

Mendocino County Employees' Retirement Association (MCERA)

Governmental Accounting Standards Board Statement 68 (GAS 68)

Actuarial Valuation Based on June 30, 2020
Measurement Date for Employer Reporting
as of June 30, 2021



This report has been prepared at the request of the Board of Retirement to assist the sponsors of the Fund in preparing their financial report for their liabilities associated with the MCERA pension plan. 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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July 7, 2021

Board of Retirement
Mendocino County Employees' Retirement Association
625-B Kings Court
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Dear Board Members:

We are pleased to submit this Governmental Accounting Standards (GAS) 68 Actuarial Valuation based on a June 30, 2020 measurement date for employer reporting as of June 30, 2021. It contains various information that will need to be disclosed in order for MCERA employers to comply with GAS 68.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist the sponsors in preparing their financial report for their liabilities associated with the MCERA pension plan. The census and financial information on which our calculations were based was provided 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, 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 Retirement 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".

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

A handwritten signature in black ink, appearing to read "Andy Yeung".

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 Governmental Accounting Standards (GAS) 68 for employer reporting as of June 30, 2021. The results used in preparing this GAS 68 report are comparable to those used in preparing the Governmental Accounting Standard 67 report for the plan based on a reporting date and a measurement date 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 adopted by the Board for the June 30, 2020 valuation; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc. adopted by the Board for the June 30, 2020 valuation.

General Observations on GAS 68 Actuarial Valuation

1. It is important to note that 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 method) 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

Section 1: Actuarial Valuation Summary

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.

Highlights of the Valuation

1. For this report, the reporting dates for the employer are June 30, 2021 and June 30, 2020. 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. The Plan's Fiduciary Net Position and the TPL were valued as of the measurement dates. Consistent with the provisions of GAS 68, the assets and liabilities measured as of June 30, 2020 and June 30, 2019 are not adjusted or rolled forward to the June 30, 2021 and June 30, 2020 reporting dates, 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 17.
3. There was an increase in the total employer Pension Expense from \$40.1 million calculated last year to \$41.8 million calculated this year. The primary causes of the increase were (a) the change in actuarial assumptions, (b) interest on the TPL, (c) unfavorable investment return, and (d) the recognition of prior-period losses in developing last year's pension expense, offset somewhat by (e) the recognition of prior-period gains in developing last year's pension expense.
4. The discount rates used to determine the TPL and NPL 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 the derivation of the discount rate of 6.75% used in the calculation of the TPL and NPL 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*.
5. The Safety and Probation membership classes have only one employer (the County), so all of the NPL for Safety and Probation is allocated to the County.

Section 1: Actuarial Valuation Summary

For the General membership class, the NPLs as of June 30, 2019 and June 30, 2020 are allocated based on the actual employer contributions within that class made during 2018/2019 and 2019/2020, respectively. The steps we used for the allocation are as follows:

- a. First calculate the ratio of the employer's contributions to the total contributions for the membership class.
- b. This ratio is multiplied by the NPL for the membership class to determine the employer's proportionate share of the NPL for the membership class.

If the employer is in several membership classes, the employer's total allocated NPL is the sum of its allocated NPL from each membership class. The proportionate share of the total plan NPL is then the ratio of the employer's total allocated NPL to the total NPL of all employers.

The NPL allocation can be found in *Section 2, Determination of Proportionate Share* starting on page 20.

6. Results shown in this report exclude any employer contributions made after the measurement date of June 30, 2020. The employer should consult with their auditor to determine the deferred outflow that should be created for these contributions.
7. 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.
8. 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 since the onset of the Public Health Emergency. 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. Moreover, this actuarial valuation does not include any possible short-term or long-term impacts on mortality of the covered population that may emerge after June 30, 2020. While it is impossible to determine how the pandemic will continue to affect market conditions and other demographic experience of the plan in future valuations, Segal is available to prepare projections of potential outcomes upon request.

Section 1: Actuarial Valuation Summary

Summary of Key Valuation Results

Reporting Date for Employer under GAS 68		June 30, 2021 ¹	June 30, 2020 ²
Measurement Date for Employer under GAS 68		June 30, 2020	June 30, 2019
Disclosure Elements for Fiscal Year Ending June 30:	• Service Cost ³	\$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
	• Pension expense	41,750,030	40,085,911
Schedule of Contributions for Fiscal 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 ⁴	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 ⁵	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 reporting date and measurement date for the Plan are June 30, 2020.

² The reporting date and measurement date for the Plan are June 30, 2019.

³ The service cost is based on the previous year's valuation, meaning the June 30, 2020 and June 30, 2019 measurement date 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 measurement date column, as there had been no changes in the actuarial assumptions between the June 30, 2018 and June 30, 2019 valuations.

⁴ Includes terminated members due a refund of employee contributions.

