

Alameda County Employees' Retirement Association

**Governmental Accounting Standards Board (GASB) 75
Actuarial Valuation and Review of the Benefits
Provided by the Supplemental Retiree Benefits Reserve
Other Postemployment Benefits (OPEB)
Based on December 31, 2018 Measurement Date for
Employer Reporting as of June 30, 2019**



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 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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June 12, 2019

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

Dear Board Members:

We are pleased to submit this Governmental Accounting Standards Board (GASB) Statement No. 75 Actuarial Valuation and Review of Other Postemployment Benefits (OPEB) based on a December 31, 2018 measurement date for employer reporting as of June 30, 2019. 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 in preparing their financial report for their liabilities associated with the ACERA OPEB plan. The census and financial information on which our calculations were based was 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 health care cost, economic, or demographic assumptions; changes in health care trend, changes in economic or demographic assumptions; 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 Melissa A. Krumholz, FSA, MAAA. 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 this actuarial valuation is complete and accurate. Further, in our opinion, the assumptions used in this valuation and described in Section 3 are reasonably related to the experience of and the expectations for the Association.

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

Sincerely,

Segal Consulting, a Member of The Segal Group, Inc.

By:

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

*Thomas Bergman, ASA, MAAA, EA
Retiree Health Actuary*

TJH/bbf

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

Purpose

This report has been prepared by Segal Consulting to present certain disclosure information required by Governmental Accounting Standard Board (GASB) Statement 75 for employer reporting as of June 30, 2019. 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, 2018. 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, 2017, provided by ACERA;
- The assets of the Plan as of December 31, 2018, provided by ACERA;
- Economic assumptions regarding future salary increases and investment earnings; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, health care trend, etc.

General Observations on GASB 75 Actuarial Valuation

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

- The Government Accounting Standard Board (GASB) rules only define OPEB liability and expense for financial reporting purposes, and do not apply to contribution amounts for OPEB funding purposes. Employers and plans still develop and adopt funding policies, if applicable, under current practices.
- When measuring OPEB liability, GASB uses the same actuarial cost method (Entry Age) and, for benefits that are being fully funded on an actuarial basis, the same expected return on Plan assets as used for funding.¹ This means that the Total OPEB Liability (TOL) measure for financial reporting shown in this report is determined on the same basis as the Actuarial Accrued Liability (AAL) measure for funding.

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

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

- 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 market value of assets and therefore, the NOL measure is very similar to an Unfunded Actuarial Accrued Liability (UAAL) calculated on a market value basis. The NOL reflects all investment gains and losses as of the measurement date.

Significant Issues in Valuation Year

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

- As we disclosed in our December 31, 2018 pension funding valuation report, the 7.25% investment return assumption that the Board approved on December 21, 2017 for determining the liabilities for funding purposes and used for establishing the employer and employee contribution rates has continued to be developed without considering the impact of any future 50/50 excess earnings allocation. This is based on our understanding that Article 5.5 of the Statute, which authorizes the allocation of 50% of excess earnings to the SRBR, does not allow for the use of a different investment return for funding than is used for interest crediting. This would appear in effect to preclude the prefunding of the SRBR through the use of an assumption lower than the market earnings assumption of 7.25%.

As required by the Actuarial Standard of Practice (ASOP) No. 4 ("Measuring Pension Obligations and Determining Pension Plan Costs or Contributions"), we performed a stochastic model to estimate the impact of the 50% allocation of future excess earnings to the SRBR. The results of our model indicated that the 50/50 allocation of future excess earnings would have about the same impact as an "outflow" (i.e., assets not available to fund the benefits included in the determination of the Total Pension Liability) that would average approximately 0.60% of assets over time. This approximated outflow was incorporated into our GASB crossover test for the pension benefits (reference: Exhibit 5 of our GASB 67 report as of December 31, 2018), 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 Exhibit 5 of the GASB 67 report indicates that the present value of outflows from the 0.60% of assets over time is expected to be higher than the present values of the remaining OPEB and non-OPEB SRBR benefits that could be paid after the exhaustion of assets currently available in the SRBR.

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

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

- The NOLs for the employers in ACERA as of December 31, 2017 and December 31, 2018 are allocated based on the actual employer contributions made during 2017 and 2018, respectively.² The steps we used for the allocation are as follows:
 - First calculate the ratio of the employer's contributions to the total contributions.
 - Then multiply this ratio by the NOL to determine the employer's proportionate share of the NOL. The NOL allocation can be found in Exhibit 7 in Section 2.
- The TOL as of December 31, 2018 was determined by rolling forward the liability results used in determining the sufficiency of the SRBR to provide medical and dental subsidy benefits as of December 31, 2017. That TOL has been adjusted to reflect the health care trend assumptions recommended for the sufficiency study for the SRBR as of December 31, 2018 (reference: our letter dated May 16, 2019)
- We have also continued the practice of adjusting the Plan's Fiduciary Net Position as of December 31, 2018 to include the \$883.0 million set aside by the Retirement Board in the SRBR reserve to pay OPEB benefits as of December 31, 2018. It should be noted that as of December 31, 2018, the deferred investment loss for the entire Plan was \$569.1 million and the Contingency Reserve was \$0. Consequently, we have subtracted from the Plan's Fiduciary Net Position the proportionate share of the deferred investment loss that is commensurate with the size of the OPEB SRBR reserve, or \$61.6 million (which will cause the future interest crediting rate to the SRBR reserve to drop below 7.25% per year).
- The NOL increased from \$27.5 million as of December 31, 2017 to \$232.9 million as of December 31, 2018 primarily as a result of unfavorable investment results during calendar year 2018 of about \$209 million (for an actual market return of negative 14.1%³ versus 7.25% assumed in the valuation), offset somewhat by updating health trend assumptions⁴ (which on a net basis decreased the NOL by about \$11.4 million). Changes in these values during the last two plan years ending December 31, 2018 and 2017 can be found in Exhibit 5.
- The OPEB expense increased from \$7.7 million as of December 31, 2017 to \$39.9 million as of December 31, 2018 primarily as a result of the expensed portion of the investment loss in 2018 of \$41.9 million. Components of the OPEB expense during the last two plan years ending December 31, 2018 and 2017 can be found in Exhibit 8.

² The December 31, 2017 and December 31, 2018 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 2017 and 2018, respectively, based on discussions and approval provided by the Board.

³ Note that the negative 14.1% market value investment return mentioned above for the SRBR is lower than the negative 4.62% investment return included in the December 31, 2018 Pension Funding Valuation for the Association's entire portfolio. The lower return for the SRBR is primarily a result of the reversal of the 50% of future excess earnings that might be allocated to the SRBR for the deferred investment gains as of December 31, 2017 to reflect future returns below 7.25% that might be allocated to the SRBR for the deferred investment losses as of December 31, 2018

⁴ In particular, there is a reduction in the long term annual trend assumption from 4.5% to 4.0% for dental/vision and Medicare Part B which decreases the NOL by \$23.7 million.

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

Summary of Key Valuation Results

Reporting Date for Employer under GASB 75	June 30, 2019	June 30, 2018
Measurement Date for Employer under GASB 75	December 31, 2018	December 31, 2017
Disclosure elements for plan year ending December 31:		
Service cost ⁽¹⁾	\$31,577,168	\$26,991,283
Total OPEB Liability	1,054,337,014	1,029,354,518
Plan's Fiduciary Net Position ⁽²⁾	821,440,435	1,001,876,232
Net OPEB Liability	232,896,579	27,478,286
OPEB expense	39,920,817	7,709,300
Schedule of contributions for plan year ending December 31:		
Actuarially determined contributions	N/A	N/A
Actual contributions ⁽³⁾	N/A	N/A
Contribution deficiency / (excess)	0	0
Demographic data for plan year ending December 31⁽⁴⁾:		
Number of retired members and beneficiaries receiving medical benefits	6,385	6,225
Number of retired members and beneficiaries receiving dental and vision benefits	7,519	7,270
Number of vested terminated members	410	381
Number of active members	11,349	11,323
Key assumptions as of December 31:		
Discount rate	7.25%	7.25%
Health care premium trend rates ⁽⁵⁾		
Non-Medicare medical plan	Graded from 7.00% to ultimate 4.50% over 10 years	Graded from 7.00% to ultimate 4.50% over 10 years
Medicare medical plan	Graded from 6.50% to ultimate 4.50% over 8 years	Graded from 6.50% to ultimate 4.50% over 8 years
Dental/Vision and Medicare Part B	4.00%	4.50%

⁽¹⁾ The service cost is based on the previous year's valuation, meaning the 2018 and 2017 values are based on the valuations as of December 31, 2017 and December 31, 2016, respectively. The 2018 service cost has been calculated using the assumptions shown in the 2017 column, and the 2017 service cost has been calculated using the following assumptions:

Key assumptions as of December 31, 2016:

Discount rate	7.60%
Health care premium trend rates	
Non-Medicare medical plan	Graded from 6.50% to ultimate 4.50% over 8 years
Medicare medical plan	Graded from 6.50% to ultimate 4.50% over 8 years
Dental/Vision and Medicare Part B	4.50%

⁽²⁾ For 2018, the Plan's Fiduciary Net Position shown (\$821,440,435) includes the SRBR and 401(h) account (\$889,953,169), less the SRBR implicit subsidy transfer (\$6,939,808), less a proportionate share of the deferred market losses (after adjustment to include the balance in the Contingency Reserve) commensurate with the size of the OPEB reserves (\$61,572,926). For 2017, the Plan's Fiduciary Net Position amount shown (\$1,001,876,232) includes the SRBR and 401(h) account (\$863,836,077), less the SRBR implicit subsidy transfer (\$5,830,283), plus a proportionate share of one half of the deferred market gains (after adjustment to include the balance in the Contingency Reserve) commensurate with the size of the OPEB and non-OPEB reserves (\$143,870,438). Note that amounts may not total properly due to rounding.

