

Alameda County Employees' Retirement Association BOARD OF RETIREMENT

AUDIT COMMITTEE/BOARD MEETING NOTICE and AGENDA

THIS MEETING WILL BE CONDUCTED VIA TELECONFERENCE [SEE EXECUTIVE ORDER N-29-20 ATTACHED AT THE END OF THIS AGENDA.]

ACERA MISSION:

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

Thursday, June 17, 2021 12:30 p.m.

ZOOM INSTRUCTIONS	COMMITTEE ME	MBERS
The public can view the Teleconference	HENRY LEVY, CHAIR	TREASURER
and comment via audio during the		
meeting. To join this Teleconference,	TARRELL GAMBLE, VICE-CHAIR	APPOINTED
please click on the link below.		
https://zoom.us/join	OPHELIA BASGAL	APPOINTED
Meeting ID: 812 8792 3104		
Password: 467868	KEITH CARSON	APPOINTED
For help joining a Zoom meeting, see:		
https://support.zoom.us/hc/en-	DARRYL WALKER	ELECTED GENERAL ¹
<u>us/articles/201362193</u>		

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

The order of agenda items is subject to change without notice. Board and Committee agendas and minutes, and all documents distributed to the Board or a Committee in connection with a public meeting (unless exempt from disclosure), are available online at www.acera.org.

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

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

 $^{1\} Trustee\ Walker\ is\ filling\ the\ vacancy\ created\ by\ Trustee\ Rogers'\ retirement.\ See\ Gov't\ Code\ \S\S\ 31524,\ 31520.1(b).$

AUDIT COMMITTEE/BOARD MEETING

NOTICE and AGENDA, Page 2 of 2 - Thursday, June 17, 2021

<u>Call to Order:</u> 12:30 p.m.

Roll Call:

Public Comment (Time Limit: 4 minutes per speaker):

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

External Audit:

1. Review and possible motion to adopt the audited Schedule of Employer Allocations (Pension and OPEB) and the audited Schedule of Pension and OPEB Amounts by Employer based on addenda to the Governmental Accounting Standards Board (GASB) Statement No. 67 and Statement No. 74, valuations as of December 31, 2020

- Margo Allen

- Audrey Elbert

Recommendation:

Staff recommends the Audit Committee recommend that the Board of Retirement adopt the audited Schedule of Employer Allocations and Schedule of Pension Amounts by Employer and the audited Schedule of Employer Allocations 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, 2020

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

External Reporting

1. Presentation and discussion of GASB Statement No. 68 and GASB Statement No. 75 Valuations and Employer Schedules as of December 31, 2020

- Margo Allen

- Andy Yeung

Internal Audit

2. Progress report on the Internal Audit Plan

- Harsh Jadhav

3. Review completed audits

- Harsh Jadhav

Trustee Comment:

Future Discussion Items:

None

Establishment of Next Meeting Date:

October 21, 2021, at 12:30 pm

EXECUTIVE DEPARTMENT STATE OF CALIFORNIA

EXECUTIVE ORDER N-29-20

WHEREAS on March 4, 2020, I proclaimed a State of Emergency to exist in California as a result of the threat of COVID-19; and

WHEREAS despite sustained efforts, the virus continues to spread and is impacting nearly all sectors of California; and

WHEREAS the threat of COVID-19 has resulted in serious and ongoing economic harms, in particular to some of the most vulnerable Californians; and

WHEREAS time bound eligibility redeterminations are required for Medi-Cal, CalFresh, CalWORKs, Cash Assistance Program for Immigrants, California Food Assistance Program, and In Home Supportive Services beneficiaries to continue their benefits, in accordance with processes established by the Department of Social Services, the Department of Health Care Services, and the Federal Government; and

WHEREAS social distancing recommendations or Orders as well as a statewide imperative for critical employees to focus on health needs may prevent Medi-Cal, CalFresh, CalWORKs, Cash Assistance Program for Immigrants, California Food Assistance Program, and In Home Supportive Services beneficiaries from obtaining in-person eligibility redeterminations; and

WHEREAS under the provisions of Government Code section 8571, I find that strict compliance with various statutes and regulations specified in this order would prevent, hinder, or delay appropriate actions to prevent and mitigate the effects of the COVID-19 pandemic.

NOW, THEREFORE, I, GAVIN NEWSOM, Governor of the State of California, in accordance with the authority vested in me by the State Constitution and statutes of the State of California, and in particular, Government Code sections 8567 and 8571, do hereby issue the following order to become effective immediately:

IT IS HEREBY ORDERED THAT:

1. As to individuals currently eligible for benefits under Medi-Cal, CalFresh, CalWORKs, the Cash Assistance Program for Immigrants, the California Food Assistance Program, or In Home Supportive Services benefits, and to the extent necessary to allow such individuals to maintain eligibility for such benefits, any state law, including but not limited to California Code of Regulations, Title 22, section 50189(a) and Welfare and Institutions Code sections 18940 and 11265, that would require redetermination of such benefits is suspended for a period of 90 days from the date of this Order. This Order shall be construed to be consistent with applicable federal laws, including but not limited to Code of Federal Regulations, Title 42, section 435.912, subdivision (e), as interpreted by the Centers for Medicare and Medicaid Services (in guidance issued on January 30, 2018) to permit the extension of

otherwise-applicable Medicaid time limits in emergency situations.

- 2. Through June 17, 2020, any month or partial month in which California Work Opportunity and Responsibility to Kids (CalWORKs) aid or services are received pursuant to Welfare and Institutions Code Section 11200 et seq. shall not be counted for purposes of the 48-month time limit set forth in Welfare an Institutions Code Section 11454. Any waiver of this time limit shall not be applied if it will exceed the federal time limits set forth in Code of Federal Regulations, Title 45, section 264.1.
- 3. Paragraph 11 of Executive Order N-25-20 (March 12, 2020) is withdrawn and superseded by the following text:

Notwithstanding any other provision of state or local law (including, but not limited to, the Bagley-Keene Act or the Brown Act), and subject to the notice and accessibility requirements set forth below, a local legislative body or state body is authorized to hold public meetings via teleconferencing and to make public meetings accessible telephonically or otherwise electronically to all members of the public seeking to observe and to address the local legislative body or state body. All requirements in both the Bagley-Keene Act and the Brown Act expressly or impliedly requiring the physical presence of members, the clerk or other personnel of the body, or of the public as a condition of participation in or quorum for a public meeting are hereby waived.

In particular, any otherwise-applicable requirements that

- state and local bodies notice each teleconference location from which a member will be participating in a public meeting;
- (ii) each teleconference location be accessible to the public;
- (iii) members of the public may address the body at each teleconference conference location;
- (iv) state and local bodies post agendas at all teleconference locations;
- (v) at least one member of the state body be physically present at the location specified in the notice of the meeting; and
- (vi) during teleconference meetings, a least a quorum of the members of the local body participate from locations within the boundaries of the territory over which the local body exercises jurisdiction

are hereby suspended.

A local legislative body or state body that holds a meeting via teleconferencing and allows members of the public to observe and address the meeting telephonically or otherwise electronically, consistent with the notice and accessibility requirements set forth below, shall have satisfied any requirement that the body allow

members of the public to attend the meeting and offer public comment. Such a body need not make available any physical location from which members of the public may observe the meeting and offer public comment.

Accessibility Requirements: If a local legislative body or state body holds a meeting via teleconferencing and allows members of the public to observe and address the meeting telephonically or otherwise electronically, the body shall also:

- (i) Implement a procedure for receiving and swiftly resolving requests for reasonable modification or accommodation from individuals with disabilities, consistent with the Americans with Disabilities Act and resolving any doubt whatsoever in favor of accessibility; and
- (ii) Advertise that procedure each time notice is given of the means by which members of the public may observe the meeting and offer public comment, pursuant to subparagraph (ii) of the Notice Requirements below.

Notice Requirements: Except to the extent this Order expressly provides otherwise, each local legislative body and state body shall:

- (i) Give advance notice of the time of, and post the agenda for, each public meeting according to the timeframes otherwise prescribed by the Bagley-Keene Act or the Brown Act, and using the means otherwise prescribed by the Bagley-Keene Act or the Brown Act, as applicable; and
- (ii)In each instance in which notice of the time of the meeting is otherwise given or the agenda for the meeting is otherwise posted, also give notice of the means by which members of the public may observe the meeting and offer public comment. As to any instance in which there is a change in such means of public observation and comment, or any instance prior to the issuance of this Order in which the time of the meeting has been noticed or the agenda for the meeting has been posted without also including notice of such means, a body may satisfy this requirement by advertising such means using "the most rapid means of communication available at the time" within the meaning of Government Code, section 54954, subdivision (e); this shall include, but need not be limited to, posting such means on the body's Internet website.

All of the foregoing provisions concerning the conduct of public meetings shall apply only during the period in which state or local public health officials have imposed or recommended social distancing measures.

All state and local bodies are urged to use sound discretion and to make reasonable efforts to adhere as closely as reasonably possible to the provisions of the Bagley-Keene Act and the Brown Act, and other applicable local laws regulating the conduct of public meetings, in order to maximize transparency and provide the public access to their meetings.

IT IS FURTHER ORDERED that as soon as hereafter possible, this Order be filed in the Office of the Secretary of State and that widespread publicity and notice be given of this Order.

This Order is not intended to, and does not, create any rights or benefits, substantive or procedural, enforceable at law or in equity, against the State of California, its agencies, departments, entities, officers, employees, or any other person.

IN WITNESS WHEREOF I have

hereunto set my hand and caused the Great Seal of the State of California to be affixed this 17th day

of March 2020.

GAVINIMEWSOM

Governor of California

ATTEST:

ALEX PADILLA Secretary of State



MEMORANDUM TO THE AUDIT COMMITTEE

DATE:

June 17, 2021

TO:

Members of the Audit Committee

FROM:

Margo Allen, Fiscal Services Officer

SUBJECT:

Audited Schedule of Employer Allocations and Schedule of Pension

Amounts by Employer and Audited Schedule of Employer Allocations 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, 2020

Executive Summary

Presented for review and possible adoption are the 2020 audited schedules of employer allocations (pension and OPEB) and schedules of pension and OPEB amounts by employer.

During the June 17, 2021, Audit Committee meeting, staff will present the audited set of schedules prepared by ACERA staff using Segal's addenda to the GASB Statement No. 67 and GASB Statement No. 74 Actuarial Valuations as of December 31, 2020. These worksheets include the audited Schedule of Employer Allocations and Schedule of Pension Amounts by Employer and the audited Schedule of Employer Allocations and Schedule of OPEB Amounts by Employer, with related notes.

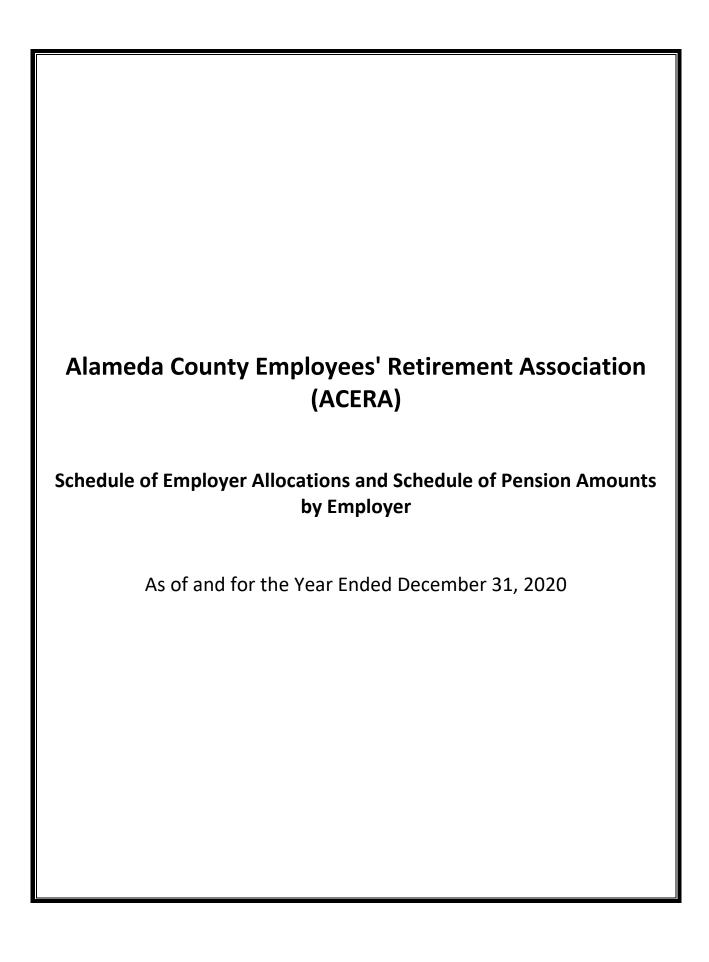
In combination with the GASB Statement No. 68 and GASB Statement No. 75 actuarial valuations, the audited allocation schedules contain all the required pension and OPEB liability reporting information employers need to complete their June 30, 2021, fiscal year-end reporting requirements. Once the Board 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 the Audit Committee recommend that the Board of Retirement adopt the audited Schedule of Employer Allocations and Schedule of Pension Amounts by Employer and the audited Schedule of Employer Allocations 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, 2020

Attachments:

- 1. Schedule of Employer Allocations and Schedule of Pension Amounts by Employer as of 12/31/20
- 2. Schedule of Employer Allocations and Schedule of OPEB Amounts by Employer as of 12/31/20



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, 2020

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Schedule of Employer Allocations - Net Pension Liability	4
Schedule of Pension Amounts by Employer	5
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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, 2020, 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 employer 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, 2020, 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 employer pension expense for ACERA as of and for the year ended December 31, 2020, 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, 2020, and our report thereon, dated June ___, 2021, 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 ___, 2021

Alameda County Employees' Retirement Association (ACERA) Schedule of Employer Allocations as of and for the Year Ended December 31, 2020 Actual Employer Contributions by Employer and Membership Class

	Excluding ACO	E and LARPD		ACOE Memb	ers Only	LARPD Mem	bers Only	All General Members Combined				
Employer	General Contributions	Contribution Percentage ¹	_	eneral tributions	Contribution Percentage	General ntributions	Contribution Percentage	General Contributions		General NPL Percentage		
Alameda County	\$ 129,742,973	.29,742,973 65.180% \$		-	0.000%	\$ -	0.000%	\$ 129,742,973		64.672%		
Alameda Health System	54,283,769	27.271%		-	0.000%	-	0.000%		54,283,769	27.059%		
Superior Court	12,372,365	6.216%		-	0.000%	-	0.000%		12,372,365	6.167%		
First 5	1,329,139	0.668%				-	0.000%	-	0.000%		1,329,139	0.663%
Housing Authority	1,323,493	0.665%		-	0.000%	-	0.000%		1,323,493	0.660%		
LARPD	-	0.000%		-	0.000%	1,490,917	100.000%		1,490,917	0.743%		
ACOE ²		0.000%		72,051	100.000%	-	0.000%		72,051	0.036%		
Total for All Employers	\$ 199,051,739	100.000%	\$	72,051	100.000%	\$ 1,490,917	100.000%	\$	200,614,707	100.000%		

	Safety M	embers	General and S	Safety Total		Adjusted To	tal ²
Employer	Safety Contributions	Contribution Percentage	 Total Contributions	Contribution Percentage		djusted Total ontributions	Adjusted Contribution Percentage ¹
Alameda County	\$ 109,138,291	100.000%	\$ 238,881,264	77.121%	\$	238,881,264	77.104%
Alameda Health System	-	0.000%	54,283,769	17.525%		54,283,769	17.521%
Superior Court	-	0.000%	12,372,365	3.994%		12,372,365	3.993%
First 5	-	0.000%	1,329,139	0.429%		1,329,139	0.429%
Housing Authority	-	0.000%	1,323,493	0.427%		1,323,493	0.427%
LARPD	-	0.000%	1,490,917	0.481%		1,490,917	0.481%
ACOE ²		0.000%	 72,051	0.023%		138,832 2	0.045%
Total for All Employers	\$ 109,138,291	100.000%	\$ 309,752,998	100.000%	\$	309,819,779	100.000%

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

² ACOE made a lump sum contribution of \$750,000 in 2019 to partially pay off their UAAL. That lump sum is greater than the amount that ACOE would have to make on an installment basis over 20 years. In order to have a more level allocation of the NPL to ACOE, ACERA approved an approach to determine ACOE's proportionate share of the non-OPEB SRBR NPL by using ACOE's required contributions determined in the December 31, 2018 valuation in the amount of \$78,000 based on an April 1, 2020 payment date plus the amortization of the remaining balance of the original \$750,000 lump sum amount (an amount of \$60,832 which represents the additional UAAL contribution ACOE would have been required to pay if they did not make the additional lump sum contribution in 2019). Note that in 2020, the actual contribution made by ACOE is \$72,051 which is \$5,949 less than the required contribution. Since \$5,949 is part of the required contributions, this amount was included for purposes of determining ACOE's proportionate share of the non-OPEB SRBR NPL.

Alameda County Employees' Retirement Association (ACERA) Schedule of Employer Allocations as of and for the Year Ended December 31, 2020 Allocation of Net Pension Liability (NPL)

	G	General NPL, Exclu LARP Excl. non-OPEI)	D		ACOE Members Only (Excl. non-OPEB SRBR NPL)			LARPD Mem (Excl. non-OPE	•	All General Members Combined (Excl. non-OPEB SRBR NPL)			
Employer	NPL		NPL Percentage ¹		NPL	Percentage ¹	NPL		Percentage ¹	NPL		General NPL Percentage	
Alameda County	\$	826,710,745	65.180%	\$	-	0.000%	\$	-	0.000%	\$	826,710,745	64.436%	
Alameda Health System		345,891,373	27.271%		-	0.000%		-	0.000%		345,891,373	26.959%	
Superior Court		78,835,615	6.216%		-	0.000%		-	0.000%		78,835,615	6.145%	
First 5		8,469,156	0.668%		-	0.000%		-	0.000%		8,469,156	0.660%	
Housing Authority		8,433,180	0.665%		-	0.000%	0.000%	-	0.000%		8,433,180	0.657%	
LARPD		-	0.000%		-	0.000%		13,833,231	100.000%		13,833,231	1.078%	
ACOE ²	(0.000%		832,627	100.000%		-	0.000%		832,627	0.065%	
Total for All Employers	\$ 1,268,340,069 100.0		100.000%	\$	832,627	100.000%	\$	13,833,231	100.000%	\$	1,283,005,927	100.000%	

	Safety Me (Excl. non-OPE		General and Sa (Excl. non-OPEB	•	General and Safety Non-OPEB SRBR NPL				Total			
Employer	_	NPL	Percentage ¹	NPL	Percentage	ge NPL		Percentage ²		NPL	Percentage	
Alameda County	\$	\$ 850,522,497 100.00		\$ 1,677,233,242	78.614%	\$	46,946,231	77.104%	\$	1,724,179,473	78.572%	
Alameda Health System		-	0.000%	345,891,373	16.212%		10,668,139	17.521%		356,559,512	16.248%	
Superior Court		-	0.000%	78,835,615	3.695%		2,431,484	3.993%		81,267,099	3.703%	
First 5		-	0.000%	8,469,156	0.397%		261,210	0.429%		8,730,366	0.398%	
Housing Authority		-	0.000%	8,433,180	0.395%		260,100	0.427%		8,693,280	0.396%	
LARPD		-	0.000%	13,833,231	0.648%		293,003	0.481%		14,126,234	0.644%	
ACOE ²		- 0.0009		 832,627	0.039%	0.039%27,284		0.045%	859,911		0.039%	
Total for All Employers	\$	\$ 850,522,497 100.0009		\$ 2,133,528,424	100.000%	\$	60,887,451	100.000%	\$	2,194,415,875	100.000%	

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

See accompanying notes, pages 6 -8.

² Allocated based on the actual employer contributions in total, with an adjustment to reflect the total annual UAAL contribution ACOE would have been required to make of \$138,832 in 2020 if they did not make the additional contribution in 2019 to partially pay off their UAAL.

Alameda County Employees' Retirement Association (ACERA) Schedule of Pension Amounts by Employer As of and for the Year Ended December 31, 2020

			Deferr	ed Outflows of	Resources			Deferre	ed Inflows of I	Resources		Pension Expense					
Schedule of Employer Allocations	Net Pension Liability	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Plan Pension Expense	Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Employer Pension Expense			
	·								·								
Alameda County	\$ 1,724,179,473	\$ 42,239,675	\$ -	\$ 293,037,119	\$ 11,520,977	\$ 346,797,771	\$ 7,854,374	\$ 286,812,664	\$ 73,087,610	\$ 2,547,465	\$ 370,302,113	\$ 214,728,025	\$ 1,555,596	\$ 216,283,621			
Alameda Health System	356,559,512	8,559,363	-	72,609,580	3,818,149	84,987,092	2,621,704	80,123,553	16,608,548	17,345,961	116,699,766	42,784,267	(2,168,534)	40,615,733			
Superior Court	81,267,099	1,950,851	-	16,549,187	5,881,353	24,381,391	597,539	18,261,773	3,785,423	1,987,380	24,632,115	9,751,396	483,130	10,234,526			
First 5 of Alameda County	8,730,366	209,576	-	1,777,847	923,064	2,910,487	64,192	1,961,827	406,661	10,197	2,442,877	1,047,575	281,813	1,329,388			
Housing Authority	8,693,280	208,686	-	1,770,295	438,903	2,417,884	63,919	1,953,493	404,933	693,125	3,115,470	1,043,122	(118,356)	924,766			
LARPD	14,126,234	3,162,181	-	1,809,278	59,936	5,031,395	156,944	2,342,976	456,158	45,153	3,001,231	2,129,738	(16,303)	2,113,435			
ACOE	859,911	705,561	-	48,179	26,280	780,020	1,159	106,696	42,477	39,381	189,713	344,092	(17,346)	326,746			
Total for All Employers	\$ 2,194,415,875	\$ 57,035,893	\$ -	\$ 387,601,485	\$ 22,668,662	\$ 467,306,040	\$ 11,359,831	\$ 391,562,982	\$ 94,791,810	\$ 22,668,662	\$ 520,383,285	\$ 271,828,215	\$ -	\$ 271,828,215			

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, 2020

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, 2020 and December 31, 2019 are as follows:

Net Pension Liability	<u>\$ 2,194,416</u>	<u>\$ 2,140,693</u>
Less: Plan Fiduciary Net Position	8,444,884	7,819,099
Total Pension Liability	\$10,639,300	\$ 9,959,792
(Dollars in thousands)	12/31/2020	12/31/2019

The Net Pension Liability (NPL) was measured as of December 31, 2020 and 2019. 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, 2019 and 2018, 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, 2020

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, 2020 has been adjusted to include an additional \$116.4 million, calculated by rolling forward the total unlimited non-OPEB Actuarial Accrued Liability (AAL) as of December 31, 2019. 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 AAL as of December 31, 2018.

The plan FNP as of December 31, 2020 was also adjusted to include \$55.5 million (\$41.7 million set aside in the SRBR reserve to pay non-OPEB benefits and by adding \$13.8 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, 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 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, 2020 and 2019 were determined by actuarial valuations as of December 31, 2019 and 2018, respectively. The actuarial assumptions used to develop the December 31, 2020 and 2019 TPLs are the same assumptions used in the December 31, 2020 and 2019 funding valuations, respectively. These assumptions were applied to all periods included in the measurement:

Measurement Date Investment Rate of Return	December 31, 2020 7.00%, net of pension plan investment expense, including inflation	December 31, 2019 7.25%, net of pension plan investment expense, including inflation
Inflation Rate	2.75%	3.00%
Real Across-the- Board Salary Increases	0.50%	0.50%
Projected Salary Increases	General: 8.35% to 3.65% and Safety: 11.25% to 4.05%, vary by service, including inflation	General: 8.30% 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, 2016 through November 30, 2019	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, 2020

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.

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. 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 ACOE's required contributions determined in our December 31, 2018 valuation in the amount of \$78,000 based on an April 1, 2020 payment date plus the amortization of the remaining balance of the original \$750,000 lump sum amount (an amount of \$60,832 which represents the additional UAAL contribution ACOE would have been required to pay if they did not make the additional lump sum contribution in 2019).

Discount Rate

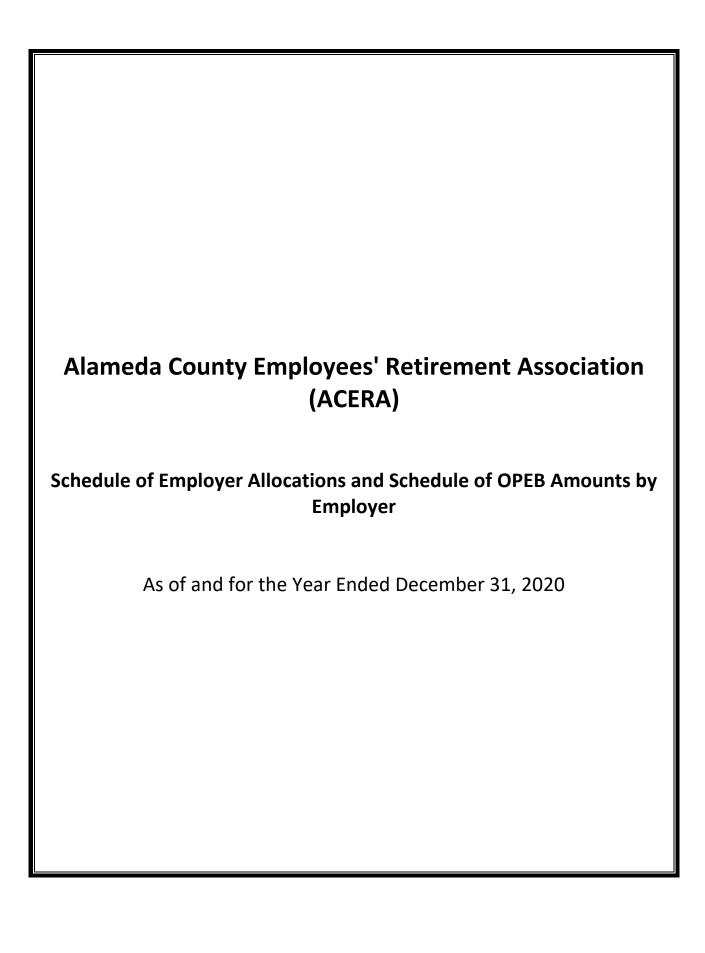
The discount rates used to measure the TPL as of December 31, 2020 and 2019 were 7.00% and 7.25%, respectively. In order to reflect the provisions of Article 5.5 of the Statute, future allocations of 50% excess earnings to the Supplemental Retiree Benefits Reserve (SRBR) have been treated as an additional 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 0.65% 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 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 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, 2020 and 2019.

