

Mendocino County Employees' Retirement Association

Governmental Accounting Standards Board Statement 67 (GAS 67) Actuarial Valuation

As of June 30, 2020



This report has been prepared at the request of the Board of Retirement to assist in administering the Fund. This valuation report may not otherwise be copied or reproduced in any form without the consent of the Board of Retirement and may only be provided to other parties in its entirety, unless expressly authorized by Segal. The measurements shown in this actuarial valuation may not be applicable for other purposes.

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October 26, 2020

Board of Retirement
Mendocino County Employees' Retirement Association
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Dear Board Members:

We are pleased to submit this Governmental Accounting Standards (GAS) 67 Actuarial Valuation as of June 30, 2020. It contains various information that will need to be disclosed in order to comply with GAS 67.

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

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

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

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

Sincerely,

Segal

A handwritten signature in black ink, appearing to read "Paul Angelo", written over a horizontal line.

Paul Angelo, FSA, MAAA, FCA, EA
Senior Vice President and Actuary

A handwritten signature in black ink, appearing to read "Andy Yeung", written over a horizontal line.

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

ST/jl

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Section 1: Actuarial Valuation Summary

Purpose and basis

This report has been prepared by Segal to present certain disclosure information required by Statement No. 67 of the Governmental Accounting Standards Board as of June 30, 2020. This valuation is based on:

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

General observations on GAS 67 actuarial valuation

1. The Governmental Accounting Standards Board (GASB) rules only define pension liability and expense for financial reporting purposes, and do not apply to contribution amounts for pension funding purposes. Employers and plans still develop and adopt funding policies under current practices.
2. When measuring pension liability, GASB uses the same actuarial cost method (Entry Age) and the same type of discount rate (expected return on assets) as MCERA uses for funding. This means that the Total Pension Liability (TPL) measure for financial reporting shown in this report is determined on generally the same basis as MCERA's Actuarial Accrued Liability (AAL) measure for funding. We note that the same is generally true for the Normal Cost component of the annual plan cost for funding and financial reporting.
3. The Net Pension Liability (NPL) is equal to the difference between the TPL and the Plan's Fiduciary Net Position (plan assets). The Plan's Fiduciary Net Position is equal to the market value of assets and therefore, the NPL measure is very similar to an Unfunded Actuarial Accrued Liability (UAAL) calculated on a market value basis. The NPL reflects all investment gains and losses as of the measurement date. This is different from the UAAL calculated on an actuarial value of assets basis in the funding valuation that reflects investment gains and losses over a five-year period.

Section 1: Actuarial Valuation Summary

Highlights of the valuation

1. The NPL was measured as of June 30, 2020 and June 30, 2019 and determined based upon the results of the actuarial valuations as of June 30, 2020 and June 30, 2019, respectively.
2. The NPL increased from \$214.8 million as of June 30, 2019 to \$256.9 million as of June 30, 2020. This was mainly due to (a) the return on the market value of assets of 2.80% during 2019/2020 that was less than the assumption of 7.00% used in the June 30, 2019 valuation (that loss was about \$22.2 million), (b) changes in actuarial assumptions (that loss was about \$15.8 million), and (c) higher than expected salary increases for continuing active members (that loss was about \$5.8 million). Changes in these values during the last two fiscal years ending June 30, 2019 and June 30, 2020 can be found in *Section 2, Schedule of Changes in Net Pension Liability* on page 16.
3. The discount rates used to determine the TPLs and NPLs as of June 30, 2020 and 2019 were 6.75% and 7.00%, respectively, following the same assumptions used by the Association in the pension funding valuations as of the same dates. The detailed calculations used in this derivation as of June 30, 2020 can be found in *Section 3, Appendix A*. Various other information that is required to be disclosed can be found throughout *Section 2*.
4. On July 30, 2020, the California Supreme Court issued a decision in the case of Alameda County Deputy Sheriffs' Association et al. v. Alameda County Employees' Retirement Association and Board of Retirement of ACERA. That decision may affect the benefits paid by MCERA to its members and the contributions received by MCERA from its members. However, it should be noted that on the date of this valuation as of June 30, 2020, neither the assets provided by MCERA nor the liabilities we calculated using the membership data provided by MCERA reflect the financial impact of that decision on MCERA.
5. It is important to note that this actuarial valuation is based on plan assets as of June 30, 2020. Due to the COVID-19 pandemic, market conditions have changed significantly during 2020. The Plan's funded status does not reflect short-term fluctuations of the market, but rather is based on the market values on the last day of the Plan Year. While it is impossible to determine how the pandemic will continue to affect market conditions prior to next year's valuation, Segal is available to prepare projections of potential outcomes upon request.