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

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

⁽⁴⁾ The December 31, 2017 data is used in the measurement of the TOL as of December 31, 2018. The following data as of December 31, 2016 was used in the measurement of the TOL as of December 31, 2017:

Number of retired members and beneficiaries receiving medical benefits	6,018
Number of retired members and beneficiaries receiving dental and vision benefits	7,049
Number of vested terminated members	371
Number of active members	11,111

The demographic data as of December 31, 2018 will be used in the sufficiency study for the SRBR as of December 31, 2018 as well as in the next year's GAS 74 and 75 valuation when we roll forward the liability from December 31, 2018 to December 31, 2019.

⁽⁵⁾ The trend rates shown above for 2019 are before reflecting a one-time adjustment to reflect the estimated impact of the Health Insurance Tax (HIT). The weighted average increase amongst all carriers is approximately 1.2% for Non-Medicare and 0.9% for Medicare Plans.

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

Important Information about Actuarial Valuations

An actuarial valuation is a budgeting tool with respect to the financing of future projected obligations of a postretirement health plan. It is an estimated forecast – the actual cost of the plan will be determined by the benefits and expenses paid, not by the actuarial valuation.

In order to prepare an actuarial valuation, Segal Consulting (“Segal”) relies on a number of input items. These include:

- **Plan of benefits** Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan description in this report to confirm that Segal has correctly interpreted the plan of benefits.
- **Participant data** An actuarial valuation for a plan is based on data provided to the actuary by ACERA. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
- **Actuarial assumptions** In preparing an actuarial valuation, Segal projects the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This projection requires actuarial assumptions as to the probability of death, disability, termination, and retirement of each participant for each year. In addition, the benefits projected to be paid for each of those events in each future year reflect actuarial assumptions as to health care trends. The projected benefits are then discounted to a present value, based on the assumed rate of return that is expected to be achieved on the plan’s assets. There is a reasonable range for each assumption used in the projection and the results may vary materially based on which assumptions are selected. It is important for any user of an actuarial valuation to understand this concept. Actuarial assumptions are periodically reviewed to ensure that future valuations reflect emerging plan experience. While future changes in actuarial assumptions may have a significant impact on the reported results, that does not mean that the previous assumptions were unreasonable.
- **Assets** This valuation is based on the market value of assets as of the valuation date, as provided by ACERA. The Association uses an actuarial value of assets that differs from market value of assets to gradually reflect six-month changes in the market value of assets in the SRBR sufficiency valuation.

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

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

- The valuation is prepared at the request of the Board to assist sponsors of the Fund in preparing items related to the OPEB SRBR plan in their financial reports. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial valuation is a measurement of the plan's assets and liabilities at a specific date. Accordingly, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.
- If ACERA is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
- Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. ACERA should look to their other advisors for expertise in these areas.

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

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

EXHIBIT 1

General Information – “Financial Statements”, Note Disclosures and Required Supplementary Information for a Cost-Sharing OPEB Plan

Plan Description

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

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, 2018, OPEB plan membership consisted of the following:

Retired members or beneficiaries currently receiving medical benefits	6,385
Retired members or beneficiaries currently receiving dental and vision benefits	7,519
Vested terminated members entitled to, but not yet receiving benefits	410
Active members	11,349

Note: Data as of December 31, 2018 is not used in the measurement of the TOL as of December 31, 2018. It will be used for the sufficiency study for the SRBR as of December 31, 2018 as well as in next year's GAS 74 and 75 valuation.

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

Benefits provided. ACERA provides benefits to eligible employees.

Membership Eligibility:

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

Disabled Retirees: A minimum of 10⁵ years of service is required for non-duty disability.
There is no minimum service requirement for duty disability.

Benefit Eligibility:

1. Monthly Medical Allowance

Service Retirees: For retirees not purchasing individual insurance through the Individual Medicare Insurance Exchange, a Maximum Monthly Medical Allowance of \$540.44 per month was provided, effective January 1, 2018 and through December 31, 2018. For the period January 1, 2019 through December 31, 2019, the maximum allowance is \$558.00 per month.

For those purchasing insurance through the Individual Medicare Exchange, the Monthly Medical Allowance was \$414.00 per month for 2018 and is \$427.46 for 2019.

These Allowances are subject to the following subsidy schedule:

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

Disabled Retirees: Non-duty disabled retirees receive the same Monthly Medical Allowance as service retirees.

Duty disabled retirees receive the same Monthly Medical Allowance as those service retirees with 20 or more years of service.

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

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2. Medicare Benefit Reimbursement Plan:

The SRBR reimburses the full Medicare Part B premium to qualified retired members.

To qualify for reimbursement, a retiree must:

- Have at least 10 years of ACERA service,
- Be eligible for Monthly Medical Allowance,
- Provide proof of enrollment in Medicare Part B.

3. Dental and Vision Plans:

The SRBR provides dental and vision benefits for retirees only. The maximum combined monthly dental and vision premiums will be \$47.91 in 2018 and \$48.39 in 2019. 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.

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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.

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

EXHIBIT 2

Net OPEB Liability

Reporting Date for Employer under GASB 75	June 30, 2019	June 30, 2018
Measurement Date for Employer under GASB 75	December 31, 2018	December 31, 2017
The components of the Net OPEB Liability are as follows:		
Total OPEB Liability	\$1,054,337,014	\$1,029,354,518
Plan's Fiduciary Net Position	<u>821,440,435</u>	<u>1,001,876,232</u>
Net OPEB Liability	\$232,896,579	\$27,478,286
Plan's Fiduciary Net Position as a Percentage of the Total OPEB Liability	77.91%	97.33%

The Net OPEB Liability was measured as of December 31, 2018 and 2017. The Plan's Fiduciary Net Position (plan assets) was valued as of the measurement date, while the Total OPEB Liability was determined by rolling forward the Total OPEB Liability as of December 31, 2017 and 2016, respectively.

Plan provisions. The plan provisions used in the measurement of the NOL as of December 31, 2018 and December 31, 2017 are the same as those used in ACERA's SRBR sufficiency valuation as of December 31, 2017 and December 31, 2016, respectively.

Actuarial assumptions. The actuarial assumptions used for the December 31, 2018 valuation were based on the results of the experience study for the period from December 1, 2013 through November 30, 2016 that were approved by the Board effective with the December 31, 2017 valuation and the health care trend assumptions used in the sufficiency study for the SRBR as of December 31, 2018 (reference: our letter dated March 16, 2019). The assumptions used in the December 31, 2018 SRBR OPEB actuarial valuation for ACERA were applied to all periods included in the measurement:

December 31, 2018

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

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December 31, 2017

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

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

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

EXHIBIT 3

Target Asset Allocation

The long-term expected rate of return on OPEB plan investments⁶ was determined in 2017 using a building-block method in which expected future real rates of return (expected returns, net of pension plan inflation) are developed for each major asset class. The returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation and subtracting expected investment expenses and a risk margin.

The target allocation and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before deducting investment expenses, are summarized in the following table. These values were used in the derivation of the long-term expected investment rate of return assumption for the December 31, 2018 valuation. This information is subject to change every three years based on the actuarial experience study:

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

⁶ Note that the investment return assumption for SRBR sufficiency testing (and pension plan funding) purposes was developed net of both investment and administrative expenses; however, the same investment return assumption was adopted by the Board 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 assumption for financial reporting.)

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Discount rate: The discount rate used to measure the Total OPEB Liability was 7.25% as of December 31, 2018 and December 31, 2017. The projection of cash flows used to determine the discount rate assumed benefits are paid out of current OPEB SRBR assets. Based on those assumptions, the SRBR OPEB plan's Fiduciary Net Position was projected to be available to make all projected future benefits payments for current plan members.⁷ Therefore the long-term expected rate of return on OPEB plan investments was applied to all periods of projected benefit payments to determine the Total OPEB Liability as of December 31, 2018 and December 31, 2017.

