

California State Teachers' Retirement Plan

GASB 74/75 Reporting

Reporting Date: June 30, 2019

Measurement Date: June 30, 2019

Actuarial Valuation Date: June 30, 2018

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Certification

Actuarial computations presented in this report under Statements No. 74 and 75 of the Governmental Accounting Standards Board are for purposes of assisting CalSTRS and its employers in fulfilling their financial accounting requirements. No attempt is being made to offer any accounting opinion or advice. This report is for fiscal year July 1, 2018 to June 30, 2019. The measurement date for determining plan assets and obligations is June 30, 2019. 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 furnished by the California State Teachers' Retirement System (CalSTRS). This information includes, but is not limited to, statutory provisions, member census data, and financial information. Please see Milliman's June 30, 2018 Medicare Premium Payment Program funding valuation report 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 a reasonable estimate of anticipated experience affecting the Plan. The Teachers' Retirement Board adopted the actuarial methods and assumptions used in the financial reporting valuation. We believe they are reasonable for these purposes.

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 (except for the alternate discount rates shown in this report) 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.

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- 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.

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

The signing actuaries are independent of CalSTRS and the plan sponsors. 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.

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Overview of GASB 74 and GASB 75

GASB 74 applies to financial reporting for public OPEB plans and is required to be implemented for plan fiscal years beginning after June 15, 2016. Note that a plan's fiscal year might not be the same as the employer's fiscal year. Even if the plan does not issue standalone financial statements, but rather is considered a trust fund of a government, it is subject to GASB 74. Under GASB 74, enhancements to the financial statement disclosures are required, along with certain required supplementary information.

GASB 75 governs the specifics of accounting for public OPEB plan obligations for participating employers and is required to be implemented for employer fiscal years beginning after June 15, 2017. GASB 75 requires a liability for OPEB obligations, known as the Net OPEB Liability (Total OPEB Liability for unfunded plans), to be recognized on the balance sheets of participating employers. Changes in the Net OPEB Liability (Total OPEB Liability for unfunded plans) will be immediately recognized as OPEB Expense on the income statement or reported as deferred inflows/outflows of resources depending on the nature of the change.

Summary of Analysis Performed

We have calculated certain requested actuarial figures for the California State Teachers' Retirement Plan (the STRP) per the Governmental Accounting Standards Board (GASB) Statements No. 74 and 75. These statements pertain to accounting and financial reporting for OPEB plans and employers.

The calculations contained in this analysis have been performed using the results of the June 30, 2018 Medicare Premium Payment (MPP) Program actuarial funding, with certain revisions to assumptions as required by GASB 74 and 75 and described later in this report. The liabilities have been projected to June 30, 2019 and combined with the actual Teachers' Health Benefit Fund (THBF) assets of June 30, 2019.

Our final deliverable product for these GASB 74/75 calculations is a formatted .CSV file with data format specifications provided by CalSTRS accounting staff. We have provided an electronic copy of this file to you, in addition to this report. Please note that all certifications and limitations contained or referenced in this letter also apply to this electronic deliverable file. Staff should verify consistency of numbers in the .CSV file with numbers contained in this letter prior to use.

Per discussions with CalSTRS, we have performed the following analysis for the GASB Reporting Date of June 30, 2019:

- 1. The MPP Program benefits are effectively funded on a pay-as-you-go basis through the THBF. Therefore, we have used a discount rate of 3.87% for June 30, 2018 and 3.50% for June 30, 2019. The discount rates are based on the rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher as specified in GASB. The Teachers' Retirement Board has adopted the 20-Bond GO Bond Buyer Index for these purposes.
- 2. For purposes of determining the economic/demographic gains or losses for the year, we have recalculated the June 30, 2018 MPP Program Total OPEB Liability (TOL) using the June 30, 2018 membership data and the following assumptions and methods: a discount rate of 3.87%, the Individual Entry Age Normal (EAN) Cost actuarial cost method, and all other assumptions and methods the same as used in the MPP Program actuarial funding valuation as of June 30, 2018. The recalculated TOL was then compared to the June 30, 2018 TOL from the prior report in determining the relevant gain or loss.
- 3. We have projected the recalculated June 30, 2018 TOL described in step 2 to the June 30, 2019 reporting date. As part of the projection, we have adjusted the TOL as of June 30, 2019 to reflect the 3.50% discount rate in effect for that date.
- 4. We have performed a discount-rate sensitivity analysis on the Net OPEB Liability for +1% (a 4.50% discount rate) and -1% (a 2.50% discount rate) scenarios on the GASB discount rate. We have also calculated the values using the 3.50% discount rate but with +/-1% added to the assumed trend rate.
- 5. We have calculated a total average remaining service life for all MPP Program members as 1.0, since all current and potential future Program members are currently retired.
- 6. We have provided the sources of change in the Net OPEB Liability between June 30, 2018 and June 30, 2019. These sources of change consist of: changes in benefit terms, differences between actual and expected experience (including difference in actual and expected trend), changes of assumptions, and differences between projected and actual earnings on plan investments. There is no service cost as there are no active members accruing benefits and there were no changes in benefit terms in the last year so these line items are \$0.

Assets are based on information provided by CalSTRS, which reflect the application of GASB 75 to CalSTRS as an employer participating in the State's retiree health plan.

Statement of Fiduciary Net Position

- -	June 30, 2019	June 30, 2018
Assets		
Investments at fair value:		
Debt securities	\$299,512	\$604,865
Equity securities	0	0
Alternative investments	0	0
Derivative instruments	0	0
Securities lending collateral	0	0
Total investments	299,512	604,865
Cash	523	123
Receivables:		
Investments sold	0	0
Interest and dividends	7,250	6,207
Member, employer, and state	0	0
Loans receivable	0	0
Other _	787	0
Total receivables	8,037	6,207
Other assets:		
Capital assets, net of accumulated depreciation	0	0
Other	0	0
Total other assets	0	0
Total assets	308,072	611,195
Deferred outflows of resources	116,606	191,062
Total assets and deferred outflow		
of resources	424,678	802,257
Liabilities		
Derivative instruments	0	0
Investments purchased payable	0	0
Loans payable	0	0
Benefits in process of payment	0	0
Net pension and OPEB liabilities	2,863,360	1,792,732
Securities lending obligation	0	0
Other	64,275	402,601
Total liabilities	2,927,635	2,195,333
Deferred inflows of resources	481,003	147,571
Total assets and deferred inflow		
of resources	3,408,638	2,342,904
Net position restricted for postemployment benefits		
other than pensions	(\$2,983,960)	(\$1,540,647)
=	<u>.</u>	

Statement of Changes in Fiduciary Net Position

	June 30, 2019
Additions	
Contributions:	
Member contributions	\$0
Employer contributions	27,976,714
State of California/Federal Government	0
Total contributions	27,976,714
Investment income (Loss):	
Net appreciation (depreciation) in fair value of investments	1,647
Interest, dividends and other	26,757
Securities lending income	0
Less investment expenses:	
Cost of lending securities	0
Reverse repurchase agreement	0
Other investment expenses	0
Net investment income	28,404
Other income	0
Total Additions	28,005,118
Deductions	
Premiums paid	27,546,782
Administrative expenses	1,900,649
Other expenses	1,000
Total Deductions	29,448,431
Net increase (decrease)	(1,443,313)
Net position restricted for postemployment benefits other than pensions	
Beginning of year (June 30, 2018)	(1 540 647)
End of year (June 30, 2019)	(1,540,647) (\$2,983,960)
Lind of your (outlo oo, 2010)	(ψ2,300,300)

Net OPEB Liability

Net OPEB Liability	June 30, 2019	June 30, 2018
Total OPEB liability	\$369,412,612	\$381,228,475
Fiduciary net position	(2,983,960)	(1,540,647)
Net OPEB liability	372,396,572	382,769,122
Fiduciary net position as a % of total OPEB liability	-0.81%	-0.40%
Covered payroll ¹	\$0	\$0
Net OPEB liability as a % of covered payroll ¹	N/A	N/A

^{1.} There are no active employees eligible to be provided benefits through the MPP Program. Therefore, the covered payroll is \$0. If expressed as a percentage of the total covered payroll for the State Teachers' Retirement Program, the net OPEB liability would be 1.04% as of June 30, 2019 and 1.10% as of June 30, 2018.