Section 1: Actuarial Valuation Summary

Summary of key valuation results

Measurement Date		June 30, 2020	June 30, 2019
Disclosure elements for plan year ending June 30:	• Service cost ¹	\$13,639,319	\$13,422,284
	• Total Pension Liability	795,845,448	747,481,137
	• Plan's Fiduciary Net Position	538,989,213	532,727,019
	• Net Pension Liability	256,856,235	214,754,118
Schedule of contributions for plan year ending June 30:	• Actuarially determined contributions	\$24,647,132	\$23,702,064
	• Actual contributions	24,647,132	23,702,064
	• Contribution deficiency / (excess)	0	0
Demographic data for plan year ending June 30:	• Number of retired members and beneficiaries	1,587	1,552
	• Number of vested terminated members ²	546	515
	• Number of active members	1,140	1,151
Key assumptions as of June 30:	• Investment rate of return	6.75%	7.00%
	• Inflation rate	2.75%	3.00%
	• Projected salary increases ³	Ranges from 8.25% to 4.25%, based on years of service	Ranges from 8.50% to 4.00%, based on years of service

¹ The service cost is based on the previous year's valuation, meaning the June 30, 2020 and 2019 values are based on the valuations as of June 30, 2019 and June 30, 2018, respectively. Both service costs have been calculated using the assumptions shown in the June 30, 2019 column, as there had been no changes in the actuarial assumptions between the June 30, 2018 and June 30, 2019 valuations.

² Includes terminated members due a refund of employee contributions.

³ Includes inflation at 2.75% (3.00% for the June 30, 2019 valuation) plus real across the board salary increase of 0.50% plus merit and promotion increases.

Section 1: Actuarial Valuation Summary

Important information about actuarial valuations

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

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

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

Section 1: Actuarial Valuation Summary

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

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

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

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

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

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

Section 2: GAS 67 Information

General information about the pension plan

Plan Description

Plan administration. The Mendocino County Employees' Retirement Association (MCERA) was established by the County of Mendocino on January 1, 1948. MCERA is administered by the Board of Retirement (Board) and governed by the County Employees' Retirement Law of 1937 (California Government Code Section 31450 et. seq.). MCERA is a cost-sharing multiple employer public employee retirement system whose main function is to provide service retirement, disability, death and survivor benefits to the General and Safety (Law Enforcement or Probation) members employed by the County of Mendocino. MCERA also provides retirement benefits to the employee members of the Mendocino County Courts and the Russian River Cemetery District.

The management of MCERA is vested with the Mendocino County Board of Retirement. The Board consists of nine members and one alternate. The County Treasurer is a member of the Board of Retirement by law. Four members are appointed by the Board of Supervisors, one of whom may be a County Supervisor. Two members are elected by the General membership, one member is elected by the Safety membership, and one member is elected by the retired members of the Association. All members of the Board of Retirement serve terms of three years except for the County Treasurer whose term runs concurrent with her term as County Treasurer.

Plan membership. At June 30, 2020, pension plan membership consisted of the following:

Retired members or beneficiaries currently receiving benefits	1,587
Vested terminated members entitled to, but not yet receiving benefits ¹	546
Active members	<u>1,140</u>
Total	3,273

¹ Includes terminated members due a refund of employee contributions.

Benefits provided. MCERA provides service retirement, disability, death and survivor benefits to eligible employees. All permanent employees of the County of Mendocino or contracting districts who work at least 32 hours per week become members of MCERA effective on the first day of the pay period following employment (although, employees who are age 60 or older at their date of hire may waive MCERA membership). There are separate retirement plans for General, Safety, and Probation member employees. Any new employees who become members on or after January 1, 2013 are subject to the provisions of California Public Employees' Pension Reform Act of 2013 (PEPRA), California Government Code 7522 et seq. and Assembly Bill (AB) 197.