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

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

EXHIBIT 4

Discount Rate and Trend Sensitivity

Sensitivity of the Net OPEB Liability to changes in the discount rate. The following presents the Net OPEB Liability (NOL) of ACERA as of December 31, 2018, calculated using the discount rate of 7.25%, as well as what ACERA's NOL would be if it were calculated using a discount rate that is 1-percentage-point lower (6.25%) or 1-percentage-point higher (8.25%) than the current rate:

Net OPEB Liability	1% Decrease (6.25%)	Current Discount Rate (7.25%)	1% Increase (8.25%)
Alameda County	\$277,592,855	\$177,817,632	\$94,451,250
Health System	68,288,034	43,743,260	23,235,073
Superior Court	13,198,222	8,454,384	4,490,708
First 5	1,379,013	883,354	469,210
Housing Authority	1,635,729	1,047,799	556,559
LARPD	1,483,289	950,150	504,690
ACOE	0	0	0
Total for all Employers	\$363,577,142	\$232,896,579	\$123,707,490

Sensitivity of the Net OPEB Liability to changes in the healthcare cost trend rate. The following presents the NOL of ACERA as of December 31, 2018, as well as what ACERA's NOL would be if it were calculated using a trend rate that is 1-percentage-point lower or 1-percentage-point higher than the current rate:

Net OPEB Liability	1% Decrease	Current Trend Rates*	1% Increase
Alameda County	\$84,390,008	\$177,817,632	\$292,365,386
Health System	20,760,000	43,743,260	71,922,086
Superior Court	4,012,344	8,454,384	13,900,586
First 5	419,229	883,354	1,452,399
Housing Authority	497,272	1,047,799	1,722,777
LARPD	450,929	950,150	1,562,224
ACOE	0	0	0
Total for all Employers	\$110,529,782	\$232,896,579	\$382,925,458

* Current trend rates: 7.00% graded down to 4.5% over 10 years for Non-Medicare medical plan costs; 6.50% graded down to 4.5% over 8 years for Medicare medical plan costs and 4.0% for all years for Dental, Vision and Medicare Part B costs. The medical trend rates shown above for 2019 (7.00% and 6.50% for non-Medicare and Medicare plans, respectively) are before reflecting a one-time adjustment to reflect the estimated impact of the Health Insurance Tax (HIT). The weighted average increase amongst all carriers is approximately 1.2% for Non-Medicare and 0.9% for Medicare plans.

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

EXHIBIT 5

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

Reporting Date for Employer under GASB 75	June 30, 2019	June 30, 2018
Measurement Date for Employer under GASB 75	December 31, 2018	December 31, 2017
Total OPEB Liability		
Service cost ⁽¹⁾	\$31,577,168	\$26,991,283
Interest	73,426,531	69,878,539
Change of benefit terms	0	0
Differences between expected and actual experience	-27,712,610	-21,627,766
Changes of assumptions	-11,429,923	58,973,316
Benefit payments	<u>-40,878,670</u>	<u>-37,903,590</u>
Net change in Total OPEB Liability	\$24,982,496	\$96,311,782
Total OPEB Liability – beginning	<u>1,029,354,518</u>	<u>933,042,736</u>
Total OPEB Liability – ending (a)	<u><u>\$1,054,337,014</u></u>	<u><u>\$1,029,354,518</u></u>
Plan's Fiduciary Net Position		
Contributions – employer ⁽²⁾	N/A	N/A
Contributions – employee	N/A	N/A
Net investment income	-\$138,332,627	\$243,187,807
Benefit payments	-40,878,670	-37,903,590
Administrative expense	-1,224,500	-1,203,500
Other	<u>0</u>	<u>0</u>
Net change in Plan's Fiduciary Net Position	-\$180,435,797	\$204,080,717
Plan's Fiduciary Net Position – beginning⁽³⁾	<u>1,001,876,232</u>	<u>797,795,515</u>
Plan's Fiduciary Net Position – ending (b)⁽³⁾	\$821,440,435	\$1,001,876,232
Net OPEB Liability – ending (a) – (b)	<u><u>\$232,896,579</u></u>	<u><u>\$27,478,286</u></u>
Plan's Fiduciary Net Position as a percentage of the Total OPEB Liability	77.91%	97.33%
Covered-employee payroll⁽⁴⁾	\$1,046,033,851	\$995,178,209
Plan Net OPEB Liability as percentage of covered-employee payroll	22.26%	2.76%

⁽¹⁾ The service cost is always based on the previous year's valuation, meaning the valuation as of December 31, 2017 and 2016, respectively.

⁽²⁾ Employer contributions are on a net basis. Benefits are funded by employer contributions to the 401(h) account and similar amounts are transferred from the SRBR to the Employers Advance Reserve to backfill the employer contributions that would have otherwise been made to the Retirement Plan.

⁽³⁾ See footnote (2) on page iv for a discussion on the development of the 2018 "Plan's Fiduciary Net Position – beginning" amount of \$1,001,876,232 and the 2018 "Plan's Fiduciary Net Position – ending" amount of \$821,440,435.

⁽⁴⁾ Covered-employee payroll shown represents Compensation Earnable and Pensionable Compensation and is defined as the payroll of employees that are provided with OPEB through the OPEB plan.

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

EXHIBIT 6

Schedule of Employer Contributions – Last Ten Fiscal Years

Year Ended December 31	Actuarially Determined Contributions⁽¹⁾	Contributions in Relation to the Actuarially Determined Contributions⁽¹⁾	Contribution Deficiency / (Excess)	Covered-Employee Payroll⁽²⁾	Contributions as a Percentage of Covered-Employee Payroll
2009	N/A	N/A	0	\$838,141,323	0.00
2010	N/A	N/A	0	839,617,361	0.00
2011	N/A	N/A	0	837,482,162	0.00
2012	N/A	N/A	0	845,932,592	0.00
2013	N/A	N/A	0	853,349,657	0.00
2014	N/A	N/A	0	886,924,862	0.00
2015	N/A	N/A	0	945,858,017 ⁽³⁾	0.00
2016	N/A	N/A	0	947,567,631	0.00
2017	N/A	N/A	0	995,178,209	0.00
2018	N/A	N/A	0	1,046,033,851	0.00

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

⁽²⁾ Covered-employee payroll shown represents Compensation Earnable and Pensionable Compensation and is defined as the payroll of employees that are provided with OPEB through the OPEB plan.

⁽³⁾ ACERA indicated that this amount is based on 27 pay periods for 2015.

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

EXHIBIT 7

Determination of Proportionate Share

**Actual Employer Contributions by Employer
January 1, 2017 to December 31, 2017**

Employer	Contributions	Percentage*
Alameda County	\$188,482,504	76.289%
Health System	46,206,829	18.702%
Superior Court	9,297,985	3.763%
First 5	910,867	0.369%
Housing Authority	1,115,522	0.452%
LARPD	1,049,843	0.425%
ACOE	<u>0</u>	<u>0.000%</u>
Total for all Employers	\$247,063,550	100.000%

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

Allocation of December 31, 2017 Net OPEB Liability

Employer	NOL	Percentage
Alameda County	\$20,962,931	76.289%
Health System	5,139,101	18.702%
Superior Court	1,034,117	3.763%
First 5	101,306	0.369%
Housing Authority	124,068	0.452%
LARPD	116,763	0.425%
ACOE**	<u>0</u>	<u>0.000%</u>
Total for all Employers	\$27,478,286	100.000%

**There is no allocation of NOL to ACOE, since there were no employer contributions made during 2017 for that employer

Notes:

1. Based on the January 1, 2017 through December 31, 2017 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.

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

EXHIBIT 7 (continued)

Determination of Proportionate Share

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

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

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

Allocation of December 31, 2018 Net OPEB Liability

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

Notes:

1. Based on the January 1, 2018 through December 31, 2018 employer contributions in total as provided by ACERA.
2. The Net OPEB Liability (NOL) is the Total OPEB Liability (TOL) minus the OPEB SRBR Plan's Fiduciary Net Position (plan assets).
3. The employer's share of the total plan NOL is the ratio of the employer's total contributions to the total contributions for all employers.
4. ACOE was not required to make any Pension Plan contributions during 2018 because their payroll was \$0 in 2018. However, they are required to make a contribution under the Declining Employer Payroll Policy starting in 2019. As they would be expected to make a large lump sum contribution to partially pay off their liability in 2019, we would consult with the auditor on whether any special adjustment needs to be made when we report their NOL next year.

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

EXHIBIT 7 (continued)

Determination of Proportionate Share

Notes:

For purposes of the results in this exhibit, the reporting date for the employer under GASB 75 is June 30, 2019. The reporting date and measurement date for the plan under GASB 74 are December 31, 2018. Consistent with the provisions of GASB 75, the assets and liabilities measured as of December 31, 2018 are not adjusted or rolled forward to the June 30, 2019 reporting date. Other results, such as the total deferred inflows and outflows would also be allocated based on the same proportionate shares determined above.