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, 2020, and ACERA's GASB 68 Actuarial Valuation Based on December 31, 2020 Measurement Date for Employer Reporting as of June 30, 2021.

 $^{^{1}}$ 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, 2020

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Schedule of OPEB Amounts by Employer	4
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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, 2020, 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 employer 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, 2020, 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 employer OPEB expense for ACERA as of and for the year ended December 31, 2020, 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 ___, 2021, 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 ___, 2021

Alameda County Employees' Retirement Association (ACERA) Schedule of Employer Allocations as of and for the Year Ended December 31, 2020 Actual Employer Contributions by Employer and Net OPEB Liability (NOL) Allocation

Actual Employer Contributions by Employer for the Year Ended December 31, 2020¹ Allocation of Net OPEB Liability as of December 31, 2020

Employer	 contributions	Contribution Percentage [*]		Contribution Percentage	
Alameda County	\$ 238,881,264	77.104%	\$	5,156,701	77.104%
Alameda Health System	54,283,769	17.521%		1,171,817	17.521%
Superior Court	12,372,365	3.993%		267,081	3.993%
First 5	1,329,139	0.429%		28,692	0.429%
Housing Authority	1,323,493	0.427%		28,570	0.427%
LARPD	1,490,917	0.481%		32,184	0.481%
Office of Education (ACOE) ²	 138,832	0.045%		2,997	0.045%
Total for All Employers	\$ 309,819,779	100.000%	\$	6,688,042	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, 2020 through December 31, 2020 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 UAAL to the pension plan. That lump sum is greater than the amount that ACOE would have to make on an installment basis over 20 years. In order to have a more level allocation of the NPL and NOL to ACOE, ACERA approved an approach to determine ACOE's proportionate share of the OPEB SRBR NOL by using ACOE's required contributions determined in the December 31, 2018 valuation in the amount of \$78,000 based on an April 1, 2020 payment date plus the amortization of the remaining balance of the original \$750,000 lump sum amount (an amount of \$60,832 which represents the additional UAAL contribution ACOE would have been required to pay if they did not make the additional lump sum contribution in 2019). Note that in 2020, the actual contribution made by ACOE is \$72,051 which is \$5,949 less than the required contribution. Since \$5,949 is part of the required contributions, this amount is included for purposes of determining ACOE's proportionate share of the OPEB SRBR NOL.

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, 2020

				Deferre	d Outflows of	Resources			Deferred	I Inflows of R	esources			OPEB Expense	2
Schedule of Employer Allocations	Net OPEB Liability	Differenc Betwee Expected a Actual Experien	es n and	Net Difference Between Projected and Actual Investment Earnings on OPEB Plan Investments	Changes of Assumptions	Changes in Proportion of Employer Contributions	otal Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on OPEB Plan Investments	Changes of Assumptions	Changes in Proportion of Employer Contributions	Total Deferred Inflows of Resources	Proportionate Share of Plan	Net Amortization of Deferred Amounts from Changes in Proportion of Employer Contributions	Total Employer OPEB Expense
Alameda County	\$ 5,156,701	\$ -		\$ -	\$ 62,650,700	\$ 1,206,194	\$ 63,856,894	\$ 49,931,864	\$ 145,945,820	\$ 4,849,048	\$ 269,207	\$ 200,995,939	\$ (11,797,830)	\$ 135,447	\$ (11,662,383)
Alameda Health System	1,171,817	-		-	14,236,848	487,409	14,724,257	11,346,599	33,164,967	1,101,905	1,901,560	47,515,031	(2,680,959)	(194,808)	(2,875,767)
Superior Court	267,081	-		-	3,244,865	520,054	3,764,919	2,586,118	7,558,964	251,146	203,737	10,599,965	(611,045)	39,192	(571,853)
First 5 of Alameda County	28,692	-		-	348,589	82,806	431,395	277,822	812,045	26,980	1,470	1,118,317	(65,642)	16,289	(49,353)
Housing Authority	28,570	-		-	347,109	36,785	383,894	276,642	808,595	26,866	71,474	1,183,577	(65,365)	(11,061)	(76,426)
LARPD	32,184	-		-	391,019	111,646	502,665	311,637	910,884	30,264	49,812	1,302,597	(73,635)	4,357	(69,278)
ACOE	 2,997	-		-	36,411	57,241	93,652	29,019	84,820	2,818	4,875	121,532	(6,857)	10,584	3,727
Total for All Employers	\$ 6,688,042	\$ -		\$ -	\$ 81,255,541	\$ 2,502,135	\$ 83,757,676	\$ 64,759,701	\$ 189,286,095	\$ 6,289,027	\$ 2,502,135	\$ 262,836,958	\$ (15,301,333)	\$ -	\$ (15,301,333)

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, 2020

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, 2020 and December 31, 2019 are as follows:

Less: Plan Fiduciary Net Position 1,184,883	970,180
Less: Plan Fiduciary Net Position 1,184,883	970,180

The TOL as of December 31, 2020 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, 2019. The TOL has been adjusted to reflect the health care trend assumptions recommended for the sufficiency study for the SRBR as of December 31, 2020.

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, 2020

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 used for the sufficiency study for the SRBR as of December 2019.

The OPEB plan's FNP as of December 31, 2020 of \$1,184.9 million was determined by taking the \$899.1 million in the SRBR and 401(h) account set aside by the Retirement Board to pay OPEB benefits as of December 31, 2020, less the estimated implicit subsidy SRBR transfer to the Employers' Advance Reserve of \$7.5 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 \$293.3 million, after first replenishing the Contingency Reserve from \$69.0 to \$98.7 million (1% of total assets). The OPEB plan's FNP as of December 31, 2019 of \$970.2 million was determined by taking the \$894.7 million in the SRBR and 401(h) account set aside by the Retirement Board to pay OPEB benefits as of December 31, 2019, less the estimated implicit subsidy SRBR transfer to the Employers' 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).

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

Valuation Date Investment Rate of Return	December 31, 2020 7.00%, net of pension plan investment expense, including inflation.	December 31, 2019 7.25%, net of pension plan investment expense, including inflation.	
Inflation	2.75%	3.00%	
Health Care Premium Trend Rates ¹			
Non-Medicare Medical Plan	Graded from 6.75% in 2021 to ultimate 4.50% over 9 years.	Graded from 6.75% to ultimate 4.50% over 9 years.	
Medicare Medical Plan	Graded from 6.25% in 2021 to ultimate 4.50% over 7 years.	Graded from 6.50% to ultimate 4.50% over 8 years.	
Dental	0.00% for the first two years to reflect a three-year rate guarantee (premiums fixed at 2021 level for 2022 and 2023) and 4.00% thereafter.	4.00%	
Vision	0.00% for the first four years to reflect a five-year rate guarantee (premiums fixed at 2021 level for 2022, 2023, 2024 and 2025) and 4.00% thereafter.	4.00%	
Medicare Part B ²	4.50%	4.00%	
Other Assumptions	Same as those proposed in the experience study for the period December 1, 2016 through November 30, 2019.	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.

Discount Rate

The discount rates used to measure the TOL as of December 31, 2020 and 2019 were 7.00% and 7.25%, respectively. 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

² The actual calendar year 2020 trend of 2.70% reflecting the standard 2021 calendar year premium of \$148.50 per month was reflected in the current year GASB 74 valuation with December 31, 2020 measurement date.

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, 2020

the same impact as an outflow that would average approximately 0.65% 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 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 Lability as of December 31, 2020 and December 31, 2019.

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, 2020, and ACERA's GASB 75 Actuarial Valuation Based on December 31, 2020 Measurement Date for Employer Reporting as of June 30, 2021.



MEMORANDUM TO THE AUDIT COMMITTEE

DATE:

June 17, 2021

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,

2020, Measurement Date for Employer Reporting as of June 30, 2021

Executive Summary

Provided for review and discussion are the GASB Statement No. 68 and Statement No. 75 Actuarial Valuations (GASB 68/75 actuarial valuations) based on December 31, 2020, Measurement Date for Employer Reporting as of June 30, 2021. 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 17, 2021, 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, 2021, 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 statement:

"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 (Pension and OPEB)* and the *Schedules of Pension and OPEB 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, 2020, 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, 2020, Measurement Date for Employer Reporting as of June 30, 2021, 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. 68 an

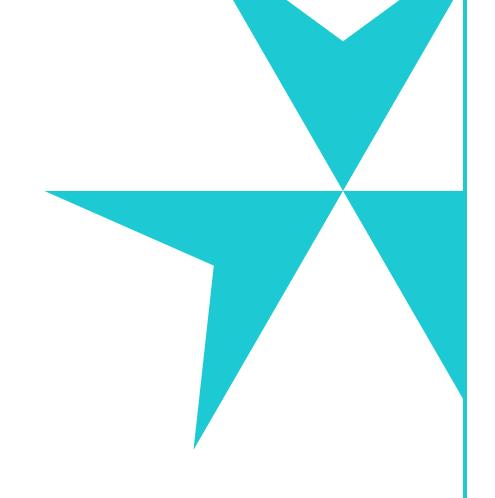
Attachments:

- 1. GASB 68 Actuarial Valuation based on 12/31/20 Measurement Date for Employer Reporting as of 6/30/21
- 2. GASB 75 Actuarial Valuation based on 12/31/20 Measurement Date for Employer Reporting as of 6/30/21

Alameda County Employees' Retirement Association (ACERA)

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

Actuarial Valuation Based on December 31, 2020 Measurement Date for Employer Reporting as of June 30, 2021



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.

Segal



June 4, 2021

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 a December 31, 2020 measurement date for employer reporting as of June 30, 2021. 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

Andy Yeung, ASA, MAAA, FCA, EA

Vice President and Actuary

Eva Yum, FSA, MAAA, EA

Senior Actuary

JB/jl

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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, 2021. 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, 2020. 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, 2019, provided by ACERA;¹
- The assets of the Plan as of December 31, 2020, provided by ACERA;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board for the December 31, 2020 valuation; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc. adopted by the Board for the December 31, 2020 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.

¹ It should be noted that starting with this year's valuation, we have also reflected the actual COLA granted by the Board on the April 1 immediately after the December 31, 2019 actuarial valuation that is used to roll forward the liabilities to determine the December 31, 2020 Net Pension Liability. In the past, we had used the expected COLA in the calculation.



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.

Highlights of the valuation

- 1. For this report, the reporting dates for the employers are June 30, 2021 and June 30, 2020. The NPLs measured as of December 31, 2020 and 2019 have been determined by rolling forward the TPL as of December 31, 2019 and 2018, respectively. The Plan's Fiduciary Net Positions were valued as of the measurement dates. In addition, any changes in actuarial assumptions or plan provisions that occurred between the valuation date and the measurement date have been reflected. Consistent with the provisions of GASB 68, the assets and liabilities measured as of December 31, 2020 and 2019 are not adjusted or rolled forward to the June 30, 2021 and June 30, 2020 reporting dates, respectively.
- 2. As we disclosed in our December 31, 2020 funding valuation report, the 7.00% investment return assumption that the Board approved on October 15, 2020 for determining the liabilities for funding purposes and used for establishing the employer and employee contribution rates has continued to be developed without considering the impact of any future 50/50 excess earnings allocation. This is based on our understanding that Article 5.5 of the Statute, which authorizes the allocation of 50% of excess earnings to the SRBR, does not allow for the use of a different investment return for funding than is used for interest crediting. This would appear in effect to preclude the prefunding of the SRBR through the use of an assumption lower than the market earnings assumption of 7.00%.
 - As required by the Actuarial Standard of Practice (ASOP) No. 4 ("Measuring Pension Obligations and Determining Pension Plan Costs or Contributions"), we performed a stochastic model to estimate the impact of the 50% allocation of future excess earnings to the SRBR. The results of our model indicated that the 50/50 allocation of future excess earnings would have about the same impact as an "outflow" (i.e., assets not available to fund the benefits included in the determination of the TPL) that would average approximately 0.65% of assets over time. This approximated outflow was incorporated into our GASB crossover 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.
- 3. The NPL measured as of December 31, 2020 was determined by rolling forward the TPL for the <u>funded benefits</u> as of December 31, 2019. Similar to last year, we have included in the TPL as of December 31, 2020 the <u>non-OPEB</u> unlimited

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



Actuarial Accrued Liability (AAL) of \$116.4 million, which was calculated by rolling forward the total unlimited non-OPEB AAL as of December 31, 2019.

- 4. The results of this valuation reflect an experience study of the actuarial assumptions based on the experience during the period December 1, 2016 through November 30, 2019. Based on that study and the recommendations provided in our report dated September 9, 2020, the Board adopted updated actuarial assumptions for use in this valuation.
- 5. We have also continued the practice of adjusting the Plan's Fiduciary Net Position as of December 31, 2020 to include the \$41.7 million set aside by the Retirement Board in the SRBR reserve to pay non-vested Supplemental COLA and retired member death benefits¹ as of December 31, 2020. It should be noted that as of December 31, 2020, the deferred investment gain for the entire Plan was \$643.3 million. Consequently, after first replenishing the Contingency Reserve from \$69.0 million to \$98.7 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 \$13.8 million. The net effect of the adjustments to the Plan's Fiduciary Net Position as of December 31, 2020 for non-OPEB SRBR benefits was an addition of \$55.5 million.

Note that the proportionate share of one-half of the net deferred market gain as of December 31, 2020 for the Pension Plan was equal to \$306.4 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.

- 6. The \$60.9 million difference between the \$116.4 million added to the TPL and the net \$55.5 million added to the Plan's Fiduciary Net Position as of December 31, 2020 represents the NPL attributable to non-OPEB SRBR benefits.
- 7. 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 \$138,832 in 2020 if they did not make the additional contribution to partially pay off their UAAL.
- 8. The NPL increased from \$2,141 million as of December 31, 2019 to \$2,194 million as of December 31, 2020 primarily as a result of the changes in the actuarial assumptions (which increased the NPL by about \$237 million), offset somewhat by the favorable investment return during calendar year 2020 of about \$193 million² more than assumed. Changes in these values during the last

² This amount represents the investment income on the Plan's Fiduciary Net Position for the Pension Plan and non-OPEB SRBR that is above the assumed earnings (at 7.25%) for the year ending December 31, 2020.



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.

- two fiscal years ending December 31, 2019 and December 31, 2020 can be found in *Section 2*, *Schedule of Changes in Net Pension Liability* on page 20.
- 9. There was a decrease in the total employer pension expense from \$420.5 million calculated last year to \$271.8 million calculated this year. The primary cause of the decrease was due to the full recognition of: (a) expense from assumption changes implemented in the December 31, 2014 valuation and (b) investment loss from the December 31, 2015 valuation used in developing last year's pension expense.
- 10. The discount rates used to measure the TPL and NPL as of December 31, 2020 and December 31, 2019 were 7.00% and 7.25%, respectively, following the same assumptions used by ACERA in the pension funding valuations as of December 31, 2020 and December 31, 2019, respectively. As the Board adopted new actuarial assumptions (which includes a new discount rate of 7.00% along with other new demographic assumptions) for use in the pension funding valuation as of December 31, 2020, we have estimated the impact of these assumption changes by revaluing the TPL as of December 31, 2019 and rolling forward those results from December 31, 2019 to December 31, 2020. The detailed calculations used in the derivation of the discount rate of 7.00% as of December 31, 2020 can be found in Section 3, Appendix A. Various other information that is required to be disclosed can be found throughout Section 2.
- 11. It is important to note that this actuarial valuation is based on plan assets as of December 31, 2020. Due to the COVID-19 pandemic, market conditions have changed significantly since the onset of the Public Health Emergency. The plan's funded status does not reflect short-term fluctuations of the market, but rather is based on the market values on the last day of the plan year. Moreover, this actuarial valuation does not include any possible short-term or long-term impacts on mortality of the covered population that may emerge after December 31, 2020. While it is impossible to determine how the pandemic will affect market conditions and other demographic experience of the plan in future valuations, Segal is available to prepare projections of potential outcomes upon request.
- 12. On July 30, 2020, the California Supreme Court issued a decision in the case of Alameda County Deputy Sheriff's Association et. al. v. Alameda County Employees' Retirement Association and Board of Retirement of ACERA. We were informed that the decision will not affect the Additional Cashout pay elements for Legacy members. Also, ACERA further indicated that they "will await the Trial Court ruling to determine any future changes which should be minor and only impact a few pay items." In early March 2021, ACERA informed us that there were no new updated on the Trial Court ruling. It should be noted that neither the December 31, 2020 assets provided by ACERA nor the liabilities we calculated using the membership data provided by ACERA reflect the financial impact of the Supreme Court decision, if any.

Summary of key valuation results

Reporting Date for Employer under GASB 68 ¹ Measurement Date for Employer under GASB 68		June 30, 2021 December 31, 2020	June 30, 2020 December 31, 2019
fiscal year ending	Total Pension Liability	10,639,300,371	9,959,791,606
December 31:	 Plan's Fiduciary Net Position³ 	8,444,884,496	7,819,098,646
	Net Pension Liability	2,194,415,875	2,140,692,960
	Pension expense	271,828,215	420,460,898
Schedule of contributions	Actuarially determined contributions	\$309,758,947	\$298,526,950
For plan year ending	 Actual contributions⁴ 	309,752,998	298,526,950
December 31:	 Contribution deficiency / (excess) 	5,949	0
Demographic data for plan	Number of retired members and beneficiaries	10,292	10,078
year ending December 31:5	 Number of inactive vested members⁶ 	3,028	2,821
	Number of active members	11,322	11,336
Key assumptions as of	Investment rate of return	7.00%	7.25%
December 31:	Inflation rate	2.75%	3.00%
	 Projected salary increases⁷ 	General: 8.35% to 3.65% and Safety: 11.25% to 4.05%	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, 2020 and December 31, 2019, respectively.

² The Service Cost is based on the previous year's valuation, meaning the December 31, 2020 and December 31, 2019 measurement date values are based on the valuations as of December 31, 2019 and December 31, 2018, respectively. Both service costs have been calculated using the assumptions shown in the December 31, 2019 measurement date column, as there had been no changes in the actuarial assumptions between the December 31, 2018 and December 31, 2019 valuations.

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). For the year ending December 31, 2020, the actual employer contributions are less than the actuarially determined contributions by \$5,949 due to an underpayment by the Alameda County Office of Education in 2020.

⁵ Data as of December 31, 2019 is used in the measurement of the TPL as of December 31, 2020.

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, 2020 and December 31, 2019, includes inflation at 2.75% and 3.00%, respectively, plus real across-the-board salary increase of 0.50% plus merit and promotion increases.



For the December 31, 2020 measurement date, the Plan's Fiduciary Net Position amount shown (\$8,444,884,496) includes the net fair value of assets (\$9,629,767,350) less OPEB-related SRBR assets (\$1,184,882,854). The OPEB-related SRBR assets include \$882,528,291 in the SRBR-OPEB reserve (after reducing the reserve by the \$7,548,683 SRBR implicit subsidy transfer), and \$9,051,620 in the 401(h) reserve, plus a proportionate share of one half of the deferred market gains (after adjustment to replenish the balance in the Contingency Reserve) commensurate with the size of the OPEB to total SRBR and 401(h) reserve to valuation and 401(h) reserves (\$293,302,943). 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). Note that amounts may not total properly due to rounding.

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

Section 1: Actuarial Valuation Summary

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

The valuation is prepared at the request of the Board to assist 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.

General information about the pension plan

Plan Description

Plan administration. The Alameda County Employees' Retirement Association (ACERA) was established by the Alameda County Board of Supervisors in 1947. ACERA is administered by the Board of Retirement and governed by the County Employees' Retirement Law of 1937 (California Government Code Section 31450 et. seq.). ACERA is a cost-sharing, multiple employer, defined benefit, public employee retirement system whose main function is to provide service retirement, disability, death, and survivor benefits to the General and Safety members employed by the County of Alameda. ACERA also provides retirement benefits to the employee members of First 5 Alameda County, Housing Authority of the County of Alameda, Alameda Health System, Livermore Area Recreation and Park District (LARPD), Superior Court of California—County of Alameda, and Alameda County Office of Education (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, 2020, pension plan membership consisted of the following:

Retired members or beneficiaries currently receiving benefits	10,292
Inactive vested members entitled to but not yet receiving benefits ¹	3,028
Active members	<u>11,322</u>
Total	24,642

Note: Data as of December 31, 2020 is not used in the measurement of the TPL as of December 31, 2020.



¹ Includes terminated members due a refund of member contributions.

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.
- <u>First 5 Employees</u>: 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, 2020 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:

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-Vears	
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	tober 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.

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, 2020 for 2020 (based on the December 31, 2018 valuation for the second half of 2019/2020 and on the December 31, 2019 valuation for the first half of 2020/2021) was 27.86% 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, 2020 for 2020 (based on the December 31, 2018 valuation for the second half of 2019/2020 and on the December 31, 2019 valuation for the first half of 2020/2021) was 9.54% of compensation.

Net Pension Liability

Reporting Date for Employer under GASB 68	June 30, 2021	June 30, 2020	
Measurement Date for Employer under GASB 68	December 31, 2020	December 31, 2019	
Components of the Net Pension Liability			
Total Pension Liability	\$10,639,300,371	\$9,959,791,606	
Plan's Fiduciary Net Position	<u>(8,444,884,496)</u>	<u>(7,819,098,646)</u>	
Net Pension Liability	\$2,194,415,875	\$2,140,692,960	
Plan's Fiduciary Net Position as a percentage of the Total Pension Liability	79.37%	78.51%	

The Net Pension Liability (NPL) was measured as of December 31, 2020 and 2019. The Plan's Fiduciary Net Position (plan assets) was valued as of the measurement date and the Total Pension Liability (TPL) was determined based upon rolling forward the TPL from actuarial valuations as of December 31, 2019 and 2018, respectively.

Plan provisions. The plan provisions used in the measurement of the NPL as of December 31, 2020 and 2019 are the same as those used in the ACERA actuarial valuations as of December 31, 2020 and 2019, respectively.

Actuarial assumptions. The TPL as of December 31, 2020 that was determined by an actuarial valuation as of December 31, 2019, was re-valued as of December 31, 2019 (before roll forward) using the following actuarial assumptions, which were based on the results of an experience study for the period December 1, 2016 through November 30, 2019. This revalued TPL was then rolled forward to December 31, 2020 to determine the final TPL as of December 31, 2020. The actuarial assumptions are the same assumptions used in the December 31, 2020 funding valuation for ACERA and they are applied to all periods included in the measurement.

Inflation	2.75%
Salary Increases	General: 8.35% to 3.65% and Safety: 11.25% to 4.05%, vary by service, including inflation
Investment Rate of Return	7.00%, net of pension plan investment expense, including inflation
Other Assumptions	See analysis of actuarial experience during the period December 1, 2016 through November 30, 2019

The TPL as of December 31, 2019, that was determined 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

Determination of discount rate and investment rates of return

The long-term expected rate of return on pension plan investments¹ was determined in 2020 using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage, adding expected inflation and subtracting expected investment expenses and a risk margin. The target allocation (approved by the Board) and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before investment expenses are shown in the following table. This information was used in the derivation of the long-term expected investment rate of return assumption for the December 31, 2020 actuarial valuation. This information will be subject to change every three years based on the results of an actuarial experience study.

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

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

Discount rate. The discount rate used to measure the Total Pension Liability (TPL) was 7.00% as of December 31, 2020 and 7.25% as of December 31, 2019. Our understanding is that Article 5.5 of the Statute, which authorizes the allocation of 50% of excess earnings to the SRBR, does not allow for the use of a different investment return assumption for funding than is used for interest crediting. In order to reflect the provisions of Article 5.5, we have treated future allocations to the SRBR as an additional outflow against the Plan's Fiduciary Net Position in the GASB crossover test, as mentioned earlier in Section 1. Again, we are estimating that the additional outflow would average approximately 0.65% of assets over time, based on the results of our stochastic modeling of the 50% allocation of future excess earnings to the SRBR.

The projection of cash flows used to determine the discount rate assumes plan member contributions will be made at the current contribution rates and that employer contributions will be made at rates equal to the actuarially determined contribution 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, 2020 and December 31, 2019.

