

Los Angeles County Employees Retirement Association

GASB 67 Disclosure

GASB 67 Reporting Date: June 30, 2022

Measurement Date: June 30, 2022

Actuarial Valuation Date: June 30, 2021 Fiscal Year: July 1, 2021 to June 30, 2022

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Certification

Actuarial computations presented in this report under Statement No. 67 of the Governmental Accounting Standards Board are for purposes of assisting LACERA in fulfilling its financial accounting requirements. No attempt is being made to offer any accounting opinion or advice. This report is for fiscal year July 1, 2021 to June 30, 2022. The reporting date for determining plan assets and obligations is June 30, 2022. The calculations enclosed in this report have been made on a basis consistent with our understanding of the plan provisions. Determinations for purposes other than meeting financial reporting requirements may be significantly different than the results contained in this report. Accordingly, additional determinations may be needed for other purposes, such as judging benefit security or meeting employer funding requirements.

In preparing this report, we relied, without audit, on information as of June 30, 2021 furnished by LACERA. This information includes, but is not limited to, statutory provisions, member census data, and financial information. Please see Milliman's Actuarial Valuation of Retirement Benefits report dated November 22, 2021 for more information on the data used in the valuation, as well as a summary of the plan provisions and actuarial methods and assumptions.

We performed a limited review of the census and financial information used directly in our analysis and have found them to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for the Plan have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the Plan and reasonable expectations); and which in combination, offer our best estimate of anticipated experience affecting the Plan.

The valuation results were developed using models employing standard actuarial techniques. We have reviewed the models, including their inputs, calculations, and outputs for consistency, reasonableness, and appropriateness to the intended purpose and in compliance with generally accepted actuarial practice and relevant actuarial standards of practice. Reliance on other experts is reflected in Milliman's capital market assumptions, and in Milliman's expected return model maintained by Milliman investment consultants.

This report is only an estimate of the Plan's financial condition as of a single date. It can neither predict the Plan's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of Plan benefits, only the timing of Plan contributions. While the valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct. Determining results using alternative assumptions is outside the scope of our engagement.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to factors such as, but not limited to, the following: Plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the Plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the actuarial assignment, we did not perform an analysis of the potential range of such future measurements. The valuation results were developed using models intended for valuations that use standard actuarial techniques.

Milliman's work is prepared solely for the use and benefit of LACERA. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions:

- a) the plan sponsor may provide a copy of Milliman's work, in its entirety, to the plan sponsor's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the Fund; and
- b) the plan sponsor may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their specific needs.

The consultants who worked on this assignment are retirement actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and has been prepared in accordance with generally recognized accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

Nick Collier, ASA, EA, MAAA

Consulting Actuary

Craig Glyde, ASA, EA, MAAA

Consulting Actuary

Overview of GASB 67 and GASB 68

GASB 67 applies to financial reporting for public pension plans. LACERA implemented GASB 67 reporting for the fiscal year ended June 30, 2014.

GASB 68 governs the specifics of accounting for public pension plan obligations for participating employers. A GASB 68 report was first provided for employers participating in LACERA for the reporting date June 30, 2015.

The following GASB Statements provide additional information for, amend, or clarify GASB 67 and 68:

- GASB 73 provides information about accounting and reporting for pensions and related assets that are not within the scope of GASB 68, and amendments to certain provisions of GASB 67 and 68. LACERA implemented GASB 73 for the fiscal year ended June 30, 2016.
- 2. GASB 82 addresses certain issues with respect to GASB 67, GASB 68 and GASB 73. LACERA elected early implementation of GASB 82 for the GASB 67 June 30, 2016 reporting date. GASB 82 was reflected in GASB 68 financial reporting for the GASB 68 June 30, 2017 reporting date.