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

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

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

EXHIBIT 8

OPEB Expense – Total for all Employers

Reporting Date for Employer under GASB 75	June 30, 2019	June 30, 2018
Measurement Date for Employer under GASB 75	December 31, 2018	December 31, 2017
Components of OPEB Expense		
1. Service cost	\$31,577,168	\$26,991,283
2. Interest on the Total OPEB Liability	73,426,531	69,878,539
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
4. Current-period benefit changes	0	0
5. Expensed portion of current-period difference between actual and expected experience in the Total OPEB Liability	(4,154,814)	(3,237,690)
6. Expensed portion of current-period changes of assumptions or other inputs	(1,713,632)	8,828,341
7. Member contributions	0	0
8. Projected earnings on plan investments	(71,109,787)	(59,146,390)
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	41,888,483	(36,808,283)
10. Administrative expense	1,224,500	1,203,500
11. Other	0	0
12. Recognition of beginning of year deferred outflows of resources as OPEB expense	8,828,341	0
13. Recognition of beginning of year deferred inflows of resources as OPEB expense	(40,045,973)	0
14. 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	<u>\$39,920,817</u>	<u>\$7,709,300</u>

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

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

Reporting Date for Employer under GASB 75	June 30, 2019	June 30, 2018
Measurement Date for Employer under GASB 75	December 31, 2018	December 31, 2017
Components of OPEB Expense		
1. Service cost	\$24,109,319	\$20,591,398
2. Interest on the Total OPEB Liability	56,061,501	53,309,693
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	13,157	(100,451)
4. Current-period benefit changes	0	0
5. Expensed portion of current-period difference between actual and expected experience in the Total OPEB Liability	(3,172,221)	(2,470,003)
6. Expensed portion of current-period changes of assumptions or other inputs	(1,308,365)	6,735,060
7. Member contributions	0	0
8. Projected earnings on plan investments	(54,292,656)	(45,122,236)
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	31,982,053	(28,080,699)
10. Administrative expense	934,911	918,140
11. Other	0	0
12. Recognition of beginning of year deferred outflows of resources as OPEB expense	6,740,479	0
13. Recognition of beginning of year deferred inflows of resources as OPEB expense	(30,575,288)	0
14. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>(100,451)</u>	<u>0</u>
OPEB Expense	<u>\$30,392,439</u>	<u>\$5,780,902</u>

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

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

Reporting Date for Employer under GASB 75	June 30, 2019	June 30, 2018
Measurement Date for Employer under GASB 75	December 31, 2018	December 31, 2017
Components of OPEB Expense		
1. Service cost	\$5,930,907	\$5,048,021
2. Interest on the Total OPEB Liability	13,791,168	13,068,968
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	17,117	158,430
4. Current-period benefit changes	0	0
5. Expensed portion of current-period difference between actual and expected experience in the Total OPEB Liability	(780,368)	(605,526)
6. Expensed portion of current-period changes of assumptions or other inputs	(321,859)	1,651,112
7. Member contributions	0	0
8. Projected earnings on plan investments	(13,356,031)	(11,061,798)
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	7,867,607	(6,884,035)
10. Administrative expense	229,989	225,083
11. Other	0	0
12. Recognition of beginning of year deferred outflows of resources as OPEB expense	1,658,163	0
13. Recognition of beginning of year deferred inflows of resources as OPEB expense	(7,521,542)	0
14. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>158,430</u>	<u>0</u>
OPEB Expense	<u>\$7,673,581</u>	<u>\$1,600,255</u>

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

EXHIBIT 8 (Continued)

OPEB Expense – Superior Court

Reporting Date for Employer under GASB 75	June 30, 2019	June 30, 2018
Measurement Date for Employer under GASB 75	December 31, 2018	December 31, 2017
Components of OPEB Expense		
1. Service cost	\$1,146,283	\$1,015,789
2. Interest on the Total OPEB Liability	2,665,458	2,629,808
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	(28,569)	(36,898)
4. Current-period benefit changes	0	0
5. Expensed portion of current-period difference between actual and expected experience in the Total OPEB Liability	(150,824)	(121,847)
6. Expensed portion of current-period changes of assumptions or other inputs	(62,207)	332,246
7. Member contributions	0	0
8. Projected earnings on plan investments	(2,581,358)	(2,225,914)
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	1,520,595	(1,385,242)
10. Administrative expense	44,451	45,292
11. Other	0	0
12. Recognition of beginning of year deferred outflows of resources as OPEB expense	320,478	0
13. Recognition of beginning of year deferred inflows of resources as OPEB expense	(1,453,710)	0
14. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>(36,898)</u>	<u>0</u>
OPEB Expense	<u>\$1,383,699</u>	<u>\$253,234</u>

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

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

Reporting Date for Employer under GASB 75	June 30, 2019	June 30, 2018
Measurement Date for Employer under GASB 75	December 31, 2018	December 31, 2017
Components of OPEB Expense		
1. Service cost	\$119,771	\$99,512
2. Interest on the Total OPEB Liability	278,500	257,626
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	2,275	(548)
4. Current-period benefit changes	0	0
5. Expensed portion of current-period difference between actual and expected experience in the Total OPEB Liability	(15,759)	(11,937)
6. Expensed portion of current-period changes of assumptions or other inputs	(6,500)	32,548
7. Member contributions	0	0
8. Projected earnings on plan investments	(269,713)	(218,059)
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	158,879	(135,704)
10. Administrative expense	4,644	4,437
11. Other	0	0
12. Recognition of beginning of year deferred outflows of resources as OPEB expense	33,485	0
13. Recognition of beginning of year deferred inflows of resources as OPEB expense	(151,891)	0
14. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>(548)</u>	<u>0</u>
OPEB Expense	<u>\$153,143</u>	<u>\$27,875</u>

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

EXHIBIT 8 (Continued)

OPEB Expense – Housing Authority

Reporting Date for Employer under GASB 75	June 30, 2019	June 30, 2018
Measurement Date for Employer under GASB 75	December 31, 2018	December 31, 2017
Components of OPEB Expense		
1. Service cost	\$142,064	\$121,869
2. Interest on the Total OPEB Liability	330,345	315,510
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	(346)	(5,105)
4. Current-period benefit changes	0	0
5. Expensed portion of current-period difference between actual and expected experience in the Total OPEB Liability	(18,692)	(14,619)
6. Expensed portion of current-period changes of assumptions or other inputs	(7,710)	39,861
7. Member contributions	0	0
8. Projected earnings on plan investments	(319,922)	(267,053)
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	188,456	(166,194)
10. Administrative expense	5,509	5,434
11. Other	0	0
12. Recognition of beginning of year deferred outflows of resources as OPEB expense	39,719	0
13. Recognition of beginning of year deferred inflows of resources as OPEB expense	(180,166)	0
14. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>(5,105)</u>	<u>0</u>
OPEB Expense	<u>\$174,152</u>	<u>\$29,703</u>

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

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

Reporting Date for Employer under GASB 75	June 30, 2019	June 30, 2018
Measurement Date for Employer under GASB 75	December 31, 2018	December 31, 2017
Components of OPEB Expense		
1. Service cost	\$128,824	\$114,694
2. Interest on the Total OPEB Liability	299,559	296,934
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	(3,634)	(13,608)
4. Current-period benefit changes	0	0
5. Expensed portion of current-period difference between actual and expected experience in the Total OPEB Liability	(16,950)	(13,758)
6. Expensed portion of current-period changes of assumptions or other inputs	(6,991)	37,514
7. Member contributions	0	0
8. Projected earnings on plan investments	(290,107)	(251,330)
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	170,893	(156,409)
10. Administrative expense	4,996	5,114
11. Other	0	0
12. Recognition of beginning of year deferred outflows of resources as OPEB expense	36,017	0
13. Recognition of beginning of year deferred inflows of resources as OPEB expense	(163,376)	0
14. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>(13,608)</u>	<u>0</u>
OPEB Expense	<u>\$145,623</u>	<u>\$19,151</u>

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

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

Reporting Date for Employer under GASB 75	June 30, 2019	June 30, 2018
Measurement Date for Employer under GASB 75	December 31, 2018	December 31, 2017
Components of OPEB Expense		
1. Service cost	\$0	\$0
2. Interest on the Total OPEB Liability	0	0
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	(1,820)
4. Current-period benefit changes	0	0
5. Expensed portion of current-period difference between actual and expected experience in the Total OPEB Liability	0	0
6. Expensed portion of current-period changes of assumptions or other inputs	0	0
7. Member contributions	0	0
8. Projected earnings on plan investments	0	0
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	0	0
10. Administrative expense	0	0
11. Other	0	0
12. Recognition of beginning of year deferred outflows of resources as OPEB expense	0	0
13. Recognition of beginning of year deferred inflows of resources as OPEB expense	0	0
14. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>(1,820)</u>	<u>0</u>
OPEB Expense	<u>(\$1,820)</u>	<u>(\$1,820)</u>

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

EXHIBIT 9

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

Reporting Date for Employer under GASB 75 Measurement Date for Employer under GASB 75	June 30, 2019 December 31, 2018	June 30, 2018 December 31, 2017
Deferred Outflows of Resources		
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$926,006	\$899,882
2. Changes of assumptions or other inputs	41,316,634	50,144,975
3. Net excess of projected over actual earnings on OPEB plan investments (if any)	57,129,080	0
4. Difference between actual and expected experience in the Total OPEB Liability	<u>0</u>	<u>0</u>
5. Total Deferred Outflows of Resources	\$99,371,720	\$51,044,857
Deferred Inflows of Resources		
6. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$926,006	\$899,882
7. Changes of assumptions or other inputs	9,716,291	0
8. Net excess of actual over projected earnings on OPEB plan investments (if any)	0	147,233,134
9. Difference between expected and actual experience in the Total OPEB Liability	<u>38,710,182</u>	<u>18,390,076</u>
10. Total Deferred Inflows of Resources	\$49,352,479	\$166,523,092

