

Marin County Employees' Retirement Association

GASB 67/68 Report as of June 30, 2019

Produced by Cheiron

November 2019

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November 7, 2019

Board of Retirement Marin County Employees' Retirement Association 1 McInnis Parkway, Suite 100 San Rafael, CA 94903-2764

Dear Members of the Board:

The purpose of this report is to provide accounting and financial reporting information under GASB 67 for the Marin County Employees' Retirement Association (MCERA) and under GASB 68 for the County of Marin and the other participating employers. This information includes:

- Determination of the discount rate as of June 30, 2019,
- Projection of MCERA's Total Pension Liability from the valuation date to the measurement date.
- Note disclosures and required supplementary information under GASB 67 for MCERA,
- Determination of collective amounts under GASB 68, and
- Schedules for the financial reporting of participating employers under GASB 68.

If you have any questions about the report or would like additional information, please let us know.

Sincerely, Cheiron

Graham A. Schmidt, ASA, EA, FCA, MAAA

Consulting Actuary

William R. Hallmark, ASA, EA, FCA, MAAA Consulting Actuary

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SECTION I – BOARD SUMMARY

The purpose of this report is to provide accounting and financial disclosure information under the Governmental Accounting Standards Board Statements 67 and 68 for the Marin County Employees' Retirement Association (MCERA) and participating employers. This information includes:

- Determination of the discount rate as of June 30, 2019,
- Projection of MCERA's Total Pension Liability from the valuation date to the measurement date,
- Note disclosures and required supplementary information under GASB 67 for MCERA,
- Determination of collective amounts under GASB 68, and
- Schedules for the financial reporting of participating employers under GASB 68.

Highlights

The measurement date for the Marin County Employees' Retirement Association is June 30, 2019. Measurements are based on the fair value of assets as of June 30, 2019, and the Total Pension Liability as of the valuation date, June 30, 2018, updated to June 30, 2019. To the best of our knowledge, there were no significant events between the valuation date and the measurement date so the update procedures only included the addition of service cost and interest cost offset by actual benefit payments.

The table below provides a summary of the key collective results during this measurement period.

Table I-1 Summary of Collective Results											
Measurement Date											
6/30/2019 6/30/2018											
Net Pension Liability	\$	365,704,670	\$	330,297,827							
Deferred Outflows		(32,942,060)		(30,601,258)							
Deferred Inflows		26,370,099		57,455,965							
Net Impact on Statement of Net Position	\$	359,132,709	\$	357,152,533							
Pension Expense (\$ Amount)	\$	80,718,989	\$	64,902,926							
Pension Expense (% of Payroll)		31.78%		26.11%							

The Net Pension Liability (NPL) increased approximately \$35 million since the prior measurement date, primarily due to the return on investments being lower than expected. In addition, losses on liability experience contributed about \$17 million to the increase in NPL.



SECTION I – BOARD SUMMARY

The losses due to investment earnings being less than expected are recognized over five years. The losses due to liability experience are recognized over the average remaining service life, which is four years. Unrecognized amounts are reported as deferred inflows and deferred outflows.

As of the end of the reporting year, MCERA and its participating employers would report a Net Pension Liability of \$365,704,670, Collective Deferred Inflows of \$26,370,099, and Collective Deferred Outflows of \$32,942,060. Consequently, the net impact on the aggregate of participating employers' Statements of Net Position due to MCERA would be \$359,132,709 (\$365,704,670 + \$26,370,099 - \$32,942,060) at the end of the measurement year. In addition, any contributions between the measurement date and each individual employer's reporting date would be reported as deferred outflows to offset the cash outflow reported.

For the measurement year ending June 30, 2019, the collective annual pension expense is \$80,718,989 or 31.78% of covered payroll. This amount is not related to participating employers' contributions to MCERA (\$78,738,814), but instead represents the change in the net impact on participating employer's Statements of Net Position plus employer contributions (\$359,132,709 – \$357,152,533 + \$78,738,814). The collective pension expense is larger than the collective expense for the prior year. Volatility in pension expense from year to year is to be expected. For the measurement year ending June 30, 2019, the volatility was largely due to the completion of the recognition of the 2015 experience gain and the 2014 investment gain, offset by completion of the recognition of the 2015 assumption changes. A breakdown of the components of the collective net pension expense is shown in Section VI of the report.



SECTION II – CERTIFICATION

The purpose of this report is to provide accounting and financial reporting information under GASB 67 for the Marin County Employees' Retirement Association (MCERA) and under GASB 68 for the employers that participate in MCERA. This report is for the use of MCERA, the participating employers, and their auditors in preparing financial reports in accordance with applicable law and accounting requirements. This report is not appropriate for other purposes, including the measurement of funding requirements for MCERA.

In preparing our report, we relied on information (some oral and some written) supplied by MCERA. This information includes, but is not limited to, the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23. The assumptions have been selected by the Board based on our recommendations and analysis. We believe the assumptions to be reasonable.

Future actuarial measurements may differ significantly from the current measurements due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and, changes in plan provisions or applicable law.

This report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable laws and regulations. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report. This report does not address any contractual or legal issues. We are not attorneys and our firm does not provide any legal services or advice.

This report was prepared for MCERA for the purposes described herein and for the use by the plan auditor in completing an audit related to the matters herein. Other users of this report are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to any other user.

Graham A. Schmidt, ASA, EA, FCA, MAAA Consulting Actuary

William R. Hallmark, ASA, EA, FCA, MAAA Consulting Actuary



SECTION III - DETERMINATION OF DISCOUNT RATE

The discount rate used to measure the Total Pension Liability was 7.00%.

We have assumed that the employees will continue to contribute to MCERA at the current rates and the employers will continue the historical and legally required practice of contributing to the Plan based on an Actuarially Determined Contribution (ADC), reflecting a payment equal to annual normal cost, a portion of the expected administrative expenses, and an amount necessary to amortize the remaining Unfunded Actuarial Liability (UAL) as a level percent of payroll over a closed period.

Effective with the June 30, 2013 valuation, the UAL as of June 30, 2013 is amortized over a closed 17-year period (12 years remaining as of June 30, 2018), except for the additional UAL attributable to the outstanding unfunded actuarial loss from 2009, which is being amortized over a separate closed period (20 years remaining as of June 30, 2018).

Effective with the June 30, 2014 valuation, any new sources of UAL due to actuarial gains and losses or method changes are amortized over a closed 24-year period, with a five-year ramp up period at the beginning of the period, a four-year ramp down at the end of the period, and 15 years of level payments as a percentage of payroll between the ramping periods. This new amortization method for gains and losses is similar to a 20-year amortization period with level payments as a percentage of payroll, in conjunction with traditional five-year asset smoothing.

Assumption changes will be amortized over a closed 22-year period, with a 3-year ramp up period, 2-year ramp down period, and 17 years of level payments as a percentage of payroll.

We have not performed a formal cash flow projection as described under Paragraph 41 of GASB Statement 67. However, Paragraph 43 allows for alternative methods to confirm the sufficiency of the Net Position if the evaluations "can be made with sufficient reliability without a separate projection of cash flows into and out of the pension plan..." In our professional judgment, adherence to the actuarial funding policy described above will result in the pension plan's projected Fiduciary Net Position being greater than or equal to the benefit payments projected for each future period.

Therefore, the long-term expected rate of return on MCERA investments was applied to all periods of projected benefit payments to determine the Total Pension Liability.



SECTION IV - PROJECTION OF TOTAL PENSION LIABILITY

The Total Pension Liability (TPL) at the end of the measurement year, June 30, 2019, is measured as of a valuation date of June 30, 2018 and projected to June 30, 2019. There were no significant events during the projection period of which we are aware. Because the TPL shown in the prior report was measured as of June 30, 2017 and projected to June 30, 2018, the TPL from the prior report will not match the amounts measured as of June 30, 2018 that are shown in this exhibit.