Statement of Fiduciary Net Position

	June 30, 2022	June 30, 2021
Assets		
Cash and Short-Term Investments	\$ 3,058,494,546	\$ 3,034,716,419
Cash Collateral on Loaned Securities	1,401,076,878	1,198,528,379
Receivables		
Contributions Receivable	119,635,183	114,101,681
Accounts Receivable - Sale of Investments	355,515,478	439,841,239
Accrued Interest and Dividends	226,860,897	169,925,118
Accounts Receivable - Other	10,226,949	109,138,958
Total Receivables	712,238,507	833,006,996
Investments at Fair Value		
Equity	24,464,719,621	29,705,842,700
Fixed Income	18,641,786,544	21,077,313,430
Private Equity	12,753,842,152	11,471,947,142
Real Estate	5,802,979,342	5,294,150,081
Hedge Funds	4,440,433,903	2,748,464,892
Real Assets	1,363,251,696	0
Total Investments at Fair Value	67,467,013,256	70,297,718,245
Total assets	72,638,823,188	75,363,970,038
Liabilities		
Accounts Payable - Purchase of Investments	835,073,030	1,055,062,733
Retiree Payroll and Other Payables	1,779,455	1,550,257
Accrued Expenses	63,266,240	50,275,900
Tax Withholding Payable	42,715,354	40,144,308
Obligations under Securities Lending Program	1,401,076,878	1,198,528,379
Accounts Payable - Other	5,299,875	6,382,744
Total liabilities	2,349,210,833	2,351,944,321
Net position restricted for pension benefits	\$ 70,289,612,355	\$ 73,012,025,718

Statement of Changes in Fiduciary Net Position

July 1, 2021 - June 30, 2022 **Additions** Contributions **Employer** 2,199,888,716 Member 758,632,238 2,958,520,953 **Total Contributions** Investment Income From Investing Activities: Net Appreciation/(Depreciation) in Fair Value of Investments (6,717,556,042)Investment Income/(Loss) 5,476,668,193 Total Investing Activity Income (1,240,887,848)Less Expenses From Investing Activities (310,360,199)Net Investing Activity Income (1,551,248,047)From Securities Lending Activities: Securities Lending Income 12,294,541 Less Expenses From Securities Lending Activities: **Borrower Rebates** 125,823 Management Fees (1,317,057)Total Expenses from Securities Lending Activities (1,191,234)Net Securities Lending Income 11,103,307 Total Net Investment Income (1,540,144,740)Miscellaneous 4,117,638 **Total Additions** 1,422,493,851 **Deductions** Retiree Payroll 4,002,272,810 Administrative Expenses 86,110,835 **Investment Expenses** 14,010,176 Refunds 38,088,986 Lump Sum Death Benefits 4,205,274 Miscellaneous 219,132 **Total Deductions** 4,144,907,213 Net increase/(decrease) in Net Position (2,722,413,362)Net position restricted for pension benefits Beginning of Year 73,012,025,718 End of Year 70,289,612,355

Net Pension Liability

\$ Thousands

Net Pension Liability	June 30, 2022	June 30, 2021
Total pension liability	\$83,931,424	\$80,303,904
Fiduciary net position	70,289,612	<u>73,012,026</u>
Net pension liability	13,641,812	7,291,878
Fiduciary net position as a % of total pension liability	83.75%	90.92%
Covered payroll ⁽¹⁾	\$9,100,791	\$9,062,051
Net pension liability as a % of covered payroll	149.90%	80.47%

The total pension liability was determined by an actuarial valuation as of the valuation date, calculated based on the discount rate shown below and actuarial assumptions and methods as outlined in this report for GASB purposes, and was then projected forward to the measurement date taking into account any significant changes between the valuation date and the fiscal year end as prescribed by GASB 67 and 68.

Discount Rate

Discount rate	7.13%	7.13%
Long-term expected rate of return, net of expenses	7.00%	7.00%
Municipal bond rate	N/A	N/A

Milliman's January 2020 Investigation of Experience analysis was used to develop the 7.13% assumption used for the current reporting date. This is equal to the 7.00% long-term investment return assumption adopted by the Board (net of investment and administrative expenses), plus 0.13% assumed administrative expenses. The assumptions are reviewed annually for continued compliance with the relevant actuarial standards of practice.

The Plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the discount rate for calculating the total pension liability is equal to the long-term expected rate of return, gross of administrative expenses. See the Discount Rate section of this report for further details.

Other Key Actuarial Assumptions

The actuarial assumptions that determined the total pension liability as of June 30, 2021 were based on the results of an actuarial experience study for the period July 1, 2016 - June 30, 2019.

Valuation date June 30, 2021 June 30, 2020 June 30, 2022 Measurement date June 30, 2021

Other assumptions and methods See the 'Assumptions and Methods' section

of this report.

1. In accordance with GASB 82, covered payroll is the payroll on which contributions are based.

Depletion of Plan Assets / GASB Discount Rate

The discount rate is the single rate of return that, when applied to all projected benefit payments results in an actuarial present value of projected benefit payments equal to the total of the following:

- The actuarial present value of benefit payments projected to be made in future periods in which (a) the
 amount of the pension plan's fiduciary net position is projected to be greater than the benefit payments
 that are projected to be made in that period and (b) pension plan assets up to that point are expected to
 be invested using a strategy to achieve the long-term rate of return, calculated using the long-term
 expected rate of return on pension plan investments.
- 2. The actuarial present value of projected benefit payments not included in (1), calculated using the municipal bond rate.

Therefore, if plan investments in a given future year are greater than projected benefit payments in that year and are invested such that they are expected to earn the long-term rate of return, the discount rate applied to projected benefit payments in that year should be the long-term expected rate of return on plan investments. If future years exist where this is not the case, then an index rate reflecting the yield on a 20-year, tax-exempt municipal bond should be used to discount the projected benefit payments for those years.

The determination of a future date when plan investments are not sufficient to pay projected benefit payments is often referred to as a depletion date projection. A depletion date projection compares projections of the pension plan's fiduciary net position to projected benefit payments and aims to determine a future date, if one exists, when the fiduciary net position is projected to be less than projected benefit payments.

In order to determine the discount rate to be used by LACERA we have shown the projection of Fiduciary Net Position in the following exhibit ("Projection of Fiduciary Net Position").

Since the projected fiduciary net position is projected to be sufficient to pay projected benefit payments in all future years, the discount rate for purposes of calculating the total pension liability and net pension liability of LACERA is equal to the long-term assumed rate of return on investments. This long-term assumed rate of return should be net of investment expenses, but gross of administrative expenses for GASB 67 and 68 purposes. Therefore, we have used a discount rate of 7.13%. This rate reflects the long-term assumed rate of return on assets for funding purposes of 7.00%, net of all expenses, increased by 0.13% to be gross of administrative expenses.

Projection of Fiduciary Net Position

\$ Thousands

Fiscal Year Ending	Projected Beginning Fiduciary Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings	Projected Ending Fiduciary Net Position
	(a)	(b)	(c)	(d)	(e)	(a)+(b)-(c)-(d)+(e)
2023	\$70,289,612	\$2,975,586	\$4,270,471	\$91,376	\$4,963,080	\$73,866,430
2024	73,866,430	2,915,665	4,476,020	96,026	5,208,643	77,418,692
2025	77,418,692	2,925,512	4,686,354	100,644	5,454,733	81,011,939
2026	81,011,939	2,919,848	4,905,884	105,316	5,702,878	84,623,465
2027	84,623,465	2,873,408	5,132,613	110,011	5,950,645	88,204,894
2028	88,204,894	3,001,324	5,364,782	114,666	6,202,185	91,928,954
2029	91,928,954	3,024,137	5,602,404	119,508	6,460,015	95,691,194
2030	95,691,194	3,047,115	5,843,861	124,399	6,720,436	99,490,485
2031	99,490,485	3,068,178	6,090,473	129,338	6,983,250	103,322,102
2032	103,322,102	3,089,613	6,339,774	134,319	7,248,286	107,185,908
2033	107,185,908	3,111,108	6,592,068	139,342	7,515,514	111,081,119
2043	142,113,878	1,062,291	9,184,400	184,748	9,841,679	143,648,699
2053	146,038,907	467,088	11,508,600	189,851	10,019,069	144,826,615
2063	123,034,336	70,483	11,459,599	159,945	8,367,713	119,852,988
2073	92,465,971	962	8,591,745	120,206	6,287,624	90,042,606
2083	80,697,250	0	4,692,409	104,906	5,585,634	81,485,569
2093	111,691,021	0	1,443,902	145,198	7,907,894	118,009,815
2103	208,431,771	0	153,645	270,961	14,846,309	222,853,473
2113	408,965,864	0	4,458	531,656	29,140,483	437,570,233