Section 2: GAS 67 Information

General members hired prior to January 1, 2013 are eligible to retire once they attain the age of 50 and have acquired 5 or more years of retirement service credit and 10 years of membership. A member with 30 years of service is eligible to retire regardless of age. A member who is age 70 or older is eligible to retire. General members who are first hired on or after January 1, 2013 are eligible to retire once they have attained the age of 52, and have acquired 5 years of retirement service credit, or age 70.

Safety and Probation members hired prior to January 1, 2013 are eligible to retire once they attain the age of 50 and have acquired 5 or more years of retirement service credit and 10 years of membership. A member with 20 years of service is eligible to retire regardless of age. A member who is age 70 or older is eligible to retire. Safety and Probation members who are first hired on or after January 1, 2013 are eligible to retire once they have attained the age of 50, and have acquired 5 years of retirement service credit, or age 70.

The retirement benefit the member will receive is based upon age at retirement, final average compensation, years of retirement service credit and retirement plan and tier.

General member benefits are calculated pursuant to the provisions of Section 31676.12¹. The monthly allowance is equal to 1/50th of final compensation times years of accrued retirement service credit times the age factor from Section 31676.12. General member benefits for those who are first hired on or after January 1, 2013 are calculated pursuant to the provision of California Government Code Section 7522.20(a). The monthly allowance is equal to the final compensation² multiplied by years of accrued retirement credit multiplied by the age factor from Section 7522.20(a).

Safety member benefits are calculated pursuant to the provisions of Section 31664.2. The monthly allowance is equal to 3% of final compensation times years of accrued retirement service credit times the age factor from Section 31664.2. Safety member benefits for those who are first hired on or after January 1, 2013 are calculated pursuant to the provision of California Government Code Section 7522.25(d). The monthly allowance is equal to the final compensation multiplied by years of accrued retirement credit multiplied by the age factor from Section 7522.25(d).

Probation member benefits are calculated pursuant to the provisions of Section 31664. The monthly allowance is equal to 1/50th of final compensation times years of accrued retirement service credit times the age factor from Section 31664. Probation member benefits for those who are first hired on or after January 1, 2013 are calculated pursuant to the provision of California Government Code Section 7522.25(d). The monthly allowance is equal to the final compensation multiplied by years of accrued retirement credit multiplied by the age factor from Section 7522.25(d).

¹ For members in Bargaining Groups 01 and 101 who have service prior to October 1, 2003 and who have not purchased this service to be covered under Section 31676.12, their prior service will be covered under Section 31676.11 for Tier 1 and Tier 2 and Section 31676.1 for Tier 3. For all other Bargaining Groups, the prior service date is January 1, 2002 (instead of October 1, 2003).

² California Government Code Section 7522.32(a) states that "Final compensation shall mean the highest average annual pensionable compensation earned by the member during a period of at least 36 consecutive months, or at least three consecutive school years if applicable, immediately preceding his or her retirement or last separation from service if earlier, or during any other period of at least 36 consecutive months, or at least three consecutive school years if applicable, during the member's applicable service that the member designates on the application for retirement."

Section 2: GAS 67 Information

For members with membership dates before January 1, 2013, the maximum monthly retirement allowance at retirement is 100% of final compensation.

Final average compensation consists of the highest 12 consecutive months of pay for a General Tier 1, Safety Tier 1, or Probation Tier 1 member, and the highest 36 consecutive months for all other members.

The member may elect an unmodified retirement allowance, or choose an optional retirement allowance. The unmodified retirement allowance provides the highest monthly benefit and a 60% continuance to an eligible surviving spouse or domestic partner. An eligible surviving spouse or domestic partner is someone who is married to or registered with the member one year prior to the effective retirement date. There are two optional retirement allowances the member may choose, that is, Option 1 (cash refund) and Option 2 (100% continuance). Each of the optional retirement allowances requires a reduction in the unmodified retirement allowance in order to allow the member the ability to provide certain benefits to a surviving spouse, domestic partner, or named beneficiary having an insurable interest in the life of the member.

MCERA provides an annual cost-of-living benefit to all non-PEPRA retirees. The cost-of-living adjustment, based upon the Consumer Price Index prepared by the Bureau of Labor Statistics that applies to the West Region, is capped at 3.0%.