The table below shows the projection of the TPL at discount rates equal to the rate used for disclosure and plus and minus one percent from the rate used for disclosure.

Table IV-1 Projection of Collective Total Pension Liability from Valuation to Measurement Date										
Discount Rate		6.00%		7.00%		8.00%				
Valuation Collective Total Pension Liability,	6/30	/2018								
Actives	\$	1,062,081,489	\$	900,011,111	\$	769,265,053				
Deferred Vested		119,827,468		99,853,147		84,440,216				
Retirees		2,039,819,170		1,847,483,391		1,685,387,970				
Total	\$	3,221,728,127	\$	2,847,347,649	\$	2,539,093,239				
Service Cost		80,720,955		63,587,459		50,668,156				
Benefit Payments		149,212,983		149,212,983		149,212,983				
Interest		191,278,857		196,368,129		199,261,498				
Collective Total Pension Liability, 6/30/2019	\$	3,344,514,956	\$	2,958,090,254	\$	2,639,809,910				



SECTION V – GASB 67 REPORTING INFORMATION

Note Disclosures

The table below shows the changes in the Total Pension Liability, the Plan Fiduciary Net Position (i.e., fair value of System assets), and the Net Pension Liability during the measurement year.

Change in Collec	Table V-1 tive Net Pensi	ion Liability							
	Increase (Decrease)								
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)						
Balances at 6/30/2018	\$2,831,719,959	\$2,501,422,132	\$ 330,297,827						
Changes for the year:									
Service cost	63,587,459		63,587,459						
Interest	195,274,190		195,274,190						
Changes of benefits	0		0						
Differences between expected and actual									
experience	16,721,629		16,721,629						
Changes of assumptions	0		0						
Contributions - employer		78,738,814	(78,738,814)						
Contributions - member		30,010,459	(30,010,459)						
Net investment income		136,483,513	(136,483,513)						
Benefit payments	(149,212,983)	(149,212,983)	0						
Administrative expense		(5,056,351)	5,056,351						
Net changes	126,370,295	90,963,452	35,406,843						
Balances at 6/30/2019	\$2,958,090,254	\$2,592,385,584	\$ 365,704,670						

During the measurement year, the collective NPL increased by approximately \$35 million. The service cost and interest cost increased the collective NPL by approximately \$259 million while contributions and investment earnings offset by administrative expenses decreased the collective NPL by approximately \$240 million.

There were no changes in benefits or assumptions during the year. There were actuarial experience losses during the year that increased the collective NPL by approximately \$17 million.



SECTION V – GASB 67 REPORTING INFORMATION

Changes in the discount rate affect the measurement of the TPL. Lower discount rates produce a higher TPL and higher discount rates produce a lower TPL. Because the discount rate does not affect the measurement of assets, the percentage change in the NPL can be very significant for a relatively small change in the discount rate. The table below shows the sensitivity of the collective NPL to the discount rate.

Table V-2 Sensitivity of Collective Net Pension Liability to Changes in Discount Rate											
	1%	Discount	1%								
	Decrease	Rate	Increase								
	6.00%	7.00%	8.00%								
Total Pension Liability Plan Fiduciary Net Position Collective Net Pension Liability Plan Fiduciary Net Position as a Percentage	\$3,344,514,956	\$2,958,090,254	\$ 2,639,809,910								
	2,592,385,584	<u>2,592,385,584</u>	2,592,385,584								
	\$ 752,129,372	<u>\$ 365,704,670</u>	\$ 47,424,326								
of the Total Pension Liability	77.5%	87.6%	98.2%								

A one percent decrease in the discount rate increases the TPL by approximately 13% and increases the collective NPL by approximately 106%. A one percent increase in the discount rate decreases the TPL by approximately 11% and decreases the collective NPL by approximately 87%.

Required Supplementary Information

The schedules of Required Supplementary Information generally start with information as of the implementation of GASB 67, and eventually will build up to 10 years of information. The schedule on the next page shows the changes in collective NPL and related ratios required by GASB for the six years since implementation.



SECTION V – GASB 67 REPORTING INFORMATION

Sch	edu	de of Change	s ii			V-3 Pension Liab	ilit	v and Related	l R	atios		
302	0 02 0	FYE 2019		FYE 2018		FYE 2017		FYE 2016		FYE 2015		FYE 2014
Total Pension Liability												
Service cost (MOY)	\$	63,587,459	\$	61,074,664	\$	57,090,773	\$	55,208,834	\$	49,064,492	\$	49,014,858
Interest (includes interest on service												
cost)		195,274,190		188,096,539		184,139,800		176,564,792		166,718,783		159,521,975
Changes of benefit terms		0		0		0		0		0		0
Differences between expected and		4				(0.0.4 ==0)		(0.10 -0.1)		(24 054 200)		
actual experience		16,721,629		(3,412,765)		(904,678)		(212,631)		(31,054,299)		0
Changes of assumptions Benefit payments, including refunds		0		40,801,678		0		0		144,753,646		0
of member contributions		(140 212 092)		(120 956 672)		(121 027 062)		(124 202 510)		(115 094 752)		(100 242 961)
Net change in total pension		(149,212,983)		(139,856,672)		(131,937,062)		(124,203,519)		(115,984,752)		(109,342,861)
liability	\$	126,370,295	\$	146,703,444	\$	108,388,833	\$	107,357,476	\$	213,497,871	\$	99,193,972
Total pension liability - beginning	Ψ	, ,	Ψ	, ,	Ψ	, ,	Ψ	, ,	Ψ	, ,	Ψ	, ,
Total pension liability - ending	Φ.	2,831,719,959	Φ.	2,685,016,515	ф.	2,576,627,682	ф.	2,469,270,206	Φ.	2,255,772,335	ф.	2,156,578,363
Total pension habinty - ending	\$	2,958,090,254	\$	2,831,719,959	\$	2,685,016,515	\$	2,576,627,682	\$	2,469,270,206	\$	2,255,772,335
Plan fiduciary net position												
Contributions - employer	\$	78,738,814	\$	78,754,476	\$	77,502,945	\$	75,260,980	\$	68,915,072	\$	69,980,201
Contributions - member		30,010,459		28,628,627		28,053,775		27,207,157		24,920,493		22,952,689
Net investment income		136,483,513		221,839,196		248,347,501		42,927,728		100,055,573		309,002,468
Benefit payments, including refunds												
of member contributions		(149,212,983)		(139,856,672)		(131,937,062)		(124,203,519)		(115,984,752)		(109,342,861)
Administrative expense	_	(5,056,351)		(4,203,705)	_	(4,404,191)	_	(4,379,760)		(4,654,623)		(4,503,845)
Net change in plan fiduciary net	\$	00.062.453	\$	105 171 022	φ	217 5/2 0/9	\$	16 913 596	\$	F2 251 F(2	\$	200 000 (52
position	Ф	90,963,452	Ф	185,161,922	\$	217,562,968	Ф	16,812,586	Ф	73,251,763	Ф	288,088,652
Plan fiduciary net position -												
beginning	_	2,501,422,132		2,316,260,210		2,098,697,242		2,081,884,656		2,008,632,893		1,720,544,241
Plan fiduciary net position -												
ending	\$	2,592,385,584	\$	2,501,422,132	\$	2,316,260,210	\$	2,098,697,242	\$	2,081,884,656	\$	2,008,632,893
Net pension liability - ending	\$	365,704,670	\$	330,297,827	\$	368,756,305	\$	477,930,440	\$	387,385,550	\$	247,139,442
Plan fiduciary net position as a												
percentage of the total pension liability		87.64%		88.34%		86.27%		81.45%		84.31%		89.04%
Covered payroll	\$	253,964,938	\$	248,532,086	\$	242,045,311	\$	238,185,040	\$	223,825,880	\$	218,340,721
Net pension liability as a percentage of covered payroll	•	144.00%		132.90%	•	152.35%	•	200.66%		173.07%		113.19%



SECTION V – GASB 67 REPORTING INFORMATION

Because an Actuarially Determined Contribution (ADC) has been calculated historically, the full 10 years of information in the following schedule is required.