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



Discount rate sensitivity

Sensitivity of the Net Pension Liability to changes in the discount rate. The following presents the NPL as of December 31, 2020, calculated using the discount rate of 7.00%, as well as what the NPL would be if it were calculated using a discount rate that is 1-percentage-point lower (6.00%) or 1-percentage-point higher (8.00%) than the current rate:

	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
Alameda County	\$2,759,833,375	\$1,724,179,473	\$871,981,795
Health System	620,723,870	356,559,512	138,078,254
Superior Court	141,475,480	81,267,099	31,470,817
First 5	15,198,435	8,730,366	3,380,849
Housing Authority	15,133,873	8,693,280	3,366,487
LARPD	21,973,172	14,126,234	7,768,341
ACOE	<u>1,262,525</u>	<u>859,911</u>	<u>509,335</u>
Total for all Employers	\$3,575,600,730	\$2,194,415,875	\$1,056,555,878

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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
Total Pension Liability		
Service cost	\$221,824,117	\$215,625,191
• Interest	718,926,969	688,654,389
Change of benefit terms	0	0
Differences between expected and actual experience	33,007,683	24,548,056
Changes of assumptions	236,513,333	0
Benefit payments, including refunds of member contributions	(530,763,337)	<u>(504,184,139)</u>
Net change in Total Pension Liability	\$679,508,765	\$424,643,497
Total Pension Liability – beginning	<u>9,959,791,606</u>	<u>9,535,148,109</u>
Total Pension Liability – ending	<u>\$10,639,300,371</u>	<u>\$9,959,791,606</u>
Plan's Fiduciary Net Position		
Contributions – employer ¹	\$309,752,998	\$298,526,950
Contributions – member	106,104,226	103,117,022
Net investment income	755,501,876	1,165,766,104
Benefit payments, including refunds of member contributions	(530,763,337)	(504,184,139)
Administrative expense	(14,809,913)	(15,273,425)
• Other	<u>0</u>	<u>0</u>
Net change in Plan's Fiduciary Net Position	\$625,785,850	\$1,047,952,512
Plan's Fiduciary Net Position ² – beginning	<u>7,819,098,646</u>	<u>6,771,146,134</u>
Plan's Fiduciary Net Position ² – ending	<u>\$8,444,884,496</u>	<u>\$7,819,098,646</u>
Net Pension Liability – ending	<u>\$2,194,415,875</u>	<u>\$2,140,692,960</u>
Plan's Fiduciary Net Position as a percentage of the Total Pension Liability	79.37%	78.51%
Covered payroll ³	\$1,111,848,569	\$1,081,586,887
Plan Net Pension Liability as percentage of covered payroll	197.37%	197.92%

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



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, 2020 measurement date "Plan's Fiduciary Net Position – beginning" amount of \$7,819,098,646 and the December 31, 2020 measurement date "Plan's Fiduciary Net Position – ending" amount of \$8,444,884,496.

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
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	945,858,0172	23.75%
2016	241,728,451	241,728,451	0	947,567,631	25.51%
2017	247,063,550	247,063,550	0	995,178,209	24.83%
2018	269,684,809	269,684,809	0	1,046,033,851	25.78%
2019	298,526,950	298,526,950	0	1,081,586,887	27.60%
2020	309,758,947	309,752,998	5,949 ³	1,111,848,569	27.86%

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



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.

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 2020 (or the second half of fiscal year 2019/2020) are calculated based on the December 31, 2018 valuation. Actuarially determined contribution rates for the last six months of calendar year 2020 (or the first half of fiscal year 2020/2021) are calculated based on the December 31, 2019 valuation.
Actuarial Cost Method:	Entry Age Actuarial Cost Method
Amortization Method	Level percent of payroll (3.50% payroll growth assumed in the December 31, 2019 valuation and 3.50% payroll growth assumed in the December 31, 2018 valuation)
Remaining Amortization Period:	Prior to January 1, 2012, the total UAAL was amortized on a 30-year decreasing period, with 21 years remaining as of December 31, 2011 (and 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. Prior to January 1, 2019 valuation Prior to January 1, 2012, the total UAAL was amortized on a 30-year decreasing period, with 21 years remaining as of December 31, 2011 (and 13 years remaining as of December 31, 2019). On or after January 1, 2012, any new UAAL resulting from plan amendments are amortized over separate decreasing 15-year periods; early retirement incentive programs (ERIPs) are amortized over separate decreasing 5-year periods; assumption and method changes are amortized over separate decreasing 20-year periods; and experience gains/losses are also amortized over separate decreasing 20-year periods; and experience gains/losses are also amortized over separate decreasing 20-year periods; and experience gains/losses are also amortized over separate decreasing 20-year periods; and experience gains/losses are also amortized over separate decreasing 20-year periods;
Asset Valuation Method:	The actuarial value of assets is determined by recognizing any difference between the actual and the expected market return over 10 six-month interest crediting periods. The actuarial value of assets is further adjusted, if necessary, to be within 40% of the market value of assets. The valuation value of assets is the actuarial value of assets reduced by the value of the non-valuation reserves.

Actuarial assumptions

Valuation Date	December 31, 2018 Valuation	December 31, 2019 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, 2018 funding actuarial valuation	Same as those used in the December 31, 2019 funding actuarial valuation

Determination of proportionate share

Schedule of Employer Allocations as of December 31, 2019

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

	General M Excluding A LAR	ACOE and	General ACOE Members Only		General LARPD Members Only		All General Members Combined	
Employer	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%
LARPD	0	0.000%	0	0.000%	1,306,574	100.000%	1,306,574	0.671%
ACOE	<u>0</u>	0.000%	<u>750,000</u>	100.000%	<u>0</u>	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

	Safety Me	embers	Tot	al	Adjusted	l Total ²
Employer	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%
LARPD	0	0.000%	1,306,574	0.438%	1,306,574	0.439%
ACOE	<u>0</u>	0.000%	<u>750,000</u>	<u>0.251%</u>	<u>132,883</u> 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.

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.

Schedule of Employer Allocations as of December 31, 2019

Allocation of December 31, 2019 Net Pension Liability

	General NPL, Excluding ACOE and LARPD (Excl. non-OPEB SRBR NPL)		General ACOE (Excl. non-OP NPL)	EB SRBR	General LARPI (Excl. non-OF NPL	EB SRBR	Total Gene (Excl. non-OF NPL	EB SRBR
Employer	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	<u>0</u>	0.000%	<u>793,504</u>	100.000%	<u>0</u>	0.000%	<u>793,504</u>	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

	Safety (Excl. non-O NPI	PEB SRBR	General & Sa (Excl. non-Ol NPL	PEB SRBR	General & Safety Non-OPEB SRBR NPL		Tota	ıl
Employer	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.

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. 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.

<u>Total</u>

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

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.



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**.

Schedule of Employer Allocations as of December 31, 2020

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

	<u> </u>							
	General M Excluding A LAR	ACOE and	General ACO Onl		General LARF Onl		All General Comb	
Employer	Contributions	Percentage ¹	Contributions	Percentage	Contributions	Percentage	Contributions	Percentage
Alameda County	\$129,742,973	65.180%	\$0	0.000%	\$0	0.000%	\$129,742,973	64.672%
Health System	54,283,769	27.271%	0	0.000%	0	0.000%	54,283,769	27.059%
Superior Court	12,372,365	6.216%	0	0.000%	0	0.000%	12,372,365	6.167%
First 5	1,329,139	0.668%	0	0.000%	0	0.000%	1,329,139	0.663%
Housing Authority	1,323,493	0.665%	0	0.000%	0	0.000%	1,323,493	0.660%
LARPD	0	0.000%	0	0.000%	1,490,917	100.000%	1,490,917	0.743%
ACOE	<u>0</u>	0.000%	<u>72,051</u>	100.000%	<u>0</u>	0.000%	72,051	0.036%
Total for all Employers	\$199,051,739	100.000%	\$72,051	100.000%	\$1,490,917	100.000%	\$200,614,707	100.000%

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

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

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

ACOE made a lump sum contribution of \$750,000 in 2019 to partially pay off their UAAL. That lump sum is greater than the amount that ACOE would have to make on an installment basis over 20 years. In order to have a more level allocation of the NPL to ACOE, ACERA approved an approach outlined in our March 2, 2020 letter to determine ACOE's proportionate share of the non-OPEB SRBR NPL by using ACOE's required contributions determined in our December 31, 2018 valuation in the amount of \$78,000 based on an April 1, 2020 payment date plus the amortization of the remaining balance of the original \$750,000 lump sum amount (an amount of \$60,832 which represents the additional UAAL contribution ACOE would have been required to pay if they did not make the additional lump sum contribution in 2019). Note that in 2020, the actual contribution made by ACOE is \$72,051 which is \$5,949 less than the required contribution. Since \$5,949 is part of the required contributions, we included this amount for purposes of determining ACOE's proportionate share of the non-OPEB SRBR NPL.

Schedule of Employer Allocations as of December 31, 2020

Allocation of December 31, 2020 Net Pension Liability

					*			
	General NPL, ACOE and (Excl. non-Ol NPI	LARPD PEB SRBR	General ACOE (Excl. non-OF NPL	EB SRBR	General LARP (Excl. non-OF NPL	PEB SRBR	Total Gene (Excl. non-OF NPL	EB SRBR
Employer	NPL	Percentage ¹	NPL	Percentage ¹	NPL	Percentage ¹	NPL	Percentage
Alameda County	\$826,710,745	65.180%	\$0	0.000%	\$0	0.000%	\$826,710,745	64.436%
Health System	345,891,373	27.271%	0	0.000%	0	0.000%	345,891,373	26.959%
Superior Court	78,835,615	6.216%	0	0.000%	0	0.000%	78,835,615	6.145%
First 5	8,469,156	0.668%	0	0.000%	0	0.000%	8,469,156	0.660%
Housing Authority	8,433,180	0.665%	0	0.000%	0	0.000%	8,433,180	0.657%
LARPD	0	0.000%	0	0.000%	13,833,231	100.000%	13,833,231	1.078%
ACOE	<u>0</u>	0.000%	832,627	<u>100.000%</u>	<u>0</u>	0.000%	<u>832,627</u>	0.065%
Total for all Employers	\$1,268,340,069	100.000%	\$832,627	100.000%	\$13,833,231	100.000%	\$1,283,005,927	100.000%

Allocation of December 31, 2020 Net Pension Liability

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

Allocated based on the actual employer contributions within each membership class.
 Allocated based on the actual employer contributions in total, with an adjustment to reflect the total annual UAAL contribution ACOE would have been required to make of \$138,832 in 2020 if they did not make the additional contribution in 2019 to partially pay off their UAAL. This approach is outlined in our March 2, 2020 letter and is approved by ACERA.



Notes regarding determination of proportionate share as of December 31, 2020 measurement date

Based on the January 1, 2020 through December 31, 2020 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. The total Plan's Fiduciary Net Position for pension as of December 31, 2020 includes the net fair value of assets less SRBR assets. The SRBR assets include the SRBR-OPEB reserve (after reducing the reserve by the SRBR implicit subsidy transfer), the 401(h) reserve, and the non-OPEB SRBR reserve, plus a proportionate share of one half of the deferred market gains (after adjustment to replenish the balance in the Contingency Reserve) commensurate with the size of those SRBR reserves and 401(h) reserve to valuation and 401(h) reserves.

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

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

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

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.

<u>Total</u>

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

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



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

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. 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
- I. Recognition of beginning of year deferred inflows of resources as pension expense

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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
Service cost	\$221,824,117	\$215,625,191
Interest on the Total Pension Liability	718,926,969	688,654,390
 Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions 	0	0
Current-period benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	6,275,224	4,571,332
Expensed portion of current-period changes of assumptions or other inputs	44,964,513	0
Member contributions	(106,104,226)	(103,117,022)
Projected earnings on plan investments	(562,182,446)	(486,637,351)
 Expensed portion of current-period differences between actual and projected earnings on plan investments 	(38,663,887)	(135,825,750)
Administrative expense	14,809,913	15,273,425
Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	255,647,833	382,022,415
Recognition of beginning of year deferred inflows of resources as pension expense	(283,669,795)	(160,105,732)
 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	\$271,828,215	\$420,460,898

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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
Service cost	\$164,523,259	\$159,236,640
Interest on the Total Pension Liability	535,739,051	510,276,761
 Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions 	1,568,554	1,180,474
Current-period benefit changes	0	0
 Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability 	4,487,316	3,459,048
Expensed portion of current-period changes of assumptions or other inputs	33,332,427	0
Member contributions	(78,710,319)	(76,031,473)
Projected earnings on plan investments	(412,635,729)	(354,645,313)
 Expensed portion of current-period differences between actual and projected earnings on plan investments 	(28,493,313)	(98,960,399)
Administrative expense	10,859,641	11,119,868
Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	192,315,762	283,996,588
Recognition of beginning of year deferred inflows of resources as pension expense	(206,690,070)	(115,169,093)
 Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions 	<u>(12,958)</u>	<u>(666,854)</u>
Pension Expense	\$216,283,621	\$323,796,247

Pension expense (continued)

Health System

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Components of Pension Expense	June 30, 2021 December 31, 2020	June 30, 2020 December 31, 2019
Service cost	\$44,093,982	\$44,033,928
Interest on the Total Pension Liability	139,741,027	138,387,364
Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	(2,443,667)	(2,049,027)
Current-period benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	1,355,788	643,663
Expensed portion of current-period changes of assumptions or other inputs	8,942,262	0
Member contributions	(21,072,616)	(21,137,887)
Projected earnings on plan investments	(114,224,879)	(102,473,282)
Expensed portion of current-period differences between actual and projected earnings on plan investments	(7,780,291)	(28,628,281)
Administrative expense	3,016,814	3,224,607
• Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	47,441,395	75,664,473
Recognition of beginning of year deferred inflows of resources as pension expense	(58,729,215)	(34,791,215)
 Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions 	<u>275,133</u>	<u>2,093,505</u>
Pension Expense	\$40,615,733	\$74,967,848

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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
Service cost	\$10,049,907	\$9,337,481
Interest on the Total Pension Liability	31,849,796	29,345,313
 Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions 	647,023	927,309
Current-period benefit changes	0	0
 Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability 	309,011	136,489
Expensed portion of current-period changes of assumptions or other inputs	2,038,122	0
Member contributions	(4,802,874)	(4,482,331)
Projected earnings on plan investments	(26,034,152)	(21,729,661)
 Expensed portion of current-period differences between actual and projected earnings on plan investments 	(1,773,285)	(6,070,683)
Administrative expense	687,593	683,784
Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	10,812,850	16,044,800
Recognition of beginning of year deferred inflows of resources as pension expense	(13,385,572)	(7,377,546)
 Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions 	<u>(163,893)</u>	(1,326,349)
Pension Expense	\$10,234,526	\$15,488,606

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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
Service cost	\$1,079,642	\$975,015
Interest on the Total Pension Liability	3,421,561	3,064,225
 Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions 	117,913	95,915
Current-period benefit changes	0	0
 Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability 	33,197	14,252
Expensed portion of current-period changes of assumptions or other inputs	218,951	0
Member contributions	(515,963)	(468,043)
Projected earnings on plan investments	(2,796,798)	(2,269,002)
 Expensed portion of current-period differences between actual and projected earnings on plan investments 	(190,500)	(633,898)
Administrative expense	73,867	71,400
• Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	1,161,603	1,675,391
Recognition of beginning of year deferred inflows of resources as pension expense	(1,437,985)	(770,360)
 Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions 	<u>163,900</u>	<u>40,516</u>
Pension Expense	\$1,329,388	\$1,795,411

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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
Service cost	\$1,075,056	\$980,914
Interest on the Total Pension Liability	3,407,027	3,082,761
 Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions 	100,112	(167,260)
Current-period benefit changes	0	0
 Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability 	33,056	14,339
Expensed portion of current-period changes of assumptions or other inputs	218,021	0
Member contributions	(513,772)	(470,874)
Projected earnings on plan investments	(2,784,918)	(2,282,728)
 Expensed portion of current-period differences between actual and projected earnings on plan investments 	(189,692)	(637,733)
Administrative expense	73,553	71,832
• Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	1,156,669	1,685,526
Recognition of beginning of year deferred inflows of resources as pension expense	(1,431,878)	(775,021)
 Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions 	<u>(218,468)</u>	<u>(90,687)</u>
Pension Expense	\$924,766	\$1,411,069

Pension expense (continued)

LARPD

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Components of Pension Expense	June 30, 2021 December 31, 2020	June 30, 2020 December 31, 2019
Service cost	\$1,000,053	\$1,059,073
Interest on the Total Pension Liability	4,443,764	4,174,391
 Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions 	10,017	5,123
Current-period benefit changes	0	0
 Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability 	43,636	288,337
Expensed portion of current-period changes of assumptions or other inputs	213,402	0
Member contributions	(488,682)	(526,414)
Projected earnings on plan investments	(3,441,580)	(3,011,917)
 Expensed portion of current-period differences between actual and projected earnings on plan investments 	(221,404)	(834,913)
Administrative expense	91,219	95,324
• Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	2,418,917	2,630,272
Recognition of beginning of year deferred inflows of resources as pension expense	(1,929,587)	(1,216,880)
 Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions 	(26,320)	<u>(24,821)</u>
Pension Expense	\$2,113,435	\$2,637,575

Pension expense (continued)

ACOE

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Components of Pension Expense	June 30, 2021 December 31, 2020	June 30, 2020 December 31, 2019
Service cost	\$2,218	\$2,140
Interest on the Total Pension Liability	324,743	323,575
 Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions 	48	7,466
Current-period benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	13,220	15,204
Expensed portion of current-period changes of assumptions or other inputs	1,328	0
Member contributions	0	0
Projected earnings on plan investments	(264,390)	(225,448)
 Expensed portion of current-period differences between actual and projected earnings on plan investments 	(15,402)	(59,843)
Administrative expense	7,226	6,610
• Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	340,637	325,365
Recognition of beginning of year deferred inflows of resources as pension expense	(65,488)	(5,617)
 Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions 	(17,394)	<u>(25,310)</u>
Pension Expense	\$326,746	\$364,142

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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
Deferred Outflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$22,668,662	\$17,675,162
Changes of assumptions or other inputs	387,601,485	213,019,224
Net difference between projected and actual earnings on pension plan investments	0	0
Difference between expected and actual experience in the Total Pension Liability	<u>57,035,893</u>	38,769,435
Total Deferred Outflows of Resources	\$467,306,040	\$269,463,821
Deferred Inflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$22,668,662	\$17,675,162
Changes of assumptions or other inputs	94,791,810	26,949,122
Net difference between projected and actual earnings on pension plan investments	391,562,982	344,235,653
Difference between expected and actual experience in the Total Pension Liability	11,359,831	25,328,827
Total Deferred Inflows of Resources	\$520,383,285	\$414,188,764
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:		
2021	N/A	\$(28,021,962)
2022	\$(21,109,397)	(33,685,247)
2023	58,035,448	45,459,598
2024	(117,592,877)	(130,168,727)
2025	14,267,250	1,691,395
2026	13,322,331	0
Thereafter	0	0

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

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 Deferred Outflows of Resources	June 30, 2021 December 31, 2020	June 30, 2020 December 31, 2019
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$11,520,977	\$6,558,962
Changes of assumptions or other inputs	293,037,119	163,207,471
Net difference between projected and actual earnings on pension plan investments	0	0
Difference between expected and actual experience in the Total Pension Liability	<u>42,239,675</u>	29,709,753
Total Deferred Outflows of Resources	\$346,797,771	\$199,476,186
Deferred Inflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$2,547,465	\$4,280,444
Changes of assumptions or other inputs	73,087,610	20,653,973
Net difference between projected and actual earnings on pension plan investments	286,812,664	248,325,745
Difference between expected and actual experience in the Total Pension Liability	7,854,374	<u> 17,068,065</u>
Total Deferred Inflows of Resources	\$370,302,113	\$290,328,227
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:		
2021	N/A	\$(14,167,610)
2022	\$(9,334,580)	(19,997,698)
2023	46,128,394	35,078,873
2024	(83,156,747)	(93,482,224)
2025	12,617,642	1,716,618
2026	10,240,949	0
Thereafter	0	0

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

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 Deferred Outflows of Resources	June 30, 2021 December 31, 2020	June 30, 2020 December 31, 2019
Changes in proportion and differences between employer's contributions and proportionate		
share of contributions ¹	\$3,818,149	\$6,333,639
Changes of assumptions or other inputs	72,609,580	38,885,514
Net difference between projected and actual earnings on pension plan investments	0	0
Difference between expected and actual experience in the Total Pension Liability	<u>8,559,363</u>	3,236,186
Total Deferred Outflows of Resources	\$84,987,092	\$48,455,339
Deferred Inflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$17,345,961	\$9,176,298
Changes of assumptions or other inputs	16,608,548	4,906,548
Net difference between projected and actual earnings on pension plan investments	80,123,553	74,608,604
Difference between expected and actual experience in the Total Pension Liability	<u>2,621,704</u>	6,184,756
Total Deferred Inflows of Resources	\$116,699,766	\$94,876,206
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:		
2021	N/A	\$(11,363,434)
2022	\$(10,878,079)	(11,317,932)
2023	6,639,380	6,807,158
2024	(29,061,271)	(30,026,678)
2025	(454,844)	(519,981)
2026	2,042,140	0
Thereafter	0	0

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

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 Deferred Outflows of Resources	June 30, 2021 December 31, 2020	June 30, 2020 December 31, 2019
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$5,881,353	\$4,077,438
Changes of assumptions or other inputs	16,549,187	8,245,750
Net difference between projected and actual earnings on pension plan investments	0	0
Difference between expected and actual experience in the Total Pension Liability	<u>1,950,851</u>	686,240
Total Deferred Outflows of Resources	\$24,381,391	\$13,009,428
Deferred Inflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$1,987,380	\$3,103,677
Changes of assumptions or other inputs	3,785,423	1,040,443
Net difference between projected and actual earnings on pension plan investments	18,261,773	15,820,901
Difference between expected and actual experience in the Total Pension Liability	<u>597,539</u>	<u>1,311,490</u>
Total Deferred Inflows of Resources	\$24,632,115	\$21,276,511
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:		
2021	N/A	\$(2,631,873)
2022	\$(1,516,698)	(2,634,423)
2023	3,109,815	1,823,355
2024	(4,238,541)	(5,217,750)
2025	1,616,218	393,608
2026	778,482	0
Thereafter	0	0

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

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 Deferred Outflows of Resources	June 30, 2021 December 31, 2020	June 30, 2020 December 31, 2019
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$923,064	\$591,593
Changes of assumptions or other inputs	1,777,847	861,018
Net difference between projected and actual earnings on pension plan investments	0	0
Difference between expected and actual experience in the Total Pension Liability	<u>209,576</u>	<u>71,657</u>
Total Deferred Outflows of Resources	\$2,910,487	\$1,524,268
Deferred Inflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$10,197	\$17,133
Changes of assumptions or other inputs	406,661	108,643
Net difference between projected and actual earnings on pension plan investments	1,961,827	1,652,012
Difference between expected and actual experience in the Total Pension Liability	<u>64,192</u>	<u>136,945</u>
Total Deferred Inflows of Resources	\$2,442,877	\$1,914,733
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:		
2021	N/A	\$(93,805)
2022	\$41,081	(119,900)
2023	484,836	293,376
2024	(375,179)	(510,896)
2025	220,659	40,760
2026	96,213	0
Thereafter	0	0

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

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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
Deferred Outflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$438,903	\$43,631
Changes of assumptions or other inputs	1,770,295	866,226
Net difference between projected and actual earnings on pension plan investments	0	0
Difference between expected and actual experience in the Total Pension Liability	<u>208,686</u>	72,090
Total Deferred Outflows of Resources	\$2,417,884	\$981,947
Deferred Inflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$693,125	\$942,801
Changes of assumptions or other inputs	404,933	109,300
Net difference between projected and actual earnings on pension plan investments	1,953,493	1,662,004
Difference between expected and actual experience in the Total Pension Liability	<u>63,919</u>	<u>137,773</u>
Total Deferred Inflows of Resources	\$3,115,470	\$2,851,878
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:		
2021	N/A	\$(477,732)
2022	\$(353,404)	(499,082)
2023	130,495	(41,117)
2024	(671,191)	(795,422)
2025	105,202	(56,578)
2026	91,312	0
Thereafter	0	0

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

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 Deferred Outflows of Resources	June 30, 2021 December 31, 2020	June 30, 2020 December 31, 2019
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$59,936	\$34,430
Changes of assumptions or other inputs	1,809,278	934,042
Net difference between projected and actual earnings on pension plan investments	0	0
Difference between expected and actual experience in the Total Pension Liability	<u>3,162,181</u>	<u>4,084,482</u>
Total Deferred Outflows of Resources	\$5,031,395	\$5,052,954
Deferred Inflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$45,153	\$88,639
Changes of assumptions or other inputs	456,158	118,194
Net difference between projected and actual earnings on pension plan investments	2,342,976	2,128,324
Difference between expected and actual experience in the Total Pension Liability	<u>156,944</u>	489,776
Total Deferred Inflows of Resources	\$3,001,231	\$2,824,933
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:		
2021	N/A	\$454,777
2022	\$681,181	631,897
2023	1,282,243	1,236,861
2024	(157,483)	(204,093)
2025	154,785	108,579
2026	69,438	0
Thereafter	0	0

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

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 Deferred Outflows of Resources	June 30, 2021 December 31, 2020	June 30, 2020 December 31, 2019
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$26,280	\$35,469
Changes of assumptions or other inputs	48,179	19,203
Net difference between projected and actual earnings on pension plan investments	0	0
Difference between expected and actual experience in the Total Pension Liability	<u>705,561</u>	909,027
Total Deferred Outflows of Resources	\$780,020	\$963,699
Deferred Inflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions¹ 	\$39,381	\$66,170
Changes of assumptions or other inputs	42,477	12,021
Net difference between projected and actual earnings on pension plan investments	106,696	38,063
Difference between expected and actual experience in the Total Pension Liability	<u>1,159</u>	<u>22</u>
Total Deferred Inflows of Resources	\$189,713	\$116,276
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:		
2021	N/A	\$257,715
2022	\$251,102	251,891
2023	260,285	261,092
2024	67,535	68,336
2025	7,588	8,389
2026	3,797	0
Thereafter	0	0

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

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, 2020. 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., 2020) is recognized over the average of the expected remaining service lives of all employees that are provided with pensions through ACERA which is 5.26 years determined as of December 31, 2019 (the beginning of the measurement period ended December 31, 2020). 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, 2020 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.

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%
2021	100.000%	2,194,415,875	1,111,848,569	197.37%	79.37%

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.

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%
2021	78.572%	1,724,179,473	784,654,614	219.74%	78.25%

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.

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%
2021	16.248%	356,559,512	257,126,856	138.67%	82.77%

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.

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%
2021	3.703%	81,267,099	55,376,411	146.75%	82.77%

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.