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Changes in Net Pension Liability

\$ Thousands

-	Increase (Decrease)				
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability		
Changes in Net Pension Liability	(a)	(b)	(a) - (b)		
Balances as of June 30, 2021	\$80,303,904	\$73,012,026	\$7,291,878		
Changes for the year:					
Service cost	1,583,222	0	1,583,222		
Interest on total pension liability	5,696,846	0	5,696,846		
Effect of plan changes	0	0	0		
Effect of economic/demographic (gains) or losses	392,019	0	392,019		
Effect of assumption changes or inputs	0	0	0		
Benefit payments	(4,006,478)	(4,006,478)	0		
Refunds of contributions	(38,089)	(38,089)	0		
Administrative expenses	0	(86,111)	86,111		
Member contributions (1)	0	758,632	(758,632)		
Employer contributions (1)	0	2,199,889	(2,199,889)		
Contributions from Metropolitan Transportation Authority	0	0	0		
CalPERS transfer	0	0	0		
Net investment income (2)	0	(1,554,155)	1,554,155		
Net miscellaneous income	0	3,898	(3,898)		
Balances as of June 30, 2022	83,931,424	70,289,612	13,641,812		

Sensitivity Analysis

The following presents the net pension liability of LACERA, calculated using the discount rate of 7.13%, as well as what LACERA's net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower (6.13%) or 1 percentage point higher (8.13%) than the current rate.

1% Current		1%
Decrease	Discount Rate	Increase
6.13%	7.13%	8.13%
\$95,318,250	\$83,931,424	\$74,528,252
70,289,612	70,289,612	70,289,612
25,028,638	13,641,812	4,238,640

^{1.} In accordance with GASB 82, employer pick-up contributions are classified as member contributions.

^{2.} Net investment income includes an adjustment of \$14,010,176 related to LACERA's investment staff salaries and other expenses.