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

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

2019	N/A	(\$31,217,632)
2020	4,802,405	(31,217,632)
2021	4,802,405	(31,217,632)
2022	4,802,403	(31,217,634)
2023	41,610,687	5,590,651
2024	(2,066,802)	3,801,644
2025	(3,931,857)	0
Thereafter	0	0

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

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

EXHIBIT 9 (continued)

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

Reporting Date for Employer under GASB 75 Measurement Date for Employer under GASB 75	June 30, 2019 December 31, 2018	June 30, 2018 December 31, 2017
Deferred Outflows of Resources		
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$74,606	\$0
2. Changes of assumptions or other inputs	31,545,444	38,255,139
3. Net excess of projected over actual earnings on OPEB plan investments (if any)	43,618,321	0
4. Difference between actual and expected experience in the Total OPEB Liability	<u>0</u>	<u>0</u>
5. Total Deferred Outflows of Resources	\$75,238,371	\$38,255,139
Deferred Inflows of Resources		
6. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$470,109	\$570,560
7. Changes of assumptions or other inputs	7,418,434	0
8. Net excess of actual over projected earnings on OPEB plan investments (if any)	0	112,322,800
9. Difference between expected and actual experience in the Total OPEB Liability	<u>29,555,406</u>	<u>14,029,619</u>
10. Total Deferred Inflows of Resources	\$37,443,949	\$126,922,979

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

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

2019	N/A	(\$23,916,095)
2020	\$3,579,365	(23,916,095)
2021	3,579,365	(23,916,095)
2022	3,579,364	(23,916,096)
2023	31,682,661	4,164,607
2024	(1,633,161)	2,831,934
2025	(2,993,172)	0
Thereafter	0	0

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

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

EXHIBIT 9 (continued)

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

Reporting Date for Employer under GASB 75 Measurement Date for Employer under GASB 75	June 30, 2019 December 31, 2018	June 30, 2018 December 31, 2017
Deferred Outflows of Resources		
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$838,503	\$899,882
2. Changes of assumptions or other inputs	7,760,201	9,378,317
3. Net excess of projected over actual earnings on OPEB plan investments (if any)	10,730,137	0
4. Difference between actual and expected experience in the Total OPEB Liability	<u>0</u>	<u>0</u>
5. Total Deferred Outflows of Resources	\$19,328,841	\$10,278,199
Deferred Inflows of Resources		
6. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$0	\$0
7. Changes of assumptions or other inputs	1,824,940	0
8. Net excess of actual over projected earnings on OPEB plan investments (if any)	0	27,536,139
9. Difference between expected and actual experience in the Total OPEB Liability	<u>7,270,650</u>	<u>3,439,387</u>
10. Total Deferred Inflows of Resources	\$9,095,590	\$30,975,526

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

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

2019	N/A	(\$5,680,018)
2020	\$1,077,548	(5,680,018)
2021	1,077,548	(5,680,018)
2022	1,077,547	(5,680,019)
2023	7,990,978	1,204,016
2024	(263,343)	818,730
2025	(727,027)	0
Thereafter	0	0

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

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

EXHIBIT 9 (continued)

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

Reporting Date for Employer under GASB 75 Measurement Date for Employer under GASB 75	June 30, 2019 December 31, 2018	June 30, 2018 December 31, 2017
Deferred Outflows of Resources		
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$0	\$0
2. Changes of assumptions or other inputs	1,499,836	1,887,155
3. Net excess of projected over actual earnings on OPEB plan investments (if any)	2,073,844	0
4. Difference between actual and expected experience in the Total OPEB Liability	<u>0</u>	<u>0</u>
5. Total Deferred Outflows of Resources	\$3,573,680	\$1,887,155
Deferred Inflows of Resources		
6. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$334,671	\$209,583
7. Changes of assumptions or other inputs	352,711	0
8. Net excess of actual over projected earnings on OPEB plan investments (if any)	0	5,540,969
9. Difference between expected and actual experience in the Total OPEB Liability	<u>1,405,219</u>	<u>692,092</u>
10. Total Deferred Inflows of Resources	\$2,092,601	\$6,442,644

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

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

2019	N/A	(\$1,211,742)
2020	\$108,865	(1,211,742)
2021	108,865	(1,211,742)
2022	108,865	(1,211,742)
2023	1,445,044	173,500
2024	(128,689)	117,979
2025	(161,871)	0
Thereafter	0	0

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

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

EXHIBIT 9 (continued)

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

Reporting Date for Employer under GASB 75 Measurement Date for Employer under GASB 75	June 30, 2019 December 31, 2018	June 30, 2018 December 31, 2017
Deferred Outflows of Resources		
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$12,897	\$0
2. Changes of assumptions or other inputs	156,710	184,873
3. Net excess of projected over actual earnings on OPEB plan investments (if any)	216,685	0
4. Difference between actual and expected experience in the Total OPEB Liability	<u>0</u>	<u>0</u>
5. Total Deferred Outflows of Resources	\$386,292	\$184,873
Deferred Inflows of Resources		
6. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$2,566	\$3,114
7. Changes of assumptions or other inputs	36,853	0
8. Net excess of actual over projected earnings on OPEB plan investments (if any)	0	542,815
9. Difference between expected and actual experience in the Total OPEB Liability	<u>146,824</u>	<u>67,800</u>
10. Total Deferred Inflows of Resources	\$186,243	\$613,729

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

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

2019	N/A	(\$115,640)
2020	\$19,942	(115,640)
2021	19,942	(115,640)
2022	19,942	(115,640)
2023	159,552	20,063
2024	(5,938)	13,641
2025	(13,391)	0
Thereafter	0	0

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

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

EXHIBIT 9 (continued)

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

Reporting Date for Employer under GASB 75 Measurement Date for Employer under GASB 75	June 30, 2019 December 31, 2018	June 30, 2018 December 31, 2017
Deferred Outflows of Resources		
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$0	\$0
2. Changes of assumptions or other inputs	185,883	226,411
3. Net excess of projected over actual earnings on OPEB plan investments (if any)	257,023	0
4. Difference between actual and expected experience in the Total OPEB Liability	<u>0</u>	<u>0</u>
5. Total Deferred Outflows of Resources	\$442,906	\$226,411
Deferred Inflows of Resources		
6. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$25,849	\$28,994
7. Changes of assumptions or other inputs	43,713	0
8. Net excess of actual over projected earnings on OPEB plan investments (if any)	0	664,776
9. Difference between expected and actual experience in the Total OPEB Liability	<u>174,157</u>	<u>83,033</u>
10. Total Deferred Inflows of Resources	\$243,719	\$776,803

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

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

2019	N/A	(\$146,056)
2020	\$16,155	(146,056)
2021	16,155	(146,056)
2022	16,155	(146,056)
2023	181,755	20,137
2024	(13,114)	13,695
2025	(17,919)	0
Thereafter	0	0

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

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

EXHIBIT 9 (continued)

Deferred Outflows of Resources and Deferred Inflows of Resources – LARPD

Reporting Date for Employer under GASB 75 Measurement Date for Employer under GASB 75	June 30, 2019 December 31, 2018	June 30, 2018 December 31, 2017
Deferred Outflows of Resources		
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$0	\$0
2. Changes of assumptions or other inputs	168,560	213,080
3. Net excess of projected over actual earnings on OPEB plan investments (if any)	233,070	0
4. Difference between actual and expected experience in the Total OPEB Liability	<u>0</u>	<u>0</u>
5. Total Deferred Outflows of Resources	\$401,630	\$213,080
Deferred Inflows of Resources		
6. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$84,296	\$77,296
7. Changes of assumptions or other inputs	39,640	0
8. Net excess of actual over projected earnings on OPEB plan investments (if any)	0	625,635
9. Difference between expected and actual experience in the Total OPEB Liability	<u>157,926</u>	<u>78,145</u>
10. Total Deferred Inflows of Resources	\$281,862	\$781,076

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

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

2019	N/A	(\$146,261)
2020	\$2,350	(146,261)
2021	2,350	(146,261)
2022	2,350	(146,261)
2023	152,517	10,148
2024	(21,322)	6,900
2025	(18,477)	0
Thereafter	0	0

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

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

EXHIBIT 9 (continued)

Deferred Outflows of Resources and Deferred Inflows of Resources – ACOE

Reporting Date for Employer under GASB 75 Measurement Date for Employer under GASB 75	June 30, 2019 December 31, 2018	June 30, 2018 December 31, 2017
Deferred Outflows of Resources		
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$0	\$0
2. Changes of assumptions or other inputs	0	0
3. Net excess of projected over actual earnings on OPEB plan investments (if any)	0	0
4. Difference between actual and expected experience in the Total OPEB Liability	<u>0</u>	<u>0</u>
5. Total Deferred Outflows of Resources	0	0
Deferred Inflows of Resources		
6. Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$8,515	\$10,335
7. Changes of assumptions or other inputs	0	0
8. Net excess of actual over projected earnings on OPEB plan investments (if any)	0	0
9. Difference between expected and actual experience in the Total OPEB Liability	<u>0</u>	<u>0</u>
10. Total Deferred Inflows of Resources	\$8,515	\$10,335

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

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

2019	N/A	(\$1,820)
2020	(\$1,820)	(1,820)
2021	(1,820)	(1,820)
2022	(1,820)	(1,820)
2023	(1,820)	(1,820)
2024	(1,235)	(1,235)
2025	0	0
Thereafter	0	0

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

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

EXHIBIT 9 (continued)

Deferred Outflows of Resources and Deferred Inflows of Resources

There are changes in each employer's proportionate share of the total Net OPEB Liability (NOL) during the measurement period ended December 31, 2018. The net effect of the change on the employer's proportionate share of the collective NOL and collective deferred outflows of resources and deferred inflows of resources is recognized over the average of the expected remaining service lives of all employees that are provided with benefits through ACERA which is 6.67⁸ years determined as of December 31, 2017 (the beginning of the measurement period ended December 31, 2018). This is described in Paragraph 64 of GASB 75.