Table V-4 Schedule of Collective Employer Contributions										
	FYE 2019	FYE 2018	FYE 2017	FYE 2016	FYE 2015					
Actuarially Determined Contribution Contributions in Relation to the	\$ 78,738,814	\$ 78,754,476	\$ 77,502,945	\$ 75,260,980	\$ 68,915,072					
Actuarially Determined Contribution	78,738,814	78,754,476	77,502,945	75,260,980	68,915,072					
Contribution Deficiency/(Excess) Covered Payroll Contributions as a Percentage of	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	\$ 0 \$ 248,532,086	\$ 0 \$ 242,045,311	\$ 0 \$ 238,185,040	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\					
Covered Payroll	31.00%	31.69%	32.02%	31.60%	30.79%					
	FYE 2014	FYE 2013	FYE 2012	FYE 2011	FYE 2010					
Actuarially Determined Contribution Contributions in Relation to the	\$ 69,660,201	\$ 69,853,000	\$ 64,690,000	\$ 64,757,000	\$ 56,271,000					
Actuarially Determined Contribution	69,660,201	69,853,000	64,690,000	64,757,000	56,271,000					
Contribution Deficiency/(Excess)	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0					
Covered Payroll	\$ 218,340,721	\$ 211,001,594	\$ 216,515,000	\$ 215,969,000	\$ 219,556,000					
Contributions as a Percentage of Covered Payroll	31.90%	33.11%	29.88%	29.98%	25.63%					



SECTION V – GASB 67 REPORTING INFORMATION

The notes below summarize the key methods and assumptions used to determine the ADC for FYE 2019.

Notes to Schedule

Valuation Date 6/30/2017 (to determine FY2018-19 contribution)

Timing Actuarially determined contribution rates are calculated based on the actuarial valuation one year prior to the beginning of the plan year

Key Methods and Assumptions Used to Determine Contribution Rates (for FY 2018-19):

Actuarial cost method Entry Age
Asset valuation method Market value

Amortization method Level percentage of payroll with separate periods for Extraordinary Actuarial Gains or Losses (21 years remaining as of 6/30/17),

the remaining UAL as of June 30, 2013 (13 years as of 6/30/17), and additional layers for unexpected changes in UAL after 6/30/13

(24 years for gains and losses with a 5-year phase-in/out and 22 years for assumption changes with a 3-year phase-in/out).

Discount rate 7.00% Amortization growth rate 3.00% Price inflation 2.75%

Salary increases 3.00% plus merit component based on employee classification and years of service

Mortality Sex distinct CalPERS 2017 Pre-Retirement Non-Industrial Death rates (plus Duty-Related death rates for Safety members), with generational improvements

from a base year of 2014 using Scale MP-2017 for active Members.

Sex distinct CalPERS 2017 Post-Retirement Healthy Mortality rates, adjusted by 90% for Miscellaneous and Safety Males, with

generational improvements from a base year of 2014 using Scale MP-2017 for retired Members and their beneficiaries.

Disabled Mortality Sex distinct CalPERS 2017 Disability Death rates (Non-Industrial rates for Miscellaneous members and Industrial rates for Safety members), adjusted by 90%

for Males (Miscellaneous and Safety) and Miscellaneous Females, with generational improvements from a base year of 2014 using Scale MP-2017.

A complete description of the methods and assumptions used to determine contribution rates for the year ending June 30, 2019 can be found in the June 30, 2017 actuarial valuation report.



SECTION VI – GASB 68 COLLECTIVE AMOUNTS

We understand that MCERA's participating employers elected to use the 2014 measurement date for their initial reporting under GASB 68 on their June 30, 2015 reporting date. As a result, the schedules in this section will be used by the employers for their FYE 2020 reporting, and the schedules from our prior report will be used for the employers' FYE 2019 financial reporting.

Because MCERA is a cost-sharing multiple-employer pension plan, each employer participating in MCERA must reflect a portion of the collective Net Pension Liability, Pension Expense, and Deferred Outflows and Inflows in their financial statements. This section develops the collective amounts that are allocated to participating employers.

The impact of experience gains or losses and assumption changes on the TPL are recognized in expense over the average expected remaining service life of all active and inactive members of MCERA. As of the measurement date, this recognition period was four years.

During the year, there was an experience loss of approximately \$16.7 million. Approximately \$4.2 million of that loss was recognized as an increase in collective pension expense in the current year and an identical amount will be recognized in each of the next three years. Unrecognized experience gains from prior experience were approximately \$3.1 million, of which \$1.1 million was recognized as a decrease in collective pension expense in the current year. As of June 30, 2019, the combination of unrecognized experience losses this year and unrecognized experience gains from prior periods resulted in a collective deferred outflow of resources of approximately \$12.5 million and a collective deferred inflow of resources of approximately \$1.9 million.

Unrecognized increases in the TPL due to assumption changes from prior periods were approximately \$30.6 million, of which \$10.2 million was recognized as an increase in collective pension expense in the current year. The resulting collective deferred outflow of resources as of June 30, 2019 is approximately \$20.4 million.

The impact of investment gains or losses is recognized over a period of five years. During the measurement year, there was an investment loss of approximately \$37.0 million. Approximately \$7.4 million of that loss was recognized as an increase in collective pension expense in the current year and an identical amount will be recognized in each of the next four years. Unrecognized net investment gains from prior periods were approximately \$54.4 million of which \$0.3 million was recognized as a reduction in collective pension expense in the current year. The combination of unrecognized investment losses this year and unrecognized net investment gains from prior periods results in a collective deferred inflow of resources as of June 30, 2019 of approximately \$24.4 million.

The table on the following page summarizes the current balances of collective deferred outflows and deferred inflows of resources along with the net recognition over the next five years.



SECTION VI – GASB 68 COLLECTIVE AMOUNTS

Table VI Schedule of Collective Deferred Inflo		
	Deferred Outflows of Resources Resources	
Differences between expected and actual experience Changes in assumptions Net difference between projected and actual earnings pension plan investments	\$ 12,541,222 \$ 1,932,55 20,400,838 on 0 24,437,54	0
Total	\$ 32,942,060 \$ 26,370,09	
Amounts reported as deferred outflows and deferred it pension expense as follows: Measurement year ended June		
-	020 10,476,915	
	021 (10,712,679)	
	022 (602,231)	
2	023 7,409,956	
2	024 0	
There	eafter \$ 0	

The collective annual pension expense recognized by the participating employers can be calculated two different ways. First, it is the change in the amounts reported on the participating employers' Statements of Net Position that relate to MCERA and are not attributable to employer contributions. That is, it is the change in collective NPL plus the changes in collective deferred outflows and inflows plus participating employer contributions.

Alternatively, annual pension expense can be calculated by its individual components. While GASB does not require or suggest the organization of the individual components shown in the table on the next page, we believe it helps to understand the level and volatility of the collective pension expense.