The total OPEB liability was determined by an actuarial valuation as of the valuation date, calculated based on the discount rate and actuarial assumptions below, and was then projected forward to the measurement date.

Discount Rate

Discount rate	3.50%	3.87%
Long-term expected rate of return, net of investment expense	3.50%	3.87%
Municipal bond rate	3.50%	3.87%

The plan's fiduciary net position was not projected to be sufficient to make more than one month of future benefit payments. Therefore, the municipal bond rate is applied to all future benefit payments.

Other Key Actuarial Assumptions

The actuarial assumptions that determined the total OPEB liability as of June 30, 2018 were based on the results of an actuarial experience study for the period July 1, 2010 - June 30, 2015.

Valuation date	June 30, 2018	June 30, 2017
Measurement date	June 30, 2019	June 30, 2018
Other assumptions and methods	See the 'Actuarial Metho	ods and Assumptions

Note: Numbers may not add due to rounding.

for GASB Valuation' section of this report.

Discount Rate and Depletion Date Projection

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 OPEB 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) OPEB 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 OPEB plan investments.
- 2. The actuarial present value of projected benefit payments not included in (1), calculated using the municipal bond rate.

The MPP Program benefits are effectively funded on a pay-as-you-go basis through the THBF. As the THBF has effectively been depleted as of the measurement date, the discount rate has been set to the municipal bond index because the expected long-term rate of return of the invested assets is not expected to be materially better than the municipal bond index rate. We have used a discount rate of 3.87% for June 30, 2018 and 3.50% for June 30, 2019. The discount rates are based on the municipal bond index previously discussed.

Total OPEB Liability and Net OPEB Liability

The June 30, 2018 MPP Program actuarial funding valuation was recalculated using the GASB discount rate of 3.87% effective as of that date. These recalculations are sometimes referred to as "financial reporting actuarial valuation" to indicate differences in methodology from regular (funding) actuarial valuation calculations. The MPP Program was valued using the Individual Entry Age Normal Cost (EAN) actuarial cost method as specified under GASB 74/75 which is consistent with the method used for funding purposes.

The resulting liabilities were allocated to past and future service using the EAN cost method. Since all MPP Program members are retirees, all liabilities were allocated to past service. The Total OPEB Liability is the amount of GASB valuation liability allocated to past service; therefore, it is somewhat analogous to the Actuarial Obligation figures shown in the June 30, 2018 actuarial funding valuation report. However, it will differ from those figures due to the different discount rate.

The June 30, 2018 Total OPEB Liability was then projected forward to the June 30, 2019 reporting date. An adjustment was made to the Total OPEB Liability as part of the roll-forward projection to reflect the discount rate effective June 30, 2019 of 3.50%.

The Total OPEB Liability is made up of two groups:

Current Members of the MPP Program: \$340,055,392
Current Retirees who are Expected to Join the MPP Program in the Future: 29,357,220
Total OPEB Liability: \$369,412,612

The June 30, 2019 Net OPEB Liability is equal to the Total OPEB Liability as of that date, less the Fiduciary Net Position for the THBL as of that date. The following exhibit shows the changes in the Total OPEB Liability, Fiduciary Net Position, and Net OPEB Liability between June 30, 2018 and June 30, 2019.

We have performed a discount-rate sensitivity analysis on the Net OPEB Liability for +1% (a 4.50% discount rate) and -1% (a 2.50% discount rate) scenarios on the GASB discount rate. In addition, we have calculated the values using the 3.50% discount rate but with +/-1% added to the assumed trend rate.