⁵ Includes inflation at 2.75% (3.00% for the June 30, 2019 measurement date) plus real across-the-board salary increases 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. 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 (if any). The projected benefits are then discounted to a present value, based on the assumed rate of return that is expected to be achieved on the plan’s assets. There is a reasonable range for each assumption used in the projection and the results may vary materially based on which assumptions are selected. It is important for any user of an actuarial valuation to understand this concept. Actuarial assumptions are periodically reviewed to ensure that future valuations reflect emerging plan experience. While future changes in actuarial assumptions may have a significant impact on the reported results, that does not mean that the previous assumptions were unreasonable.
Models	Segal valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are presented to meet regulatory, legislative and client requirements. Our Actuarial Technology and Systems unit, comprised of both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuary.

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 sponsors of the Fund 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 68 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	1,140
Total	3,273

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

¹ Includes terminated members due a refund of employee contributions.

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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.

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

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."

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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).

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 four optional retirement allowances the member may choose. 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 68 Information

Net Pension Liability

The components of the Net Pension Liability were as follows:

Reporting Date for Employer under GAS 68	June 30, 2021	June 30, 2020
Measurement Date for Employer under GAS 68	June 30, 2020	June 30, 2019
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. The assumptions are outlined in *Section 3* of this report. 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.

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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

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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	<u>6.0%</u>	5.30%
Total	100.0%	4.87%

Discount rate. The discount rates used to measure the TPL were 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.

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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, which is allocated to all employers, 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%)
County of Mendocino	\$348,328,842	\$247,246,342	\$164,104,400
Mendocino County Courts	12,311,086	8,850,558	5,981,120
Russian River Cemetery District	<u>1,056,232</u>	<u>759,335</u>	<u>513,151</u>
Total for all Employers	\$361,696,160	\$256,856,235	\$170,598,671

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Schedule of Changes in Net Pension Liability

Reporting Date for Employer under GAS 68 Measurement Date for Employer under GAS 68	June 30, 2021 June 30, 2020	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	<u>-38,777,787</u>	<u>-36,674,901</u>
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	\$795,845,448	\$747,481,137
Plan’s Fiduciary Net Position		
• Contributions – employer	\$24,647,132	\$23,702,064
• Contributions – employee	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	<u>0</u>	<u>0</u>
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	\$538,989,213	\$532,727,019
Net Pension Liability – ending	\$256,856,235	\$214,754,118
Plan’s Fiduciary Net Position as a percentage of the Total Pension Liability	67.7%	71.3%
Covered payroll ²	\$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 June 30, 2019 measurement date 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 7 in the June 30, 2019 measurement date 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 68 Information

Schedule of Contributions - Last Ten Fiscal Years

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%

See accompanying notes to this schedule on the next page.

¹ Prior to year ending 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 UAL 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 \$31,288 and \$5,949 less than the minimum UAAL contributions in FY 2017/2018, respectively.

Section 2: GAS 68 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.

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 (Post-Retirement):	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.

Section 2: GAS 68 Information

Determination of Proportionate Share

Actual Employer Contributions by Employer and Membership Class July 1, 2018 to June 30, 2019

Employer	General	General Percentage ¹	Safety	Safety Percentage	Probation	Probation Percentage	Total Contributions	Total Percentage
County of Mendocino	\$15,688,255	94.820%	\$6,151,934	100.000%	\$1,004,716	100.000%	\$22,844,905	96.383%
Mendocino County Courts	781,822	4.725%	0	0.000%	0	0.000%	781,822	3.299%
Russian River Cemetery District	75,337	0.455%	0	0.000%	0	0.000%	75,337	0.318%
Total for all Employers	\$16,545,414	100.000%	\$6,151,934	100.000%	\$1,004,716	100.000%	\$23,702,064	100.000%

Allocation of June 30, 2019 Net Pension Liability

Employer	General	General Percentage	Safety	Safety Percentage	Probation	Probation Percentage	Total NPL	Total Percentage
County of Mendocino	\$147,263,583	94.820%	\$52,167,248	100.000%	\$7,277,249	100.000%	\$206,708,080	96.254%
Mendocino County Courts	7,338,860	4.725%	0	0.000%	0	0.000%	7,338,860	3.417%
Russian River Cemetery District	707,178	0.455%	0	0.000%	0	0.000%	707,178	0.329%
Total for all Employers	\$155,309,621	100.000%	\$52,167,248	100.000%	\$7,277,249	100.000%	\$214,754,118	100.000%

¹ The unrounded percentages are used in the allocation of the NPL amongst the General employers.

Section 2: GAS 68 Information

Determination of Proportionate Share (continued)

Notes:

Based on the July 1, 2018 through June 30, 2019 employer contributions as provided by MCERA.