SECTION VI – GASB 68 COLLECTIVE AMOUNTS

Table V Calculation of Collecti		sion Expens	e					
	Measurement Year Endi 2019 201							
		2019		2018				
Change in Net Pension Liability	\$	35,406,843	\$	(38,458,478)				
Change in Deferred Outflows		(2,340,802)		5,587,154				
Change in Deferred Inflows		(31,085,866)		19,019,774				
Employer Contributions		78,738,814		78,754,476				
Pension Expense	\$	80,718,989	\$	64,902,926				
Pension Expense as % of Payroll		31.78%		26.11%				
Operating Expenses								
Service cost	\$	63,587,459	\$	61,074,664				
Employee contributions		(30,010,459)		(28,628,627)				
Administrative expenses		5,056,351		4,203,705				
Total	\$	38,633,351	\$	36,649,742				
Financing Expenses								
Interest cost	\$	195,274,190	\$	188,096,539				
Expected return on assets		(173,533,293)		(160,876,221)				
Total	\$	21,740,897	\$	27,220,318				
Changes								
Benefit changes	\$	0	\$	0				
Recognition of assumption changes		10,200,420		46,388,832				
Recognition of liability gains and losses		3,047,889		(8,896,094)				
Recognition of investment gains and losses		7,096,432		(36,459,872)				
Total	\$	20,344,741	\$	1,032,866				
Pension Expense	\$	80,718,989	\$	64,902,926				

Operating expenses are items directly attributable to the operation of the plan during the measurement year. Service cost less employee contributions represents the increase in employer-provided benefits attributable to the year, and administrative expenses are the cost of operating MCERA for the year.

Financing expenses equal the interest on the Total Pension Liability and other items, less the expected return on assets. Since the discount rate is equal to the long-term expected return on assets, the financing expense is the interest on the Net Pension Liability, adjusted for cash flows.



SECTION VI – GASB 68 COLLECTIVE AMOUNTS

Recognition of changes will drive most of the volatility in pension expense from year to year. The recognition includes any changes in benefits made during the year and the recognized amounts due to assumption changes, gains or losses on the TPL, and investment gains or losses.

The total collective pension expense increased from the prior year by approximately \$15.8 million. In the current year pension expense, the recognition of changes increased by approximately \$19.3 million and operating expenses increased by approximately \$2.0 million compared to last year, which was offset by decreases in financing expenses of \$5.5 million compared to the prior year.



SECTION VII – GASB 68 REPORTING INFORMATION FOR PARTICIPATING EMPLOYERS

Proportionate Shares

Because MCERA is a cost-sharing multiple-employer pension plan, each employer participating in MCERA must report a portion of the collective Net Pension Liability, Pension Expense, and Deferred Outflows and Inflows in their financial statements. GASB 68 requires that the proportionate share for each employer be determined based on the "employer's projected long-term contribution effort to the pension ... as compared to the total projected long-term contribution effort of all employers" Although not required as part of MCERA's GASB 67 reporting requirements, MCERA is following the advice of the AICPA¹ and making a determination of each employer's proportionate share, which we understand will be reviewed by MCERA's auditor.

Proportionate shares for each employer are determined based on the employer's share of the Unfunded Actuarial Liability (UAL) determined in the most recent actuarial valuation. In Table VII-1, the determination is shown based on the June 30, 2017 and June 30, 2018 actuarial valuations.

	Table VII-1 Determination of Employers' Proportionate Share													
June 30, 2019 June 30, 2018														
Employer	J	AL (from the une 30, 2018 Actuarial Valuation)*	Proportionate Share	Jı	AL (from the une 30, 2017 Actuarial Valuation)*	Proportionate Share								
County	\$	188,964,850	51.5677%	\$	235,445,174	55.5636%								
LAFCO		0	0.0000%		44,220	0.0104%								
Marin City		9,353	0.0026%		0	0.0000%								
Mosquito District		4,076,669	1.1125%		6,570,720	1.5506%								
South Marin Fire		9,986,958	2.7254%		8,461,541	1.9969%								
Tamalpais CSD		1,307,437	0.3568%		2,417,144	0.5704%								
Courts		6,895,091	1.8816%		8,903,364	2.1011%								
City of San Rafael		134,146,603	36.6081%		141,848,018	33.4752%								
Novato Fire		21,052,908	5.7453%		20,050,593	4.7318%								
Total	\$	366,439,869	100.0000%	\$	423,740,775	100.0000%								

^{*} Numbers may not sum to total due to rounding

¹http://www.aicpa.org/interestareas/governmentalauditquality/resources/gasbmatters/downloadabledocuments/aicpas lgep_cs_er_reporting_whitepaper.pdf



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SECTION VII – GASB 68 REPORTING INFORMATION FOR PARTICIPATING EMPLOYERS

The table below shows the proportionate share of the collective NPL (under three discount rates), the collective deferred outflows, the collective deferred inflows, and the collective pension expense allocated to each participating employer as of June 30, 2019.

	Schedule of Employers'	Proportionat	Table VII-2 e Share of Co	ollective Amo	unts at June	30. 2019*	
Employer	Proportionate Share	Share of NPL @ 6.00%	Share of NPL @ 7.00%	Share of NPL @ 8.00%	Share of Deferred Outflows	Share of Deferred Inflows	Pension Expense
County	51.5677%	387,855,818	188,585,487	24,455,634	16,987,463	13,598,454	41,624,926
LAFCO	0.0000%	0	0	0	0	0	0
Marin City	0.0026%	19,555	9,508	1,233	856	686	2,099
Mosquito District	1.1125%	8,367,439	4,068,464	527,596	366,480	293,367	897,999
South Marin Fire	2.7254%	20,498,534	9,966,915	1,292,503	897,803	718,691	2,199,915
Tamalpais CSD	0.3568%	2,683,598	1,304,834	169,210	117,537	94,089	288,005
Courts	1.8816%	14,152,066	6,881,099	892,336	619,838	496,180	1,518,808
City of San Rafael	36.6081%	275,340,273	133,877,531	17,361,145	12,059,462	9,653,592	29,549,688
Novato Fire	5.7453%	43,212,089	21,010,830	2,724,670	1,892,620	1,515,041	4,637,548
Total	100.0000%	\$ 752,129,372	\$ 365,704,670	\$ 47,424,326	\$ 32,942,060	\$ 26,370,099	\$ 80,718,989

^{*} Numbers may not sum to total due to rounding

The proportionate share allocated to each individual employer will change on each measurement date. The net effect of the change in proportion on the share of the collective NPL, collective deferred outflows, and collective deferred inflows allocated to each employer becomes a deferred outflow or inflow for that employer and is recognized over the average future working life of MCERA's active and inactive members (four years).

Similarly, the difference between each employer's actual contributions and the employer's proportionate share of collective employer contributions becomes a deferred outflow or inflow for that employer and is recognized over the average future working life of MCERA's active and inactive members (four years).



SECTION VII – GASB 68 REPORTING INFORMATION FOR PARTICIPATING EMPLOYERS

The table below shows the change in proportion and the impact of that change in proportion on the proportionate share of the collective NPL, collective deferred outflows, and collective deferred inflows. It also shows any contribution differences.