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%
2021	0.398%	8,730,366	5,953,576	146.64%	82.77%

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.

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%
2021	0.396%	8,693,280	4,675,355	185.94%	82.77%

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.

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%
2021	0.644%	14,126,234	4,061,757	347.79%	78.44%

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.

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%
2021	0.039%	859,911	0	N/A	81.63%

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.

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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
Beginning Net Pension Liability	\$2,140,692,960	\$2,764,001,975
Pension Expense	271,828,215	420,460,898
Employer Contributions	(309,752,998)	(298,526,950)
New Net Deferred Inflows/Outflows	63,625,736	(523,326,280)
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	28,021,962	(221,916,683)
Recognition of Prior Deferred Flows Due to Change in Proportion ¹	<u>0</u>	<u>0</u>
Ending Net Pension Liability	\$2,194,415,875	\$2,140,692,960



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

Schedule of reconciliation of net pension liability (continued)

Alameda County

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Resourcible for Employer Link Blanch L	June 30, 2021 December 31, 2020	June 30, 2020 December 31, 2019
Reconciliation of Net Pension Liability Beginning Net Pension Liability	\$1,679,429,417	\$2,125,856,592
Pension Expense	216,283,621	323,796,247
Employer Contributions	(238,881,264)	(228,319,939)
New Net Deferred Inflows/Outflows	47,138,849	(380,725,563)
Change in Allocation of Prior Deferred Inflows/Outflows	(860,452)	1,824,055
New Net Deferred Flows Due to Change in Proportion ¹	6,682,036	5,158,666
Recognition of Prior Deferred Inflows/Outflows	14,374,308	(168,827,495)
 Recognition of Prior Deferred Flows Due to Change in Proportion¹ 	<u>12,958</u>	666,854
Ending Net Pension Liability	\$1,724,179,473	\$1,679,429,417



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

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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
Beginning Net Pension Liability	\$355,519,355	\$501,587,358
Pension Expense	40,615,733	74,967,848
Employer Contributions	(54,283,769)	(54,239,577)
New Net Deferred Inflows/Outflows	12,748,527	(111,700,315)
Change in Allocation of Prior Deferred Inflows/Outflows	1,356,999	(3,174,953)
New Net Deferred Flows Due to Change in Proportion ¹	(10,410,020)	(8,954,244)
Recognition of Prior Deferred Inflows/Outflows	11,287,820	(40,873,257)
Recognition of Prior Deferred Flows Due to Change in Proportion ¹	<u>(275,133)</u>	(2,093,505)
Ending Net Pension Liability	\$356,559,512	\$355,519,355



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

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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
Beginning Net Pension Liability	\$75,388,579	\$96,943,208
Pension Expense	10,234,526	15,488,606
Employer Contributions	(12,372,365)	(11,501,609)
New Net Deferred Inflows/Outflows	2,905,646	(23,686,271)
Change in Allocation of Prior Deferred Inflows/Outflows	(382,220)	1,433,208
 New Net Deferred Flows Due to Change in Proportion¹ 	2,756,319	4,052,343
Recognition of Prior Deferred Inflows/Outflows	2,572,721	(8,667,255)
Recognition of Prior Deferred Flows Due to Change in Proportion ¹	<u>163,893</u>	1,326,349
Ending Net Pension Liability	\$81,267,099	\$75,388,579



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

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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
Beginning Net Pension Liability	\$7,872,042	\$10,129,093
Pension Expense	1,329,388	1,795,411
Employer Contributions	(1,329,139)	(1,200,993)
New Net Deferred Inflows/Outflows	312,148	(2,473,310)
Change in Allocation of Prior Deferred Inflows/Outflows	(68,863)	148,241
 New Net Deferred Flows Due to Change in Proportion¹ 	502,307	419,147
Recognition of Prior Deferred Inflows/Outflows	276,383	(905,031)
Recognition of Prior Deferred Flows Due to Change in Proportion ¹	<u>(163,900)</u>	<u>(40,516)</u>
Ending Net Pension Liability	\$8,730,366	\$7,872,042



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

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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
Beginning Net Pension Liability	\$7,919,662	\$12,014,705
Pension Expense	924,766	1,411,069
Employer Contributions	(1,323,493)	(1,208,258)
New Net Deferred Inflows/Outflows	310,822	(2,488,271)
Change in Allocation of Prior Deferred Inflows/Outflows	(58,633)	(258,841)
New Net Deferred Flows Due to Change in Proportion ¹	426,480	(730,924)
Recognition of Prior Deferred Inflows/Outflows	275,208	(910,505)
Recognition of Prior Deferred Flows Due to Change in Proportion ¹	<u>218,468</u>	90,687
Ending Net Pension Liability	\$8,693,280	\$7,919,662



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

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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
Beginning Net Pension Liability	\$13,701,573	\$15,804,862
Pension Expense	2,113,435	2,637,575
Employer Contributions	(1,490,917)	(1,306,574)
New Net Deferred Inflows/Outflows	209,374	(2,079,619)
Change in Allocation of Prior Deferred Inflows/Outflows	13,106	11,513
 New Net Deferred Flows Due to Change in Proportion¹ 	42,672	22,387
Recognition of Prior Deferred Inflows/Outflows	(489,329)	(1,413,392)
Recognition of Prior Deferred Flows Due to Change in Proportion ¹	<u>26,320</u>	24,821
Ending Net Pension Liability	\$14,126,234	\$13,701,573



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

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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
Beginning Net Pension Liability	\$862,332	\$1,666,157
Pension Expense	326,746	364,142
Employer Contributions	(72,051)	(750,000)
New Net Deferred Inflows/Outflows	370	(172,931)
Change in Allocation of Prior Deferred Inflows/Outflows	63	16,777
 New Net Deferred Flows Due to Change in Proportion¹ 	206	32,625
Recognition of Prior Deferred Inflows/Outflows	(275,149)	(319,748)
 Recognition of Prior Deferred Flows Due to Change in Proportion¹ 	<u>17,394</u>	<u>25,310</u>
Ending Net Pension Liability	\$859,911	\$862,332



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

Panartina

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

Date for Employer Under GASB 68 Year Ended June 30	Differences between Expected and Actual Experience	Recognition Period (Years)	2020	2021	Reporting Date for	or Employer under 2023	r GASB 68 Year En 2024	nded June 30:	2026	2027
2015	\$(85,378,608)	5.68	\$(10,221,383)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2016	(31,964,793)	5.64	(5,667,516)	(3,627,213)	0	0	0	0	0	0
2017	(68,175,766)	5.60	(12,174,244)	(12,174,244)	(7,304,546)	0	0	0	0	0
2018	17,516,316	5.47	3,202,252	3,202,252	3,202,252	1,505,056	0	0	0	0
2019	13,710,084	5.43	2,524,878	2,524,878	2,524,878	2,524,878	1,085,694	0	0	0
2020	24,548,055	5.37	4,571,332	4,571,332	4,571,332	4,571,332	4,571,332	1,691,395	0	0
2021	33,007,683	5.26	N/A	6,275,224	6,275,224	6,275,224	6,275,224	6,275,224	1,631,563	<u>0</u>
Net increase (d	ecrease) in pensi	on expense	\$(17,764,681)	\$772,229	\$9,269,140	\$14,876,490	\$11,932,250	\$7,966,619	\$1,631,563	\$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, 2019 (the beginning of the measurement period ending December 31, 2020) is 5.26 years.

Reporting

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

Date for Employer Under GASB 68 Year Ended	Effects of Assumption	Recognition Period	Reporting Date for Employer under GASB 68 Year Ended June 30:							
June 30	Changes	(Years)	2020	2021	2022	2023	2024	2025	2026	2027
2015	\$431,863,478	5.68	\$51,701,968	\$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	26,906,594	26,906,594	16,143,959	0	0	0	0	0
2018	316,727,508	5.47	57,902,653	57,902,653	57,902,653	27,214,243	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
2021	236,513,333	5.26	<u>N/A</u>	44,964,513	44,964,513	44,964,513	44,964,513	44,964,513	11,690,768	<u>0</u>
Net increase (de	ecrease) in pensi	on expense	\$136,511,215	\$129,773,760	\$119,011,125	\$72,178,756	\$44,964,513	\$44,964,513	\$11,690,768	\$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, 2019 (the beginning of the measurement period ending December 31, 2020) is 5.26 years.

Reporting

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

Date for Employer Under GASB 68 Year Ended	Differences between Projected and Actual	Recognition Period			Reporting Date	for Employer und	er GASB 68 Year E	inded June 30:		
June 30	Earnings	(Years)	2020	2021	2022	2023	2024	2025	2026	2027
2015	\$121,984,072	5.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2016	396,219,729	5.00	79,243,945	0	0	0	0	0	0	0
2017	16,987,820	5.00	3,397,564	3,397,564	0	0	0	0	0	0
2018	(601,849,317)	5.00	(120,369,864)	(120,369,864)	(120,369,861)	0	0	0	0	0
2019	727,349,183	5.00	145,469,836	145,469,836	145,469,836	145,469,839	0	0	0	0
2020	(679,128,753)	5.00	(135,825,750)	(135,825,750)	(135,825,750)	(135,825,750)	(135,825,753)	0	0	0
2021	(193,319,430)	5.00	<u>N/A</u>	(38,663,887)	(38,663,887)	(38,663,887)	(38,663,887)	(38,663,882)	<u>0</u>	<u>0</u>
Net increase (de	ecrease) in pensio	on expense	\$(28,084,269)	\$(145,992,101)	\$(149,389,662)	\$(29,019,798)	\$(174,489,640)	\$(38,663,882)	\$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.

Reporting

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

Total Increase (Decrease) in Pension Expense

Date for Employer Under GASB 68 Year Ended	Total Differences	Reporting Date for Employer under GASB 68 Year Ended June 30:							
June 30	and Changes	2020	2021	2022	2023	2024	2025	2026	2027
2015	\$468,468,942	\$41,480,585	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2016	364,254,936	73,576,429	(3,627,213)	0	0	0	0	0	0
2017	99,488,983	18,129,914	18,129,914	8,839,413	0	0	0	0	0
2018	(267,605,493)	(59,264,959)	(59,264,959)	(59,264,956)	28,719,299	0	0	0	0
2019	741,059,267	147,994,714	147,994,714	147,994,714	147,994,717	1,085,694	0	0	0
2020	(654,580,698)	(131,254,418)	(131,254,418)	(131,254,418)	(131,254,418)	(131,254,421)	1,691,395	0	0
2021	76,201,586	<u>N/A</u>	12,575,850	<u>12,575,850</u>	12,575,850	<u>12,575,850</u>	<u>12,575,855</u>	13,322,331	<u>0</u>
Net increase (de	ecrease) in pension expense	\$90,662,265	\$(15,446,112)	\$(21,109,397)	\$58,035,448	\$(117,592,877)	\$14,267,250	\$13,322,331	\$0

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, 2020. 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, 2020 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 2015 shown on the following pages. While these amounts are different for each employer, they sum to zero over the entire ACERA.

Allocation of changes in total Net Pension Liability (continued)

	Total Change to be	Recognition Period							
	Recognized	(Years)	2021	2022	2023	2024	2025	2026	Thereafter
Alameda County	\$8,250,590	5.26	\$1,568,554	\$1,568,554	\$1,568,554	\$1,568,554	\$1,568,554	\$407,820	\$0
Health System	(12,853,687)	5.26	(2,443,667)	(2,443,667)	(2,443,667)	(2,443,667)	(2,443,667)	(635,352)	0
Superior Court	3,403,342	5.26	647,023	647,023	647,023	647,023	647,023	168,227	0
First 5	620,220	5.26	117,913	117,913	117,913	117,913	117,913	30,655	0
Housing Authority	526,592	5.26	100,112	100,112	100,112	100,112	100,112	26,032	0
LARPD	52,689	5.26	10,017	10,017	10,017	10,017	10,017	2,604	0
ACOE	<u>254</u>	5.26	<u>48</u>	<u>48</u>	<u>48</u>	<u>48</u>	<u>48</u>	<u>14</u>	<u>0</u>
Total for all Employers	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0

Allocation of changes in total Net Pension Liability (continued)

	Total Change to be	Recognition Period	2020	2021	2022	2023	2024	2025	Thereafter
	Recognized	(Years)	2020	2021	2022	2023	2024	2025	Thereatter
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>	7,466	7,466	<u>7,466</u>	7,466	<u>2,761</u>	<u>0</u>
Total for all Employers	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0

Allocation of changes in total Net Pension Liability (continued)

	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>						
Total for all Employers	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0

Allocation of changes in total Net Pension Liability (continued)

	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	(26,789)	(26,789)	(26,789)	<u>(26,789)</u>	(26,789)	(12,592)	<u>0</u>
Total for all Employers	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0

Allocation of changes in total Net Pension Liability (continued)

	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

Allocation of changes in total Net Pension Liability (continued)

	Total Change to be	Recognition Period	2016	2017	2018	2040	2020	2024	Thereafter
	Recognized	(Years)	2016	2017	2010	2019	2020	2021	Therealter
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

Actuarial assumptions and methods

For December 31, 2020 Measurement Date and Employer Reporting as of June 30, 2021

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, 2016 through November 30, 2019 Actuarial Experience Study report dated September 9, 2020. Unless otherwise noted, all actuarial assumptions and methods shown below apply to all tiers. These assumptions were adopted by the Board.
Economic Assumptions	
Net Investment Return:	7.00%, net of investment expenses.
Employee Contribution Crediting Rate:	7.00%, compounded semi-annually.
Consumer Price Index:	Increase of 2.75% per year. Retiree COLA increases due to CPI are subject to a 2.75% maximum change per year for General Tier 1, General Tier 3, and Safety Tier 1, and 2% maximum change per year for General Tier 2, General Tier 4, Safety Tier 2, Safety Tier 2C, Safety Tier 2D, and Safety Tier 4. (For General Tier 1, General Tier 3, and Safety Tier 1 members with a sufficient COLA bank, withdrawals from the bank can be made to increase the retiree COLA up to 3% per year.)
	The actual COLA granted by ACERA on April 1, 2020 has been reflected in the December 31, 2019 valuation.
Payroll Growth:	Inflation of 2.75% 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 2.75% per year from the valuation date.
Increase in Section 7522.10 Compensation Limit:	Increase of 2.75% per year from the valuation date.

Salary Increases:	The annual rate of co	The annual rate of compensation increase includes:							
	 Inflation at 2.75%, 	Inflation at 2.75%, plus							
	"Across the board"	salary increases of 0.50°	% per year, plus						
		t and promotion increases							
		Years of	Rate	· (%)					
		Service	General	Safety					
		0-1	5.10	8.00					
		1-2	5.10	8.00					
		2-3	4.50	8.00					
		3-4	2.90	4.90					
		4-5	2.10	3.70					
		5-6	1.60	2.10					
		6-7	1.50	1.30					
		7-8	1.50	1.20					
		8-9	1.00	0.90					
		9-10	0.90	0.90					
		10-11	0.70	0.80					
		11 & Over	0.40	0.80					

percentages, added to the final average salary, used in this valuation are:

	Service Retirement	Disability Retirement
General Tier 1	7.5%	6.5%
General Tier 2	3.0%	1.4%
General Tier 3	7.5%	6.5%
General Tier 4	N/A	N/A
Safety Tier 1	7.5%	6.4%
Safety Tier 2	2.5%	1.9%
Safety Tier 2C	2.5%	1.9%
Safety Tier 2D	2.5%	1.9%
Safety Tier 4	N/A	N/A

Demographic Assumptions:	
Post-Retirement Mortality Rates:	Healthy
	 General Members: Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Tables (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019.
	 Safety Members: Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Tables (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019.
	Disabled
	 General Members: Pub-2010 Non-Safety Disabled Retiree Amount-Weighted Mortality Tables (separate tables for males and females) with rates decreased by 10% for females, projected generationally with the two-dimensional mortality improvement scale MP-2019.
	 Safety Members: Pub-2010 Safety Disabled Retiree Amount-Weighted Mortality Tables (separate tables for males and females) with rates increased by 5% for males, projected generationally with the two-dimensional mortality improvement scale MP-2019.
	Beneficiaries
	 All Beneficiaries: Pub-2010 General Contingent Survivor Amount-Weighted Above-Median Mortality Tables (separate tables for males and females) with rates increased by 5% for males, projected generationally with the two-dimensional mortality improvement scale MP-2019.
	The Pub-2010 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 Members: Pub-2010 General Employee Amount-Weighted Above-Median Mortality Tables (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019.
- **Safety Members:** Pub-2010 Safety Employee Amount-Weighted Above-Median Mortality Tables (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019.

Data (0/)

	Ger	neral ¹	Sa	fety ¹			
Age	Male	Female	Male	Female			
20	0.04	0.01	0.04	0.02			
25	0.02	0.01	0.03	0.02			
30	0.04	0.01	0.04	0.02			
35	0.04	0.02	0.04	0.03			
40	0.06	0.03	0.05	0.04			
45	0.09	0.05	0.07	0.06			
50	0.13	0.08	0.10	0.08			
55	0.19	0.11	0.15	0.11			
60	0.28	0.17	0.23	0.15			
65	0.41	0.27	0.35	0.20			

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

Mortality Rates for Member Contributions:

- **General Members:** Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Tables (separate tables for males and females), projected 30 years (from 2010) with the two-dimensional mortality improvement scale MP-2019, weighted 30% male and 70% female.
- **Safety Members:** Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Tables (separate tables for males and females), projected 30 years (from 2010) with the two-dimensional mortality improvement scale MP-2019, weighted 75% male and 25% female.

¹ Generational projections beyond the base year (2010) are not reflected in the above mortality rates.

Optional Forms of Benefit:

Service Retirement and All Beneficiaries

- General Members: Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Tables (separate tables for males and females), projected 25 years (from 2010) with the two-dimensional mortality improvement scale MP-2019, weighted 30% male and 70% female.
- General Beneficiaries: Pub-2010 General Contingent Survivor Amount-Weighted Above-Median Mortality
 Tables (separate tables for males and females) with rates increased by 5% for males, projected 25 years
 (from 2010) with the two-dimensional mortality improvement scale MP-2019, weighted 70% male and 30%
 female.
- Safety Members: Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Tables (separate tables for males and females), projected 25 years (from 2010) with the two-dimensional mortality improvement scale MP-2019, weighted 75% male and 25% female.
- Safety Beneficiaries: Pub-2010 General Contingent Survivor Amount-Weighted Above-Median Mortality Tables (separate tables for males and females) with rates increased by 5% for males, projected 25 years (from 2010) with the two-dimensional mortality improvement scale MP-2019, weighted 25% male and 75% female.

Disability Retirement

- **General Members:** Pub-2010 Non-Safety Disabled Retiree Amount-Weighted Mortality Tables (separate tables for males and females) with rates decreased by 10% for females, projected 25 years (from 2010) with the two-dimensional mortality improvement scale MP-2019, weighted 30% male and 70% female.
- **Safety Members:** Pub-2010 Safety Disabled Retiree Amount-Weighted Mortality Tables (separate tables for males and females) with rates increased by 5% for males, projected 25 years (from 2010) with the two-dimensional mortality improvement scale MP-2019, weighted 75% male and 25% female.

Disability Incidence:

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

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

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

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

For members with less than five years of service, 55% of all terminated members are assumed to choose a refund of contributions and the other 45% are assumed to choose a deferred vested benefit. For members with five or more years of service, 30% of all terminated members are assumed to choose a refund of contributions and the other 70% are assumed to choose a deferred vested benefit.

No termination is assumed after a member is eligible for retirement.

Retirement Rates:

	Rate (%) ¹									
			General			Safety				
		Tie	r 2 ²				Tier	2, 2D ²		
Age	Tier 1	< 30	30+	Tier 3	Tier 4	Tier 1 ³	< 30	30+	Tier 2C ³	Tier 4
49	0.0	0.0	0.0	0.0	0.0	0.0	12.0	18.0	0.0	0.0
50	2.0	2.0	4.0	10.0	0.0	35.0	12.0	18.0	4.0	4.0
51	4.0	2.0	4.0	10.0	0.0	30.0	10.0	24.0	2.0	2.0
52	4.0	2.0	4.0	10.0	4.0	25.0	10.0	24.0	2.0	2.0
53	5.0	2.0	4.0	10.0	2.0	35.0	10.0	25.0	3.0	3.0
54	5.0	2.0	4.0	10.0	2.0	45.0	12.0	27.0	6.0	6.0
55	6.0	2.0	4.0	12.0	5.0	45.0	12.0	29.0	10.0	10.0
56	10.0	2.5	4.5	14.0	2.5	45.0	14.0	32.0	12.0	12.0
57	12.0	4.0	5.0	16.0	3.5	45.0	16.0	32.0	20.0	20.0
58	12.0	4.0	5.0	18.0	3.5	45.0	18.0	30.0	10.0	10.0
59	14.0	4.5	8.0	20.0	4.5	45.0	18.0	30.0	15.0	15.0
60	20.0	8.0	8.5	20.0	5.0	45.0	25.0	30.0	60.0	60.0
61	20.0	9.0	13.5	20.0	5.0	45.0	25.0	30.0	60.0	60.0
62	35.0	15.0	22.5	30.0	18.0	45.0	25.0	30.0	60.0	60.0
63	30.0	15.0	22.5	25.0	15.0	45.0	25.0	30.0	60.0	60.0
64	30.0	18.0	27.0	25.0	17.0	45.0	30.0	30.0	60.0	60.0
65	30.0	25.0	27.5	50.0	25.0	100.0	100.0	100.0	100.0	100.0
66	30.0	30.0	33.0	50.0	30.0	100.0	100.0	100.0	100.0	100.0
67	30.0	30.0	33.0	50.0	30.0	100.0	100.0	100.0	100.0	100.0
68	30.0	30.0	33.0	50.0	30.0	100.0	100.0	100.0	100.0	100.0
69	35.0	35.0	38.5	50.0	35.0	100.0	100.0	100.0	100.0	100.0
70	40.0	40.0	40.0	65.0	25.0	100.0	100.0	100.0	100.0	100.0
71	40.0	40.0	40.0	65.0	25.0	100.0	100.0	100.0	100.0	100.0
72	40.0	40.0	40.0	65.0	25.0	100.0	100.0	100.0	100.0	100.0
73	40.0	40.0	40.0	65.0	25.0	100.0	100.0	100.0	100.0	100.0
74	40.0	40.0	40.0	65.0	25.0	100.0	100.0	100.0	100.0	100.0
75 & Over	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

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

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

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

Retirement Age and Benefit for Deferred Vested Members:	General Retirement Age: 61 Safety Retirement Age: 55 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. 25% of future General and 50% of future Safety deferred vested members are assumed to continue to work for a reciprocal employer. For reciprocals, 3.65% and 4.05% compensation increases are assumed per annum for General and Safety, respectively.
Future Benefit Accruals:	1.0 year of service per year of employment, plus 0.003 years of additional service for General members and 0.007 years of additional service for Safety members, to anticipate conversion of unused sick leave for each year of employment.
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 Funding Policy	
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:	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.



Changed Actuarial Assumptions:	Based on the December 1, 2016 through November 30, 2019 Actuarial Experience Study report dated September 9, 2020, various actuarial assumptions were updated. The prior actuarial assumptions are shown below.
Prior Actuarial Assumptions:	Prior assumptions were based on the December 1, 2013 through November 30, 2016 Actuarial Experience Study report dated September 6, 2017.
Economic Assumptions	
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.