The NPL for each membership class is the TPL minus the Plan's Fiduciary Net Position. The Total Pension Liability for each membership class is obtained from internal valuation results. The Plan's Fiduciary Net Position for each membership class was estimated by adjusting the valuation value of assets for each membership class by the ratio of the total MCERA Plan's Fiduciary Net Position to total MCERA valuation value of assets.

The Safety and Probation membership classes have only one employer (the County), so all of the NPL for Safety and Probation is allocated to the County.

For the General membership class, the NPL is allocated based on the actual employer contributions within that membership class. The steps used for the allocation are as follows:

- First calculate the ratio of the employer's contributions to the total contributions for the membership class.
- This ratio is multiplied by the NPL for the membership class to determine the employer's proportionate share of the NPL for the membership class.

If the employer is in several membership classes, the employer's total allocated NPL is the sum of its allocated NPL from each membership class. The proportionate share of total plan NPL is then the ratio of the employer's total allocated NPL to the total NPL of all employers.

For purposes of the above results, the reporting date for the employer under GAS 68 is June 30, 2020. The reporting date and measurement date for the plan under GAS 67 are June 30, 2019. Consistent with the provisions of GAS 68, the assets and liabilities measured as of June 30, 2019 are not adjusted or "rolled forward" to the June 30, 2020 reporting date. Other results, such as the total deferred inflows and outflows, would also be allocated based on the same proportionate shares determined above.

The following items are allocated based on the corresponding proportionate share within each membership class:

1. Net Pension Liability
2. Service cost
3. Interest on the Total Pension Liability
4. Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability
5. Expensed portion of current-period changes of assumptions or other inputs
6. Member contributions
7. Projected earnings on plan investments
8. Expensed portion of current-period differences between actual and projected earnings on plan investments
9. Administrative expense
10. Recognition of beginning of year deferred outflows of resources as pension expense
11. Recognition of beginning of year deferred inflows of resources as pension expense

Section 2: GAS 68 Information

Determination of Proportionate Share (continued)

Actual Employer Contributions by Employer and Membership Class July 1, 2019 to June 30, 2020

Employer	General	General Percentage ¹	Safety	Safety Percentage	Probation	Probation Percentage	Total Contributions	Total Percentage
County of Mendocino	\$16,206,193	94.834%	\$6,436,897	100.000%	\$1,121,145	100.000%	\$23,764,235	96.418%
Mendocino County Courts	813,134	4.758%	0	0.000%	0	0.000%	813,134	3.299%
Russian River Cemetery District	69,763	0.408%	0	0.000%	0	0.000%	69,763	0.283%
Total for all Employers	\$17,089,090	100.000%	\$6,436,897	100.000%	\$1,121,145	100.000%	\$24,647,132	100.000%

Allocation of June 30, 2020 Net Pension Liability

Employer	General	General Percentage	Safety	Safety Percentage	Probation	Probation Percentage	Total NPL	Total Percentage
County of Mendocino	\$176,396,319	94.834%	\$62,472,416	100.000%	\$8,377,607	100.000%	\$247,246,342	96.258%
Mendocino County Courts	8,850,558	4.758%	0	0.000%	0	0.000%	8,850,558	3.446%
Russian River Cemetery District	759,335	0.408%	0	0.000%	0	0.000%	759,335	0.296%
Total for all Employers	\$186,006,212	100.000%	\$62,472,416	100.000%	\$8,377,607	100.000%	\$256,856,235	100.000%

¹ The unrounded percentages are used in the allocation of the NPL amongst the General employers.

Section 2: GAS 68 Information

Determination of Proportionate Share (continued)

Notes:

Based on the July 1, 2019 through June 30, 2020 employer contributions as provided by MCERA.

The NPL for each membership class is the TPL minus the Plan's Fiduciary Net Position. The Total Pension Liability for each membership class is obtained from internal valuation results. The Plan's Fiduciary Net Position for each membership class was estimated by adjusting the valuation value of assets for each membership class by the ratio of the total MCERA Plan's Fiduciary Net Position to total MCERA valuation value of assets.

The Safety and Probation membership classes have only one employer (the County), so all of the NPL for Safety and Probation is allocated to the County.

For the General membership class, the NPL is allocated based on the actual employer contributions within that membership class. The steps used for the allocation are as follows:

- First calculate the ratio of the employer's contributions to the total contributions for the membership class.
- This ratio is multiplied by the NPL for the membership class to determine the employer's proportionate share of the NPL for the membership class.

If the employer is in several membership classes, the employer's total allocated NPL is the sum of its allocated NPL from each membership class. The proportionate share of total plan NPL is then the ratio of the employer's total allocated NPL to the total NPL of all employers.