	Schedul	e of Employ	yers' Change	Table VII es in Propo		Contribution	Differences*			
	Proportionate Shares Impact of Change in Proportion Contributions									
			Net Pension	Deferred	Deferred			Proportionate		
Employer	6/30/2018	6/30/2019	Liability	Outflows	Inflows	Net Effect	Actual	Share	Difference	
County	55.5636%	51.5677%	\$ (13,198,371)	\$ (1,222,796)	\$ 2,295,883	\$ (14,271,458)	\$ 48,129,766	\$ 40,603,795	\$ 7,525,971	
LAFCO	0.0104%	0.0000%	(34,351)	(3,183)	5,975	(37,144)	13,234	0	13,234	
Marin City	0.0000%	0.0026%	8,588	796	(1,494)	9,286	38,497	2,047	36,450	
Mosquito District	1.5506%	1.1125%	(1,447,035)	(134,064)	251,715	(1,564,685)	990,379	875,969	114,410	
South Marin Fire	1.9969%	2.7254%	2,406,220	222,930	(418,567)	2,601,856	2,416,820	2,145,948	270,872	
Tamalpais CSD	0.5704%	0.3568%	(705,516)	(65,364)	122,726	(762,878)	370,734	280,940	89,794	
Courts	2.1011%	1.8816%	(725,004)	(67,170)	126,116	(783,950)	1,842,578	1,481,550	361,028	
City of San Rafael	33.4752%	36.6081%	10,347,901	958,707	(1,800,038)	11,189,232	20,352,178	28,824,784	(8,472,606)	
Novato Fire	4.7318%	5.7453%	3,347,568	310,144	(582,316)	3,619,741	4,584,629	4,523,781	60,848	
Total	100.0000%	100.0000%	\$ 0	\$ 0	\$ 0	\$ 0	\$ 78,738,814	\$ 78,738,814	\$ 0	

^{*} Numbers may not sum to total due to rounding



SECTION VII – GASB 68 REPORTING INFORMATION FOR PARTICIPATING EMPLOYERS

The table below shows the reconciliation of deferred outflows and inflows due to proportion changes for each participating employer from the prior measurement date to the current measurement date.

	Rec	conciliatio	on of Deferre	ed Ou	Table tflows a			ue t	o Proporti	on Cl	hange					
			Deferred	Outflo	ows			Deferred Inflows								
			Current Year			Current Year										
Employer	6	/30/2018	Net Effect	Rec	ognition	•	6/30/2019		6/30/2018	Net	Effect	Re	cognition		6/30/2019	
County	\$	5,387,789	\$ 0	\$	3,542,344	\$	1,845,446	\$	(2,223,799)	\$ (14	1,271,458)	\$	(4,309,131)	\$	(12,186,126)	
LAFCO		19,066	0		9,764		9,301		0		(37,144)		(9,286)		(27,858)	
Marin City		13,537	9,286		15,858		6,964		(152,308)		0		(72,258)		(80,049)	
Mosquito District		1,101,995	0		449,000		652,995		0	(1	1,564,685)		(391,171)		(1,173,514)	
South Marin Fire		1,254,000	2,601,856		1,147,520		2,708,336		(84,928)		0		(84,928)		0	
Tamalpais CSD		161,014	0		108,829		52,185		0		(762,878)		(190,719)		(572,158)	
Courts		0	0		0		0		(1,834,827)		(783,950)		(1,074,547)		(1,544,229)	
City of San Rafael		2,106,932	11,189,232		3,499,619		9,796,545		(5,882,404)		0		(3,768,975)		(2,113,429)	
Novato Fire		890,781	3,619,741		1,380,366		3,130,156		(756,848)		0		(252,283)		(504,566)	
Total	\$ 1	10,935,113	\$ 17,420,115	\$ 10	,153,299	\$	18,201,929	\$	(10,935,113)	\$(17,	420,115)	\$ (1	0,153,299)	\$(18,201,929)	



SECTION VII – GASB 68 REPORTING INFORMATION FOR PARTICIPATING EMPLOYERS

The table below shows the reconciliation of deferred outflows and inflows due to contribution differences for each participating employer from the prior measurement date to the current measurement date.

	Re	conciliati	o n (of Deferre	ed (VII-5 Inflows Du	e to	Contribu	tion Differ	en	ces	
			(Deferre Current Year	d Oı	utflows				Defer Current Year	re	d Inflows	
Employer	6	5/30/2018	D	ifference	R	ecognition	6/30/2019		6/30/2018	Difference		Recognition	6/30/2019
County	\$	6,648,214	\$	7,525,971	\$	5,240,108	\$ 8,934,077	\$	0	\$ ()	\$ 0	\$ 0
LAFCO		40,585		13,234		30,729	23,090		0	()	0	0
Marin City		91,997		36,450		50,765	77,682		0	()	0	0
Mosquito District		23,973		114,410		41,390	96,992		(134,538)	()	(44,846)	(89,693)
South Marin Fire		1,146,854		270,872		691,609	726,117		0	()	0	0
Tamalpais CSD		0		89,794		22,449	67,346		(107,647)	()	(58,158)	(49,489)
Courts		326,777		361,028		209,877	477,928		(58,454)	()	(58,454)	0
City of San Rafael		0		0		0	0		(9,065,783)	(8,472,606	5)	(6,747,292)	(10,791,098)
Novato Fire		1,088,022		60,848		621,822	527,047		0	()	0	0
Total	\$	9,366,422	\$	8,472,607	\$	6,908,749	\$ 10,930,279	\$	(9,366,422)	\$ (8,472,600	6)	\$ (6,908,750)	\$ (10,930,279)



SECTION VII – GASB 68 REPORTING INFORMATION FOR PARTICIPATING EMPLOYERS

The table below summarizes the deferred outflows allocated to each employer for experience, assumption changes, investment returns, proportion changes, and contribution differences.

	Schedule of Employ	er	Table V s' Deferr		at .	June 30,	20 :	19	
Employer	Proportionate Shares	E	xperience	Assumption Changes		vestment Return	P	roportion Change	ontribution Difference
County	51.5677%	\$	6,467,220	\$ 10,520,243	\$	0	\$	1,845,446	\$ 8,934,077
LAFCO	0.0000%		0	0		0		9,301	23,090
Marin City	0.0026%		326	530		0		6,964	77,682
Mosquito District	1.1125%		139,521	226,959		0		652,995	96,992
South Marin Fire	2.7254%		341,798	556,004		0		2,708,336	726,117
Tamalpais CSD	0.3568%		44,747	72,790		0		52,185	67,346
Courts	1.8816%		235,976	383,862		0		0	477,928
City of San Rafael	36.6081%		4,591,103	7,468,359		0		9,796,545	0
Novato Fire	5.7453%		720,531	1,172,089		0		3,130,156	527,047
Total	100.0000%	\$1	2,541,222	\$ 20,400,838	\$	0	\$1	8,201,929	\$ 10,930,279



SECTION VII – GASB 68 REPORTING INFORMATION FOR PARTICIPATING EMPLOYERS

The table below summarizes the deferred inflows allocated to each employer for experience, assumption changes, investment returns, proportion changes, and contribution differences.

	Schedule of Employ	yers	Table V			t J	une 30, 20	019	9	
Employer	Proportionate Shares	Ex	perience	A	Assumption Changes	I	nvestment Return	P	Proportion Change	ontribution Difference
County	51.5677%	\$	996,572	\$	0	\$	12,601,881	\$	12,186,126	\$ 0
LAFCO	0.0000%		0		0		0		27,858	0
Marin City	0.0026%		50		0		635		80,049	0
Mosquito District	1.1125%		21,500		0		271,868		1,173,514	89,693
South Marin Fire	2.7254%		52,670		0		666,021		0	0
Tamalpais CSD	0.3568%		6,895		0		87,193		572,158	49,489
Courts	1.8816%		36,363		0		459,817		1,544,229	0
City of San Rafael	36.6081%		707,470		0		8,946,122		2,113,429	10,791,098
Novato Fire	5.7453%		111,031		0		1,404,010		504,566	0
Total	100.0000%	\$ 1	1,932,551	\$	0	\$2	24,437,548	\$ 1	18,201,929	\$ 10,930,279



SECTION VII – GASB 68 REPORTING INFORMATION FOR PARTICIPATING EMPLOYERS

The table below shows the net amount of deferred outflows and inflows to be recognized by each participating employer in each of the next five years and the total thereafter.