The County of Mendocino and contracting districts contribute to the retirement plan based upon actuarially determined contribution rates adopted by the Board of Retirement. Employer contribution rates are adopted annually based upon recommendations received from MCERA's actuary after the completion of the annual actuarial valuation. The average employer contribution rate as of June 30, 2020 for 2019-2020 (based on the June 30, 2018 valuation) was 34.21% of covered payroll.

All members are required to make contributions to MCERA regardless of the retirement plan or tier in which they are included; however, non-PEPRA members with 30 or more years of service are exempt from paying member contributions. The average member contribution rate as of June 30, 2020 for 2019-2020 (based on the June 30, 2018 valuation) was 9.47% of covered payroll.

Section 2: GAS 67 Information

Net Pension Liability

Measurement Date	June 30, 2020	June 30, 2019
Components of the Net Pension Liability		
Total Pension Liability	\$795,845,448	\$747,481,137
Plan's Fiduciary Net Position	<u>538,989,213</u>	<u>532,727,019</u>
Net Pension Liability	\$256,856,235	\$214,754,118
Plan's Fiduciary Net Position as a percentage of the Total Pension Liability	67.7%	71.3%

The Net Pension Liability was measured as of June 30, 2020 and 2019. The Plan's Fiduciary Net Position was valued as of the measurement date while the Total Pension Liability was generally determined based upon the results of the actuarial valuations as of June 30, 2020 and 2019, respectively. Note, however, that the calculations of the TPL measured as of June 30, 2020 and June 30, 2019 are slightly different than the calculations of the AAL in the actuarial funding valuations as of June 30, 2020 and June 30, 2019, respectively.¹

Plan provisions. The plan provisions used in the measurement of the NPL as of June 30, 2020 and 2019 are the same as those used in the MCERA funding valuations as of June 30, 2020 and 2019, respectively.

Actuarial assumptions. The TPL as of June 30, 2020 was determined by an actuarial valuation as of June 30, 2020. The actuarial assumptions used in this June 30, 2020 valuation were based on the results of an experience study for the period from July 1, 2016 through June 30, 2019. They are the same as the assumptions used in the June 30, 2020 funding actuarial valuation for MCERA. In particular, the following actuarial assumptions were applied to all periods included in the measurement:

Inflation:	2.75%
Salary increases:	Ranges from 8.25% to 4.25%, based on years of service, including inflation
Investment rate of return:	6.75%, net of pension plan investment expense, including inflation
Other assumptions:	Same as those used in the June 30, 2020 actuarial valuation

¹ For the actuarial funding valuation, the Normal Cost and Actuarial Accrued Liability are determined as if the current benefit accrual rate had always been in effect.

Section 2: GAS 67 Information

The TPL as of June 30, 2019 was determined by an actuarial valuation as of June 30, 2019. The actuarial assumptions used in the June 30, 2019 valuation were based on the results of an experience study for the period from July 1, 2013 through June 30, 2016. They are the same as the assumptions used in the June 30, 2019 funding actuarial valuation for MCERA. In particular, the following actuarial assumptions were applied to all periods included in the measurement:

Inflation:	3.00%
Salary increases:	Ranges from 8.50% to 4.00%, based on years of service, including inflation
Investment rate of return:	7.00%, net of pension plan investment expense, including inflation
Other assumptions:	Same as those used in the June 30, 2019 actuarial valuation

Section 2: GAS 67 Information

Determination of discount rate and investment rates of return

The long-term expected rate of return on pension plan investments was determined in 2020 using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation and subtracting expected investment expenses and a risk margin. The target allocation and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before deducting investment expenses are summarized below. These values were used in the derivation of the long-term expected investment rate of return assumption for the actuarial valuation as of June 30, 2020. This information is subject to change every three years based on the actuarial experience study.

Asset Class	Target Allocation	Long-Term Expected Arithmetic Real Rate of Return
Large Cap U.S. Equity	24.7%	5.49%
Small Cap U.S. Equity	12.3%	6.10%
Global ex-US Equity	25.0%	6.84%
Domestic Fixed Income	21.0%	1.09%
Real Estate	11.0%	4.59%
Infrastructure	6.0%	5.30%
Total	100.0%	

Discount rate. The discount rate used to measure the TPL was 6.75% as of June 30, 2020 and 7.00% as of June 30, 2019. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the actuarially determined contribution rates. For this purpose, only employee and employer contributions that are intended to fund benefits for current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs of future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the pension Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments for current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the TPL as of both June 30, 2020 and June 30, 2019.

