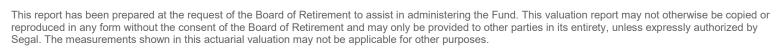
Alameda County Employees' Retirement Association (ACERA)

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

As of December 31, 2020



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May 24, 2021

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

Dear Board Members:

We are pleased to submit this Governmental Accounting Standards Board (GASB) Statement 74 Actuarial Valuation as of December 31, 2020. It contains various information that will need to be disclosed in order to comply with GASB 74.

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

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

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

Board of Retirement May 24, 2021

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

Sincerely,

Segal

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

Thomas Bergman, ASA, MAAA, EA

Senior Actuary

TJH/jl



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Purpose and basis

This report has been prepared by Segal to present certain disclosure information required for "Other Postemployment Benefits (OPEB)" plans by Statement No. 74 of the Governmental Accounting Standards Board as of December 31, 2020. This valuation is based on:

- The benefit provisions of the OPEB Plan, as administered by the Board of Retirement;
- The characteristics of covered active members, inactive vested members, and retired members and beneficiaries as of November 30, 2019, provided by ACERA;
- The assets of the Plan as of December 31, 2020, provided by ACERA;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board for the December 31, 2020 valuation; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, and health care trends etc. adopted by the Board for the December 31, 2020 valuation.

General observations on GASB 74 actuarial valuation

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

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



Highlights of the valuation

- 1. The NOL decreased from \$112.9 million as of December 31, 2019 to \$6.7 million as of December 31, 2020 primarily as a result of favorable investment return during calendar year 2020 of about \$193.5 million (for an actual market return of 27.7%² versus 7.25% assumed in the valuation), offset somewhat by lowering the discount rate³ (which on a net basis increased the NOL by about \$33.2 million). Changes in these values during the last two fiscal years ending December 31, 2020 and 2019 can be found in Section 2, Schedule of Changes in Net OPEB Liability on page 16.
- 2. As we disclosed in our December 31, 2020 pension funding valuation report, the 7.00% investment return assumption that the Board approved for determining the liabilities for funding purposes and used for establishing the employer and employee contribution rates has continued to be developed without considering the impact of any future 50/50 excess earnings allocation. This is based on our understanding that Article 5.5 of the Statute, which authorizes the allocation of 50% of excess earnings to the SRBR, does not allow for the use of a different investment return for funding than is used for interest crediting. This would appear in effect to preclude the prefunding of the SRBR through the use of an assumption lower than the market earnings assumption of 7.00%.

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

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

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

³ The discount rate was lowered from 7.25% to 7.00% based on the 7.00% investment rate of return assumption that the Board approved based on the recommended assumption from the Actuarial Experience Study for the period December 1, 2016 through November 30, 2019, dated September 9, 2020.



² Note that the 27.7% market value investment return mentioned above for the SRBR is higher than the 11.5% investment return included in the December 31, 2020 Pension Funding Valuation for Association's entire portfolio. The higher return for the SRBR is primarily a result of including the 50% of future excess earnings allocated to the SRBR for the deferred investment gains as of December 31, 2020.

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

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

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

Summary of key valuation results

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

⁽¹⁾ The Service Cost is based on the previous year's valuation, meaning the December 31, 2020 and December 31, 2019 measurement date values are based on the valuations as of December 31, 2019 and December 31, 2018, respectively. The December 31, 2020 service cost has been calculated using the assumptions shown in the December 31, 2019 column, and the December 31, 2019 service cost has been calculated using the following assumptions:

Key assumptions as of December 31, 2018:

Discount rate 7.25%

Health care premium trend rates

Non-Medicare medical plan⁽⁷⁾ Graded from 7.00% to ultimate 4.50% over 10 years Medicare medical plan⁽⁷⁾ Graded from 6.50% to ultimate 4.50% over 8 years

Dental/Vision and Medicare Part B 4.00%

- For 2020, the Plan's Fiduciary Net Position shown (\$1,184,882,854) includes the OPEB-related SRBR reserve of \$882,528,291 (after reducing the reserve by the SRBR implicit subsidy transfer of \$7,548,683) and 401(h) reserve (\$9,051,620), plus the proportionate share of one-half of the net deferred investment gain that is commensurate with the size of the OPEB SRBR reserve to total SRBR and 401(h) reserve to valuation and 401(h) reserve (\$293,302,942), after first replenishing the Contingency Reserve from \$69.0 million to \$98.7 million (1% of total assets). For 2019, the Plan's Fiduciary Net Position shown (\$970,180,405) includes the OPEB-related SRBR reserve of \$877,769,175 (after reducing the reserve by the SRBR implicit subsidy transfer of \$6,510,876) and 401(h) reserve (\$10,415,538), plus the proportionate share of one-half of the net deferred investment gain that is commensurate with the size of the OPEB SRBR reserve to total SRBR and 401(h) reserve to valuation and 401(h) reserve (\$81,995,692), after first replenishing the Contingency Reserve from \$0 to \$89.4 million (1% of total assets). Note that amounts may not total exactly due to rounding.
- (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, 2019 data is used in the measurement of the TOL as of December 31, 2020. The following data as of December 31, 2018 was used in the measurement of the TOL as of December 31, 2019:

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

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

- (5) The retiree count excludes beneficiaries under 65 receiving an implicit subsidy.
- (6) The first two years of trend for dental were updated to reflect the three-year rate guarantee (premiums would be fixed at the 2021 levels for 2022 and 2023). The first four years of trend for vision were updated to reflect the five-year rate guarantee (premiums would be fixed at 2021 levels for 2022, 2023, 2024 and 2025).
- (7) The trend rates for 2020 as of the December 31, 2019 measurement are before reflecting the repeal of the Health Insurance Tax (HIT) taking effect in 2021 that would further reduce 1.20% from non-Medicare plan trend of 6.75% and 0.90% from Medicare plan trend of 6.25%. The trends for 2019 as of the December 31, 2018 measurement are before reflecting a one-time adjustment to reflect the estimated impact of the reinstatement of the HIT. The weighted average increase amongst all carriers is approximately 1.20% for Non-Medicare plans and 0.90% for Medicare plans.

Important information about actuarial valuations

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

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

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

Models

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

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

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

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

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

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

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

General information about the OPEB plan

Plan Description

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

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

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

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

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

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



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

Eligibility:				
Service Retirees:	Retired with at least 10 years of service (including deferred vested members who terminate employment and receive a retirement benefit from ACERA)			
Disabled Retirees:	A minimum of 10 ⁴	years of service is required for non	-duty disability.	
	There is no minimum service requirement for duty disability.			
Other Postemployment Benefits (OPEB):				
Monthly Medical Allowance				
Service Retirees:	For retirees not purchasing individual insurance through the Medicare Insurance Exc Maximum Monthly Medical Allowance of \$578.65 per month is provided, effective Jai the period January 1, 2021 through December 31, 2021, the maximum allowance wil \$578.65 per month.			nuary 1, 2020 Il remain at
	Maximum Monthly	ng individual insurance through the Medical Allowance is \$443.28 per wing subsidy schedule:		
		Completed Years of Service	Percentage Subsidized	
		10-14	50%	
		15-19	75%	
		*	75% 100%	
Disabled Retirees:		15-19 20+ retirees receive the same Monthly ees receive the same Monthly Med	100% Medical Allowance as service r	
Disabled Retirees: Medicare Benefit Reimbursement	Duty disabled retire more years of serv	15-19 20+ retirees receive the same Monthly ees receive the same Monthly Med	100% Medical Allowance as service r lical Allowance as those service	e retirees with
	Duty disabled retire more years of serv	15-19 20+ retirees receive the same Monthly ees receive the same Monthly Medice.	100% Medical Allowance as service r lical Allowance as those service	e retirees with
Medicare Benefit Reimbursement	Duty disabled retire more years of serv The SRBR reimbut To qualify for reimb	15-19 20+ retirees receive the same Monthly ees receive the same Monthly Medice. rses the full Medicare Part B premi	100% Medical Allowance as service r lical Allowance as those service	e retirees with
Medicare Benefit Reimbursement	Duty disabled retire more years of serv The SRBR reimbut To qualify for reimbut Have at least 10	15-19 20+ retirees receive the same Monthly ees receive the same Monthly Medice. rses the full Medicare Part B premioursement, a retiree must:	100% Medical Allowance as service r lical Allowance as those service	e retirees with

⁴ The 10 years of service requirement is only used for determining eligibility for health benefits. For pension benefits, the eligibility requirements is 5 years of service.



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

Net OPEB Liability

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

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

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

Actuarial assumptions. The actuarial assumptions used for the December 31, 2020 valuation were based on the results of the experience study for the period from December 1, 2016 through November 30, 2019 that were approved by the Board effective with the December 31, 2020 valuation and the health care trend assumptions recommended for the upcoming sufficiency study for the SRBR as of December 31, 2020 (reference: our letter dated March 22, 2021). The assumptions used in the December 31, 2020 SRBR OPEB actuarial valuation for ACERA were applied to all periods included in the measurement:

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

⁵ The actual calendar year 2020 trend of 2.70% reflecting the standard 2021 calendar year premium of \$148.50 per month, consistent with Segal's Medicare Part B memo dated November 12, 2020 was reflected in the current year GAS 74 valuation with December 31, 2020 measurement date.