Prior Actuarial Assumptions continued):	Prior assumptions were Study report dated Sep		ber 1, 2013 through	November 30, 201
Economic Assumptions (continued)				
Salary Increases:	The annual rate of com	pensation increase inc	cludes:	
Caraly moreuses.	 Inflation at 3.00%, pl 	us		
	"Across the board" s		% per year plue	
		•		
	The following merit a	and promotion increase	es:	
		V	Rate	e (%)
		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
Additional Cashout Assumptions:	Additional pay element percentages, added to			
			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%
		O (T' OD	0 =0/	0.40/
		Safety Tier 2D Safety Tier 4	3.5% N/A	2.1% N/A

Prior Actuarial Assumptions (continued):	Prior assumptions were based on the December 1, 2013 through November 30, 2016 Actuarial Experience Study report dated September 6, 2017.				
Demographic Assumptions					
Post-Retirement Mortality Rates:	Healthy				
	General Members and Mortality Tables, with no MP-2016 projection sca	setback for males			
	Safety Members: Head setback for males and for				
	Disabled				
	 General Members: Heat forward seven years for dimensional MP-2016 p 	males and set forv			
	 Safety Members: Head forward two years for m dimensional MP-2016 p 	ales and with no se			
	The RPH-2014 mortality to				
			oles were adjusted to sent between the mea		
Pre-Retirement Mortality Rates:	projection to reflect future	mortality improvem	nent between the mea	asurement date an	d those years.
Pre-Retirement Mortality Rates:		mortality improvemembers: Headcoun	nent between the meant-weighted RP-2014	asurement date and (RPH-2014) Empl	d those years. oyee Mortality Tables
Pre-Retirement Mortality Rates:	projection to reflect future General and Safety Me	mortality improvemembers: Headcoun	nent between the meant-weighted RP-2014	asurement date and (RPH-2014) Empl ional MP-2016 pro	d those years. oyee Mortality Tables
Pre-Retirement Mortality Rates:	projection to reflect future General and Safety Me	mortality improvemembers: Headcountected generationally	nent between the meant- nt-Weighted RP-2014 with the two-dimens	asurement date and (RPH-2014) Empl ional MP-2016 pro	d those years. oyee Mortality Tables
Pre-Retirement Mortality Rates:	projection to reflect future General and Safety Me	mortality improvemembers: Headcountected generationally	nent between the meant-weighted RP-2014 with the two-dimens Rate	asurement date and (RPH-2014) Empl ional MP-2016 pro	d those years. oyee Mortality Tables jection scale.
Pre-Retirement Mortality Rates:	General and Safety Me multiplied by 80%, projection to reflect future	embers: Headcount cted generationally	nent between the meant-Weighted RP-2014 with the two-dimens Rate	(RPH-2014) Emploional MP-2016 pro	d those years. oyee Mortality Tables jection scale. fety ¹
Pre-Retirement Mortality Rates:	Projection to reflect future General and Safety Me multiplied by 80%, projection Age	mortality improvementality improvemental	nent between the meant-Weighted RP-2014 with the two-dimension Rate neral1 Female	asurement date and (RPH-2014) Empl ional MP-2016 pro (%) Sa Male	d those years. oyee Mortality Tables jection scale. fety ¹ Female
Pre-Retirement Mortality Rates:	General and Safety Me multiplied by 80%, projection Age 20	embers: Headcountected generationally Gen Male 0.05	nent between the meant-Weighted RP-2014 with the two-dimension Rate neral1 Female 0.02	(RPH-2014) Emploional MP-2016 pro (%) Male 0.05	d those years. oyee Mortality Tables jection scale. fety¹ Female 0.02
Pre-Retirement Mortality Rates:	• General and Safety Me multiplied by 80%, projection to reflect future • General and Safety Me multiplied by 80%, projection to reflect future • General and Safety Me multiplied by 80%, projection to reflect future • General and Safety Me multiplied by 80%, projection to reflect future	mortality improvementality improvemental	nent between the meant-Weighted RP-2014 with the two-dimension Rate neral Female 0.02 0.02	(RPH-2014) Emploional MP-2016 pro (%) Male 0.05 0.05	d those years. oyee Mortality Tables jection scale. fety¹ Female 0.02 0.02
Pre-Retirement Mortality Rates:	e General and Safety Me multiplied by 80%, projection by 80%, projecti	mortality improvementality improvemental	nent between the meant-Weighted RP-2014 with the two-dimense Rate neral Female 0.02 0.02 0.02 0.02	(RPH-2014) Emploional MP-2016 pro (%) Sa Male 0.05 0.05 0.05	d those years. oyee Mortality Tables ijection scale. fety¹ Female 0.02 0.02 0.02 0.02
Pre-Retirement Mortality Rates:	e General and Safety Me multiplied by 80%, projection to reflect future • General and Safety Me multiplied by 80%, projection to reflect future Age 20 25 30 35	Ger Male 0.05 0.05 0.05 0.05	nent between the meant-weighted RP-2014 with the two-dimense Rate neral Female 0.02 0.02 0.02 0.02 0.03	(RPH-2014) Emploional MP-2016 pro (%) Sa Male 0.05 0.05 0.05 0.05	d those years. oyee Mortality Tables ijection scale. fety¹ Female 0.02 0.02 0.02 0.02 0.03
Pre-Retirement Mortality Rates:	e General and Safety Me multiplied by 80%, projection to reflect future • General and Safety Me multiplied by 80%, projection to reflect future Age 20 25 30 35 40	mortality improvementality improvemental	nent between the meant-Weighted RP-2014 with the two-dimension Rate neral Female 0.02 0.02 0.02 0.02 0.03 0.04	(RPH-2014) Emploional MP-2016 pro (%) Sa Male 0.05 0.05 0.05 0.05 0.05 0.05	d those years. oyee Mortality Tables jection scale. fety¹ Female 0.02 0.02 0.02 0.02 0.03 0.04
Pre-Retirement Mortality Rates:	e General and Safety Me multiplied by 80%, projection to reflect future • General and Safety Me multiplied by 80%, projection	mortality improvementality improvemental	rent between the meant-weighted RP-2014 with the two-dimensions Rate neral Female 0.02 0.02 0.02 0.02 0.03 0.04 0.07	(RPH-2014) Emploional MP-2016 pro (%) Sa Male 0.05 0.05 0.05 0.05 0.05 0.06 0.10	fety ¹ Female 0.02 0.02 0.02 0.02 0.03 0.04 0.07
Pre-Retirement Mortality Rates:	e General and Safety Me multiplied by 80%, projection to reflect future • General and Safety Me multiplied by 80%, projection by 80%, projection by 80%, projection and safety Me multiplied by 80%, projection by 80%, proje	Gen Male 0.05 0.05 0.05 0.05 0.06 0.10 0.17	rent between the meant-weighted RP-2014 with the two-dimensions Rate neral Female 0.02 0.02 0.02 0.02 0.03 0.04 0.07 0.11	(RPH-2014) Emploional MP-2016 pro (%) Sa Male 0.05 0.05 0.05 0.05 0.06 0.10 0.17	fety¹ Female 0.02 0.02 0.02 0.02 0.03 0.04 0.07 0.11
Pre-Retirement Mortality Rates:	e General and Safety Me multiplied by 80%, projection to reflect future. Age 20 25 30 35 40 45 50 55	Ger Male 0.05 0.05 0.05 0.05 0.05 0.10 0.17 0.27	rent between the meant-weighted RP-2014 with the two-dimensions Rate neral Female 0.02 0.02 0.02 0.02 0.03 0.04 0.07 0.11 0.17	(RPH-2014) Emploional MP-2016 pro (%) Sa Male 0.05 0.05 0.05 0.05 0.05 0.10 0.17 0.27 0.45	fety¹ Female 0.02 0.02 0.02 0.02 0.03 0.04 0.07 0.11 0.17
Pre-Retirement Mortality Rates:	Age 20 25 30 35 40 45 50 55 60	### Comparison of Comparison o	rent between the meant the meant between the meant the m	### Assurement date and content of the content of t	fety¹ Female 0.02 0.02 0.02 0.02 0.03 0.04 0.07 0.11 0.17 0.24

Prior Actuarial Assumptions (continued):	Prior assumptions were based on the December 1, 2013 through November 30, 2016 Actuarial Experience Study report dated September 6, 2017.
<u>Demographic Assumptions</u> (continued)	
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.

Prior Actuarial Assumptions (continued):	•	Prior assumptions were based on the December 1, 2013 through November 30, 2016 Actuarial Experience Study report dated September 6, 2017.			
Demographic Assumptions (continued)					
Disability Incidence:			Rate	(%)	
		Age	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 disabilitien non-service connected dinamental 100% of Safety disabilities	sabilities.			ier 40% are assumed to

ior Actuarial Assumptions ontinued):	Prior assumptions were ba Study report dated Septem		per 1, 2013 through I	November 30, 2010	6 Actuarial Experie
Demographic Assumptions (continued)					
Termination:	Less Than Five Years of S	ervice			
		R	Rate	(%)	
		Years of Service	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 mem contributions. The other 40 Five or More Years of Serv	% are assumed to			ose a returna or
	contributions. The other 40	% are assumed to		ested benefit.	ose a returna or
	contributions. The other 40	% are assumed to	choose a deferred v	ested benefit.	ose a returna or
	contributions. The other 40	% are assumed to	choose a deferred v	ested benefit.	ose a returna or
	contributions. The other 40	% are assumed to vice Age	choose a deferred v Rate General	ested benefit. (%) Safety	ose a returna or
	contributions. The other 40	% are assumed to vice Age 20 25 30	choose a deferred v Rate General 6.00	ested benefit. (%) Safety 2.00	
	contributions. The other 40	% are assumed to vice Age 20 25 30 35	Rate General 6.00 6.00 5.40 4.40	(%) Safety 2.00 2.00	
	contributions. The other 40	% are assumed to vice Age 20 25 30 35 40	Rate General 6.00 6.00 5.40 4.40 3.40	(%) Safety 2.00 2.00 2.00 1.70 1.20	
	contributions. The other 40	Age 20 25 30 35 40 45	Rate General 6.00 6.00 5.40 4.40 3.40 3.00	(%) Safety 2.00 2.00 2.00 1.70 1.20 1.00	
	contributions. The other 40	Age 20 25 30 35 40 45 50	Rate General 6.00 6.00 5.40 4.40 3.40 3.00 3.00	(%) Safety 2.00 2.00 2.00 1.70 1.20 1.00 1.00	
	contributions. The other 40	% are assumed to vice Age 20 25 30 35 40 45 50 55	Rate General 6.00 6.00 5.40 4.40 3.40 3.00 3.00 3.00	(%) Safety 2.00 2.00 2.00 1.70 1.20 1.00 1.00 1.00	
	contributions. The other 40	Age 20 25 30 35 40 45 50	Rate General 6.00 6.00 5.40 4.40 3.40 3.00 3.00	(%) Safety 2.00 2.00 2.00 1.70 1.20 1.00 1.00	
	contributions. The other 40	Age 20 25 30 35 40 45 50 55 60 bers with 5 or more	Rate General 6.00 6.00 5.40 4.40 3.40 3.00 3.00 3.00 3.00 3.00 years of service are	(%) Safety 2.00 2.00 2.00 1.70 1.20 1.00 1.00 1.00 0.40 e assumed to chood	

Prior Actuarial Assumptions Prior assumptions were based on the December 1, 2013 through November 30, 2016 Actuarial Experience Study report dated September 6, 2017. (continued): **Demographic Assumptions** (continued) Retirement Rates: Rate (%)1 General Safety Tier 2 Tier 3 Tier 4 Tier 1² Tier 2, 2D² Tier 2C² Age Tier 1 Tier 4 49 0.00 0.00 0.00 0.00 0.00 10.00 0.00 0.00 50 4.00 2.00 0.00 35.00 15.00 6.00 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 25.00 15.00 2.00 2.00 4.00 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 12.00 55 6.00 2.00 2.00 45.00 15.00 10.00 10.00 8.00 3.00 13.00 2.50 15.00 12.00 12.00 56 45.00 57 10.00 4.00 13.00 3.50 45.00 15.00 20.00 20.00 12.00 14.00 20.00 10.00 58 4.00 3.50 45.00 10.00 59 14.00 5.00 16.00 4.50 45.00 20.00 15.00 15.00 20.00 7.00 21.00 6.00 45.00 60.00 60 30.00 60.00 61 20.00 9.00 20.00 8.00 45.00 30.00 60.00 60.00 35.00 62 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 35.00 25.00 25.00 25.00 100.00 100.00 100.00 100.00 66 25.00 25.00 100.00 67 30.00 25.00 100.00 100.00 100.00 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 65.00 100.00 100.00 100.00 100.00 50.00 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

100.00

100.00

100.00

100.00

100.00

100.00

100.00

75

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.

Prior Actuarial Assumptions (continued):	Prior assumptions were based on the December 1, 2013 through November 30, 2016 Actuarial Experience Study report dated September 6, 2017.			
<u>Demographic Assumptions</u> (continued)				
Retirement Age and Benefit for	General Retirement Age: 61			
Deferred Vested Members:	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.			
	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.			

Appendix A: Projection of Plan's Fiduciary Net Position for Use in the Calculation of Discount Rate as of December 31, 2020 (\$ 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)
2020	7,819	416	531	15	657	8,346 **
2021	8,346 **	441	622	16	574	8,724
2022	8,724	438	652	17	599	9,092
2023	9,092	439	683	17	624	9,454
2024	9,454	437	715	18	648	9,806
2025	9,806	438	747	19	671	10,150
2026	10,150	440	778	19	694	10,487
2027	10,487	448	809	20	717	10,822
2028	10,822	456	840	21	739	11,157
2044	12,115	225	1,198	23	807	11,926
2045	11,926	230	1,206	23	794	11,721
2046	11,721	236	1,205	22	780	11,511
2047	11,511	234	1,194	22	765	11,294
2089	286	38	115	1	17	226
2090	226	34	97	0 *	13	175
2091	175	30	82	0 *	10	133
2092	133	27	68	0 *	8	100
2093	100	24	56	0 *	6	73
2094	73	21	45	0 *	4	53
2095	53	18	37	0 *	3	37
2096	37	16	29	0 *	2	26
2097	26	14	23	0 *	1	18
2098	18	12	18	0 *	1	12
2099	12	10	14	0 *	1	8
2100	8	9	11	0 *	0 *	6
2110	2	1	2	0 *	0 *	1
2111	1	1	1	0 *	0 *	1
2112	1	1	1	0 *	0 *	0 *
2113	0 *	0 *	1	0 *	0 *	0 *
2114	0 *	0 *	0 *	0 *	0 *	0 *
2134	0 *	0 *	0 *	0	0 *	0 *
2135 2135	0 * Discounted Value: 0 *,**	0 *	0	0	0 *	0 *

Less than \$1M, when rounded.

^{**} Excludes \$69.0 million in the Contingency Reserve plus \$29.7 million required to bring the Contingency Reserve to 1% of total assets as of December 31, 2020. See Note 2.

Notes

- Amounts may not total exactly due to rounding.
- 2. Amounts shown in the year beginning January 1, 2020 row are actual amounts, based on the financial statements provided by ACERA. The Plan Fiduciary Net Position as of December 31, 2020 differs from the amount used for other GASB 67 purposes in that it excludes the \$69.0 million Contingency Reserve plus the \$29.7 million of the Gross Market Stabilization Reserve expected to be used to bring the Contingency Reserve up to 1% of total assets (\$98.7 million). These assets are not used in developing the projected total contributions in column (b).
- 3. Years 2029-2043, 2048-2088, 2101-2109, and 2115-2133 have been omitted from this table.
- 4. Column (a): Except for the "discounted value" shown for 2135, all of the projected beginning plan fiduciary net position amounts shown have not been adjusted for the time value of money.
- 5. <u>Column (b)</u>: Projected total contributions include employee and employer normal cost contributions based on closed group projections (based on covered active members as of November 30, 2019); 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. <u>Column (c)</u>: 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, 2019. The projected benefit payments reflect the cost of living increase assumption of 2.75% per annum for Tiers 1 and 3, and 2.00% per annum for Tiers 2 and 4. The projected benefit payments include the Non-OPEB Supplemental Retiree Benefits Reserve (SRBR) benefits to the extent the current Non-OPEB SRBR supports those benefits. Benefit payments are assumed to occur halfway through the year, on average. In accordance with paragraph 31.b.(1)(e) of GASB Statement No. 67, the long-term expected rate of return on Plan investments of 7.00% per annum was applied to all periods of projected benefit payments to determine the discount rate.
 - In addition, the projected benefit payments in column (c) include an amount equal to 0.65% of the beginning-of-year market value to reflect the approximated outflow of future allocations to the SRBR. This outflow has an estimated present value of \$0.99 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 \$0.08 billion as well as the remaining present value of the OPEB SRBR benefits of \$0.26 billion.
- 7. <u>Column (d)</u>: Projected administrative expenses are calculated as approximately 0.19% of the beginning plan fiduciary net position amount. The 0.19% portion was based on the actual fiscal year 2020 administrative expenses as a percentage of the beginning plan fiduciary net position amount as of January 1, 2020. Administrative expenses are assumed to occur halfway through the year, on average.
- 8. Column (e): Projected investment earnings are based on the assumed investment rate of return of 7.00% per annum.
- 9. As illustrated in this Exhibit, the Plan's fiduciary net position was projected to be available to make all projected future benefit payments for current Plan members. In other words, there is no projected "cross-over date" when projected benefits are <u>not</u> covered by projected assets. Therefore, the long-term expected rate of return on Plan investments of 7.00% per annum was applied to all periods of projected benefit payments to determine the total pension liability as of December 31, 2020 shown earlier in this report, pursuant to paragraph 44 of GASB Statement No. 67.
- 10. This projection is based on a model developed by our Actuarial Technology and Systems unit, comprised of both actuaries and programmers. The model allows the client team, under the supervision of the responsible actuary, control over the entry of future expected contribution income, benefit payments and administrative expenses. The projection of fiduciary net position and the discounting of benefits is part of the model.

Appendix B: Definition of Terms

Definitions of certain terms as they are used in Statement 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.

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:
	 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. The actuarial present value of projected benefit payments not included in (1), calculated using the municipal bond rate.

Entry Age Actuarial Cost Method	A method under which the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age(s). The portion of this actuarial present value allocated to a valuation year is called the <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.	

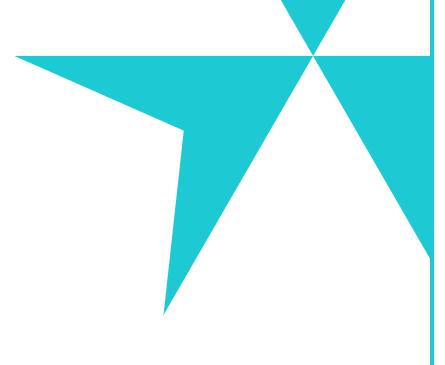
Service Costs	The portions of the actuarial present value of projected benefit payments that are attributed to valuation years.
Termination Benefits	Inducements offered by employers to active employees to hasten the termination of services, or payments made in consequence of the early termination of 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.

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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)

Actuarial Valuation Based on December 31, 2020 Measurement Date for Employer Reporting as of June 30, 2021



This report has been prepared at the request of the Board of Retirement to assist the sponsors of the Fund in preparing their finacial report for their liabilities associated with the ACERA SRBR OPEB 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. The measurements shown in this actuarial valuation may not be applicable for other purposes.

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Segal



June 4, 2021

Board of Trustees 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 75 (GASB) Actuarial Valuation of Other Postemployment Benefits (OPEB) based on a December 31, 2020 measurement date for employer reporting as of June 30, 2021. 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 the sponsors of the Fund in preparing their financial report for their liabilities associated with the ACERA SRBR OPEB plan. 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; changes in health care trend, 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 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 4, 2021 Page 2

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

Sincerely,

Segal

Vice President and Actuary

Thomas Bergman, ASA, MAAA, EA

Hrome Bergmin

Senior Actuary



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Purpose and basis

This report has been prepared by Segal to present certain disclosure information required for "Other Postemployment Benefits (OPEB)" plans by Governmental Accounting Standards Board Statement 75 (GASB 75) for employer reporting as of June 30, 2021. 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, 2020. 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, 2019, provided by ACERA;
- The assets of the Plan as of December 31, 2020, provided by ACERA;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board for the December 31, 2020 valuation; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, and health care trends etc. adopted by the Board for the December 31, 2020 valuation.

General observations on GASB 75 actuarial valuation

- It is important to note that 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 develop and adopt funding policies, if applicable, under current practices.
- 2. When measuring OPEB 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.¹ This means that the Total OPEB Liability (TOL) 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.

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.



3. The Net OPEB Liability (NOL) is equal to the difference between the TOL and the Plan's Fiduciary Net Position. The Plan's Fiduciary Net Position is equal to the fair value of assets and therefore, the NOL measure is very similar to an Unfunded Actuarial Accrued Liability (UAAL) calculated on a market value basis.

Highlights of the valuation

- 1. For this report, the reporting dates for the employers are June 30, 2021 and June 30, 2020. The NOLs measured as of December 31, 2020 and 2019 have been determined by rolling forward the TOL as of December 31, 2019 and 2018, respectively. The Plan's Fiduciary Net Positions were valued as of the measurement dates. In addition, any changes in actuarial assumptions or plan provisions that occurred between the valuation date and the measurement date have been reflected. Consistent with the provisions of GASB 75, the assets and liabilities measured as of December 31, 2020 and 2019 are not adjusted or rolled forward to the June 30, 2021 and June 30, 2020 reporting dates, respectively.
- 2. The NOL decreased from \$112.9 million as of December 31, 2019 to \$6.7 million as of December 31, 2020 primarily as a result of favorable investment return during calendar year 2020 of about \$193.5 million (for an actual market return of 27.7%¹ versus 7.25% assumed in the valuation), offset somewhat by lowering the discount rate² (which on a net basis increased the NOL by about \$33.2 million). Changes in these values during the last two fiscal years ending December 31, 2020 and 2019 can be found in Section 2, Schedule of changes in Net OPEB Liability on page 19.
- 3. The OPEB expense decreased from \$18.2 million as of December 31, 2019 to (negative) -\$15.3 million as of December 31, 2020 primarily due to the favorable return on the market value of assets for the year ended December 31, 2020 which lowered the OPEB expense by \$38.7 million. Components of the OPEB expense during the last two plan years ending December 31, 2020 and 2019 can be found in *Section 2, OPEB expense*.
- 4. As we disclosed in our December 31, 2020 pension funding valuation report, the 7.00% investment return assumption that the Board approved for determining the liabilities for funding purposes and used for establishing the employer and employee contribution rates has continued to be developed without considering the impact of any future 50/50 excess earnings allocation. This is based on our understanding that Article 5.5 of the Statute, which authorizes the allocation of 50% of excess earnings to the SRBR, does not allow for the use of a different investment return for funding than is used for interest crediting. This would

² The discount rate was lowered from 7.25% to 7.00% based on the 7.00% investment rate of return assumption that the Board approved based on the recommended assumption from the Actuarial Experience Study for the period December 1, 2016 through November 30, 2019, dated September 9, 2020.



¹ Note that the 27.7% market value investment return mentioned above for the SRBR is higher than the 11.5% investment return included in the December 31, 2020 Pension Funding Valuation for the 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, 2020.

appear in effect to preclude the prefunding of the SRBR through the use of an assumption lower than the market earnings assumption of 7.00%.

As required by the Actuarial Standard of Practice (ASOP) No. 4 ("Measuring Pension Obligations and Determining Pension Plan Costs or Contributions"), we performed a stochastic model to estimate the impact of the 50% allocation of future excess earnings to the SRBR. The results of our model indicated that the 50/50 allocation of future excess earnings would have about the same impact as an "outflow" (i.e., assets not available to fund the benefits included in the determination of the Total Pension Liability) that would average approximately 0.65% of assets over time. This approximated outflow was incorporated into our GASB crossover test for the pension benefits (reference: Section 2, Schedule of Changes in Net Pension Liability of our GASB 67 report as of December 31, 2020), along with the additional future employer contributions that would result from those future allocations of excess earnings to the SRBR under ACERA's funding policy.

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

Therefore, in developing the crossover test for the OPEB SRBR in *Section 3, Appendix A on page 79* 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.

- 5. The NOLs for the employers in ACERA as of December 31, 2019 and December 31, 2020 are allocated based on the actual employer contributions made during 2019 and 2020, respectively 1. 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 Section 2, Determination of proportionate share.
- 6. In 2019, the Alameda County Office of Education (ACOE) made a lump sum contribution to the Pension Plan 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 ACOE's required contributions determined in our December 31, 2018 valuation in the amount of \$78,000 based on an April 1, 2020 payment date plus the amortization of the remaining balance of the original \$750,000 lump sum amount (an amount of \$60,832 which represents the additional UAAL contribution ACOE would have been required to pay if they did not

¹ The December 31, 2019 and December 31, 2020 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 2019 and 2020, respectively, based on discussions and approval provided by the Board.



make the additional lump sum contribution in 2019). Note that in 2020, the actual contribution made by ACOE is \$72,051 which is \$5,949 less than the required contribution. Since \$5,949 is part of the required contributions, we included this amount for purposes of determining ACOE's proportionate share of the OPEB SRBR NOL.

- 7. The TOL as of December 31, 2020 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, 2019. 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, 2020 (reference: our letter dated March 22, 2021) and the assumptions approved by the Board from the Actuarial Experience Study for the period December 1, 2016 through November 30, 2019, dated September 9, 2020.
- 8. We have also continued the practice of adjusting the Plan's Fiduciary Net Position as of December 31, 2020 to include the \$891.6 million set aside by the Retirement Board in the SRBR reserve to pay OPEB benefits as of December 31, 2020. This includes \$882.5 million in the OPEB-related SRBR reserve (after reducing the reserve by the \$7.5 million SRBR implicit subsidy transfer), and \$9.1 million in the 401(h) reserve. It should be noted that as of December 31, 2020, the deferred investment gain for the entire Plan was \$643.3 million. Consequently, after first replenishing the Contingency Reserve from \$69.0 million to \$98.7 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 OPEB SRBR reserve to total SRBR and 401(h) reserve to valuation and 401(h) reserve, or \$293.3 million (which will cause the future interest crediting rate to the SRBR reserve to be raised above 7.00% per year).
- 9. The Coronavirus (COVID-19) pandemic is rapidly evolving and has had a significant impact on the US economy in 2020, including most retiree health plans, and will likely continue to have an impact in the future. Our results do not include the impact of the following:
 - Direct or indirect effects of COVID-19 on short-term health plan costs
 - Short-term or long-term impacts on mortality of the covered population
 - The potential for federal or state fiscal relief

Each of the above factors could significantly impact the results prepared using these assumptions. The net effect of the above factors generally have not affected our assumptions for the December 31, 2020 valuation. Given the high level of uncertainty and fluidity of the current events, we will monitor to assess any potential changes in the assumptions proposed here.

Due to the COVID-19 pandemic, market conditions have varied significantly during 2020. The Plan's funded status does not reflect short-term fluctuations of the market, but rather is based on the market values on the last day of the Plan Year. While it is impossible to determine how the pandemic will continue to affect market conditions, health care costs, and other demographic experience of the Plan prior to next year's valuation, Segal is available to prepare projections of potential outcomes upon request.

Summary of key valuation results

Reporting Date for Employer under GASB 75 ¹		June 30, 2021	June 30, 2020
Measurement Date for Employ	ver under GASB 75	December 31, 2020	December 31, 2019
Disclosure elements for	Service cost ²	\$31,510,436	\$27,678,194
fiscal year ending	Total OPEB Liability	1,191,570,896	1,083,114,679
December 31:	Plan's Fiduciary Net Position ³	1,184,882,854	970,180,405
	Net OPEB Liability	6,688,042	112,934,274
	OPEB expense	-15,301,333	18,191,319
Schedule of contributions	Actuarially determined contributions	N/A	N/A
for fiscal year ending	Actual contributions ⁴	N/A	N/A
December 31:	Contribution deficiency / (excess)	0	0
Demographic data for plan	 Number of retired members receiving medical benefits⁶ 	6,664	6,575
year ending December 31:5	Number of retired members receiving dental and vision benefits	7,906	7,741
	Number of vested terminated members	451	430
	Number of active members	11,322	11,336
Key assumptions as of	Investment rate of return	7.00%	7.25%
December 31:	Health care premium trend rates		
	Non-Medicare medical plan	Graded from 6.75% to ultimate 4.50% over 9 years	Graded from 6.75% to ultimate 4.50% over 9 years ⁸
	Medicare medical plan	Graded from 6.25% to ultimate 4.50% over 7 years	Graded from 6.25% to ultimate 4.50% over 7 years ⁸
	Dental/Vision	4.00% ⁷	4.00%
	Medicare Part B	4.50%	4.50%

The reporting date and measurement date for the plan are December 31, 2020 and December 31, 2019, respectively.

