure.

Special Project -Internal Audit Internship Program (Postponed)

The objective of this special project will be to establish an internship program. An internship program would allow the department to hire a student to work on audits during the summer. We expect the student to gain valuable audit experience through their application of audit knowledge learned in the classroom. In addition, we hope to increase the awareness of challenging opportunities and a career path in local government.

Summary

The revised 2020 Audit Program includes two internal audits, two employer audits, one policy audits, and two special projects. Similar to the previous year, the audits cover a cross-section of departments and risks. I want to acknowledge my staff for doing excellent work in 2020. I have full confidence the Internal Audit Staff will continue advising management on improving internal controls and assessing risk, servicing the Board of Retirement, and protecting our members.