Section 2: GAS 67 Information

Discount rate sensitivity

Sensitivity of the Net Pension Liability to changes in the discount rate. The following presents the NPL of MCERA as of June 30, 2020, calculated using the discount rate of 6.75%, as well as what MCERA's NPL would be if it were calculated using a discount rate that is 1-percentage-point lower (5.75%) or 1-percentage-point higher (7.75%) than the current rate:

	1% Decrease (5.75%)	Current Discount Rate (6.75%)	1% Increase (7.75%)
MCERA's Net Pension Liability as of June 30, 2020	\$361,696,160	\$256,856,235	\$170,598,671

Section 2: GAS 67 Information

Schedule of changes in Net Pension Liability

Measurement Date	June 30, 2020	June 30, 2019
Total Pension Liability		
• Service cost ¹	\$13,639,319	\$13,422,284
• Interest	51,921,209	49,910,705
• Change of benefit terms	0	0
• Differences between expected and actual experience	5,755,507	2,897,805
• Changes of assumptions	15,826,063	0
• Benefit payments, including refunds of member contributions	-38,777,787	-36,674,901
Net change in Total Pension Liability	\$48,364,311	\$29,555,893
Total Pension Liability – beginning	<u>\$747,481,137</u>	<u>\$717,925,244</u>
Total Pension Liability – ending	<u>\$795,845,448</u>	<u>\$747,481,137</u>
Plan’s Fiduciary Net Position		
• Contributions – employer	\$24,647,132	\$23,702,064
• Contributions – member	6,820,687	6,544,192
• Net investment income	14,798,654	19,959,119
• Benefit payments, including refunds of member contributions	-38,777,787	-36,674,901
• Administrative expense	-1,226,492	-1,233,416
• Other	0	0
Net change in Plan’s Fiduciary Net Position	\$6,262,194	\$12,297,058
Plan’s Fiduciary Net Position – beginning	<u>\$532,727,019</u>	<u>\$520,429,961</u>
Plan’s Fiduciary Net Position – ending	<u>\$538,989,213</u>	<u>\$532,727,019</u>
Net Pension Liability – ending	<u>\$256,856,235</u>	<u>\$214,754,118</u>
Plan’s Fiduciary Net Position as a percentage of the Total Pension Liability	67.7%	71.3%
Covered payroll²	\$72,040,768	\$68,254,197
Net Pension Liability as percentage of covered payroll	356.5%	314.6%

¹ The service cost is based on the previous year’s valuation, meaning the June 30, 2020 and 2019 values are based on the valuations as of June 30, 2019 and June 30, 2018, respectively. Both service costs have been calculated using the assumptions shown on page 6 in the June 30, 2019 column, as there had been no changes in the actuarial assumptions between the June 30, 2018 and June 30, 2019 valuations.

² Covered payroll represents Compensation Earnable and Pensionable Compensation and is defined as the payroll on which contributions to the pension plan are based.

Section 2: GAS 67 Information

Schedule of contributions

Year Ended June 30	Actuarially Determined Contributions ¹	Contributions in Relation to the Actuarially Determined Contributions	Contribution Deficiency / (Excess)	Covered Payroll ²	Contributions as a Percentage of Covered Payroll
2011	\$9,553,955	\$9,553,955	\$0	\$64,252,118	14.87%
2012	11,811,076	11,811,076	0	56,291,191	20.98%
2013	14,260,473	14,260,473	0	53,254,876	26.78%
2014	14,324,752	14,324,752	0	53,813,882	26.62%
2015	15,164,044	15,164,044	0	54,891,785	27.63%
2016	19,129,191	19,129,191	0	57,407,928	33.32%
2017	19,116,426	19,116,426	0	59,801,480	31.97%
2018	20,430,644	20,430,644	0	64,340,578	31.75%
2019	23,702,064 ³	23,702,064 ³	0	68,254,197	34.73%
2020	24,647,132	24,647,132	0	72,040,768	34.21%

¹ Prior to year ended June 30, 2014, this amount was the Annual Required Contribution (ARC).