Schedule of Em	ployers']	Recognit	ion	Table VI of Deferr			a	nd Inflow	s a	t June 3	0,	2019			
	Recognition for Measurement Year Ending														
Employer		2020		2021		2022		2023		2024	T	hereafter			
County	\$	6,940,658	\$	(6,782,468)	\$	(1,996,929)	\$	3,821,144	\$	C	\$	5 (
LAFCO		13,444		(2,933)		(5,977)		0		()	(
Marin City		(28,963)		22,120		11,418		193		()	(
Mosquito District		72,251		(225,524)		(369,269)		82,436		C)	(
South Marin Fire		1,862,491		847,354		701,769		201,951		()	(
Tamalpais CSD		(129,172)		(205,515)		(170,420)		26,439		()	(
Courts		(467,176)		(497,831)		(117,062)		139,426		()	(
City of San Rafael		215,815		(4,089,261)		458,691		2,712,644		()	(
Novato Fire		1,997,567		221,379		885,547		425,724		()	(
Total	\$1	0,476,915	\$ (1	0,712,679)	\$	(602,231)	\$	7,409,956	\$	0	\$	(



SECTION VII – GASB 68 REPORTING INFORMATION FOR PARTICIPATING EMPLOYERS

The table below shows the calculation of the pension expense for each participating employer. The calculation is shown first as the sum of the proportionate share of the collective pension expense and the amounts recognized for proportion changes and contribution differences. The right side of the table shows the calculation as the sum of the changes in NPL and deferred amounts not attributable to contributions.

Employers that are using a June 30, 2019 measurement date for their June 30, 2020 financial statements can use this schedule for their annual pension expense.

	Collective		Employer	Ch	er		Employer		
Employer	Pension Expense	Change in Proportion	Contribution Difference	Pension Expense	Net Pension Liability	Deferred Outflows	Deferred Inflows	Employer Contributions	Pension Expense
County	\$ 41,624,926	\$ (766,787)	\$ 5,240,108	\$ 46,098,247	\$ 5,060,124	\$ 1,272,179	\$ (8,363,822)	\$ 48,129,766	\$ 46,098,247
LAFCO	0	478	30,729	31,207	(34,351)	30,441	21,882	13,234	31,207
Marin City	2,099	(56,400)	50,765	(3,536)	9,508	20,031	(71,573)	38,497	(3,536
Mosquito District	897,999	57,828	(3,457)	952,370	(1,053,134)	484,002	531,123	990,379	952,370
South Marin Fire	2,199,915	1,062,592	691,609	3,954,116	3,371,198	(1,320,326)	(513,576)	2,416,820	3,954,116
Tamalpais CSD	288,005	(81,890)	(35,709)	170,406	(579,185)	98,496	280,360	370,734	170,406
Courts	1,518,808	(1,074,547)	151,423	595,685	(58,789)	(128,026)	(1,060,079)	1,842,578	595,685
City of San Rafael	29,549,688	(269,357)	(6,747,292)	22,533,040	23,309,673	(9,505,243)	(11,623,568)	20,352,178	22,533,040
Novato Fire	4,637,548	1,128,083	621,822	6,387,454	5,381,798	(2,123,030)	(1,455,943)	4,584,629	6,387,454
Total	\$80,718,989	\$ 0	\$ 0	\$80,718,989	\$ 35,406,843	\$(11,171,475)	\$(22,255,194)	\$ 78,738,814	\$80,718,989



SECTION VII – GASB 68 REPORTING INFORMATION FOR PARTICIPATING EMPLOYERS

The table below summarizes the information needed for each employer's schedules of required supplementary information.

		Schedu	ıle of Employ	Table VII-: ers' RSI Info	10 rmation at Jun	ne 30, 2019			
Employer	Proportionate Shares	Proportionate Share of NPL	Covered- Employee Payroll	Share of NPL as a % of Payroll	Plan Fiduciary Net Position as % of TPL	Contractually Required Contribution	Actual Contributions	Contribution Deficiency	Contributions as a % of Payroll
County	51.5677%	\$ 188,585,487	\$ 193,146,939	97.6%	87.6%	\$ 48,129,766	\$ 48,129,766	\$ 0	24.9%
LAFCO	0.0000%	0	113,308	0.0%	87.6%	13,234	13,234	0	11.7%
Marin City	0.0026%	9,508	201,752	4.7%	87.6%	38,497	38,497	0	19.1%
Mosquito District	1.1125%	4,068,464	3,265,466	124.6%	87.6%	990,379	990,379	0	30.3%
South Marin Fire	2.7254%	9,966,915	6,239,136	159.7%	87.6%	2,416,820	2,416,820	0	38.7%
Tamalpais CSD	0.3568%	1,304,834	1,122,634	116.2%	87.6%	370,734	370,734	0	33.0%
Courts	1.8816%	6,881,099	6,932,903	99.3%	87.6%	1,842,578	1,842,578	0	26.6%
City of San Rafael	36.6081%	133,877,531	33,436,355	400.4%	87.6%	20,352,178	20,352,178	0	60.9%
Novato Fire	5.7453%	21,010,830	9,506,445	221.0%	87.6%	4,584,629	4,584,629	0	48.2%
Total	100.0000%	\$ 365,704,670	\$ 253,964,938	144.0%	87.6%	\$ 78,738,814	\$ 78,738,814	\$ 0	31.0%