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

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

⁸ *The remaining service lives of all employees of 6.67 years used here for GASB 75 is different from the 5.43 years used for GASB 68 because the number of payees and nonactive members (with 0 years of expected remaining service lives) receiving health benefits under the SRBR Plan is less than the number of payees and nonactive members receiving pension benefits.*

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

EXHIBIT 10

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

Reporting Date for Employer under GASB 75 as of June 30	Proportion of the Net OPEB Liability	Proportionate share of Net OPEB Liability	Covered-employee payroll⁽¹⁾	Proportionate share of the Net OPEB Liability as a percentage of its covered-employee payroll	Plan's Fiduciary Net Position as a percentage of the Total OPEB Liability
2017	100.00%	\$135,247,221	\$947,567,631	14.27%	85.50%
2018	100.00%	\$27,478,286	\$995,178,209	2.76%	97.33%
2019	100.00%	\$232,896,579	\$1,046,033,851	22.26%	77.91%

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

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

EXHIBIT 10 (continued)

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

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

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

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

EXHIBIT 10 (continued)

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

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

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

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

EXHIBIT 10 (continued)

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

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

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

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

EXHIBIT 10 (continued)

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

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

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

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

EXHIBIT 10 (continued)

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

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

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

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

EXHIBIT 10 (continued)

Schedule of Proportionate Share of the Net OPEB Liability – LARPD

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

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

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

EXHIBIT 10 (continued)

Schedule of Proportionate Share of the Net OPEB Liability – ACOE

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

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

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

EXHIBIT 11

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

Reporting Date for Employer under GASB 75	June 30, 2019	June 30, 2018
Measurement Date for Employer under GASB 75	December 31, 2018	December 31, 2017
Reconciliation of Net OPEB Liability		
1. Beginning Net OPEB Liability	\$27,478,286	\$135,247,221
2. OPEB Expense	39,920,817	7,709,300
3. Employer Contributions	0	0
4. New Net Deferred Inflows/Outflows	134,279,844	(115,478,235)
5. Change in Allocation of Prior Deferred Inflows/Outflows	0	0
6. New Net Deferred Flows Due to Change in Proportion	0	0
7. Recognition of Prior Deferred Inflows/Outflows	31,217,632	0
8. Recognition of Prior Deferred Flows Due to Change in Proportion	<u>0</u>	<u>0</u>
9. Ending Net OPEB Liability	<u>\$232,896,579</u>	<u>\$27,478,286</u>

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

EXHIBIT 11 (continued)

Schedule of Reconciliation of Net OPEB Liability – Alameda County

Reporting Date for Employer under GASB 75	June 30, 2019	June 30, 2018
Measurement Date for Employer under GASB 75	December 31, 2018	December 31, 2017
Reconciliation of Net OPEB Liability		
1. Beginning Net OPEB Liability	\$20,962,931	\$103,849,869
2. OPEB Expense	30,392,439	5,780,902
3. Employer Contributions	0	0
4. New Net Deferred Inflows/Outflows	102,523,290	(88,097,280)
5. Change in Allocation of Prior Deferred Inflows/Outflows	(70,894)	0
6. New Net Deferred Flows Due to Change in Proportion	74,606	(570,560)
7. Recognition of Prior Deferred Inflows/Outflows	23,834,809	0
8. Recognition of Prior Deferred Flows Due to Change in Proportion	<u>100,451</u>	<u>0</u>
9. Ending Net OPEB Liability	<u>\$177,817,632</u>	<u>\$20,962,931</u>

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

EXHIBIT 11 (continued)

Schedule of Reconciliation of Net OPEB Liability – Health System

Reporting Date for Employer under GASB 75	June 30, 2019	June 30, 2018
Measurement Date for Employer under GASB 75	December 31, 2018	December 31, 2017
Reconciliation of Net OPEB Liability		
1. Beginning Net OPEB Liability	\$5,139,101	\$24,236,173
2. OPEB Expense	7,673,581	1,600,255
3. Employer Contributions	0	0
4. New Net Deferred Inflows/Outflows	25,220,801	(21,597,209)
5. Change in Allocation of Prior Deferred Inflows/Outflows	(92,223)	0
6. New Net Deferred Flows Due to Change in Proportion	97,051	899,882
7. Recognition of Prior Deferred Inflows/Outflows	5,863,379	0
8. Recognition of Prior Deferred Flows Due to Change in Proportion	<u>(158,430)</u>	<u>0</u>
9. Ending Net OPEB Liability	<u>\$43,743,260</u>	<u>\$5,139,101</u>

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

EXHIBIT 11 (continued)

Schedule of Reconciliation of Net OPEB Liability – Superior Court

Reporting Date for Employer under GASB 75	June 30, 2019	June 30, 2018
Measurement Date for Employer under GASB 75	December 31, 2018	December 31, 2017
Reconciliation of Net OPEB Liability		
1. Beginning Net OPEB Liability	\$1,034,117	\$5,336,372
2. OPEB Expense	1,383,699	253,234
3. Employer Contributions	0	0
4. New Net Deferred Inflows/Outflows	4,874,496	(4,345,906)
5. Change in Allocation of Prior Deferred Inflows/Outflows	153,928	0
6. New Net Deferred Flows Due to Change in Proportion	(161,986)	(209,583)
7. Recognition of Prior Deferred Inflows/Outflows	1,133,232	0
8. Recognition of Prior Deferred Flows Due to Change in Proportion	<u>36,898</u>	<u>0</u>
9. Ending Net OPEB Liability	<u>\$8,454,384</u>	<u>\$1,034,117</u>

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

EXHIBIT 11 (continued)

Schedule of Reconciliation of Net OPEB Liability – First 5

Reporting Date for Employer under GASB 75	June 30, 2019	June 30, 2018
Measurement Date for Employer under GASB 75	December 31, 2018	December 31, 2017
Reconciliation of Net OPEB Liability		
1. Beginning Net OPEB Liability	\$101,306	\$502,287
2. OPEB Expense	153,143	27,875
3. Employer Contributions	0	0
4. New Net Deferred Inflows/Outflows	509,310	(425,742)
5. Change in Allocation of Prior Deferred Inflows/Outflows	(12,256)	0
6. New Net Deferred Flows Due to Change in Proportion	12,897	(3,114)
7. Recognition of Prior Deferred Inflows/Outflows	118,406	0
8. Recognition of Prior Deferred Flows Due to Change in Proportion	<u>548</u>	<u>0</u>
9. Ending Net OPEB Liability	<u>\$883,354</u>	<u>\$101,306</u>

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

EXHIBIT 11 (continued)

Schedule of Reconciliation of Net OPEB Liability – Housing Authority

Reporting Date for Employer under GASB 75	June 30, 2019	June 30, 2018
Measurement Date for Employer under GASB 75	December 31, 2018	December 31, 2017
Reconciliation of Net OPEB Liability		
1. Beginning Net OPEB Liability	\$124,068	\$644,757
2. OPEB Expense	174,152	29,703
3. Employer Contributions	0	0
4. New Net Deferred Inflows/Outflows	604,124	(521,398)
5. Change in Allocation of Prior Deferred Inflows/Outflows	1,863	0
6. New Net Deferred Flows Due to Change in Proportion	(1,960)	(28,994)
7. Recognition of Prior Deferred Inflows/Outflows	140,447	0
8. Recognition of Prior Deferred Flows Due to Change in Proportion	<u>5,105</u>	<u>0</u>
9. Ending Net OPEB Liability	<u>\$1,047,799</u>	<u>\$124,068</u>

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

EXHIBIT 11 (continued)

Schedule of Reconciliation of Net OPEB Liability – LARPD

Reporting Date for Employer under GASB 75	June 30, 2019	June 30, 2018
Measurement Date for Employer under GASB 75	December 31, 2018	December 31, 2017
Reconciliation of Net OPEB Liability		
1. Beginning Net OPEB Liability	\$116,763	\$665,608
2. OPEB Expense	145,623	19,151
3. Employer Contributions	0	0
4. New Net Deferred Inflows/Outflows	547,823	(490,700)
5. Change in Allocation of Prior Deferred Inflows/Outflows	19,582	0
6. New Net Deferred Flows Due to Change in Proportion	(20,608)	(77,296)
7. Recognition of Prior Deferred Inflows/Outflows	127,359	0
8. Recognition of Prior Deferred Flows Due to Change in Proportion	<u>13,608</u>	<u>0</u>
9. Ending Net OPEB Liability	<u>\$950,150</u>	<u>\$116,763</u>