Key assumptions as of December 31, 2018:

Investment rate of return 7.25%

Health care premium trend rates

Non-Medicare medical plan⁸ Graded from 7.00% to ultimate 4.50% over 10 years Medicare medical plan⁸ Graded from 6.50% to ultimate 4.50% over 8 years

Dental/Vision and Medicare Part B 4.00%

The Service Cost is based on the previous year's valuation, meaning the December 31, 2020 and December 31, 2019 measurement date values are based on the valuations as of December 31, 2019 and December 31, 2018, respectively. The December 31, 2020 service cost has been calculated using the assumptions shown in the December 31, 2019 column, and the December 31, 2019 service cost has been calculated using the following assumptions:

- For 2020, the Plan's Fiduciary Net Position shown (\$1,184,882,854) includes the OPEB-related SRBR reserve of \$882,528,291 (after reducing the reserve by the SRBR implicit subsidy transfer of \$7,548,683) and 401(h) reserve (\$9,051,620), plus the proportionate share of one-half of the net deferred investment gain that is commensurate with the size of the OPEB SRBR reserve to total SRBR and 401(h) reserve to valuation and 401(h) reserve (\$293,302,942), after first replenishing the Contingency Reserve from \$69.0 million to \$98.7 million (1% of total assets). 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). Note that amounts may not total exactly due to rounding.
- 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.
- The December 31, 2019 data is used in the measurement of the TOL as of December 31, 2020. The following data as of December 31, 2018 was used in the measurement of the TOL as of December 31, 2019:

Number of retired members receiving medical benefits	6,385
Number of retired members receiving dental and vision benefits	7,519
Number of vested terminated members	410
Number of active members	11,349

The demographic data as of December 31, 2020 will be used in the sufficiency study for the SRBR as of December 31, 2020 as well as in the next year's GASB 74 valuation when we roll forward the liability from December 31, 2020 to December 31, 2021.

- ⁶ The retiree count excludes beneficiaries under 65 receiving an implicit subsidy.
- The first two years of trend for dental were updated to reflect the three-year rate guarantee (premiums would be fixed at the 2021 levels for 2022 and 2023). The first four years of trend for vision were updated to reflect the five-year rate guarantee (premiums would be fixed at 2021 levels for 2022, 2023, 2024 and 2025).
- The trend rates for 2020 as of the December 31, 2019 measurement are before reflecting the repeal of the Health Insurance Tax (HIT) taking effect in 2021 that would further reduce 1.20% from non-Medicare plan trend of 6.75% and 0.90% from Medicare plan trend of 6.25%. 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.



Important information about actuarial valuations

An actuarial valuation is a budgeting tool with respect to defining future projected obligations of an OPEB 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 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, 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 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.
Models	Segal valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are presented to meet regulatory, legislative and client requirements. Our Actuarial Technology and Systems unit, comprised of both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuary.

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

The valuation is prepared at the request of the Board to assist ACERA in preparing items related to the SRBR OPEB 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.

General information about the OPEB plan

Plan Description

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

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

Plan membership. At December 31, 2020, OPEB plan membership consisted of the following:

Retired members currently receiving medical benefits	6,664
Retired members currently receiving dental and vision benefits	7,906
Vested terminated members entitled to, but not yet receiving benefits	451
Active members	<u>11,322</u>
Total	26,343

Note: Data as of December 31, 2020 is not used in the measurement of the TOL as of December 31, 2020. It will be used for the sufficiency study for the SRBR as of December 31, 2020 as well as in next year's GASB 74 and 75 valuations.

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



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

Eligibility:				
Service Retirees:	Retired with at least 10 years of service (including deferred vested members who terminate employment and receive a retirement benefit from ACERA)			
Disabled Retirees:	A minimum of 10 ¹ years of service is required for non-duty disability. There is no minimum service requirement for duty disability.			
Other Postemployment Benefits (OPEB):				
Monthly Medical Allowance				
Service Retirees:	Maximum Monthly the period January \$578.65 per month For those purchasil Maximum Monthly	chasing individual insurance throu Medical Allowance of \$578.65 per 1, 2021 through December 31, 20 ng individual insurance through the Medical Allowance is \$443.28 per ving subsidy schedule:	month is provided, effective Ja 21, the maximum allowance wi e Individual Medicare Insurance	nuary 1, 2020. I Il remain at E Exchange, the
		Completed Years of Service	Percentage Subsidized	
		10-14	50%	
		15-19	75%	-
		10-10		
		20+	100%	
Disabled Retirees:	•	20+ retirees receive the same Monthly ees receive the same Monthly Med	100% Medical Allowance as service i	

¹ The 10 years of service requirement is only used for determining eligibility for health benefits. For pension benefits, the eligibility requirements is 5 years of service.



Dental and Vision Plans:	The SRBR provides dental and vision benefits for retirees only. The maximum combined monthly dental and vision premium was \$46.28 in 2020 and is \$48.12 in 2021. The eligibility for these premiums is as follows.
Service Retirees:	Retired with at least 10 years of service.
Disabled Retirees:	For non-duty disabled retirees, 10 years of service is required. For grandfathered non-duty disabled retirees (with effective retirement dates on or before January 31, 2014), there is no minimum service requirement.
	For duty disabled retirees, there is no minimum service requirement.
Note about Monthly Medical Allowance:	The maximum levels of subsidy are reviewed by the Board annually and are not indexed to increase automatically.
	In addition, the Monthly Medical Allowance can only be used to pay for retiree medical benefits. There is no benefit payable to beneficiaries, current spouses, former spouses or dependents.
	If the actual cost of coverage is less than the Monthly Medical Allowance, the difference is not paid in cash or applied towards the coverage for beneficiaries, current spouses, former spouses or dependents.
Deferred Benefit:	Members who terminate employment with 10 or more years of service before reaching Pension eligibility commencement age may elect deferred MMA and/or dental/vision benefits.
Death Benefit:	Surviving spouses/domestic partners of members who die before the member commences retiree health benefits may enroll in an ACERA group medical plan on the date that the member would have been eligible to commence benefits. The surviving spouse/domestic partner must pay 100% of the premium. Because premiums for surviving spouses/domestic partners under age 65 include active participants for purposes of underwriting, the surviving spouses/domestic partners receive an implicit subsidy from the actives, which creates a liability for the SRBR.

Net OPEB Liability

Reporting Date for Employer under GASB 75	June 30, 2021	June 30, 2020
Measurement Date for Employer under GASB 75	December 31, 2020	December 31, 2019
Components of the Net OPEB Liability		
Total OPEB Liability	\$1,191,570,896	\$1,083,114,679
Plan's Fiduciary Net Position	<u>-1,184,882,854</u>	<u>-970,180,405</u>
Net OPEB Liability	\$6,688,042	\$112,934,274
Plan's Fiduciary Net Position as a percentage of the Total OPEB Liability	99.44%	89.57%

The Net OPEB Liability (NOL) was measured as of December 31, 2020 and 2019. The Plan's Fiduciary Net Position (plan assets) was valued as of the measurement date, while the Total OPEB Liability (TOL) was determined by rolling forward the TOL from actuarial valuations as of December 31, 2019 and 2018, respectively.

Plan provisions. The plan provisions used in the measurement of the NOL as of December 31, 2020 and 2019 are the same as those used in ACERA's SRBR sufficiency valuation as of December 31, 2019 and 2018, respectively.

Actuarial assumptions. The TOL as of December 31, 2020 that was determined by an actuarial valuation as of December 31, 2019, was re-valued as of December 31, 2019 (before roll forward) using the following actuarial assumptions, which were based on the results of the experience study for the period from December 1, 2016 through November 30, 2019 that were approved by the Board effective with the December 31, 2020 valuation and the health care trend assumptions recommended for the sufficiency study for the SRBR as of December 31, 2020 (reference: our letter dated March 22, 2021). This revalued TOL was then rolled forward to December 31, 2020 to determine the final TOL as of December 31, 2020. The actuarial assumptions are the same assumptions used in the December 31, 2020 SRBR OPEB actuarial valuation for ACERA and they are applied to all periods included in the measurement.

Investment rate of return 7.00%, net of OPEB plan investment expense, including inflation				
Inflation	2.75%			
Health care premium trend rates (used to project health care costs after calendar year 2021):				
Non-Medicare medical plan	Graded from 6.75% in 2021 to ultimate 4.50% over 9 years			
Medicare medical plan	Graded from 6.25% in 2021 to ultimate 4.50% over 7 years			
Dental	0.00% for the first two years to reflect a three-year rate guarantee (premiums fixed at 2021 level for 2022 and 2023) and 4.00% thereafter.			
Vision 0.00% for the first four years to reflect a five-year rate guarantee (prem fixed at 2021 level for 2022, 2023, 2024 and 2025) and 4.00% thereafter				
Medicare Part B¹	4.50%			
Other assumptions:	Same as those proposed in the experience study for the period December 1, 2016 through November 30, 2019.			

¹ The actual calendar year 2020 trend of 2.70% reflecting the standard 2021 calendar year premium of \$148.50 per month, consistent with Segal's Medicare Part B memo dated November 12, 2020 was reflected in the current year GAS 74 valuation with December 31, 2020 measurement date.

The TOL as of December 31, 2019 that was determined by an actuarial valuation as of December 31, 2018, used the following actuarial assumptions, which 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 sufficiency study for the SRBR as of December 31, 2019 (reference: our letter dated May 6, 2020). They are the same assumptions used in the December 31, 2019 SRBR OPEB actuarial valuation for ACERA and they were applied to all periods included in the measurement.

Investment rate of return	7.25%, net of OPEB plan investment expense, including inflation		
Inflation	3.00%		
Health care premium trend rates (used to project health care costs after calendar year 2020):			
Non-Medicare medical plan ¹	Graded from 6.75% in 2020 to ultimate 4.50% over 9 years		
Medicare medical plan ¹	Graded from 6.25% in 2020 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.		

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.

Determination of discount rate and investment rates of return

The long-term expected rate of return on OPEB plan investments¹ was determined in 2020 using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage, adding expected inflation and subtracting expected investment expenses and a risk margin. The target allocation (approved by the Board) and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before investment expenses are shown in the following table. This information was used in the derivation of the long-term expected investment rate of return assumption for the December 31, 2020 actuarial valuation. This information will be subject to change every three years based on the results of an actuarial experience study.

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

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

Discount rate. The discount rates used to measure the Total OPEB Liability (TOL) were 7.00% and 7.25% as of December 31, 2020 and December 31, 2019, respectively. The projection of cash flows used to determine the discount rate assumed benefits are paid out of current SRBR OPEB 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. 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, 2020 and December 31, 2019.

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

Discount rate and trend sensitivity

Sensitivity of the Net OPEB Liability to changes in the discount rate. The following presents the Net OPEB Liability of ACERA as of December 31, 2020, calculated using the discount rate of 7.00%, as well as what ACERA's NOL would be if it were calculated using a discount rate that is 1-percentage-point lower (6.00%) or 1-percentage-point higher (8.00%) than the current rate.

	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
Alameda County	\$124,702,723	\$5,156,701	-\$93,908,562
Health System	28,337,647	1,171,817	-21,339,932
Superior Court	6,458,728	267,081	-4,863,806
First 5	693,849	28,692	-522,509
Housing Authority	690,898	28,570	-520,288
LARPD	778,295	32,184	-586,102
ACOE	<u>72,475</u>	<u>2,997</u>	<u>-54,578</u>
Total for all Employers	\$161,734,615	\$6,688,042	-\$121,795,777

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, 2020, calculated using the current trend rate as well as what ACERA's Net OPEB Liability would be if it were calculated using a trend rate that is 1-percentage-point lower or 1-percentage-point higher than the current rate.

	1% Decrease	Current Trend Rates*	1% Increase
Alameda County	-\$113,044,465	\$5,156,701	\$151,573,704
Health System	-25,688,406	1,171,817	34,443,851
Superior Court	-5,854,912	267,081	7,850,456
First 5	-628,982	28,692	843,359
Housing Authority	-626,307	28,570	839,773
LARPD	-705,533	32,184	946,002
ACOE	<u>-65,700</u>	<u>2,997</u>	88,092
Total for all Employers	-\$146,614,305	\$6,688,042	\$196,585,237

^{*} 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 after the first two years and four years for Dental and Vision costs, respectively; and 4.50% for all years for Medicare Part B costs. The first two years of trend for dental were 0.00% to reflect three-year rate guarantee (premiums fixed at 2021 levels for 2022 and 2023). The first four years of trend for vision were 0.00% to reflect five-year rate guarantee (premiums fixed at 2021 levels for 2022, 2023, 2024 and 2025).

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

Reporting Date for Employer under GASB 75 Measurement Date for Employer under GASB 75	June 30, 2021 December 31, 2020	June 30, 2020 December 31, 2019
Total OPEB Liability		
Service cost ¹	\$31,510,436	\$27,678,194
Interest	79,142,070	73,843,280
Change of benefit terms	0	0
Differences between expected and actual experience	-13,871,821	-41,706,128
Changes of assumptions	57,696,237	12,524,469
Benefit payments	-46,020,705	<u>-43,562,150</u>
Net change in Total OPEB Liability	\$108,456,217	\$28,777,665
Total OPEB Liability – beginning	<u>1,083,114,679</u>	<u>1,054,337,014</u>
Total OPEB Liability – ending	<u>\$1,191,570,896</u>	<u>\$1,083,114,679</u>
Plan's Fiduciary Net Position		
Contributions – employer ²	N/A	N/A
Contributions – member	N/A	N/A
Net investment income	\$262,139,154	\$193,656,620
Benefit payments	-46,020,705	-43,562,150
Administrative expense	-1,416,000	-1,354,500
• Other	0	0
Net change in Plan's Fiduciary Net Position	\$214,702,449	\$148,739,970
Plan's Fiduciary Net Position ³ – beginning	<u>970,180,405</u>	<u>821,440,435</u>
Plan's Fiduciary Net Position ³ – ending	<u>\$1,184,882,854</u>	<u>\$970,180,405</u>
Net OPEB Liability – ending	<u>\$6,688,042</u>	<u>\$112,934,274</u>
Plan's Fiduciary Net Position as a percentage of the Total OPEB Liability	99.44%	89.57%
Covered employee payroll ⁴	N/A	N/A
Plan Net OPEB Liability as percentage of covered employee payroll	N/A	N/A

The Service Cost is based on the previous year's valuation, meaning the December 31, 2020 and December 31, 2019 measurement date values are based on the valuations as of December 31, 2019 and December 31, 2018, respectively.

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

See footnote (3) on page 6 for a discussion on the development of the 2020 "Plan's Fiduciary Net Position – beginning" amount of \$970,180,405 and the 2020 "Plan's Fiduciary Net Position - ending" amount of \$1,184,882,854.

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

Schedule of employer contributions – Last ten fiscal years

Year Ended December 31	Actuarially Determined Contributions ¹	Contributions in Relation to the Actuarially Determined Contributions ¹	Contribution Deficiency / (Excess)	Covered Employee Payroll ²	Contributions as a Percentage of Covered Employee Payroll
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
2020	N/A	N/A	0	N/A	N/A

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.

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.

Determination of proportionate share

Schedule of Employer Allocations as of December 31, 2019

Actual Employer Contributions by Employer January 1, 2019 to December 31, 2019

Contributions	Percentage*		
\$228,319,939	76.639%		
54,239,577	18.207%		
11,501,609	3.861%		
1,200,993	0.403%		
1,208,258	0.406%		
1,306,574	0.439%		
132,883	<u>0.045%</u>		
\$297,909,833	100.000%		
	\$228,319,939 54,239,577 11,501,609 1,200,993 1,208,258 1,306,574 132,883		

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

Allocation of December 31, 2019 Net OPER Liability

	Not Of EB Elability				
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	50,374	<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 to the pension plan. 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 NPL and 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.

Schedule of Employer Allocations as of December 31, 2020

Actual Employer Contributions by Employer January 1, 2020 to December 31, 2020

• · · · · · · · · · · · · · · · · · · ·		
Contributions	Percentage*	
\$238,881,264	77.104%	
54,283,769	17.521%	
12,372,365	3.993%	
1,329,139	0.429%	
1,323,493	0.427%	
1,490,917	0.481%	
<u>138,832</u>	0.045%	
\$309,819,779	100.000%	
	\$238,881,264 54,283,769 12,372,365 1,329,139 1,323,493 1,490,917 <u>138,832</u>	

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

Allocation of December 31, 2020

	Net OPED Liability		
Employer	NOL	Percentage	
Alameda County	\$5,156,701	77.104%	
Health System	1,171,817	17.521%	
Superior Court	267,081	3.993%	
First 5	28,692	0.429%	
Housing Authority	28,570	0.427%	
LARPD	32,184	0.481%	
ACOE	<u>2,997</u>	<u>0.045%</u>	
Total for all Employers	\$6,688,042	100.000%	

Notes:

- 1. With the exception of an adjustment for the lump sum contribution made by ACOE (see item 4), the above is based on the January 1, 2020 through December 31, 2020 employer contributions in total as provided by ACERA.
- 2. The Net OPEB Liability (NOL) is the Total OPEB Liability (TOL) minus the OPEB SRBR Plan's Fiduciary Net Position (plan assets).
- 3. The employer's share of the total plan NOL is the ratio of the employer's total contributions to the total contributions for all employers.
- 4. ACOE made a lump sum contribution of \$750,000 in 2019 to partially pay off their UAAL to the pension plan. That lump sum is greater than the amount that ACOE would have to make on an installment basis over 20 years. In order to have a more level allocation of the NPL and NOL to ACOE, ACERA approved an approach outlined in our March 2, 2020 letter to determine ACOE's proportionate share of the OPEB SRBR NOL by using ACOE's required contributions determined in our December 31, 2018 valuation in the amount of \$78,000 based on an April 1, 2020 payment date plus the amortization of the remaining balance of the original \$750,000 lump sum amount (an amount of \$60,832 which represents the additional UAAL contribution ACOE would have been required to pay if they did not make the additional lump sum contribution in 2019). Note that in 2020, the actual contribution made by ACOE is \$72,051 which is \$5,949 less than the required contribution. Since \$5,949 is part of the required contributions, we included this amount for purposes of determining ACOE's proportionate share of the OPEB SRBR NOL.

Notes regarding determination of proportionate share as of December 31, 2020 measurement date

The reporting date for the employer under GASB 75 is June 30, 2021. The reporting date and measurement date for the plan under GASB 74 are December 31, 2020. Consistent with the provisions of GASB 75, the assets and liabilities measured as of December 31, 2020 are <u>not</u> adjusted or rolled forward to the June 30, 2021 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:

- a. Net OPEB Liability
- b. Service Cost
- c. Interest on the Total OPEB Liability
- d. Current-period benefit changes
- e. Expensed portion of current-period difference between actual and expected experience in the Total OPEB 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 OPEB expense
- I. Recognition of beginning of year deferred inflows of resources as OPEB expense

OPEB expense

Total for All Employers

Reporting Date for Employer under GASB 75	June 30, 2021	June 30, 2020
Measurement Date for Employer under GASB 75 Components of OPEB Expense	December 31, 2020	December 31, 2019
Service cost	\$31,510,436	\$27,678,194
Interest on the Total OPEB Liability	79,142,070	73,843,280
Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
Current-period benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total OPEB Liability	-2,124,322	-6,309,550
Expensed portion of current-period changes of assumptions or other inputs	8,835,565	1,894,776
Member contributions	0	0
Projected earnings on plan investments	-68,618,499	-57,926,203
Expensed portion of current-period differences between actual and projected earnings on plan investments	-38,704,131	-27,146,083
Administrative expense	1,416,000	1,354,500
Other	0	0
Recognition of beginning of year deferred outflows of resources as OPEB expense	52,611,600	50,716,824
Recognition of beginning of year deferred inflows of resources as OPEB expense	-79,370,052	-45,914,419
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>
OPEB Expense	-\$15,301,333	\$18,191,319

OPEB expense (continued)

Alameda County

Reporting Date for Employer under GASB 75	June 30, 2021	June 30, 2020
Measurement Date for Employer under GASB 75 Components of OPEB Expense	December 31, 2020	December 31, 2019
Service cost	\$24,295,588	\$21,212,740
Interest on the Total OPEB Liability	61,021,145	56,593,947
Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	142,466	80,275
Current-period benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total OPEB Liability	-1,637,922	-4,835,680
Expensed portion of current-period changes of assumptions or other inputs	6,812,512	1,452,168
Member contributions	0	0
Projected earnings on plan investments	-52,907,125	-44,395,000
Expensed portion of current-period differences between actual and projected earnings on plan investments	-29,842,161	-20,804,926
Administrative expense	1,091,782	1,038,096
Other	0	0
Recognition of beginning of year deferred outflows of resources as OPEB expense	40,565,278	38,869,688
Recognition of beginning of year deferred inflows of resources as OPEB expense	-61,196,927	-35,189,095
Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>-7,019</u>	<u>-87,294</u>
OPEB Expense	-\$11,662,383	\$13,934,919

OPEB expense (continued)

Health System

Reporting Date for Employer under GASB 75 Measurement Date for Employer under GASB 75 Components of OPEB Expense	June 30, 2021 December 31, 2020	June 30, 2020 December 31, 2019
Service cost	\$5,520,969	\$5,039,288
Interest on the Total OPEB Liability	13,866,545	13,444,431
Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	-211,116	-159,239
Current-period benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total OPEB Liability	-372,204	-1,148,761
Expensed portion of current-period changes of assumptions or other inputs	1,548,086	344,976
Member contributions	0	0
Projected earnings on plan investments	-12,022,702	-10,546,455
Expensed portion of current-period differences between actual and projected earnings on plan investments	-6,781,381	-4,942,408
Administrative expense	248,098	246,610
Other	0	0
Recognition of beginning of year deferred outflows of resources as OPEB expense	9,218,120	9,233,865
Recognition of beginning of year deferred inflows of resources as OPEB expense	-13,906,490	-8,359,505
Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>16,308</u>	<u>175,547</u>
OPEB Expense	-\$2,875,767	\$3,328,349

OPEB expense (continued)

Superior Court

Reporting Date for Employer under GASB 75 Measurement Date for Employer under GASB 75 Components of OPEB Expense	June 30, 2021 December 31, 2020	June 30, 2020 December 31, 2019
Service cost	\$1,258,340	\$1,068,590
Interest on the Total OPEB Liability	3,160,465	2,850,918
Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	40,841	63,818
Current-period benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total OPEB Liability	-84,833	-243,597
Expensed portion of current-period changes of assumptions or other inputs	352,840	73,153
Member contributions	0	0
Projected earnings on plan investments	-2,740,216	-2,236,397
Expensed portion of current-period differences between actual and projected earnings on plan investments	-1,545,614	-1,048,047
Administrative expense	56,547	52,294
Other	0	0
Recognition of beginning of year deferred outflows of resources as OPEB expense	2,100,995	1,958,059
Recognition of beginning of year deferred inflows of resources as OPEB expense	-3,169,569	-1,772,649
Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>-1,649</u>	<u>-65,467</u>
OPEB Expense	-\$571,853	\$700,675

OPEB expense (continued)

First 5

Reporting Date for Employer under GASB 75	June 30, 2021	June 30, 2020
Measurement Date for Employer under GASB 75 Components of OPEB Expense	December 31, 2020	December 31, 2019
Service cost	\$135,181	\$111,581
Interest on the Total OPEB Liability	339,523	297,692
Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	7,964	6,598
Current-period benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total OPEB Liability	-9,113	-25,436
Expensed portion of current-period changes of assumptions or other inputs	37,905	7,639
Member contributions	0	0
Projected earnings on plan investments	-294,376	-233,524
Expensed portion of current-period differences between actual and projected earnings on plan investments	-166,042	-109,437
Administrative expense	6,075	5,461
Other	0	0
Recognition of beginning of year deferred outflows of resources as OPEB expense	225,706	204,460
Recognition of beginning of year deferred inflows of resources as OPEB expense	-340,501	-185,099
Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>8,325</u>	<u>1,727</u>
OPEB Expense	-\$49,353	\$81,662

OPEB expense (continued)

Housing Authority

Reporting Date for Employer under GASB 75 Measurement Date for Employer under GASB 75 Components of OPEB Expense	June 30, 2021 December 31, 2020		
Service cost	\$134,607	\$112,257	
Interest on the Total OPEB Liability	338,080	299,492	
Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	6,652	-12,262	
Current-period benefit changes	0	0	
Expensed portion of current-period difference between expected and actual experience in the Total OPEB Liability	-9,075	-25,590	
Expensed portion of current-period changes of assumptions or other inputs	37,744	7,685	
Member contributions	0	0	
Projected earnings on plan investments	-293,126	-234,936	
Expensed portion of current-period differences between actual and projected earnings on plan investments	-165,337	-110,099	
Administrative expense	6,049	5,494	
Other	0	0	
Recognition of beginning of year deferred outflows of resources as OPEB expense	224,747	205,696	
Recognition of beginning of year deferred inflows of resources as OPEB expense	-339,054	-186,219	
Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>-17,713</u>	<u>-5,451</u>	
OPEB Expense	-\$76,426	\$56,067	

OPEB expense (continued)