The results of the sensitivity analysis are shown in the following exhibit.

Schedule of Changes in Net OPEB Liability

Changes in Net OPEB Liability	Total OPEB Liability (a)	ncrease (Decrease Plan Fiduciary Net Position (b)	Net OPEB Liability (a) - (b)
		()	(4) (5)
Balances as of June 30, 2018	\$381,228,475	(\$1,540,647)	\$382,769,122
Changes for the year:			
Service cost	0		0
Interest on total OPEB liability	14,225,571		14,225,571
Effect of plan changes	0		0
Effect of economic/demographic gains or losses	(10,605,263)		(10,605,263)
Effect of assumptions changes or inputs	12,110,611		12,110,611
Benefit payments	(27,546,782)	(27,546,782)	0
Employer contributions		27,976,714	(27,976,714)
Member contributions		0	0
Net investment income		28,404	(28,404)
Adminstrative expenses		(1,900,649)	1,900,649
Other expenses		(1,000)	1,000
Balances as of June 30, 2019	369,412,612	(2,983,960)	372,396,572 1

Sensitivity Analysis

The following presents the net OPEB liability of the MPP Program, calculated using the discount rate of 3.50%, as well as what the MPP Program's net OPEB liability would be if it were calculated using a discount rate that is 1 percentage point lower (2.50%) or 1 percentage point higher (4.50%) than the current rate.

	Current		
	1% Decrease Discount Rate 1% Increa		
	2.50%	3.50%	4.50%
pility	403,386,293	\$369,412,612	338,175,928
sition	(2,983,960)	(2,983,960)	(2,983,960)
	406,370,253	372,396,572	341,159,888

The following presents the net OPEB liability of the MPP Program, calculated using the current healthcare cost trend rates as well as what the MPP Program's net OPEB liability would be if it were calculated using trend rates that are 1 percentage point lower or 1 percentage point higher than the current trend rates.

	Current			
	1% Decrease	Trend Rate	1% Increase	
Total OPEB liability	\$336,354,736	\$369,412,612	\$407,297,758	
Fiduciary net position	(2,983,960)	(2,983,960)	(2,983,960)	
Net OPEB liability	339,338,696	372,396,572	410,281,718	

^{1.} Numbers may not add due to rounding.

Schedule of Changes in Net OPEB Liability and Related Ratios

\$ Thousands

	Fiscal Year Ending June 30									
	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Total OPEB Liability										
Service cost	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Interest on total OPEB liability	14,226	14,565	12,930	0	0	0	0	0	0	0
Changes of benefit terms	0	0	0	0	0	0	0	0	0	0
Effect of economic/demographic (gains) or losses	(10,605)	(15,759)	(41)	0	0	0	0	0	0	0
Effect of assumption changes or inputs	12,111	(10,293)	(31,240)	0	0	0	0	0	0	0
Benefit payments	(27,547)	(28,035)	(28,929)	0	0	0	0	0	0	0
Net change in total OPEB liability	(11,816)	(39,521)	(47,281)	0	0	0	0	0	0	0
Total OPEB liability, beginning	381,228	420,749	468,031	0	0	0	0	0	0	0
Total OPEB liability, ending (a)	\$ 369,413	\$ 381,228	\$ 420,749	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Fiduciary Net Position										
Employer contributions	\$27,977	\$28,218	\$29,117	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Net Investment income	28	18	12	0	0	0	0	0	0	0
Benefit payments	(27,547)	(28,035)	(28,929)	0	0	0	0	0	0	0
Administrative (and other non-investment) expenses	(1,902)	(578)	(167)	0	0	0	0	0	0	0
Adjustments	0	(1,205)	0	0	0	0	0	0	0	0
Net change in plan fiduciary net position	(1,443)	(1,582)	32	0	0	0	0	0	0	0
Fiduciary net position, beginning	(1,541)	42	10	0	0	0	0	0	0	0
Fiduciary net position, ending (b)	(2,984)	(1,541)	42	0	0	0	0	0	0	0
Net OPEB liability, ending = (a) - (b)	\$ 372,397	\$ 382,769	\$ 420,708	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Fiduciary net position as a % of total OPEB liability	-0.81%	-0.40%	0.01%	NA						
Covered payroll	-	-	-	-	-	-	-	-	-	-
Net OPEB liability as a % of covered payroll	N/A	N/A	N/A	NA						

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.