Schedule of Changes in Net Pension Liability and Related Ratios

\$ Thousands

	Fiscal Year Ending June 30									
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Total Pension Liability										
Service cost	\$1,583,222	\$1,499,597	\$1,301,460	\$1,239,396	\$1,220,274	\$1,106,755	\$1,069,328	\$1,024,288	\$1,009,834	\$0
Interest on total pension Liability	5,696,846	5,433,409	5,154,164	4,916,804	4,699,493	4,393,712	4,214,834	4,073,299	3,957,030	0
Effect of plan changes	0	0	0	0	0	0	0	0	0	0
Effect of assumption changes or inputs	0	0	2,626,103	0	0	3,079,892	0	0	0	0
Effect of economic/demographic (gains) or losses	392,019	605,566	794,955	502,989	309,149	(47,506)	(437,039)	(736,010)	0	0
CalPERS transfer	0	0	0	0	0	0	0	332	0	0
Benefit payments and refund of contributions	<u>(4,044,567)</u>	(3,814,262)	(3,606,340)	(3,407,155)	(3,203,375)	(3,029,633)	(2,889,186)	(2,768,410)	(2,662,401)	<u>0</u>
Net change in total pension liability	3,627,520	3,724,310	6,270,342	3,252,034	3,025,541	5,503,220	1,957,937	1,593,499	2,304,463	0
Total pension liability, beginning	80,303,904	76,579,594	70,309,252	67,057,218	64,031,677	58,528,457	56,570,520	54,977,021	52,672,558	0
Total pension liability, ending (a)	83,931,424	80,303,904	76,579,594	70,309,252	67,057,218	64,031,677	58,528,457	56,570,520	54,977,021	0
Fiduciary Net Position										
Employer contributions (1)	\$2,199,889	\$2,012,877	\$1,800,137	\$1,668,151	\$1,524,823	\$1,331,357	\$1,403,709	\$1,455,718	\$1,281,795	\$0
Contributions from Metropolitan Transportation Authority	0	0	0	0	0	2	3	25	0	0
CalPERS transfer	0	0	0	0	0	0	0	332	0	0
Member contributions (1)	758,632	760,994	659,296	635,415	591,262	526,579	498,083	480,158	477,648	0
Investment income net of investment expenses	(1,554,155)	15,615,699	1,432,547	3,163,618	4,705,949	6,129,300	80,588	1,989,358	6,910,439	0
Miscellaneous income	3,898	2,680	1,985	5,626	5,163	6,182	2,792	1,483	0	0
Benefit payments and refund of contributions	(4,044,567)	(3,814,262)	(3,606,340)	(3,407,155)	(3,203,375)	(3,029,633)	(2,889,186)	(2,768,410)	(2,662,401)	0
Administrative expenses	<u>(86,111)</u>	(76,370)	(72,054)	(70,800)	<u>(67,491)</u>	(66,830)	(67,645)	(62,591)	(58,723)	<u>0</u>
Net change in plan fiduciary net position	(2,722,414)	14,501,618	215,571	1,994,855	3,556,331	4,896,957	(971,656)	1,096,073	5,948,758	0
Fiduciary net position, beginning	73,012,026	58,510,408	58,294,837	56,299,982	52,743,651	47,846,694	48,818,350	47,722,277	41,773,519	0
Fiduciary net position, ending (b)	70,289,612	73,012,026	58,510,408	58,294,837	56,299,982	52,743,651	47,846,694	48,818,350	47,722,277	0
Net pension liability, ending = (a) - (b)	\$13,641,812	\$7,291,878	\$18,069,186	\$12,014,415	\$10,757,236	\$11,288,026	\$10,681,763	\$7,752,170	\$7,254,744	\$0
Fiduciary net position as a % of total pension liability	83.75%	90.92%	76.40%	82.91%	83.96%	82.37%	81.75%	86.30%	86.80%	N/A
Covered payroll (2)	\$9,100,791	\$9,062,051	\$8,724,151	\$8,370,050	\$7,957,981	\$7,637,032	\$7,279,777	\$6,949,420	\$6,672,886	\$0
Net pension liability as a % of covered payroll	149.90%	80.47%	207.12%	143.54%	135.18%	147.81%	146.73%	111.55%	108.72%	N/A

^{1.} In accordance with GASB 82, employer pick-up contributions are classified as member contributions.

This schedule is presented to illustrate the requirement to show information for 10 years. However, recalculations of prior years are not required, and if prior years are not reported in accordance with the current GASB standards, they should not be reported.

^{2.} In accordance with GASB 82, covered payroll is the payroll on which contributions are based.