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

EXHIBIT 11 (continued)

Schedule of Reconciliation of Net OPEB Liability – ACOE

Reporting Date for Employer under GASB 75	June 30, 2019	June 30, 2018
Measurement Date for Employer under GASB 75	December 31, 2018	December 31, 2017
Reconciliation of Net OPEB Liability		
1. Beginning Net OPEB Liability	\$0	\$12,155
2. OPEB Expense	(1,820)	(1,820)
3. Employer Contributions	0	0
4. New Net Deferred Inflows/Outflows	0	0
5. Change in Allocation of Prior Deferred Inflows/Outflows	0	0
6. New Net Deferred Flows Due to Change in Proportion	0	(10,335)
7. Recognition of Prior Deferred Inflows/Outflows	0	0
8. Recognition of Prior Deferred Flows Due to Change in Proportion	<u>1,820</u>	<u>0</u>
9. Ending Net OPEB Liability	<u>\$0</u>	<u>\$0</u>

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

EXHIBIT 12

Schedule of Recognition of Changes in Total Net OPEB Liability

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

Reporting Date for Employer under GASB 75 Year Ended June 30	Differences Between Actual and Expected Experience	Recognition Period (Years)	Reporting Date for Employer under GASB 75, Year Ended June 30							
			2018	2019	2020	2021	2022	2023	2024	2025
2018	(\$21,627,766)	6.68	(\$3,237,690)	(\$3,237,690)	(\$3,237,690)	(\$3,237,690)	(\$3,237,690)	(\$3,237,690)	(\$2,201,626)	\$0
2019	(\$27,712,610)	6.67	N/A	(4,154,814)	(4,154,814)	(4,154,814)	(4,154,814)	(4,154,814)	(4,154,814)	(2,783,726)
Net increase (decrease) in OPEB expense			(\$3,237,690)	(\$7,392,504)	(\$7,392,504)	(\$7,392,504)	(\$7,392,504)	(\$7,392,504)	(\$6,356,440)	(\$2,783,726)

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

Reporting Date for Employer under GASB 75 Year Ended June 30	Effect of Assumption Changes	Recognition Period (Years)	Reporting Date for Employer under GASB 75, Year Ended June 30							
			2018	2019	2020	2021	2022	2023	2024	2025
2018	\$58,973,316	6.68	\$8,828,341	\$8,828,341	\$8,828,341	\$8,828,341	\$8,828,341	\$8,828,341	\$6,003,270	\$0
2019	(\$11,429,923)	6.67	N/A	(1,713,632)	(1,713,632)	(1,713,632)	(1,713,632)	(1,713,632)	(1,713,632)	(1,148,131)
Net increase (decrease) in OPEB expense			\$8,828,341	\$7,114,709	\$7,114,709	\$7,114,709	\$7,114,709	\$7,114,709	\$4,289,638	(\$1,148,131)

As described in Exhibit 9, the average of the expected remaining service lives of all employees that are provided with benefits through ACERA (active and inactive employees) determined as of December 31, 2017 (the beginning of the measurement period ending December 31, 2018) is 6.67 years.

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

EXHIBIT 12 (continued)

Schedule of Recognition of Changes in Total Net OPEB Liability

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

Reporting Date for Employer under GASB 75 Year Ended June 30	Differences between Projected and Actual Earnings	Recognition Period (Years)	Reporting Date for Employer under GASB 75, Year Ended June 30					
			2018	2019	2020	2021	2022	2023
2018	(\$184,041,417)	5.00	(\$36,808,283)	(\$36,808,283)	(\$36,808,283)	(\$36,808,283)	(\$36,808,283)	\$0
2019	\$209,442,414	5.00	N/A	<u>41,888,483</u>	<u>41,888,483</u>	<u>41,888,483</u>	<u>41,888,483</u>	<u>41,888,482</u>
Net increase (decrease) in OPEB expense			(\$36,808,283)	\$5,080,200	\$5,080,200	\$5,080,200	\$5,080,200	\$41,888,482

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

Total Increase (Decrease) in OPEB Expense

Reporting Date for Employer under GASB 75 Year Ended June 30	Total Differences	Reporting Date for Employer under GASB 75, Year Ended June 30							
		2018	2019	2020	2021	2022	2023	2024	2025
2018	(\$146,695,867)	(\$31,217,632)	(\$31,217,632)	(\$31,217,632)	(\$31,217,632)	(\$31,217,634)	\$5,590,651	\$3,801,644	\$0
2019	\$170,299,881	N/A	<u>36,020,037</u>	<u>36,020,037</u>	<u>36,020,037</u>	<u>36,020,037</u>	<u>36,020,036</u>	<u>(5,868,446)</u>	<u>(3,931,857)</u>
Net increase (decrease) in OPEB expense		(\$31,217,632)	\$4,802,405	\$4,802,405	\$4,802,405	\$4,802,403	\$41,610,687	(\$2,066,802)	(\$3,931,857)

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

EXHIBIT 13

Allocation of Changes in Total Net OPEB Liability

In addition to the amounts shown in Exhibit 12, there are changes in each employer's proportionate share of the total Net OPEB Liability (NOL) during the measurement period ending on December 31, 2018 and December 31, 2017. 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 below. While these amounts are different for each employer, they sum to zero for ACERA.

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

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

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

EXHIBIT 13 (continued)

Allocation of Changes in Total Net OPEB Liability

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

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

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

Actuarial Assumptions and Actuarial Cost Method

For December 31, 2018 Measurement Date and Employer Reporting as of June 30, 2019

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

Rationale for Assumptions: The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in the December 1, 2013 through November 30, 2016 Actuarial Experience Study report dated September 6, 2017, and in our letter dated March 16, 2019 regarding the health trend assumptions for the December 31, 2018 SRBR retiree health actuarial valuation. Unless otherwise noted, all actuarial assumptions and methods shown below apply to all tiers. These assumptions were adopted by the Board.

Post-Retirement Mortality Rates - Healthy

*General Members and
All Beneficiaries:*

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

Safety Members:

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

Post-Retirement Mortality Rates - Disabled

General Members:

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

Safety Members:

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

The RPH-2014 mortality tables and adjustments as shown above reflect the mortality experience as of the measurement date. The generational projection is a provision for future mortality improvement.

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

Pre-Retirement Mortality Rates

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

Termination Rates Before Retirement⁽¹⁾:

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

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

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

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

Termination Rates Before Retirement (continued):

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

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

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

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

Termination Rates Before Retirement (continued):

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

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

⁽¹⁾ 60% of terminated members will choose a refund of contributions and 40% will choose a deferred vested benefit.

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

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

Retirement Rates:

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

⁽¹⁾ Retirement rate is 100% after a member accrues a benefit of 100% of final average earnings.

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

**Retirement Age and Benefit for
Deferred Vested Members:**

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

General Age:	61
Safety Age:	56

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

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

Measurement Date: December 31, 2018

Discount Rate: 7.25%

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

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

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

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

Actuarial Cost Method: Entry Age Cost Method.

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

Salary Increases:

Annual Rate of Compensation Increase (%)		
Inflation: 3.00%; an additional 0.50% “across the board” salary increases (other than inflation); plus the following Merit and Promotional increases based on service.		
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+	0.40	0.80

Terminal Pay Assumptions:

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

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

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

Per Capita Health Costs:

The combined monthly per capita dental and vision claims cost for plan year 2018 was assumed to be \$47.91. The monthly Medicare Part B premium reimbursement for 2018 is \$134.00. For calendar year 2018, 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	90%	\$735.64	\$540.44
United Healthcare HMO	10%	\$1,047.16	\$540.44
Age 65 and Older			
Kaiser Senior Advantage Via Benefits Individual	70%	\$367.23	\$540.44
Insurance Exchange	30%	\$291.39 ⁽⁴⁾	\$414.00

- ⁽¹⁾ There are other plans available to retirees under 65 that have a range of premiums and include Via Benefits individual insurance coverage for retirees residing outside of ACERA medical plans' coverage area. We have assumed that these current retirees will draw the Maximum Monthly Subsidy (\$540.44) and 0% of future retirees will enroll in these other plans.
- ⁽²⁾ The Maximum Monthly Medical Allowance of \$540.44 (\$414.00 for retirees purchasing individual insurance from the Medicare exchange) is subject to the following subsidy schedule:

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

- ⁽³⁾ Current retirees under 65 are assumed to elect medical plans in the same proportion as future retirees upon age 65.
- ⁽⁴⁾ The derivation of amount expected to be paid out in 2018 from the Health Reimbursement Account for members with 20 or more years of service is provided in the table on the following page. In the table, we have also provided the amount expected to be paid for members with 10-14 and 15-19 years of service.