LARPD

Reporting Date for Employer under GASB 75	June 30, 2021	June 30, 2020
Measurement Date for Employer under GASB 75 Components of OPEB Expense	December 31, 2020	December 31, 2019
Service cost	\$151,632	\$121,392
Interest on the Total OPEB Liability	380,848	323,862
Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	13,130	8,469
Current-period benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total OPEB Liability	-10,223	-27,672
Expensed portion of current-period changes of assumptions or other inputs	42,519	8,310
Member contributions	0	0
Projected earnings on plan investments	-330,206	-254,053
Expensed portion of current-period differences between actual and projected earnings on plan investments	-186,252	-119,057
Administrative expense	6,814	5,941
Other	0	0
Recognition of beginning of year deferred outflows of resources as OPEB expense	253,178	222,434
Recognition of beginning of year deferred inflows of resources as OPEB expense	-381,945	-201,372
Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>-8,773</u>	<u>-17,242</u>
OPEB Expense	-\$69,278	\$71,012

OPEB expense (continued)

ACOE

Reporting Date for Employer under GASB 75	June 30, 2021	June 30, 2020
Measurement Date for Employer under GASB 75 Components of OPEB Expense	December 31, 2020	December 31, 2019
Service cost	\$14,119	\$12,346
Interest on the Total OPEB Liability	35,464	32,938
Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	63	12,341
Current-period benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total OPEB Liability	-952	-2,814
Expensed portion of current-period changes of assumptions or other inputs	3,959	845
Member contributions	0	0
Projected earnings on plan investments	-30,748	-25,838
Expensed portion of current-period differences between actual and projected earnings on plan investments	-17,344	-12,109
Administrative expense	635	604
Other	0	0
Recognition of beginning of year deferred outflows of resources as OPEB expense	23,576	22,622
Recognition of beginning of year deferred inflows of resources as OPEB expense	-35,566	-20,480
Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>10,521</u>	<u>-1,820</u>
OPEB Expense	\$3,727	\$18,635

Deferred outflows of resources and deferred inflows of resources

Total For All Employers

Reporting Date for Employer under GASB 75		June 30, 2021	June 30, 2020
Measurement Date for Employer under GASB 75		December 31, 2020	December 31, 2019
Deferred Outflows of Resources		·	,
Changes in proportion and differences between employer's contributions and proportionate share of			
contributions ¹		\$2,502,135	\$1,697,144
Changes of assumptions or other inputs		81,255,541	43,117,986
Net difference between projected and actual earnings on OPEB plan investments		0	0
Difference between expected and actual experience in the Total OPEB Liability		<u>0</u>	<u>0</u>
Total Deferred Outflows of Resources		\$83,757,676	\$44,815,130
Deferred Inflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of			
contributions ¹		\$2,502,135	\$1,697,144
Changes of assumptions or other inputs		6,289,027	8,002,659
Net difference between projected and actual earnings on OPEB plan investments		189,286,095	56,535,454
Difference between expected and actual experience in the Total OPEB Liability		<u>64,759,701</u>	66,714,256
Total Deferred Inflows of Resources	\$262,836,958	\$132,949,513	
Deferred outflows of resources and deferred inflows of resources related to OPEB will be reco	gnized as	s follows:	
Reporting Date for Employer under GASB 75 Year Ended June 30:			
	2021	N/A	-\$26,758,452
	2022	-\$58,751,342	-26,758,454
	2023	-21,943,058	10,049,830
	2024	-65,620,549	-33,627,661
	2025	-40,339,519	-8,346,631
	2026	4,018,228	-2,693,015
	2027	3,556,958	0
There	eafter	0	0

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

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

Alameda County

Reporting Date for Employer under GASB 75	June 30, 202	1 June 30, 2020		
Measurement Date for Employer under GASB 75	December 31, 202	December 31, 2019		
Deferred Outflows of Resources	·	·		
Changes in proportion and differences between employer's contributions and proportionate share of				
contributions ¹	\$1,206,19	4 \$511,790		
Changes of assumptions or other inputs	62,650,70	33,045,891		
Net difference between projected and actual earnings on OPEB plan investments	(0 0		
Difference between expected and actual experience in the Total OPEB Liability	<u>'</u>	<u>0</u>		
Total Deferred Outflows of Resources	\$63,856,89 ₆	4 \$33,557,681		
Deferred Inflows of Resources				
Changes in proportion and differences between employer's contributions and proportionate share of				
contributions ¹	\$269,20	7 \$369,658		
Changes of assumptions or other inputs	4,849,04	6,133,287		
Net difference between projected and actual earnings on OPEB plan investments	145,945,82	3,329,122		
Difference between expected and actual experience in the Total OPEB Liability	<u>49,931,86</u>	<u>51,130,217</u>		
Total Deferred Inflows of Resources	I Deferred Inflows of Resources \$200,995,939			
Deferred outflows of resources and deferred inflows of resources related to OPEB will be recog	nized as follows:			
Reporting Date for Employer under GASB 75 Year Ended June 30:				
	2021 N//	-\$20,514,861		
:	2022 -\$45,163,77	4 -20,514,863		
	2023 -16,783,37	7,695,232		
:	2024 -50,428,01	3 -25,747,321		
;	2025 -30,871,53	3 -6,307,813		
	2026 3,289,61	3 -2,014,977		
:	2027 2,818,03	4 0		
There	after	0		

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

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

Health System

Reporting Date for Employer under GASB 75	June 30, 2021	June 30, 2020	
Measurement Date for Employer under GASB 75	December 31, 2020	December 31, 2019	
Deferred Outflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of			
contributions ¹	\$487,409	\$662,956	
Changes of assumptions or other inputs	14,236,848	7,850,366	
Net difference between projected and actual earnings on OPEB plan investments	0	0	
Difference between expected and actual experience in the Total OPEB Liability	<u>0</u>	<u>0</u>	
Total Deferred Outflows of Resources	\$14,724,257	\$8,513,322	
Deferred Inflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of			
contributions ¹	\$1,901,560	\$893,328	
Changes of assumptions or other inputs	1,101,905	1,457,021	
Net difference between projected and actual earnings on OPEB plan investments	33,164,967	10,293,245	
Difference between expected and actual experience in the Total OPEB Liability	<u>11,346,599</u>	<u>12,146,471</u>	
Total Deferred Inflows of Resources	\$47,515,031	\$24,790,065	
Deferred outflows of resources and deferred inflows of resources related to OPEB will be recogn	nized as follows:		
Reporting Date for Employer under GASB 75 Year Ended June 30:			
21	021 N/A	-\$4,855,526	
2!	022 -\$10,488,677	-4,855,526	
2!	023 -4,039,469	1,846,051	
2!	024 -11,742,934	-6,156,880	
21	025 -7,426,808	-1,667,420	
21	026 395,788	-587,442	
21	027 511,326	0	
Therea	· · · · · · · · · · · · · · · · · · ·	0	

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

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

Superior Court

Reporting Date for Employer under GASB 75	June 30, 2021	June 30, 2020	
Measurement Date for Employer under GASB 75	December 31, 2020	December 31, 2019	
Deferred Outflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of			
contributions ¹	\$520,054	\$358,019	
Changes of assumptions or other inputs	3,244,865	1,664,686	
Net difference between projected and actual earnings on OPEB plan investments	0	0	
Difference between expected and actual experience in the Total OPEB Liability	<u>0</u>	<u>0</u>	
Total Deferred Outflows of Resources	\$3,764,919	\$2,022,705	
Deferred Inflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of			
contributions ¹	\$203,737	\$269,204	
Changes of assumptions or other inputs	251,146	308,964	
Net difference between projected and actual earnings on OPEB plan investments	7,558,964	2,182,703	
Difference between expected and actual experience in the Total OPEB Liability	<u>2,586,118</u>	<u>2,575,683</u>	
Total Deferred Inflows of Resources	\$10,599,965	\$5,336,554	
Deferred outflows of resources and deferred inflows of resources related to OPEB will be recogn	ized as follows:		
Reporting Date for Employer under GASB 75 Year Ended June 30:			
20	21 N/A	-\$1,034,731	
20	22 -\$2,306,988	-1,034,731	
20	23 -837,084	386,352	
20	-2,569,499	-1,288,130	
20	25 -1,525,403	-277,567	
20	240,234	-65,042	
20	163,694	0	
Thereaf	· · · · · · · · · · · · · · · · · · ·	0	

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

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

First 5

Reporting Date for Employer under GASB 75	June 30, 2021	June 30, 2020	
Measurement Date for Employer under GASB 75	December 31, 2020	December 31, 2019	
Deferred Outflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of		·	
contributions ¹	\$82,806	\$47,639	
Changes of assumptions or other inputs	348,589	173,826	
Net difference between projected and actual earnings on OPEB plan investments	0	0	
Difference between expected and actual experience in the Total OPEB Liability	<u>0</u>	<u>C</u>	
Total Deferred Outflows of Resources	\$431,395	\$221,465	
Deferred Inflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of	.	**	
contributions ¹	\$1,470	\$2,018	
Changes of assumptions or other inputs	26,980	32,262	
Net difference between projected and actual earnings on OPEB plan investments	812,045	227,917	
Difference between expected and actual experience in the Total OPEB Liability	<u>277,822</u>	<u> 268,952</u>	
Total Deferred Inflows of Resources	\$1,118,317	\$531,149	
Deferred outflows of resources and deferred inflows of resources related to OPEB will be recogn	ized as follows:		
Reporting Date for Employer under GASB 75 Year Ended June 30:			
20)21 N/A	-\$99,549	
20	-\$235,757	-99,549	
20	23 -77,848	48,840	
20	24 -265,052	-127,067	
20	25 -156,974	-25,529	
20	29,229	-6,830	
20	19,480	(
Thereaf	ter 0	(

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

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

Housing Authority

Reporting Date for Employer under GASB 75		June 30, 2021	June 30, 2020
Measurement Date for Employer under GASB 75	December 31, 2020	December 31, 2019	
Deferred Outflows of Resources		,	,
Changes in proportion and differences between employer's contributions and proportionate share of			
contributions ¹		\$36,785	\$0
Changes of assumptions or other inputs		347,109	174,877
Net difference between projected and actual earnings on OPEB plan investments		0	0
Difference between expected and actual experience in the Total OPEB Liability		<u>0</u>	<u>0</u>
Total Deferred Outflows of Resources		\$383,894	\$174,877
Deferred Inflows of Resources			
Changes in proportion and differences between employer's contributions and proportionate share of			
contributions ¹		\$71,474	\$89,187
Changes of assumptions or other inputs		26,866	32,457
Net difference between projected and actual earnings on OPEB plan investments		808,595	229,296
Difference between expected and actual experience in the Total OPEB Liability		<u>276,642</u>	<u>270,579</u>
Total Deferred Inflows of Resources		\$1,183,577	\$621,519
Deferred outflows of resources and deferred inflows of resources related to OPEB will be reco	gnized a	s follows:	
Reporting Date for Employer under GASB 75 Year Ended June 30:			
	2021	N/A	-\$126,240
	2022	-\$262,036	-126,240
	2023	-104,798	23,047
	2024	-289,744	-152,464
	2025	-178,163	-46,344
	2026	16,338	-18,401
	2027	18,720	0
Ther	eafter	0	C

 $^{^{\}rm 1}$ Calculated in accordance with Paragraphs 64 and 65 of GASB 75

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

LARPD

Reporting Date for Employer under GASB 75 Measurement Date for Employer under GASB 75 Deferred Outflows of Resources	June 30, 2021 December 31, 2020	June 30, 2020 December 31, 2019		
Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$111,646	\$47,508		
Changes of assumptions or other inputs	391,019	189,107		
Net difference between projected and actual earnings on OPEB plan investments	0	0		
Difference between expected and actual experience in the Total OPEB Liability	<u>0</u>	0		
Total Deferred Outflows of Resources	\$502,665	\$236,615		
Deferred Inflows of Resources				
Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$49,812	\$67,054		
Changes of assumptions or other inputs	30,264	35,098		
Net difference between projected and actual earnings on OPEB plan investments	910,884	247,953		
Difference between expected and actual experience in the Total OPEB Liability	<u>311,637</u>	<u>292,596</u>		
Total Deferred Inflows of Resources	<u> </u>			
Deferred outflows of resources and deferred inflows of resources related to OPEB will be recogn	nized as follows:			
Reporting Date for Employer under GASB 75 Year Ended June 30:				
20	021 N/A	-\$126,130		
20	022 -\$278,367	-126,130		
20	023 -101,238	35,304		
20	024 -307,071	-151,905		
20	025 -174,961	-30,576		
20	026 37,630	-6,649		
20	027 24,075	0		
Therea	fter 0	0		

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

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

ACOE

Reporting Date for Employer under GASB 75	June 30, 2021	June 30, 2020
Measurement Date for Employer under GASB 75	December 31, 2020	December 31, 2019
Deferred Outflows of Resources		
Changes in proportion and differences between employer's contributions and proportionate share of		
contributions ¹	\$57,241	\$69,232
Changes of assumptions or other inputs	36,411	19,233
Net difference between projected and actual earnings on OPEB plan investments	0	0
Difference between expected and actual experience in the Total OPEB Liability	<u>0</u>	<u>0</u>
Total Deferred Outflows of Resources	\$93,652	\$88,465
Deferred Inflows of Resources		
Changes in proportion and differences between employer's contributions and proportionate share of		
contributions ¹	\$4,875	\$6,695
Changes of assumptions or other inputs	2,818	3,570
Net difference between projected and actual earnings on OPEB plan investments	84,820	25,218
Difference between expected and actual experience in the Total OPEB Liability	<u>29,019</u>	<u>29,758</u>
Total Deferred Inflows of Resources	\$121,532	\$65,241
Deferred outflows of resources and deferred inflows of resources related to OPEB will be recogr	nized as follows:	
Reporting Date for Employer under GASB 75 Year Ended June 30:		
20	021 N/A	-\$1,415
20	022 -\$15,743	-1,415
20	023 751	15,004
20	024 -18,236	-3,894
20	025 -5,672	8,618
20	026 9,391	6,326
20	027 1,629	·
Therea	ifter 0	C

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

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

There are changes in each employer's proportionate share of the total Net OPEB Liability (NOL) during the measurement period ended December 31, 2020. 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 OPEB benefits through ACERA which is 6.531 years determined as of December 31, 2019 (the beginning of the measurement period ended December 31, 2020). 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.

The remaining service lives of all employees of 6.53 years used here for GASB 75 is different from the 5.26 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.



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%
2021	100.000%	6,688,042	1,111,848,569	0.60%	99.44%

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.



Schedule of proportionate share of the Net OPEB Liability (continued)

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	76.639%²	86,553,526	757,563,567	11.43%	89.57%
2021	77.104%	5,156,701	784,654,614	0.66%	99.44%



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.

² Revised to match percentage as shown in *Determination of proportionate share* on page 21.

Schedule of proportionate share of the Net OPEB Liability (continued)

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%
2021	17.521%	1,171,817	257,126,856	0.46%	99.44%

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.



Schedule of proportionate share of the Net OPEB Liability (continued)

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%
2021	3.993%	267,081	55,376,411	0.48%	99.44%

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.



Schedule of proportionate share of the Net OPEB Liability (continued)

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%
2021	0.429%	28,692	5,953,576	0.48%	99.44%

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.



Schedule of proportionate share of the Net OPEB Liability (continued)

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%
2021	0.427%	28,570	4,675,355	0.61%	99.44%

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.



Schedule of proportionate share of the Net OPEB Liability (continued)

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%
2021	0.481%	32,184	4,061,757	0.79%	99.44%

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.



Schedule of proportionate share of the Net OPEB Liability (continued)

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
2021	0.045%	2,997	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.



Schedule of reconciliation of Net OPEB Liability

Total for All Employers

Reporting Date for Employer under GASB 75 Measurement Date for Employer under GASB 75 Reconciliation of Net OPEB liability	June 30, 2021 December 31, 2020	June 30, 2020 December 31, 2019
Beginning Net OPEB Liability	\$112,934,274	\$232,896,579
OPEB Expense	-15,301,333	18,191,319
Employer contributions	0	0
New net deferred inflows/outflows	-117,703,351	-133,351,219
Change in allocation of prior deferred inflows/outflows	0	0
New net deferred inflows/outflows due to change in proportion	0	0
Recognition of prior deferred inflows/outflows	26,758,452	-4,802,405
Recognition of prior deferred inflows/outflows due to change in proportion	<u>0</u>	<u>0</u>
Ending Net OPEB Liability	\$6,688,042	\$112,934,274

Schedule of reconciliation of Net OPEB Liability (continued)

Alameda County

Reporting Date for Employer under GASB 75 Measurement Date for Employer under GASB 75 Reconciliation of Net OPEB liability	June 30, 2021 December 31, 2020	June 30, 2020 December 31, 2019
Beginning Net OPEB Liability	\$86,553,526	\$177,817,632
OPEB Expense	-11,662,383	13,934,919
Employer contributions	0	0
New net deferred inflows/outflows	-90,753,167	-102,201,198
Change in allocation of prior deferred inflows/outflows	-407,779	145,131
New net deferred inflows/outflows due to change in proportion	787,836	450,341
Recognition of prior deferred inflows/outflows	20,631,649	-3,680,593
Recognition of prior deferred inflows/outflows due to change in proportion	<u>7,019</u>	<u>87,294</u>
Ending Net OPEB Liability	\$5,156,701	\$86,553,526

Schedule of reconciliation of Net OPEB Liability (continued)

Health System

Reporting Date for Employer under GASB 75 Measurement Date for Employer under GASB 75 Reconciliation of Net OPEB liability	June 30, 2021 December 31, 2020	June 30, 2020 December 31, 2019
Beginning Net OPEB Liability	\$20,561,615	\$43,743,260
OPEB Expense	-2,875,767	3,328,349
Employer contributions	0	0
New net deferred inflows/outflows	-20,622,898	-24,278,869
Change in allocation of prior deferred inflows/outflows	604,276	-287,890
New net deferred inflows/outflows due to change in proportion	-1,167,471	-893,328
Recognition of prior deferred inflows/outflows	4,688,370	-874,360
Recognition of prior deferred inflows/outflows due to change in proportion	<u>-16,308</u>	<u>-175,547</u>
Ending Net OPEB Liability	\$1,171,817	\$20,561,615

Schedule of reconciliation of Net OPEB Liability (continued)

Superior Court

Reporting Date for Employer under GASB 75 Measurement Date for Employer under GASB 75 Reconciliation of Net OPEB liability	June 30, 2021 December 31, 2020	June 30, 2020 December 31, 2019
Beginning Net OPEB Liability	\$4,360,131	\$8,454,384
OPEB Expense	-571,853	700,675
Employer contributions	0	0
New net deferred inflows/outflows	-4,700,373	-5,148,381
Change in allocation of prior deferred inflows/outflows	-116,900	115,377
New net deferred inflows/outflows due to change in proportion	225,853	358,019
Recognition of prior deferred inflows/outflows	1,068,574	-185,410
Recognition of prior deferred inflows/outflows due to change in proportion	<u>1,649</u>	<u>65,467</u>
Ending Net OPEB Liability	\$267,081	\$4,360,131

Schedule of reconciliation of Net OPEB Liability (continued)

First 5

Reporting Date for Employer under GASB 75 Measurement Date for Employer under GASB 75 Reconciliation of Net OPEB liability	June 30, 2021 December 31, 2020	June 30, 2020 December 31, 2019
Beginning Net OPEB Liability	\$455,283	\$883,354
OPEB Expense	-49,353	81,662
Employer contributions	0	0
New net deferred inflows/outflows	-504,953	-537,591
Change in allocation of prior deferred inflows/outflows	-22,795	11,929
New net deferred inflows/outflows due to change in proportion	44,040	37,017
Recognition of prior deferred inflows/outflows	114,795	-19,361
Recognition of prior deferred inflows/outflows due to change in proportion	<u>-8,325</u>	<u>-1,727</u>
Ending Net OPEB Liability	\$28,692	\$455,283

Schedule of reconciliation of Net OPEB Liability (continued)

Housing Authority

Reporting Date for Employer under GASB 75 Measurement Date for Employer under GASB 75 Reconciliation of Net OPEB liability	June 30, 2021 December 31, 2020	June 30, 2020 December 31, 2019
Beginning Net OPEB Liability	\$458,037	\$1,047,799
OPEB Expense	-76,426	56,067
Employer contributions	0	0
New net deferred inflows/outflows	-502,806	-540,845
Change in allocation of prior deferred inflows/outflows	-19,040	-22,169
New net deferred inflows/outflows due to change in proportion	36,785	-68,789
Recognition of prior deferred inflows/outflows	114,307	-19,477
Recognition of prior deferred inflows/outflows due to change in proportion	<u>17,713</u>	<u>5,451</u>
Ending Net OPEB Liability	\$28,570	\$458,037

Schedule of reconciliation of Net OPEB Liability (continued)

LARPD

Reporting Date for Employer under GASB 75 Measurement Date for Employer under GASB 75 Reconciliation of Net OPEB liability	June 30, 2021 December 31, 2020	June 30, 2020 December 31, 2019
Beginning Net OPEB Liability	\$495,308	\$950,150
OPEB Expense	-69,278	71,012
Employer contributions	0	0
New net deferred inflows/outflows	-566,412	-584,853
Change in allocation of prior deferred inflows/outflows	-37,581	15,311
New net deferred inflows/outflows due to change in proportion	72,607	47,508
Recognition of prior deferred inflows/outflows	128,767	-21,062
Recognition of prior deferred inflows/outflows due to change in proportion	<u>8,773</u>	<u>17,242</u>
Ending Net OPEB Liability	\$32,184	\$495,308

Schedule of reconciliation of Net OPEB Liability (continued)

ACOE

Reporting Date for Employer under GASB 75 Measurement Date for Employer under GASB 75 Reconciliation of Net OPEB liability	June 30, 2021 December 31, 2020	June 30, 2020 December 31, 2019
Beginning Net OPEB Liability	\$50,374	\$0
OPEB Expense	3,727	18,635
Employer contributions	0	0
New net deferred inflows/outflows	-52,742	-59,482
Change in allocation of prior deferred inflows/outflows	-181	22,311
New net deferred inflows/outflows due to change in proportion	350	69,232
Recognition of prior deferred inflows/outflows	11,990	-2,142
Recognition of prior deferred inflows/outflows due to change in proportion	<u>-10,521</u>	<u>1,820</u>
Ending Net OPEB Liability	\$2,997	\$50,374

Reporting

Schedule of recognition of change in total Net OPEB Liability

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

Reporting Date for Employer Under GASB 75 Year	Differences between Expected and	Recognition _			Reporting Date for	or Employer unde	r GASB 75 Year E	nded June 30:		
Ended June 30	Actual Experience	Period (Years)	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	N/A	N/A	-6,309,550	-6,309,550	-6,309,550	-6,309,550	-6,309,550	-6,309,550
2021	-13,871,821	6.53	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>-2,124,322</u>	<u>-2,124,322</u>	<u>-2,124,322</u>	<u>-2,124,322</u>	<u>-2,124,322</u>
Net increase (d	ecrease) in OPEB	expense	-\$3,237,690	-\$7,392,504	-\$13,702,054	-\$15,826,376	-\$15,826,376	-\$15,826,376	-\$14,790,312	-\$11,217,598

Date for Employer Under GASB 75 Year	Differences between Expected and	Recognition								
Ended June 30	Actual Experience	Period (Years)	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	-3,848,828	0	0	0	0	0	0	0
2021	-13,871,821	6.53	<u>-2,124,322</u>	<u>-1,125,889</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Net increase (d	ecrease) in OPEB	expense	-\$5,973,150	-\$1,125,889	\$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 OPEB through ACERA (active and inactive employees) determined as of December 31, 2019 (the beginning of the measurement period ending December 31, 2020) is 6.53 years.

Reporting

Reporting

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

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

Date for Employer Under GASB 75 Year	Effects of	Recognition _								
Ended June 30	Assumption Changes	Period (Years)	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	1,894,776	1,894,776	1,894,776	1,894,776	1,894,776	1,894,776
2021	57,696,237	6.53	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>8,835,565</u>	<u>8,835,565</u>	<u>8,835,565</u>	<u>8,835,565</u>	<u>8,835,565</u>
Net increase (de	crease) in OPEE	3 expense	\$8,828,341	\$7,114,709	\$9,009,485	\$17,845,050	\$17,845,050	\$17,845,050	\$15,019,979	\$9,582,210

Date for Employer Under GASB 75 Year Ended	Effects of Assumption	Recognition _ Period			Reporting Date fo	r Employer under	GASB 75 Year End	ded June 30:		
June 30	Changes	(Years)	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	1,155,813	\$0	0	0	0	0	0	0
2021	57,696,237	6.53	<u>8,835,565</u>	<u>\$4,682,847</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 \$9,991,378 \$4,682,847					\$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 OPEB through ACERA (active and inactive employees) determined as of December 31, 2019 (the beginning of the measurement period ending December 31, 2020) is 6.53 years.