² Covered payroll represents Compensation Earnable and Pensionable Compensation and is defined as the payroll on which contributions to the pension plan are based.

³ As referenced on page 6 of the June 30, 2019 funding valuation report, this amount includes additional UAAL contributions made by the Mendocino County Superior Court and the Russian River Cemetery District during FY 2018/2019 based on the minimum dollar UAAL amortization amount for FY 2017/2018. We understand that the Mendocino County Superior Court and the Russian River Cemetery District had paid \$31,588 and \$5,949 less than the minimum UAAL contributions in FY 2017/2018, respectively.

See accompanying notes to this schedule on the next page.

Section 2: GAS 67 Information

Notes to Schedule:

Methods and assumptions used to establish “actuarially determined contribution” (ADC) rates:

Valuation date:	Actuarially determined contribution rates are calculated as of June 30, two years prior to the end of the fiscal year in which contributions are reported
Actuarial cost method:	Entry Age Cost Method (individual basis)
Amortization method:	Level percent of payroll for total unfunded liability
Remaining amortization period:	Prior to July 1, 2012, the total UAAL was being amortized on a 30-year decreasing period, with 27 years remaining as of June 30, 2012 (and 19 years remaining as of June 30, 2020). On or after July 1, 2012, any new UAAL resulting from plan amendments are amortized over separate decreasing 15-year periods; early retirement incentive programs (ERIPs) are amortized over separate decreasing 5-year periods; assumption and method changes are amortized over separate decreasing 18-year periods; and experience gains/losses are also amortized over separate decreasing 18-year periods.
Asset valuation method:	Market Value of Assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual market return and the expected return on the market value, and is recognized over a five-year period, further adjusted, if necessary, to be within 25% of the market value. The Valuation Value of Assets is the Actuarial Value of Assets reduced by the value of the non-valuation reserves.

Section 2: GAS 67 Information

Actuarial assumptions:

Valuation Date:	June 30, 2018 (for the year ended June 30, 2020 ADC)
Investment rate of return:	7.00%
Inflation rate:	3.00%
Real across-the-board salary increase:	0.50%
Projected salary increases: ¹	Ranges from 8.50% to 4.00%, based on years of service
Cost of living adjustments:	3.00% of retirement income for General Tiers 1, 2, and 3, Safety Tiers 1 and 2, and Probation Tiers 1 and 2
Mortality:	Healthy: Headcount-Weighted RP-2014 (RPH-2014) Healthy Annuitant Mortality Tables, set back one year for males and set forward one year for females, projected 20 years with the two-dimensional mortality improvement Scale MP-2016
Other assumptions:	Same as those used in the June 30, 2018 funding actuarial valuation

¹ Includes inflation at 3.00% plus across the board salary increases of 0.50% plus merit and promotion increases.

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Appendix A: Projection of Plan's Fiduciary Net Position for use in the Calculation of Discount Rate as of June 30, 2020 (\$ in millions)

Year Beginning July 1,	Projected Beginning Plan Fiduciary Net Position (a)	Projected Total Contributions (b)	Projected Benefit Payments (c)	Projected Administrative Expenses (d)	Projected Investment Earnings (e)	Projected Ending Plan Fiduciary Net Position (f) = (a) + (b) - (c) - (d) + (e)
2019	\$533	\$31	\$39	\$1	\$15	\$539
2020	539	33	44	1	36	563
2021	563	33	45	1	37	587
2022	587	33	47	1	39	611
2023	611	34	49	1	40	634
2024	634	34	51	1	42	657
2025	657	34	53	2	43	680
2026	680	34	55	2	45	702
2027	702	35	57	2	46	724
2028	724	35	60	2	48	746
2044	825	5 *	74	2	53	807
2045	807	5 *	74	2	52	788
2046	788	5 *	73	2	51	768
2047	768	4 *	73	2	49	747
2048	747	4 *	72	2	48	726
2093	627	2 *	2	1	42	667
2094	667	2 *	1	2	45	711
2095	711	2 *	1	2	48	759
2096	759	2 *	1	2	51	809
2097	809	2 *	1	2	55	863
2123	4,414	10 *	0 **	10	298	4,712
2124	4,712					
2124	Discounted Value: 5 ***					

* Mainly attributable to employer contributions to fund each year's annual administrative expenses.