Notes to Schedule:

Changes of benefit terms: None

Changes of assumptions. In each year, the discount rate was changed to reflect the current municipal bond rate.

Note: Numbers may not add due to rounding.

GASB 74 and 75 Disclosure for Fiscal Year Ended June 30, 2019 California State Teachers' Retirement System

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This work product was prepared solely for CalSTRS for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

Allocable OPEB Expense

OPEB Expense	July 1, 2018 to June 30, 2019	July 1, 2017 to June 30, 2018
Service cost	\$0	\$0
Interest on total OPEB liability	14,225,571	14,565,426
Effect of plan changes	0	0
Administrative (and other non-investment) expenses	1,901,649	578,031
Member contributions	0	0
Expected investment return net of investment expenses	87,830	48,660
Recognition of Deferred Inflows/Outflows of Resources		
Recognition of economic/demographic gains or losses	(10,605,263)	(15,759,324)
Recognition of assumption changes or inputs	12,110,611	(10,292,589)
Recognition of investment gains or losses	(38,758)	(13,296)
OPEB Expense	17,681,640	(10,873,092)

As of June 30, 2019, the deferred inflows and outflows of resources are as follows:

	Deferred Inflows	Deferred Outflows
Deferred Inflows / Outflows of Resources	of Resouces	of Resouces
Differences between expected and actual experience	\$0	\$0
Changes of assumptions	0	0
Net difference between projected and actual earnings	137,306	0
Contributions made subsequent to measurement date	Employer Determined	Employer Determined
Total	\$ 137,306	\$0

Other amounts currently reported as deferred outflows of resources and deferred inflows of resources related to other postemployment benefits will be recognized in OPEB expense as follows:

Year ended June 30:1	
2020	(\$38,758)
2021	(38,758)
2022	(36,543)
2023	(23,247)
2024	0
Thereafter ²	0

- 1. Note that additional future deferred inflows/outflows may impact these numbers.
- 2. Reflects remaining balance of total deferred (inflows)/outflows, if any.

Schedule of Deferred Inflows and Outflows of Resources

	Original Amount	Date Established	Original Recognition Period ¹	Amount Recognized in 06/30/2019 Expense	Balance of Deferred Inflows 06/30/2019	Balance of Deferred Outflows 06/30/2019
Investment	(\$ 116,234)	6/30/2019	5.0	(\$ 23,247)	\$ 92,987	\$ 0
(gains) or losses ²	(66,481)		5.0	(13,296)	39,889	0
,	(11,075)	6/30/2017	5.0	(2,215)	4,430	0
		Total		(38,758)	137,306	0
Economic/demographic	(10,605,263)	6/30/2019	1.0	(10,605,263)	0	0
(gains) or losses	(15,759,324)	6/30/2018	1.0	0	0	0
	(41,252)	6/30/2017	1.0	0	0	0
		Total		(10,605,263)	0	0
Assumption	12,110,611	6/30/2019	1.0	12,110,611	0	0
changes or inputs	(10,292,589)	6/30/2018	1.0	0	0	0
	(31,240,253)	6/30/2017	1.0	0	0	0
		Total		12,110,611	0	0

Future Deferred Inflow/Outflow Recognition

	Investment (Gains) or Losses	Economic/ Demographic (Gains) or Losses	Assumption Changes
Year ended June 30:3			
2020	(\$ 38,758)	\$ 0	\$ 0
2021	(38,758)	0	0
2022	(36,543)	0	0
2023	(23,247)	0	0
2024	0	0	0
Thereafter ⁴	0	0	0

^{1.} Investment (gains)/losses are recognized in OPEB expense over a period of five years; economic/demographic (gains)/losses and assumption changes or inputs are recognized over the average remaining service life for all active and inactive members. The average remaining service life for all MPP Program members is set to 1.0, since all current and future Program members are currently retired.