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

Investment rate of return	7.25%, net of OPEB plan investment expense, including inflation			
Inflation	3.00%			
Health care premium trend rates (used to project health care costs after calendar year 2020):				
Non-Medicare medical plan ⁶	Graded from 6.75% in 2020 to ultimate 4.50% over 9 years			
Medicare medical plan ⁶	Graded from 6.25% in 2020 to ultimate 4.50% over 7 years			
Dental/Vision	4.00%			
Medicare Part B	4.50%			
Other assumptions:	Same as those proposed in the experience study for the period December 1, 2013 through November 30, 2016.			

⁶ The trend rates shown above for 2020 as of the December 31, 2019 measurement do not include a one-time reduction of 1.20% to the first year non-Medicare trend of 6.75% and 0.90% to the first year Medicare trend of 6.25% to reflect the recent repeal of the Health Insurance Tax (HIT) taking effect in 2021.

Determination of discount rate and investment rates of return

The long-term expected rate of return on OPEB plan investments⁷ was determined in 2020 using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage, adding expected inflation and subtracting expected investment expenses and a risk margin. The target allocation (approved by the Board) and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before investment expenses are shown in the following table. This information was used in the derivation of the long-term expected investment rate of return assumption for the December 31, 2020 actuarial valuation. This information will be subject to change every three years based on the results of an actuarial experience study.

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

⁷ Note that the investment return assumption for SRBR sufficiency (and pension funding) purposes was developed net of both investment and administrative expenses; however, the same investment return assumption was used for financial reporting purposes, and it was considered gross of administrative expenses for financial reporting purposes. (This resulted in an increase in the margin for adverse deviation when using that investment return assumption for financial reporting.)

Discount rate. The discount rate used to measure the Total OPEB Liability was 7.00% and 7.25% as of December 31, 2020 and December 31, 2019, respectively. The projection of cash flows used to determine the discount rate assumed benefits are paid out of current 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. Therefore the long-term expected rate of return on OPEB plan investments was applied to all periods of projected benefit payments to determine the Total OPEB Liability as of December 31, 2020 and December 31, 2019.

⁸ See discussions in Section 1 regarding source of funding for payment of OPEB SRBR benefits not covered by current OPEB SRBR Plan's Fiduciary Net Position.

Discount rate and trend sensitivity

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

	Current		
	1% Decrease (6.00%)	Discount Rate (7.00%)	1% Increase (8.00%)
Net OPEB Liability as of December 31, 2020	\$161,734,615	\$6,688,042	-\$121,795,777

Sensitivity of the Net OPEB Liability to changes in the healthcare cost trend rate. The following presents the Net OPEB Liability of ACERA as of December 31, 2020, calculated using the current trend rate as well as what ACERA's Net OPEB Liability would be if it were calculated using a trend rate that is 1-percentage-point lower or 1-percentage-point higher than the current rate:

	1% Decrease*	Current Trend Rates*	1% Increase*
Net OPEB Liability as of December 31, 2020	-\$146,614,305	\$6,688,042	\$196,585,237

^{*} Current trend rates: 6.75% graded down to 4.50% over 9 years for Non-Medicare medical plan costs; 6.25% graded down to 4.50% over 7 years for Medicare medical plan costs, 4.00% for all years after the first two years and four years for Dental and Vision costs, respectively; and 4.50% for all years for Medicare Part B costs. The first two years of trend for dental were 0.00% to reflect three-year rate guarantee (premiums fixed at 2021 levels for 2022 and 2023). The first four years of trend for vision were 0.00% to reflect five-year rate guarantee (premiums fixed at 2021 levels for 2022, 2023, 2024 and 2025).

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

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

⁽¹⁾ The Service Cost is based on the previous year's valuation, meaning the December 31, 2020 and December 31, 2019 measurement date values are based on the valuations as of December 31, 2019 and December 31, 2018, respectively.

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

See footnote (2) on page 5 for a discussion on the development of the 2020 "Plan's Fiduciary Net Position – beginning" amount of \$970,180,405 and the 2020 "Plan's Fiduciary Net Position - ending" amount of \$1,184,882,854.