Schedule of Employer Contributions

				•	As a % of Covered Payroll		
Fiscal Year	Actuarially	Actual	Contribution	•	Actuarially	Actual	_
Ending	Determined	Employer	Deficiency	Covered	Determined	Employer	
June 30	Contribution	Contribution	(Excess)	Payroll ¹	Contribution	Contribution	_
2013	\$1,172,014	\$1,172,014	\$0	\$6,595,902	17.77%	17.77%	2
2014	1,281,795	1,281,795	0	6,672,886	19.21%	19.21%	
2015	1,455,718	1,455,718	0	6,949,420	20.95%	20.95%	
2016	1,403,709	1,403,709	0	7,279,777	19.28%	19.28%	
2017	1,331,357	1,331,357	0	7,637,032	17.43%	17.43%	
2018	1,524,823	1,524,823	0	7,957,981	19.16%	19.16%	
2019	1,668,151	1,668,151	0	8,370,050	19.93%	19.93%	
2020	1,800,137	1,800,137	0	8,724,151	20.63%	20.63%	
2021	2,012,877	2,012,877	0	9,062,051	22.21%	22.21%	
2022	2,199,889	2,199,889	0	9,100,791	24.17%	24.17%	
	2013 2014 2015 2016 2017 2018 2019 2020 2021	Ending June 30 Determined Contribution 2013 \$1,172,014 2014 1,281,795 2015 1,455,718 2016 1,403,709 2017 1,331,357 2018 1,524,823 2019 1,668,151 2020 1,800,137 2021 2,012,877	Ending June 30 Determined Contribution Employer Contribution 2013 \$1,172,014 \$1,172,014 2014 1,281,795 1,281,795 2015 1,455,718 1,455,718 2016 1,403,709 1,403,709 2017 1,331,357 1,331,357 2018 1,524,823 1,524,823 2019 1,668,151 1,668,151 2020 1,800,137 1,800,137 2021 2,012,877 2,012,877	Ending June 30 Determined Contribution Employer Contribution Deficiency (Excess) 2013 \$1,172,014 \$1,172,014 \$0 2014 1,281,795 1,281,795 0 2015 1,455,718 1,455,718 0 2016 1,403,709 1,403,709 0 2017 1,331,357 1,331,357 0 2018 1,524,823 1,524,823 0 2019 1,668,151 1,668,151 0 2020 1,800,137 1,800,137 0 2021 2,012,877 2,012,877 0	Ending June 30 Determined Contribution Employer Contribution Deficiency (Excess) Covered Payroll 1 2013 \$1,172,014 \$1,172,014 \$0 \$6,595,902 2014 1,281,795 1,281,795 0 6,672,886 2015 1,455,718 1,455,718 0 6,949,420 2016 1,403,709 1,403,709 0 7,279,777 2017 1,331,357 1,331,357 0 7,637,032 2018 1,524,823 1,524,823 0 7,957,981 2019 1,668,151 1,668,151 0 8,370,050 2020 1,800,137 1,800,137 0 8,724,151 2021 2,012,877 2,012,877 0 9,062,051	Fiscal Year Ending June 30 Actuarially Determined Contribution Employer Contribution Contribution Deficiency (Excess) Covered Payroll Actuarially Determined Contribution 2013 \$1,172,014 \$1,172,014 \$0 \$6,595,902 17.77% 2014 1,281,795 1,281,795 0 6,672,886 19.21% 2015 1,455,718 1,455,718 0 6,949,420 20.95% 2016 1,403,709 1,403,709 0 7,279,777 19.28% 2017 1,331,357 1,331,357 0 7,637,032 17.43% 2018 1,524,823 1,524,823 0 7,957,981 19.16% 2019 1,668,151 1,668,151 0 8,370,050 19.93% 2020 1,800,137 1,800,137 0 8,724,151 20.63% 2021 2,012,877 2,012,877 0 9,062,051 22.21%	Fiscal Year Ending June 30 Actuarially Determined Contribution Employer Contribution Covered (Excess) Covered Payroll Actuarially Determined Contribution Actual Employer Contribution 2013 \$1,172,014 \$1,172,014 \$0 \$6,595,902 17.77% 17.77% 2014 1,281,795 1,281,795 0 6,672,886 19.21% 19.21% 2015 1,455,718 1,455,718 0 6,949,420 20.95% 20.95% 2016 1,403,709 1,403,709 0 7,279,777 19.28% 19.28% 2017 1,331,357 1,331,357 0 7,637,032 17.43% 17.43% 2018 1,524,823 1,524,823 0 7,957,981 19.16% 19.16% 2019 1,668,151 1,668,151 0 8,370,050 19.93% 19.93% 2020 1,800,137 1,800,137 0 8,724,151 20.63% 20.63% 2021 2,012,877 2,012,877 0 9,062,051 22.21% 22.21%

¹ In accordance with GASB 82, covered payroll is the payroll on which contributions are based.

² Contributions include employer pick-up contributions.