** Less than \$1 million, when rounded.

*** \$4,712 million when discounted with interest at the rate of 6.75% per annum has a value of \$5 million (or 0.98% of the Plan Fiduciary Net Position) as of June 30, 2020.

Note that in preparing the above projections, we have not taken into consideration the one-year delay between the date of the contribution rate calculation and the implementation.

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Notes:

1. Amounts may not total exactly due to rounding.
2. Amounts shown for the year beginning July 1, 2019 row are actual amounts, based on the unaudited financial statements provided by MCERA.
3. Various years have been omitted from this table.
4. Column (a): Except for the "discounted value" shown for 2124, none of the projected beginning Plan Fiduciary Net Position amounts shown have been adjusted for the time value of money.
5. Column (b): Projected total contributions include employee and employer normal cost contributions based on closed group projections (based on covered active members as of June 30, 2020; plus employer contributions to the unfunded actuarial accrued liability; plus contributions to fund each year's annual administrative expenses reflecting an 18-year amortization schedule. Contributions are assumed to occur halfway through the year, on average.
6. Column (c): Projected benefit payments have been determined in accordance with paragraph 39 of GAS Statement No. 67, and are based on the closed group of active, inactive vested, retired members, and beneficiaries as of June 30, 2020. The projected benefit payments reflect the cost of living increase assumptions used in the June 30, 2020 report. In accordance with paragraph 31.b.(1)(e) of GASB Statement No. 67, the long-term expected rate of return on Plan investments of 6.75% was applied to all periods of projected benefit payments to determine the discount rate.
7. Column (d): Projected administrative expenses are calculated as approximately 0.23% of the projected beginning Plan Fiduciary Net Position amount. The 0.23% proportion was based on the actual fiscal year 2019-2020 administrative expenses as a percentage of the beginning Plan Fiduciary Net Position amount as of July 1, 2019. Administrative expenses are assumed to occur halfway through the year, on average.
8. Column (e): Projected investment earnings are based on the assumed investment rate of return of 6.75% per annum.
9. As illustrated in this Appendix, the Plan Fiduciary Net Position was projected to be available to make all projected future benefit payments for current Plan members. In other words, there is no projected "cross-over date" when projected benefits are not covered by projected assets. Therefore, the long-term expected rate of return on Plan investments of 6.75% per annum was applied to all periods of projected benefit payments to determine the Total Pension Liability as of June 30, 2020 shown earlier in this report, pursuant to paragraph 44 of GASB Statement No. 67.
10. This projection is based on a model developed by our Actuarial Technology and Systems unit, comprised of both actuaries and programmers. The model allows the client team, under the supervision of the responsible actuary, control over the entry of future expected contribution income, benefit payments and administrative expenses. The projection of fiduciary net position and the discounting of benefits is part of the model.

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Appendix B: Definition of Terms

Definitions of certain terms as they are used in Statement 67. The terms may have different meanings in other contexts.

Actuarial Present Value of Projected Benefit Payments:	Projected benefit payments discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment.
Actuarial Valuation:	The determination, as of a point in time (the actuarial valuation date), of the service cost, Total Pension Liability, and related actuarial present value of projected benefit payments for pensions performed in conformity with Actuarial Standards of Practice unless otherwise specified by the GASB.
Actuarial Valuation Date:	The date as of which an actuarial valuation is performed.
Actuarially Determined Contribution:	A target or recommended contribution to a defined benefit pension plan 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.
Ad Hoc Cost-of-Living Adjustments (Ad Hoc COLAs):	Cost-of-living adjustments that require a decision to grant by the authority responsible for making such decisions.
Ad Hoc Postemployment Benefit Changes:	Postemployment benefit changes that require a decision to grant by the authority responsible for making such decisions.
Automatic Cost-of-Living Adjustments (Automatic COLAs):	Cost-of-living adjustments that occur without a requirement for a decision to grant by a responsible authority, including those for which the amounts are determined by reference to a specified experience factor (such as the earnings experience of the pension plan) or to another variable (such as an increase in the consumer price index).
Automatic Postemployment Benefit Changes:	Postemployment benefit changes that occur without a requirement for a decision to grant by a responsible authority, including those for which the amounts are determined by reference to a specified experience factor (such as the earnings experience of the pension plan) or to another variable (such as an increase in the consumer price index).
Cost-of-Living Adjustments:	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
Cost-Sharing Multiple-Employer Defined Benefit Pension Plan (Cost-Sharing Pension Plan):	A multiple-employer defined benefit pension plan in which the pension obligations to the employees of more than one employer are pooled and pension plan assets can be used to pay the benefits of the employees of any employer that provides pensions through the pension plan.
Covered Payroll:	Payroll on which contributions to the pension plan are based.
Defined Benefit Pension Plans:	Pension plans that are used to provide defined benefit pensions.