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

Per Capita

Health Costs (continued): Derivation of Via Benefits Monthly Per Capita Costs

	(Years of Service Category)	<u>10-14</u>	<u>15-19</u>	<u>20+</u>
1.	Maximum MMA for 2017	\$207.00	\$310.50	\$414.00
2.	Total of Maximum MMA (From Jan. 2017 to Dec. 2017)	\$424,764	\$708,026	\$4,423,203
3.	Total of Actual Reimbursement (From Jan. 2017 to Dec. 2017)	\$317,422	\$503,498	\$2,657,446
4.	Ratio of Actual Reimbursement to Maximum 2017 MMA [(3) / (2)]	74.73%	71.11%	60.08%
5.	Average Monthly Per Capita Cost for 2017 [(1) x (4)]	\$154.69	\$220.80	\$248.73
6.	Increased for Expected Medical Trend (6.50%) from 2017 to 2018 [(5) x 1.065]	\$164.74	\$235.16	\$264.90
7.	Increased for Additional 10% Margin for 2017 Expenses Incurred in 2017 but Reimbursed after December 2017 [(6) x 1.10]	\$181.22	\$258.67	\$291.39

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

Per Capita Health Costs (continued): Implicit Subsidy

We have estimated the average per capita premium for retirees under age 65 to be \$9,202 per year. Because premiums for retirees under age 65 include active participants for purposes of underwriting, the retirees receive an implicit subsidy from the actives. Had the retirees under age 65 been underwritten as a separate group, their age-based premiums would be higher for most individuals. The excess of the age-based premium over the per capita premium charged makes up the subsidy. Below is a sample of the age-based costs for the retirees under age 65.

Age	Average Medical			
	Retiree		Spouse	
	Male	Female	Male	Female
50	\$10,099	\$11,504	\$7,054	\$9,237
55	11,994	12,383	9,440	10,692
60	14,244	13,348	12,637	12,400
64	16,342	14,160	15,953	13,957

Not all ACERA employers are receiving an implicit subsidy reimbursement from the Association. For SRBR sufficiency purposes, we have adjusted (by about a 12% reduction of the costs shown above) our projected implicit subsidy payments to account for this fact, based on data provided by the County of Alameda's health consultant.

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

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

Participation and Coverage Election:

Retired members and beneficiaries as of valuation date:

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

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

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

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

Health Care Cost Trend Rates:

Health care trend measures the anticipated overall rate at which health plan costs are expected to increase in future years. The rates shown below are “net” and are applied to the net per capita costs shown above. The trend shown for a particular plan year is the rate that is to be applied to the premium for the shown calendar year to calculate the next calendar year’s projected premium. For example, the projected 2019 calendar year premium for Kaiser (under age 65) is \$765.06 per month (\$735.64 increased by 4.0%).

	Non-Medicare Plans	Medicare Advantage Plan	Dental, Vision and Medicare Part B	
	United Healthcare HMO & Kaiser HMO Early Retiree			
Calendar Year		Via Benefits & Kaiser Senior Advantage	Dental and Vision	Medicare Part B
2018	7.00% ⁽¹⁾	6.50% ⁽¹⁾	4.50% ⁽¹⁾	4.50% ⁽²⁾
2019	7.00 ⁽³⁾	6.50% ⁽³⁾	4.00	4.00
2020	6.75	6.25	4.00	4.00
2021	6.50	6.00	4.00	4.00
2022	6.25	5.75	4.00	4.00
2023	6.00	5.50	4.00	4.00
2024	5.75	5.25	4.00	4.00
2025	5.50	5.00	4.00	4.00
2026	5.25	4.75	4.00	4.00
2027	5.00	4.50	4.00	4.00
2028	4.75	4.50	4.00	4.00
2029 & Later	4.50	4.50	4.00	4.00

⁽¹⁾ The actual trends are shown below, based on premium renewals for 2019 as reported by ACERA.

Kaiser HMO Early Retiree	United Healthcare HMO		
	Early Retiree	Kaiser Senior Advantage	Dental and Vision
4.00%	0.00%	8.13%	1.00%

⁽²⁾ Based on the 3.00% inflation assumption used in the pension valuation, we expect the Social Security COLA from 2018 to 2019 will be large enough to cover the dollar increases in the Medicare Part B premium for most retirees. We assume that the standard premium for all retirees in 2019 will be \$140 (\$134 in 2018 increased by 4.50%) per month.

⁽³⁾ In addition, we will further adjust the 2019 non-Medicare trend by 1.20% and the 2019 Medicare trend by 0.90% to reflect the impact of the Health Insurance Tax (HIT).

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

Assumed Increase in Annual Maximum Benefits:

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

- a) Maximum medical allowance for 2019 will increase to \$558.00 per month, then increase with 50% of trend for medical plans, or 3.125%, graded down to the ultimate rate of 2.25% over 7 years.
- b) Dental and vision premium reimbursement will increase with full trend.
- c) Medicare B premium reimbursement will increase with full trend.

Dependents:

Demographic data was available for spouses of current retirees. For future retirees, husbands were assumed to be three years older than their wives. Of the future retirees who elect to continue their medical coverage at retirement, 35% males and 15% females were assumed to have an eligible spouse who also opts for health coverage at that time.

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

Plan Design:

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

Administrative Expenses:

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

Missing Participant Data:

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

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

APPENDIX A

**Projection of OPEB Plan's Fiduciary Net Position for Use in Calculation of Discount Rate as of December 31, 2018
(\$ in millions)**

Year Beginning January 1,	Projected Beginning OPEB Plan's Fiduciary Net Position (a)	Projected Total Contributions (b)	Projected Benefit Payments (c)	Projected Administrative Expenses (d)	Projected Investment Earnings (e)	Projected Ending OPEB Plan's Fiduciary Net Position (f) = (a) + (b) - (c) - (d) + (e)
2018	\$1,002	\$0	\$41	\$1	-\$138	\$821
2019	821	0	53	1	58	825
2020	825	0	57	1	58	825
2021	825	0	61	1	58	821
2022	821	0	65	1	57	812
2023	812	0	69	1	56	799
2024	799	0	74	1	55	779
2025	779	0	78	1	54	754
2026	754	0	82	1	52	723
2027	723	0	86	1	49	686
2028	686	0	89	1	46	642
2029	642	0	93	1	43	591
2030	591	0	97	1	39	533
2031	533	0	101	1	35	466
2032	466	0	104	1	30	391
2033	391	0	108	0 *	24	307
2034	307	0	111	0 *	18	213
2035	213	0	114	0 *	11	110
2036	110	0	114	0 *	4	0
2037	0	0	0	0	0	0
2038	0	0	0	0	0	0
2039	0	0	0	0	0	0
2040	0	0	0	0	0	0
2132	0	0	0	0	0	0
2133	0	0	0	0	0	0
2133	Discounted Value:	0				

* Less than \$1 M, when rounded.

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

APPENDIX A (continued)

Projection of OPEB Plan's Fiduciary Net Position for Use in Calculation of Discount Rate as of December 31, 2018 (\$ in millions) - continued

Notes:

- (1) Amounts may not total exactly due to rounding.
- (2) Amounts shown in the year beginning January 1, 2018 row are actual amounts, based on the financial statements provided by ACERA.
- (3) Years 2041 - 2131 have been omitted from this table.
- (4) Column (a): Except for the "discounted value" shown for 2133, all of the projected beginning Plan's Fiduciary Net Position amounts shown have not been adjusted for the time value of money.
- (5) Column (b): \$0. Benefits are funded by employer contributions to the 401(h) account and similar amounts are transferred from the SRBR to the Employers Advance Reserve to backfill the employer contributions that would have otherwise been made to the Retirement Plan.
- (6) Column (c): Projected benefit payments have been determined in accordance with paragraph 43-47 of GASB Statement No. 74, and are based on the closed group of active, inactive vested, retired members, and beneficiaries as of November 30, 2017. The projected benefit payments reflect future health care trends. The projected benefit payments include the OPEB SRBR benefits to the extent the current OPEB SRBR (including the portion of deferred investment loss as of December 31, 2018 that is expected to be allocated to the SRBR) supports those benefits*. Benefit payments are assumed to occur halfway through the year, on average. In accordance with paragraph 35 b.(2)(e) of GASB Statement No. 74, the long-term expected rate of return on Plan investments of 7.25% per annum was applied to all periods of projected benefit payments to determine the discount rate.
- (7) Column (d): Projected administrative expenses are calculated as approximately 0.12% of the beginning OPEB SRBR Plan's Fiduciary Net Position amount. The 0.12% portion was based on the actual fiscal year 2018 administrative expenses as a percentage of the beginning OPEB SRBR Plan's Fiduciary Net Position amount as of January 1, 2018. Administrative expenses are assumed to occur halfway through the year, on average.
- (8) Column (e): Projected investment earnings are based on the assumed investment rate of return of 7.25% per annum.
- (9) As illustrated in this Exhibit, the OPEB SRBR Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments for current Plan members. In other words, there is no projected "cross-over date" when projected benefits are not covered by projected assets. Therefore, the long-term expected rate of return on Plan investments of 7.25% per annum was applied to all periods of projected benefit payments to determine the total OPEB liability as of December 31, 2018 shown earlier in this report, pursuant to paragraph 48 of GASB Statement No. 74.

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

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