Actuarial Methods and Assumptions

All actuarial methods and assumptions used to calculate Net Pension Liability are the same as used in the June 30, 2021 funding valuation, except as noted below and throughout this report. Please see the Actuarial Valuation of Retirement Benefits report dated November 22, 2021 for further details. The assumptions are reviewed annually for continued compliance with the relevant actuarial standards of practice.

Actuarial Cost Method Individual Entry Age⁽¹⁾

Asset Valuation Method Fair market value

Investment Rate of Return 7.13%⁽²⁾
Inflation 2.75%

Cost of Living Adjustments As noted in the June 30, 2021 actuarial valuation, with one

modification: STAR COLA benefits are assumed to be substantively automatic at the 80% purchasing power level until the STAR reserve is projected to be insufficient to pay further

STAR benefits (3)

Mortality Various rates based on Pub-2010 mortality tables and using

MP-2014 Ultimate Projection Scale. See June 30, 2021 funding

valuation for details.

Service Cost and Interest Cost components of Pension Expense are determined based on the results of the actuarial valuation that determined the beginning Net Pension Liability. Therefore, those components are determined based on the actuarial methods and assumptions described in the June 30, 2021 GASB 67 Disclosure Report dated September 15, 2021.

The following assumptions and methods are relevant to the GASB 68 valuation and are included here for completeness.

Recognition of Inflows / Outflows

Investment gains or losses Economic/demographic gains or losses Assumption changes or inputs Straight line amortization over five years Straight line amortization over expected working life Straight line amortization over expected working life

Basis of Contribution Requirements

Actuarially determined contribution rates are calculated as of each June 30, two years prior to the end of the fiscal year in which the contributions are reported.

Assets are valued using a five year smoothed method based on the difference between expected market value and actual market value. The recognition method is non-asymptotic, and there is no minimum or maximum corridor applied.

there is no minimum or maximum corridor applied.

The Unfunded Actuarial Accrued Liability (UAAL) is amortized as a level percentage of pay. Effective June 30, 2019 existing UAAL layers as of June 30, 2018 are amortized over their remaining periods, not to exceed 22 years. Each new layer effective on or after June 30, 2019 is amortized over a 20-year period. The UAAL contribution rate calculated in the June 30, 2021 funding valuation includes 13 layers.

- 1. Differs slightly from actuarial valuation for groups in existence less than five years.
- 2. Differs from actuarial valuation due to addition of administrative expense load of 0.13%.
- 3. Differs from actuarial valuation due to inclusion of future liability for STAR COLA benefits.

Glossary

Actuarially Determined Contribution

A target or recommended contribution to a defined benefit pension plan for the reporting period, determined based on the funding policy and most recent measurement available when the contribution for the reporting period was adopted.

Deferred Inflows/Outflows of Resources

Portion of changes in net pension liability that is not immediately recognized in Pension Expense. These changes include differences between expected and actual experience, changes in assumptions, and differences between expected and actual earnings on plan investments.

Discount Rate

Single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the sum of:

- The actuarial present value of benefit payments projected to be made in future periods where the plan assets are projected to be sufficient to meet benefit payments, calculated using the Long-Term Expected Rate of Return.
- 2) The actuarial present value of projected benefit payments not included in (1) above, calculated using the Municipal Bond Rate.

Fiduciary Net Position

Equal to market value of assets minus liabilities.

Long-Term Expected Rate of Return

Long-term expected rate of return on pension plan investments expected to be used to finance the payment of benefits, net of investment expenses.

Money-Weighted Rate of Return

The internal rate of return on pension plan investments, net of investment expenses.

Municipal Bond Rate

Yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher.

Net Pension Liability

Total Pension Liability minus the Plan's Fiduciary Net Position.

Projected Benefit Payments

All benefits estimated to be payable through the pension plan to current active and inactive employees as a result of their past service and expected future service.

Service Cost

The portion of the actuarial present value of projected benefit payments that is attributed to a valuation year.

Total Pension Liability

The portion of actuarial present value of projected benefit payments that is attributable to past periods of member service using the Entry Age cost method based on the requirements of GASB 67 and 68.