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Defined Benefit Pensions:	Pensions for which the income or other benefits that the employee will receive at or after separation from employment are defined by the benefit terms. The pensions may be stated as a specified dollar amount or as an amount that is calculated based on one or more factors such as age, years of service, and compensation. (A pension that does not meet the criteria of a defined contribution pension is classified as a defined benefit pension for purposes of Statement 67.)
Defined Contribution Pension Plans:	Pension plans that are used to provide defined contribution pensions.
Defined Contribution Pensions:	Pensions having terms that (1) provide an individual account for each employee; (2) define the contributions that an employer is required to make (or the credits that it is required to provide) to an active employee's account for periods in which that employee renders service; and (3) provide that the pensions an employee will receive will depend only on the contributions (or credits) to the employee's account, actual earnings on investments of those contributions (or credits), and the effects of forfeitures of contributions (or credits) made for other employees, as well as pension plan administrative costs, that are allocated to the employee's account.
Discount Rate:	<p>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:</p> <ol style="list-style-type: none">1. 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 (under the requirements of Statement 67) 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 expected 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.
Entry Age Actuarial Cost Method:	A method under which 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 or service of the individual between entry age and assumed exit age(s). The portion of this actuarial present value allocated to a valuation year is called the normal cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is called the actuarial accrued liability.
Inactive Employees:	Terminated individuals that have accumulated benefits but are not yet receiving them, and retirees or their beneficiaries currently receiving benefits.
Multiple-Employer Defined Benefit Pension Plan:	A defined benefit pension plan that is used to provide pensions to the employees of more than one employer.
Net Pension Liability (NPL):	The liability of employers and non-employer contributing entities to employees for benefits provided through a defined benefit pension plan.

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Other Postemployment Benefits:	All postemployment benefits other than retirement income (such as death benefits, life insurance, disability, and long-term care) that are provided separately from a pension plan, as well as postemployment healthcare benefits, regardless of the manner in which they are provided. Other postemployment benefits do not include termination benefits.
Pension Plans:	Arrangements through which pensions are determined, assets dedicated for pensions are accumulated and managed and benefits are paid as they come due.
Pensions:	Retirement income and, if provided through a pension plan, postemployment benefits other than retirement income (such as death benefits, life insurance, and disability benefits). Pensions do not include postemployment healthcare benefits and termination benefits.
Plan Members:	Individuals that are covered under the terms of a pension plan. Plan members generally include (1) employees in active service (active plan members) and (2) terminated employees who have accumulated benefits but are not yet receiving them and retirees or their beneficiaries currently receiving benefits (inactive plan members).
Postemployment:	The period after employment.
Postemployment Benefit Changes:	Adjustments to the pension of an inactive employee.
Postemployment Healthcare Benefits:	Medical, dental, vision, and other health-related benefits paid subsequent to the termination of employment.
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 their expected future service.
Public Employee Retirement System:	A special-purpose government that administers one or more pension plans; also may administer other types of employee benefit plans, including postemployment healthcare plans and deferred compensation plans.
Real Rate of Return:	The rate of return on an investment after adjustment to eliminate inflation.
Service Costs:	The portions of the actuarial present value of projected benefit payments that are attributed to valuation years.
Single-Employer Defined Benefit Pension Plan (Single-Employer Pension Plan):	A defined benefit pension plan that is used to provide pensions to employees of only one employer.
Termination Benefits:	Inducements offered by employers to active employees to hasten the termination of services, or payments made in consequence of the early termination of services. Termination benefits include early-retirement incentives, severance benefits, and other termination-related benefits.
Total Pension Liability (TPL):	The portion of the actuarial present value of projected benefit payments that is attributed to past periods of employee service in conformity with the requirements of Statement 67.