- 2. Note that the 6/30/2017 investment gain was not included in the prior year's report.
- 3. Note that additional future deferred inflows/outflows may impact these numbers.
- 4. Reflects remaining balance of total deferred (inflows)/outflows, if any.

Actuarial Methods and Assumptions for GASB Valuation

All actuarial methods and assumptions used for this GASB analysis were the same as those used in the June 30, 2018 MPP Program funding valuation, except as noted below and throughout this report. Please see the valuation report for further details.

Following are the key assumptions and methods used in this GASB analysis.

Valuation Timing Actuarial valuations are performed annually as of June 30. The

most recent valuation was performed as of June 30, 2018.

Actuarial Cost Method Individual Entry Age Normal

Amortization Method

Recognition of investment

gains or losses Straight-Line amortization over 5 years

Recognition of economic/demographic

gains or losses

Straight-Line amortization over Expected Working Life (immediate full recognition, since all plan members are retired)

Recognition of assumptions changes

or inputs

Straight-Line amortization over Expected Working Life (immediate full recognition, since all plan members are retired)

Asset Valuation Method

Fair Value

Inflation 2.75%

Salary Increases Not applicable

Discount Rate 3.50% as of June 30, 2019

Healthcare Cost Trend Rates

Trend Assumption			
Assumed Annual Increase			
Years ⁽¹⁾	Part A	Part B	
2017 - 2026	3.4%	4.0%	
2027 - 2036	4.6%	5.2%	
2037 - 2046	4.1%	4.7%	
2047 & Later	3.9%	4.5%	

^{1.} Trend rates indicate medical inflation in the specific year and therefore affect the premiums for the following year. For example, the projected 2019 premium is the 2018 premium increased by the assumed 2019 trend

MPP Program Participation Rates See exhibit on following page

Retirement Not Applicable

Turnover Not Applicable

Mortality Custom CalSTRS rates (same as funding valuation).

See June 30, 2018 MPP Program funding valuation for details.

Part A Enrollment Rates⁽¹⁾

Assumption	Best Estimate
% of Actives and Under 65 Retirees Enrolling (Retired on or After 2001) (2)	2.50%
% of Under 65 Retirees Enrolling (Retired Before 2001)	3.50%
% of Over 65 Retirees Enrolling (for those not Currently Enrolled) at Age:(3)	
65	0.60%
66	0.06
67	0.04
68	0.03
69	0.03
70-84	0.02
85 & Above	0.00
% of Over 65 Retirees Enrolling (for those Already Enrolled)	100.0%

^{1.} Only current enrollees are assumed to receive Part B payments.

^{2.} For under age 65 retirees, the enrollment percent applies upon reaching age 65. No enrollment is assumed after age 65 for retirees currently under age 65.

^{3.} For over 65 retirees, the enrollment percent applies in each future year.

MPP Program Member Data

	June 30, 2018	June 30, 2017
Number of Enrolled Members		
Retirees with Part A Premium	5,907	6,163
Retirees with Part B Penalty	549	617
Average CalSTRS Payment for Enrolled Members		
(for current calendar year)	¢ 200.20	ф 207.04
Retirees with Part A Premium	\$ 399.30	\$ 387.91
Retirees with Part B Penalty	65.53	66.35

Glossary

Actuarially Determined Contribution

A target or recommended contribution to a defined benefit OPEB 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 OPEB Liability that is not immediately recognized in OPEB 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), calculated using the Municipal Bond Rate.

Fiduciary Net Position

Equal to market value of assets.

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 OPEB Liability

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

Projected Benefit Payments

All benefits estimated to be payable through the OPEB 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 OPEB Liability

The portion of actuarial present value of projected benefit payments that is attributable to past periods of member service using the Entry Age Normal cost method based on the requirements of GASB 74 and 75.