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

Schedule of Employer contributions – Last ten fiscal years

Year Ended December 31	Actuarially Determined Contributions ⁽¹⁾	Contributions in Relation to the Actuarially Determined Contributions ⁽¹⁾	Contribution Deficiency / (Excess)	Covered Employee Payroll ⁽²⁾	Contributions as a Percentage of Covered Employee Payroll
2011	N/A	N/A	0	N/A	N/A
2012	N/A	N/A	0	N/A	N/A
2013	N/A	N/A	0	N/A	N/A
2014	N/A	N/A	0	N/A	N/A
2015	N/A	N/A	0	N/A	N/A
2016	N/A	N/A	0	N/A	N/A
2017	N/A	N/A	0	N/A	N/A
2018	N/A	N/A	0	N/A	N/A
2019	N/A	N/A	0	N/A	N/A
2020	N/A	N/A	0	N/A	N/A

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

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

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

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

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

Notes

- 1. Amounts may not total exactly due to rounding.
- 2. Amounts shown in the year beginning January 1, 2020 row are actual amounts, based on the financial statements provided by ACERA.
- Years 2049 2133 have been omitted from this table.
- 4. <u>Column (a):</u> Except for the "discounted value" shown for 2135, all of the projected beginning Plan's Fiduciary Net Position amounts shown have not been adjusted for the time value of money.
- 5. <u>Column (b):</u> \$0. Benefits are funded by employer contributions to the 401(h) account and similar amounts are transferred from the SRBR to the Employers Advance Reserve to backfill the employer contributions that would have otherwise been made to the Retirement Plan.
- 6. <u>Column (c):</u> Projected benefit payments have been determined in accordance with paragraph 43-47 of GASB Statement No. 74, and are based on the closed group of active, inactive vested, retired members, and beneficiaries as of November 30, 2019. The projected benefit payments reflect future health care trends. The projected benefit payments include the OPEB SRBR benefits to the extent the current OPEB SRBR (including the portion of deferred investment gain as of December 31, 2020 that is expected to be allocated to the SRBR) supports those benefits*. Benefit payments are assumed to occur halfway through the year, on average. In accordance with paragraph 35 b.(2)(e) of GASB Statement No. 74, the long-term expected rate of return on Plan investments of 7.00% per annum was applied to all periods of projected benefit payments to determine the discount rate.
- 7. <u>Column (d):</u> Projected administrative expenses are calculated as approximately 0.15% of the beginning OPEB SRBR Plan's Fiduciary Net Position amount. The 0.15% portion was based on the actual fiscal year 2020 administrative expenses as a percentage of the beginning OPEB SRBR Plan's Fiduciary Net Position amount as of January 1, 2020. Administrative expenses are assumed to occur halfway through the year, on average.
- 8. <u>Column (e):</u> Projected investment earnings are based on the assumed investment rate of return of 7.00% per annum.
- 9. As illustrated in this Exhibit, the OPEB SRBR Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments for current Plan members. In other words, there is no projected "cross-over date" when projected benefits are not covered by projected assets. Therefore, the long-term expected rate of return on Plan investments of 7.00% per annum was applied to all periods of projected benefit payments to determine the total OPEB liability as of December 31, 2020 shown earlier in this report, pursuant to paragraph 48 of GASB Statement No. 74.
 - * See discussion on page 2 regarding source of funding for payment of OPEB SRBR benefits not covered by current OPEB Plan's Fiduciary Net Position in the SRBR.

Appendix B: Definition of Terms

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

Actuarially Determined Contribution:	A target or recommended contribution to an OPEB plan for the reporting period based on the most recent measurement available.			
Assumptions or Actuarial Assumptions:	The estimates on which the cost of the Plan is calculated including:			
	 a) Investment return — the rate of investment yield that the Plan will earn over the long- term future; 			
	 b) Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates; 			
	c) Retirement rates — the rate or probability of retirement at a given age;			
	 d) Turnover rates — the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement. 			
Covered Employee Payroll:	The payroll of the employees that are provided OPEB benefits			
Discount Rate:	The single rate of return, that when applied to all projected benefit payments results in an actuarial present value that is the sum of the following:			
	 the actuarial present value of projected benefit payments projected to be funded by plan assets using a long term rate of return, and 			
	 the actuarial present value of projected benefit payments that are not included in (1) using a yield or index rate for 20 year tax exempt general obligation municipal bonds with an average rating of AA/Aa or higher. 			
Entry Age Actuarial Cost Method:	An actuarial cost method where the present value of the projected benefits for an individual allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age.			
Healthcare Cost Trend Rates:	The rate of change in per capita health costs over time.			
Net OPEB Liability:	The Total OPEB Liability less the Plan Fiduciary Net Position.			
Plan Fiduciary Net Position:	Market Value of Assets			
Real Rate of Return:	The rate of return on an investment after removing inflation.			
Service Cost:	The amount of contributions required to fund the benefit allocated to the current year of service.			
Total OPEB Liability:	The portion of the actuarial present value of projected benefit payments that is attributed to past periods of employee service in conformity with the requirements of Statement 74.			

Valuation Date:	The date at which the actuarial valuation is performed
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