APPENDIX A – MEMBERSHIP INFORMATION

			Marin Co							ial Districts				unty and
	Miscelland	eous	Saf	ety	Tot	tal	Miscell	aneous	Saf	ety	To	tal	Special I	Districts
	6/30/2017	6/30/2018	6/30/2017	6/30/2018	6/30/2017	6/30/2018	6/30/2017	6/30/2018	6/30/2017	6/30/2018	6/30/2017	6/30/2018	6/30/2017	6/30/201
Active Participants														
Number	1,700	1,737	355	358	2,055	2,095	157	154	51	50	208	204	2,263	2,299
Average Age	48.51	48.09	40.51	40.80	47.13	46.84	49.93	49.86	42.14	42.85	48.02	48.14	47.21	46.9
Average Service	10.31	9.94	10.88	11.28	10.40	10.17	12.15	11.95	8.74	9.82	11.31	11.43	10.49	10.23
Average Pay*	\$86,629	\$89,573	\$106,754	\$110,577	\$90,105	\$93,162	\$77,901	\$79,112	\$104,088	\$114,215	\$84,322	\$87,716	\$89,574	\$92,679
Service Retired														
Number	1,481	1,544	251	261	1,732	1,805	123	134	24	28	147	162	1,879	1,96
Average Age	72.41	72.44	63.94	64.30	71.18	71.26	67.86	68.08	63.38	63.15	67.13	67.23	70.86	70.93
Average Total Benefit*	\$36,565	\$37,648	\$69,425	\$69,084	\$41,327	\$42,194	\$37,330	\$38,058	\$74,662	\$68,112	\$43,425	\$43,252	\$41,491	\$42,28
Beneficiaries														
Number	264	270	65	69	329	339	13	15	10	10	23	25	352	364
Average Age	74.76	74.84	69.21	69.04	73.67	73.66	65.49	66.86	65.59	66.59	65.54	66.75	73.13	73.18
Average Total Benefit*	\$23,993	\$25,134	\$39,304	\$41,203	\$27,018	\$28,404	\$14,893	\$17,215	\$41,945	\$43,240	\$26,655	\$27,625	\$26,994	\$28,35
Duty Disabled														
Number	86	85	105	104	191	189	4	4	17	17	21	21	212	210
Average Age	67.39	68.25	62.26	63.19	64.57	65.46	66.11	67.11	65.31	66.31	65.46	66.46	64.66	65.50
Average Total Benefit*	\$36,545	\$37,561	\$52,215	\$53,655	\$45,159	\$46,417	\$20,975	\$21,530	\$54,097	\$55,720	\$47,788	\$49,208	\$45,420	\$46,690
Ordinary Disabled														
Number	29	30	6	7	35	37	2	2	1	1	3	3	38	40
Average Age	70.43	70.27	56.58	57.85	68.06	67.92	62.85	63.85	57.93	58.93	61.21	62.21	67.52	67.49
Average Total Benefit*	\$21,330	\$21,220	\$51,798	\$63,339	\$26,553	\$29,188	\$24,867	\$25,364	\$71,260	\$73,398	\$40,331	\$41,375	\$27,641	\$30,102
Total In Pay														
Number	1,860	1,929	427	441	2,287	2,370	142	155	52	56	194	211	2,481	2,58
Average Age	72.48	72.56	64.23	64.68	70.94	71.09	67.53	67.88	64.33	64.65	66.67	67.02	70.60	70.76
Average Total Benefit*	\$34,542	\$35,637	\$60,360	\$60,992	\$39,362	\$40,355	\$34,639	\$35,450	\$61,582	\$60,003	\$41,861	\$41,967	\$39,558	\$40,487
Terminated Vested														
Number	194	188	18	20	212	208	20	18	2	2	22	20	234	228
Average Age	49.70	50.14	45.06	45.10	49.31	49.66	45.71	44.90	50.70	51.70	46.16	45.58	49.01	49.30
Average Service	7.64	7.65	7.50	7.37	7.63	7.62	8.65	9.16	3.10	3.10	8.14	8.55	7.68	7.70
Transfers														
Number	191	187	64	59	255	246	23	23	14	11	37	34	292	280
Average Age	49.86	49.96	45.23	45.55	48.70	48.90	50.79	50.99	46.42	45.26	49.14	49.14	48.76	48.93
Average Service	5.15	4.98	4.49	4.15	4.98	4.78	4.87	4.86	5.11	5.31	4.96	5.00	4.98	4.8
Total Inactive														
Number	385	375	82	79	467	454	43	41	16	13	59	54	526	50
Average Age	49.78	50.05	45.19	45.44	48.98	49.25	48.43	48.32	46.96	46.25	48.03	47.82	48.87	49.10
Average Service	6.40	6.32	5.15	4.97	6.18	6.08	6.63	6.75	4.86	4.97	6.15	6.32	6.18	6.1

 $^{^*\}mbox{All}$ payroll and benefit figures shown are annual.



APPENDIX A – MEMBERSHIP INFORMATION

Participant Data as of J										
	Miscella		Pol		Fi		Total S			tal
Activo Doutioinanta	0/30/2017	0/30/2018	6/30/2017	0/30/2018	0/30/2017	0/30/2018	0/30/2017	0/30/2018	6/30/2017	0/30/2018
Active Participants Number	212	218	82	89	54	52	136	141	348	359
Average Age	47.18	46.19	38.49	37.67	41.83	42.28	39.82	39.37	44.30	43.5
Average Age Average Service	10.61	9.66	9.82	9.20	11.49	12.38	10.49	10.38	10.56	9.94
Average Pay*	\$77,226	\$80,502	\$110,236	\$113,047	\$128,463	\$136,589	\$117,473	\$121,729	\$92,955	\$96,694
Average I ay	\$77,220	\$60,502	\$110,230	\$115,047	\$120,403	\$150,569	\$117,473	\$121,729	\$92,933	\$70,07
Service Retired										
Number	247	257	77	80	84	89	161	169	408	426
Average Age	69.62	69.92	65.99	66.22	67.33	67.63	66.69	66.96	68.46	68.75
Average Total Benefit*	\$36,851	\$38,150	\$68,784	\$68,987	\$90,679	\$89,764	\$80,208	\$79,929	\$53,960	\$54,724
Beneficiaries										
Number	31	33	16	18	22	21	38	39	69	72
Average Age	75.34	75.96	68.93	66.49	73.21	73.47	71.41	70.25	73.17	72.87
Average Total Benefit*	\$18,376	\$20,539	\$32,873	\$34,439	\$39,017	\$40,634	\$36,430	\$37,775	\$28,319	\$29,875
Duty Disabled										
Number	18	19	38	42	21	21	59	63	77	82
Average Age	65.65	65.97	61.98	61.61	67.81	68.81	64.06	64.01	64.43	64.46
Average Total Benefit*	\$28,738	\$28,228	\$54,867	\$57,310	\$83,656	\$86,166	\$65,114	\$66,928	\$56,611	\$57,961
Ordinary Disabled										
Number	2	2	0	0	0	0	0	0	2	2
Average Age	84.45	85.45	0.00	0.00	0.00	0.00	0.00	0.00	84.45	85.45
Average Total Benefit*	\$12,071	\$12,433	\$0	\$0	\$0	\$0	\$0	\$0	\$12,071	\$12,433
Total In Pay										
Number	298	311	131	140	127	131	258	271	556	582
Average Age	70.07	70.42	65.18	64.87	68.43	68.76	66.78	66.75	68.55	68.71
Average Total Benefit*	\$34,273	\$35,509	\$60,361	\$61,042	\$80,569	\$81,312	\$70,308	\$70,840	\$50,994	\$51,961
Terminated Vested										
Number	27	27	7	6	1	1	8	7	35	34
Average Age	48.29	49.54	46.36	46.81	50.84	51.84	46.92	47.53	47.97	49.13
Average Service	6.14	6.62	10.71	10.89	3.51	3.51	9.81	9.83	6.98	7.28
Transfers										
Number	69	75	18	14	6	4	24	18	93	93
Average Age	45.67	45.46	46.46	43.71	47.06	43.44	46.61	43.65	45.91	45.11
Average Service	3.30	3.14	5.36	4.20	3.21	3.88	4.82	4.13	3.69	3.33
Total Inactive										
Number	96	102	25	20	7	5	32	25	128	127
Average Age	46.41	46.54	46.43	44.64	47.60	45.12	46.69	44.74	46.48	46.19
Average Service	4.10	4.06	6.85	6.21	3.25	3.81	6.07	5.73	4.59	4.39



APPENDIX A – MEMBERSHIP INFORMATION

	Miscella	neous	Saf	ety	To	tal
	6/30/2017	6/30/2018	6/30/2017	6/30/2018	6/30/2017	6/30/201
Active Participants						
Number	10	9	64	65	74	7
Average Age	47.43	49.02	44.86	44.92	45.21	45.4
Average Service	9.82	10.47	14.82	14.91	14.14	14.3
Average Pay*	\$91,478	\$102,730	\$124,821	\$129,421	\$120,315	\$126,17
Service Retired						
Number	4	5	54	55	58	6
Average Age	66.03	64.77	66.66	67.46	66.62	67.2
Average Total Benefit*	\$40,632	\$34,432	\$100,551	\$104,948	\$96,419	\$99,07
Beneficiaries						
Number	1	1	14	14	15	1
Average Age	51.67	55.67	62.90	63.90	62.15	63.3
Average Total Benefit*	\$11,544	\$11,890	\$42,686	\$43,966	\$40,610	\$41,82
Duty Disabled						
Number	0	0	31	32	31	3
Average Age	0.00	0.00	69.47	69.96	69.47	69.9
Average Total Benefit*	\$0	\$0	\$67,400	\$71,412	\$67,400	\$71,41
Ordinary Disabled						
Number	0	0	0	0	0	
Average Age	0.00	0.00	0.00	0.00	0.00	0.0
Average Total Benefit*	\$0	\$0	\$0	\$0	\$0	\$
Total In Pay						
Number	5	6	99	101	104	10
Average Age	63.16	63.25	67.01	67.76	66.82	67.5
Average Total Benefit*	\$34,815	\$30,675	\$81,988	\$85,870	\$79,720	\$82,77
Terminated Vested						
Number	1	2	2	2	3	
Average Age	58.56	51.34	49.21	50.21	52.32	50.7
Average Service	6.16	9.27	4.82	4.82	5.26	7.0
Transfers						
Number	1	0	10	11	11	1
Average Age	54.73	0.00	43.71	43.07	44.71	43.0
Average Service	1.25	0.00	4.04	3.97	3.79	3.9
Total Inactive						
Number	2	2	12	13	14	1
Average Age	56.65	51.34	44.63	44.17	46.34	45.1
Average Service	3.71	9.27	4.17	4.10	4.10	4.7

Please refer to the June 30, 2018 actuarial valuation report for a more complete summary of the data.