Reporting

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

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

Reporting Date for Employer Under GASB 75 Year	Differences between Projected and	Recognition			Reporting Date f	r GASB 75 Year E	nded June 30:				
Ended June 30	Actual Earnings	Period (Years)	2018	2019	2020	2021	2022	2023	2024	2025	
2018	-\$184,041,417	5.00	-\$36,808,283	-\$36,808,283	-\$36,808,283	-\$36,808,283	-\$36,808,285	\$0	\$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	0	
2020	-135,730,417	5.00	N/A	N/A	-27,146,083	-27,146,083	-27,146,083	-27,146,083	-27,146,085	0	
2021	-193,520,655	5.00	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>-38,704,131</u>	<u>-38,704,131</u>	<u>-38,704,131</u>	<u>-38,704,131</u>	<u>-38,704,131</u>	
Net increase (de	ecrease) in OPEB	expense	-\$36,808,283	\$5,080,200	-\$22,065,883	-\$60,770,014	-\$60,770,016	-\$23,961,732	-\$65,850,216	-\$38,704,131	

Date for Employer Under GASB 75 Year	Difference between Projected and	Recognition _		ı	Reporting Date fo	r Employer under	GASB 75 Year En	ded June 30:		
Ended June 30	Actual Earnings	Period (Years)	2026	2027	2028	2029	2030	2031	2032	2033
2018	-\$184,041,417	5.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2019	209,442,414	5.00	0	0	0	0	0	0	0	0
2020	-135,730,417	5.00	0	0	0	0	0	0	0	0
2021	-193,520,655	5.00	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Net increase (d	ecrease) in OPEB	expense	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

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

Reporting

Reporting

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

Total Increase (Decrease) in OPEB Expense

Date for Employer Under GASB 75 Year Ended	Total Differences	Reporting Date for Employer under GASB 75 Year Ended June 30:								
June 30	and Changes	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	
2021	-149,696,239	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>-31,992,888</u>	<u>-31,992,888</u>	<u>-31,992,888</u>	<u>-31,992,888</u>	<u>-31,992,888</u>	
Net increase (c	decrease) in OPEB expense	-\$31,217,632	\$4,802,405	-\$26,758,452	-\$58,751,340	-\$58,751,342	-\$21,943,058	-\$65,620,549	-\$40,339,519	

Date for Employer Under GASB 75 Year	Total		I	Reporting Date fo	r Employer under	GASB 75 Year End	ded June 30:		
Ended June 30	Differences and Changes	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
2021	-149,696,239	<u>6,711,243</u>	<u>3,556,958</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Net increase (d	ecrease) in OPEB expense	\$4,018,228	\$3,556,958	\$0	\$0	\$0	\$0	\$0	\$0

Allocation of changes in total Net OPEB Liability

In addition to the amounts shown in the Schedule of Recognition of Changes in Total Net OPEB Liability, there are changes in each employer's proportionate share of the total Net OPEB Liability (NOL) during the measurement period ending on December 31, 2020. 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 following table, with the corresponding amounts for the measurement periods ending on December 31 beginning in 2017 shown on the following pages. While these amounts are different for each employer, they sum to zero for ACERA.

Allocation of changes of total Net OPEB Liability (continued)

	Total Change to be Recognized	Recognition Period (Years)	2021	2022	2023	2024	2025	2026	2027	Thereafter
Alameda County	\$930,302	6.53	\$142,466	\$142,466	\$142,466	\$142,466	\$142,466	\$142,466	\$75,506	\$0
Health System	-1,378,587	6.53	-211,116	-211,116	-211,116	-211,116	-211,116	-211,116	-111,891	0
Superior Court	266,694	6.53	40,841	40,841	40,841	40,841	40,841	40,841	21,648	0
First 5	52,004	6.53	7,964	7,964	7,964	7,964	7,964	7,964	4,220	0
Housing Authority	43,437	6.53	6,652	6,652	6,652	6,652	6,652	6,652	3,525	0
LARPD	85,737	6.53	13,130	13,130	13,130	13,130	13,130	13,130	6,957	0
ACOE	<u>413</u>	6.53	<u>63</u>	<u>63</u>	<u>63</u>	<u>63</u>	<u>63</u>	<u>63</u>	<u>35</u>	<u>0</u>
Total for all Employers	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Allocation of changes of total Net OPEB Liability (continued)

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

Allocation of changes of total Net OPEB Liability (continued)

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

Allocation of changes of total Net OPEB Liability (continued)

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

Actuarial assumptions and methods

For December 31, 2020 Measurement Date and Employer Reporting as of June 30, 2021

Demographic Assumptions	
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, 2016 through November 30, 2019 Actuarial Experience Study report dated September 9, 2020 and in our letter dated March 22, 2021 regarding the health trend assumptions for the December 31, 2020 SRBR retiree health actuarial valuation, and in our letter dated May 6, 2020 regarding recommended parameters to reflect the demographic driven changes 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
Healthy:	 General Members: Pub-2010 General Healthy Retiree Headcount-Weighted Above-Median Mortality Tables (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019.
	 Safety Members: Pub-2010 Safety Healthy Retiree Headcount-Weighted Above-Median Mortality Tables (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019.
	Disabled
	 General Members: Pub-2010 Non-Safety Disabled Retiree Headcount-Weighted Mortality Tables (separate tables for males and females) with rates decreased by 10% for females, projected generationally with the two- dimensional mortality improvement scale MP-2019.
	 Safety Members: Pub-2010 Safety Disabled Retiree Headcount-Weighted Mortality Tables (separate tables for males and females) with rates increased by 5% for males, projected generationally with the two-dimensional mortality improvement scale MP-2019.
	Beneficiaries
	 All Beneficiaries: Pub-2010 General Contingent Survivor Headcount-Weighted Above-Median Mortality Tables (separate tables for males and females) with rates increased by 5% for males, projected generationally with the two-dimensional mortality improvement scale MP-2019.
	The Pub-2010 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 Members: Pub-2010 General Employee Headcount-Weighted Above-Median Mortality Tables (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019.
- **Safety Members:** Pub-2010 Safety Employee Headcount-Weighted Above-Median Mortality Tables (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019.

	Rate (%)					
	Ger	neral ¹	Sa	fety ¹		
Age	Male	Female	Male	Female		
20	0.04	0.01	0.04	0.02		
25	0.03	0.01	0.03	0.02		
30	0.04	0.02	0.04	0.02		
35	0.05	0.02	0.04	0.03		
40	0.06	0.04	0.05	0.04		
45	0.09	0.05	0.07	0.06		
50	0.14	0.08	0.11	0.08		
55	0.20	0.12	0.15	0.11		
60	0.29	0.18	0.24	0.16		
65	0.42	0.28	0.38	0.22		

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

Disability Incidence:

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

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

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

¹ Generational projections beyond the base year (2010) are not reflected in the above mortality rates.

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

For members with less than five years of service, 55% of all terminated members are assumed to choose a refund of contributions and the other 45% are assumed to choose a deferred vested benefit. For members with five or more years of service, 30% of all terminated members are assumed to choose a refund of contributions and the other 70% are assumed to choose a deferred vested benefit.

No termination is assumed after a member is eligible for retirement.

Retirement Rates:

	Rate (%) ¹									
			General					Safety		
		Tie	r 2²				Tier	2, 2D ²		
Age	Tier 1	< 30	30+	Tier 3	Tier 4	Tier 1 ³	< 30	30+	Tier 2C ³	Tier 4
49	0.0	0.0	0.0	0.0	0.0	0.0	12.0	18.0	0.0	0.0
50	2.0	2.0	4.0	10.0	0.0	35.0	12.0	18.0	4.0	4.0
51	4.0	2.0	4.0	10.0	0.0	30.0	10.0	24.0	2.0	2.0
52	4.0	2.0	4.0	10.0	4.0	25.0	10.0	24.0	2.0	2.0
53	5.0	2.0	4.0	10.0	2.0	35.0	10.0	25.0	3.0	3.0
54	5.0	2.0	4.0	10.0	2.0	45.0	12.0	27.0	6.0	6.0
55	6.0	2.0	4.0	12.0	5.0	45.0	12.0	29.0	10.0	10.0
56	10.0	2.5	4.5	14.0	2.5	45.0	14.0	32.0	12.0	12.0
57	12.0	4.0	5.0	16.0	3.5	45.0	16.0	32.0	20.0	20.0
58	12.0	4.0	5.0	18.0	3.5	45.0	18.0	30.0	10.0	10.0
59	14.0	4.5	8.0	20.0	4.5	45.0	18.0	30.0	15.0	15.0
60	20.0	8.0	8.5	20.0	5.0	45.0	25.0	30.0	60.0	60.0
61	20.0	9.0	13.5	20.0	5.0	45.0	25.0	30.0	60.0	60.0
62	35.0	15.0	22.5	30.0	18.0	45.0	25.0	30.0	60.0	60.0
63	30.0	15.0	22.5	25.0	15.0	45.0	25.0	30.0	60.0	60.0
64	30.0	18.0	27.0	25.0	17.0	45.0	30.0	30.0	60.0	60.0
65	30.0	25.0	27.5	50.0	25.0	100.0	100.0	100.0	100.0	100.0
66	30.0	30.0	33.0	50.0	30.0	100.0	100.0	100.0	100.0	100.0
67	30.0	30.0	33.0	50.0	30.0	100.0	100.0	100.0	100.0	100.0
68	30.0	30.0	33.0	50.0	30.0	100.0	100.0	100.0	100.0	100.0
69	35.0	35.0	38.5	50.0	35.0	100.0	100.0	100.0	100.0	100.0
70	40.0	40.0	40.0	65.0	25.0	100.0	100.0	100.0	100.0	100.0
71	40.0	40.0	40.0	65.0	25.0	100.0	100.0	100.0	100.0	100.0
72	40.0	40.0	40.0	65.0	25.0	100.0	100.0	100.0	100.0	100.0
73	40.0	40.0	40.0	65.0	25.0	100.0	100.0	100.0	100.0	100.0
74	40.0	40.0	40.0	65.0	25.0	100.0	100.0	100.0	100.0	100.0
75 & Over	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

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

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

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

Retirement Age and Benefit for Deferred Vested Members:	General Retirement Age: 55 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. 25% of future General and 50% of future Safety deferred vested members are assumed to continue to work for a reciprocal employer. For reciprocals, 3.65% and 4.05% compensation increases are assumed per annum for General and Safety, respectively.
Future Benefit Accruals:	1.0 year of service per year of employment, plus 0.003 years of additional service for General members and 0.007 years of additional service for Safety members, to anticipate conversion of unused sick leave for each year of employment.
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.
Economic Assumptions	
Net Investment Return:	7.00%
Consumer Price Index:	Increase of 2.75% per year.
Increase in Internal Revenue Code Section 401(a)(17) Compensation Limit:	Increase of 2.75% per year from the valuation date.
Increase in Section 7522.10 Compensation Limit:	Increase of 2.75% per year from the valuation date.

Salary Increases:

The annual rate of compensation increase includes:

- Inflation at 2.75%, plus
- "Across the board" salary increases of 0.50% per year, plus
- The following merit and promotion increases:

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

Additional Cashout Assumptions:

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

	Service Retirement	Disability Retirement
General Tier 1	7.5%	6.5%
General Tier 2	3.0%	1.4%
General Tier 3	7.5%	6.5%
General Tier 4	N/A	N/A
Safety Tier 1	7.5%	6.4%
Safety Tier 2	2.5%	1.9%
Safety Tier 2C	2.5%	1.9%
Safety Tier 2D	2.5%	1.9%
Safety Tier 4	N/A	N/A

Retiree Health Assumptions

Per Capita Health Costs:

The combined monthly per capita dental and vision claims cost for plan year 2020 was assumed to be \$46.28. The monthly Medicare Part B premium reimbursement for 2020 is \$144.60. For calendar year 2020, 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%	\$785.44	\$578.65
United Healthcare HMO Current Network	10%	\$1,087.80	\$578.65
Via Benefits Individual Insurance Exchange ⁽⁴⁾	10%	N/A ⁽⁴⁾	\$578.65
United Healthcare HMO SVA Network	0%	\$831.92	\$578.65
		Age 65 and Older	
Kaiser Senior Advantage	75%	\$411.54	\$578.65
Via Benefits Individual Insurance Exchange	25%	\$326.61 ⁽⁵⁾	\$443.28

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 \$578.65 (\$443.28 for retirees purchasing individual insurance from the Medicare exchange) is subject to the following subsidy schedule:

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

³⁾ Current retirees under age 65 are assumed to elect medical plans in the same proportion as future retirees upon age 65.



Maximum Manthly

⁽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 age 65 will draw the Maximum Monthly Subsidy (\$578.65).

⁽⁵⁾ The derivation of amount expected to be paid in 2020 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.

Per Capita Health Costs			Derivation of Vi	a Benefits Monthly	Per Capita Costs	
(continued):		(Years of Service Category)	10-14	15-19	20+	
	1.	Maximum MMA for 2019	\$213.73	\$320.59	\$427.46	
	2.	Total of Maximum MMA (From Jan. 2019 to Dec. 2019)	\$479,281	\$784,907	\$4,958,001	
	3.	Total of Actual Reimbursement (From Jan. 2019 to Dec. 2019)	\$368,871	\$573,300	\$3,092,110	
	4.	Ratio of Actual Reimbursement to Maximum 2019 MMA [(3) / (2)]	76.96%	73.04%	62.37%	
	5.	Average Monthly Per Capita Cost for 2019 [(1) x (4)]	\$164.49	\$234.16	\$266.59	
	6.	Maximum MMA for 2020	\$221.64	\$332.46	\$443.28	
	7.	Increase in Average Monthly per Capita Cost due to the Change in Maximum MMA from 2019 to 2020 [(6) / (1)] x (5)	\$170.58	\$242.83	\$276.46	
	8.	Increase for Expected Medical Trend (7.40% ⁽¹⁾) from 2019 to 2020 [(7) x 1.074]	\$183.20	\$260.80	\$296.91	
	9.	Increase for Additional 10% Margin for 2019 Expenses Incurred in 2019 but Reimbursed after December 2019 [(8) x 1.10]	\$201.52	\$286.88	\$326.61	
(1) 6.50% medical trend for Medicare Plans plus 0.90% for the Health Insurance Tax (HIT).						

Per Capita Health Costs (continued):

Implicit Subsidy

We have estimated the average per capita premium for retirees under age 65 to be \$9,828 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.

Average Medical

	Retirees		Spo	ouse
Age	Male	Female	Male	Female
50	\$11,635	\$13,252	\$8,127	\$10,641
55	13,817	14,265	10,874	12,317
60	16,409	15,376	14,558	14,285
64	18,826	16,312	18,377	16,078

Not all ACERA employers are receiving an implicit subsidy reimbursement from the Association. For SRBR sufficiency purposes, we have adjusted (by about a 17% 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.

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

Implicit Subsidy		Current retirees, married dependents and surviving beneficiaries under age 65 and enrolled in an ACERA non-Medicare plan are assumed to have an implicit subsidy liability.					
Dental and Vision Subsidy	Current retirees not self-payin	rrent retirees not self-paying ("Voluntary" or "Under 10 YOS" dental or vision code).					
Participation and Coverage Election – Active & Inactive Vested Members:							
Medical Plan Subsidy (i.e.,	Under Age 65	Upon Attaining Age 65					
MMA)	80% of eligible members	90% of eligible members					
Part B Subsidy	Under Age 65	Upon Attaining Age 65	_				
	80% of eligible members (disabled only)	90% of eligible members					
Implicit Subsidy	80% of eligible members unde	80% of eligible members under age 65 are assumed to have an implicit subsidy liability.					
Dental and Vision Subsidy	100% of eligible members.						

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 2021 calendar year premium for Kaiser (under age 65) is \$810.72 per month (\$785.44 increased by 3.22%).

Calendar Year	United Healthcare HMO & Kaiser HMO Early Retiree ⁽³⁾	Via Benefits & Kaiser Senior Advantage ⁽⁴⁾	Dental ⁽⁵⁾	Vision ⁽⁶⁾	Medicare Part B
2020	6.75%(1),(2)	6.25%(1),(2)	4.00% ⁽¹⁾	4.00% ⁽¹⁾	2.70% ⁽⁷⁾
2021	6.75	6.25	0.00	0.00	4.50
2022	6.50	6.00	0.00	0.00	4.50
2023	6.25	5.75	4.00	0.00	4.50
2024	6.00	5.50	4.00	0.00	4.50
2025	5.75	5.25	4.00	4.00	4.50
2026	5.50	5.00	4.00	4.00	4.50
2027	5.25	4.75	4.00	4.00	4.50
2028	5.00	4.50	4.00	4.00	4.50
2029	4.75	4.50	4.00	4.00	4.50
2030 & Later	4.50	4.50	4.00	4.00	4.50

⁽¹⁾ The actual trends are shown below, based on premium renewals for 2021 as reported by ACERA.

Kaiser HMO Early	United Healthcare	Kaiser Senior	Dental and Vision
Retiree	HMO Early Retiree	Advantage	
3.22%	5.77%	-7.13%	3.98%

Before reducing 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⁾ Non-Medicare plans.

⁽⁴⁾ Medicare plans.

⁽⁵⁾ First two years reflect three-year rate guarantee, premiums fixed at 2021 level.

First four years reflect five-year rate guarantee, premiums fixed at 2021 level.

⁽⁷⁾ The actual calendar year 2020 trend of 2.70% reflecting the standard 2021 calendar year premium of \$148.50 per month, consistent with Segal's Medicare Part B memo dated November 12, 2020.

Assumed Increase in Annual	For the "substantive plan design" shown in this report, we have assumed:
Maximum Benefits:	1. Maximum medical allowance for 2021 will remain unchanged from \$578.65 per month, then increase with 50% of trend for medical plans, or 3.00%, graded down to the ultimate rate of 2.25% over 6 years.
	2. Dental and vision premium reimbursement will increase with full trend.
	3. 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, 40% 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.
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.
Actuarial Funding Policy	
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:	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.



Appendix A: Projection of OPEB Plan's Fiduciary Net Position (\$ in millions) for use in the Calculation of Discount Rate as of December 31, 2020

Year Beginning January 1,	Projected Beginning OPEB Plan's Fiduciary Net Position (a)	Projected Total Contributions (b)	Projected Benefit Payments (c)	Projected Administrative Expenses (d)	Projected Investment Earnings (e)	Projected ending OPEB Plan's Fiduciary Net Positions (f) = (a)+(b)-(c)-(d)+(e)
2020	\$970	\$0	\$46	\$1	\$262	\$1,185
2021	1,185	0	57	2	81	1,207
2022	1,207	0	61	2	82	1,226
2023	1,226	0	65	2	84	1,242
2024	1,242	0	70	2	84	1,255
2025	1,255	0	74	2	85	1,264
2026	1,264	0	79	2	86	1,270
2027	1,270	0	83	2	86	1,271
2028	1,271	0	87	2	86	1,267
2029	1,267	0	91	2	86	1,260
2030	1,260	0	96	2	85	1,247
2031	1,247	0	100	2	84	1,229
2032	1,229	0	104	2	82	1,206
2033	1,206	0	108	2	81	1,176
2034	1,176	0	112	2	78	1,141
2035	1,141	0	116	2	76	1,099
2036	1,099	0	119	2	73	1,051
2037	1,051	0	122	2	69	997
2038	997	0	126	1	65	935
2039	935	0	128	1	61	866
2040	866	0	131	1	56	790
2041	790	0	134	1	51	706
2042	706	0	136	1	45	613
2043	613	0	138	1	38	512
2044	512	0	140	1	31	402
2045	402	0	142	1	23	283
2046	283	0	143	0*	15	154
2047	154	0	144	0*	6	16
2048	16	0	17	0*	1	C
2134	0	0	0	0	0	(
2135	0	0	0	0	0	C
2135	Discounted value: 0					

^{*} Less than \$1 million, when rounded

Notes

- 1. Amounts may not total exactly due to rounding.
- 2. Amounts shown in the year beginning January 1, 2020 row are actual amounts, based on the financial statements provided by ACERA.
- 3. Years 2049 2133 have been omitted from this table.
- 4. <u>Column (a)</u>: Except for the "discounted value" shown for 2135, all of the projected beginning Plan's Fiduciary Net Position amounts shown have not been adjusted for the time value of money.
- 5. <u>Column (b):</u> \$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, 2019. 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, 2020 that is expected to be allocated to the SRBR) supports those benefits*. Benefit payments are assumed to occur halfway through the year, on average. In accordance with paragraph 35 b.(2)(e) of GASB Statement No. 74, the long-term expected rate of return on Plan investments of 7.00% per annum was applied to all periods of projected benefit payments to determine the discount rate.
- 7. <u>Column (d):</u> Projected administrative expenses are calculated as approximately 0.15% of the beginning OPEB SRBR Plan's Fiduciary Net Position amount. The 0.15% portion was based on the actual fiscal year 2020 administrative expenses as a percentage of the beginning OPEB SRBR Plan's Fiduciary Net Position amount as of January 1, 2020. Administrative expenses are assumed to occur halfway through the year, on average.
- 8. Column (e): Projected investment earnings are based on the assumed investment rate of return of 7.00% per annum.
- 9. As illustrated in this Appendix, the OPEB SRBR Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments for current Plan members. In other words, there is no projected "cross-over date" when projected benefits are not covered by projected assets. Therefore, the long-term expected rate of return on Plan investments of 7.00% per annum was applied to all periods of projected benefit payments to determine the total OPEB liability as of December 31, 2020 shown earlier in this report, pursuant to paragraph 48 of GASB Statement No. 74.
 - * See discussion on page 2-3 regarding source of funding for payment of OPEB SRBR benefits not covered by current OPEB Plan's Fiduciary Net Position in the SRBR.

Appendix B: Definition of Terms

Definitions of certain terms as they are used in Statement 75. The terms may have different meanings in other contexts.

Actuarially Determined Contribution:	A target or recommended contribution to an OPEB plan for the reporting period based on the most recent measurement available.
Assumptions or Actuarial Assumptions:	The estimates on which the cost of the Plan is calculated including:
	 a) Investment return — the rate of investment yield that the Plan will earn over the long- term future;
	 b) Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates;
	c) Retirement rates — the rate or probability of retirement at a given age;
	 d) Turnover rates — the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.
Covered Employee Payroll:	The payroll of the employees that are provided OPEB benefits
Discount Rate:	The single rate of return, that when applied to all projected benefit payments results in an actuarial present value that is the sum of the following:
	 the actuarial present value of projected benefit payments projected to be funded by plan assets using a long term rate of return, and
	2) the actuarial present value of projected benefit payments that are not included in (1) using a yield or index rate for 20 year tax exempt general obligation municipal bonds with an average rating of AA/Aa or higher
Entry Age Actuarial Cost Method:	An actuarial cost method where the present value of the projected benefits for an individual is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age
Healthcare Cost Trend Rates:	The rate of change in per capita health costs over time
Net OPEB Liability:	The Total OPEB Liability less the Plan Fiduciary Net Position
Plan Fiduciary Net Position:	Market Value of Assets
Real Rate of Return:	The rate of return on an investment after removing inflation
Service Cost:	The amount of contributions required to fund the benefit allocated to the current year of service.

Total OPEB Liability:	Present value of all future benefit payments for current retirees and active employees taking into account assumptions about demographics, turnover, mortality, disability, retirement, health care trends, and other actuarial assumptions.
Valuation Date:	The date at which the actuarial valuation is performed

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MEMORANDUM TO THE AUDIT COMMITTEE

DATE: June 17, 2021

TO: Members of the Audit Committee

FROM: Harsh Jadhav, Chief of Internal Audit

SUBJECT: Progress on the 2021 Internal Audit Program

Executive Summary

The Audit Committee meeting in June 2021 will feature a status update on the 2021 Internal Audit Program. We have completed the Pension Benefits Calculation Audit and the Alameda Health Systems Employer Audit. Both audit reports are currently in review with ACERA's and Alameda Health System's management, respectively. Moving forward, we started the audit planning for the next two internal audits in the cycle and expect to launch them in Q3 2021. In addition, we plan to provide our annual fraud training to help ACERA employees understand new fraud risks.

2021 Audit Schedule

Internal Audit Plan (2021)	Service Line	Assigned	Status	Q1	Q2	Q3	Q4
Felony Forfeiture Policy Audit	Policy Audit	Caxton	Not Started				
Pension Benefits Calculation Audit	Internal Audit	Caxton	Mgmt Review				
Cash Management (Positive Pay) Audit	Internal Audit	Caxton	Audit Planning				
Prevent Member Identity Theft Audit	Internal Audit	Lyndon	Audit Planning				
Employer Audit - Alameda Health System	Employer Audit	Caxton/Harsh	Mgmt Review				
2021 Annual Risk Assessment	Administration	Harsh	Completed				
2022 Annual Risk Assessment	Administration	Harsh	Not Started				
Fraud Hotline Management	Administration	Lyndon	Continuous				
Fraud Training	Administration	Lyndon/Caxton	In Progress				
Internal Controls Review - PAS Project	Special Project	Team	In Progress				
Operations Manual Update	Special Project	Lyndon	Completed				
Cybersecurity and Data Security Self-Assessment	Special Project	Vijay/Harsh	In Progress				

2021 Audit Program

Policy Audits

Audit - Felony Forfeiture Policy

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 employers to determine if the employer implemented effective procedures to report felony forfeitures to ACERA.

Internal Audits and Reviews

Review - Prevent Member Identity Theft

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.

<u>Audit – Cash Management (Positive Pay)</u>

The purpose of the audit is to identify internal control weaknesses and recommend strategies to improve cash management. The Positive Pay process is a bank control that systematically compares checks presented for payment to the issued-check files to detect serial numbers and dollar amounts that don't match. This audit will review the payee validation process to ensure ACERA has implemented the necessary internal controls to safeguard against fraud.

<u>Audit – Pension Benefits Calculation Audit</u>

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., the highest salary earned over 36 months for Tier II General Members).

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.

Special Projects

Special Project – Pension Administration System Internal Controls Review

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

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 - Operation Manual Update

The Internal Audit Department updates the existing department operations manual to reflect changes in the department operations, internal audit best practices, and audit procedures. The objective is to ensure documentation exists for business continuity and as training for new internal audit employees.

Summary

We are focused on meeting the 2021 Audit Program objectives. We want to acknowledge the Board of Retirement for their ongoing support and guidance. The Internal Audit Staff continues to do a great job partnering with management, servicing the Board of Retirement, and protecting our members.



Alameda County Employees' Retirement Association Internal Audit Department



Internal Audit Department 2021 Internal Audit Plan

June 17, 2021

2021 Internal Audit Plan

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Federal Focus on Cybersecurity

- Executive Order to protect federal government against cyberattacks
- Dept. of Homeland Security guidelines for pipeline companies
- FBI and DOJ treating ransomware with same level of concern as terrorist attacks
- Biden administration urging business leaders to prepare for ransomware attacks

THE IN WHITE HOUSE

White House Memo and ACERA

The WH memo lists five best practices for safeguarding against ransomware attacks:

- 1. Backup data and keep backups offline
- 2. Update and patch systems promptly
- 3. Test your incident response plan
- 4. Check your security team's work using a 3rd party penetration tester
- 5. Segment your networks