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

A summary of the actuarial assumptions and methods used to calculate the Total Pension Liability as of June 30, 2019 is provided below, including any assumptions that differ from those used in the June 30, 2018 actuarial valuation. Please refer to the June 30, 2018 actuarial valuation report for a complete description of all other assumptions. The economic and demographic assumptions were adopted by the Board, based on an Experience Study performed by Cheiron covering the period from July 1, 2014 through June 30, 2017. The Experience Study report contains the rationale for all recommended assumptions.

Key Actuarial Assumptions

Expected Return on 7.00 percent per year, net of investment expenses

Assets

Discount Rate 7.00 percent per year

2.75% per year **Price Inflation**

Salary Increases 3.00% per year plus merit component based on employee classification

and years of service.

Administrative Expenses

Administrative expenses in the actuarial valuation are assumed to be \$5.065 million for FY2018-19, to be split between employees and employers based on their share of the overall contributions. Administrative expenses shown in this report are based on the actual

FY2018-19 amounts.

Postretirement

COLA

Post retirement COLAs are assumed at the rate of 2.7% for members with a 4% COLA cap, 2.6% for members with a 3% COLA cap, and

1.9% for members with a 2% COLA cap.

Mortality Rates for **Active Members**

Rates of mortality for active members are specified by CalPERS 2017 Pre-Retirement Non-Industrial Death rates (plus Duty-Related Death rates for Safety members), with the 15-year static projection used by CalPERS replaced by generational improvements from a base year of

2014 using Scale MP-2017.

Mortality Rates for Retired Healthy Members

Rates of mortality for retired members and their beneficiaries are given by CalPERS 2017 Post-Retirement Healthy Mortality rates, multiplied by 90% for Males (Miscellaneous and Safety), with the 15-year static projection used by CalPERS replaced by generational improvements

from a base year of 2014 using Scale MP-2017.

Mortality Rates for Retired Disabled Members

Rates of mortality among disabled members are given by CalPERS 2017 Disability Mortality rates (Non-Industrial rates for Miscellaneous members and Industrial Disability rates for Safety members), multiplied by 90% for Males (Miscellaneous and Safety) and 90% for Miscellaneous Females, with the 15-year static projection used by CalPERS replaced by generational improvements from a base year of 2014 using Scale MP-2017.



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APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

Actuarial Methods

1. Actuarial Cost Method

The actuarial valuation is prepared using the Entry Age Actuarial Cost Method (CERL 31453.5). Under the principles of this method, the actuarial present value of the projected benefits of each individual included in the valuation is allocated as a level percentage of the individual's projected compensation between entry age and assumed exit (until maximum retirement age). For members who transferred from outside of MCERA, entry age is based on entry into the system. The normal cost for the Plan is based on the sum of the individual normal costs for each member (Individual Entry Age Method).

The UAL (or Surplus Funding) is amortized as a percentage of the projected salaries of present and future members of MCERA. Effective with the June 30, 2013 valuation, the UAL as of June 30, 2013 is amortized over a closed 17-year period (12 years remaining as of June 30, 2018), except for the additional UAL attributable to the extraordinary loss from 2008-2009, which is being amortized over a separate closed period (20 years as of June 30, 2018). Surplus Funding is only amortized if the Plan's Funding Ratio exceeds 120%.

Any subsequent unexpected change in the Unfunded Actuarial Liability after June 30, 2013 is amortized over 24 years (22 years for assumption changes) that includes a five-year phase-in/out (three years for assumption changes) of the payments/credits for each annual layer.

2. Valuation of Assets

As of the June 30, 2014 valuation, assets are valued using the market value. The assets used to compute the UAL are the Market Value of Assets, minus the value of any non-valuation contingency reserves. The assets for each employer are allocated based on a roll-forward of the asset balances from the prior year, adjusted for employee and employer contributions, and are used to calculate the UAL amortizations for each employer. Assets are first allocated to cover the liabilities for inactive members (members in pay status or eligible to receive a deferred benefit), and any remaining assets are allocated to each group's active members based on the employer's share of the rolled-forward balances.



APPENDIX C – SUMMARY OF PLAN PROVISIONS

The plan provisions are the same as those summarized in the June 30, 2018 actuarial valuation report.



APPENDIX D – GLOSSARY OF TERMS

1. Actuarially Determined Contribution

A target or recommended contribution for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.

2. Actuarial Valuation Date

The date as of which an actuarial valuation is performed. This date may be up to 24 months prior to the measurement date and up to 30 months prior to the employer's reporting date.

3. Deferred Inflow of Resources

An acquisition of net assets by a government employer that is applicable to a future reporting period. In the context of GASB 68, these are experience gains on the Total Pension Liability, assumption changes reducing the Total Pension Liability, or investment gains that are recognized in future reporting periods.

4. Deferred Outflow of Resources

A consumption of net assets by a government employer that is applicable to a future reporting period. In the context of GASB 68, these are experience losses on the Total Pension Liability, assumption changes increasing the Total Pension Liability, or investment losses that are recognized in future reporting periods.

5. Entry Age Actuarial Cost Method

The actuarial cost method required for GASB 67 and 68 calculations. Under this method, the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings of the individual between entry age and assumed exit ages. The portion of this actuarial present value allocated to a valuation year is called the service cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future service costs is called the Total Pension Liability.

6. Measurement Date

The date as of which the Total Pension Liability and Plan Fiduciary Net Position are measured. The Total Pension Liability may be projected from the actuarial valuation date to the measurement date. The measurement date must be the same as the reporting date for the plan.



APPENDIX D – GLOSSARY OF TERMS

7. Net Pension Liability

The liability of employers and nonemployer contributing entities to employees for benefits provided through a defined benefit pension plan. It is calculated as the Total Pension Liability less the Plan Fiduciary Net Position. The Net Pension Liability is not appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling MCERA's benefit obligations in the event of a plan termination or other similar action. However, it is an appropriate measure for assessing the need for or the amount of future contributions.

8. Plan Fiduciary Net Position

The fair or Market Value of Assets.

9. Reporting Date

The last day of the plan or employer's fiscal year.

10. Service Cost

The portion of the actuarial present value of projected benefit payments that is attributed to the current period of employee service in conformity with the requirements of GASB 67 and 68. The service cost is the normal cost calculated under the entry age actuarial cost method.

11. Total Pension Liability

The portion of the actuarial present value of projected benefit payments that is attributed to past periods of employee service in conformity with the requirements of GASB 67 and 68. The Total Pension Liability is the Actuarial Liability calculated under the entry age actuarial cost method.