For purposes of the above results, the reporting date for the employer under GAS 68 is June 30, 2021. The reporting date and measurement date for the plan under GAS 67 are June 30, 2020. Consistent with the provisions of GAS 68, the assets and liabilities measured as of June 30, 2020 are not adjusted or "rolled forward" to the June 30, 2021 reporting date. Other results, such as the total deferred inflows and outflows, would also be allocated based on the same proportionate shares determined above.

The following items are allocated based on the corresponding proportionate share within each membership class:

1. Net Pension Liability
2. Service cost
3. Interest on the Total Pension Liability
4. Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability
5. Expensed portion of current-period changes of assumptions or other inputs
6. Member contributions
7. Projected earnings on plan investments
8. Expensed portion of current-period differences between actual and projected earnings on plan investments
9. Administrative expense
10. Recognition of beginning of year deferred outflows of resources as pension expense
11. Recognition of beginning of year deferred inflows of resources as pension expense

Section 2: GAS 68 Information

Pension Expense

Total for All Employers

Reporting Date for Employer under GAS 68	June 30, 2021	June 30, 2020
Measurement Date for Employer under GAS 68	June 30, 2020	June 30, 2019
• Service cost	\$13,639,319	\$13,422,284
• Interest on the Total Pension Liability	51,921,209	49,910,705
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
• Current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	2,188,406	1,101,827
• Expensed portion of current-period changes of assumptions or other inputs	6,017,514	0
• Actual member contributions	-6,820,687	-6,544,192
• Projected earnings on plan investments	-36,992,115	-36,161,925
• Expensed portion of current-period differences between actual and projected earnings on plan investments	4,438,692	3,240,561
• Administrative expense	1,226,492	1,233,416
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	15,699,129	25,126,264
• Recognition of beginning of year deferred inflows of resources as pension expense	-9,567,929	-11,243,029
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
Pension Expense	\$41,750,030	\$40,085,911

Section 2: GAS 68 Information

Pension Expense (continued)

County of Mendocino

Reporting Date for Employer under GAS 68	June 30, 2021	June 30, 2020
Measurement Date for Employer under GAS 68	June 30, 2020	June 30, 2019
• Service cost	\$13,128,403	\$12,918,943
• Interest on the Total Pension Liability	49,981,944	48,035,838
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	8,096	71,264
• Current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	2,098,727	1,063,517
• Expensed portion of current-period changes of assumptions or other inputs	5,810,680	0
• Actual member contributions	-6,552,725	-6,282,752
• Projected earnings on plan investments	-35,611,583	-34,792,984
• Expensed portion of current-period differences between actual and projected earnings on plan investments	4,270,203	3,090,890
• Administrative expense	1,181,636	1,187,801
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	15,090,185	24,172,521
• Recognition of beginning of year deferred inflows of resources as pension expense	-9,208,731	-10,825,139
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>507,712</u>	<u>1,385,887</u>
Pension Expense	\$40,704,547	\$40,025,786

Section 2: GAS 68 Information

Pension Expense (continued)

Mendocino County Courts

Reporting Date for Employer under GAS 68	June 30, 2021	June 30, 2020
Measurement Date for Employer under GAS 68	June 30, 2020	June 30, 2019
• Service cost	\$470,544	\$459,103
• Interest on the Total Pension Liability	1,786,032	1,710,082
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	18,745	-97,351
• Current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	82,593	34,943
• Expensed portion of current-period changes of assumptions or other inputs	190,491	0
• Actual member contributions	-246,789	-238,462
• Projected earnings on plan investments	-1,271,448	-1,248,623
• Expensed portion of current-period differences between actual and projected earnings on plan investments	155,176	136,516
• Administrative expense	41,312	41,606
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	560,828	869,917
• Recognition of beginning of year deferred inflows of resources as pension expense	-330,816	-381,161
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>-523,289</u>	<u>-1,354,297</u>
Pension Expense	\$933,379	-\$67,727

Section 2: GAS 68 Information

Pension Expense (continued)

Russian River Cemetery District

Reporting Date for Employer under GAS 68	June 30, 2021	June 30, 2020
Measurement Date for Employer under GAS 68	June 30, 2020	June 30, 2019
• Service cost	\$40,372	\$44,238
• Interest on the Total Pension Liability	153,233	164,785
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	-26,841	26,087
• Current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	7,086	3,367
• Expensed portion of current-period changes of assumptions or other inputs	16,343	0
• Actual member contributions	-21,173	-22,978
• Projected earnings on plan investments	-109,084	-120,318
• Expensed portion of current-period differences between actual and projected earnings on plan investments	13,313	13,155
• Administrative expense	3,544	4,009
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	48,116	83,826
• Recognition of beginning of year deferred inflows of resources as pension expense	-28,382	-36,729
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>15,577</u>	<u>-31,590</u>
Pension Expense	\$112,104	\$127,852

Section 2: GAS 68 Information

Deferred Outflows of Resources and Deferred Inflows of Resources

Total For All Employers

Reporting Date for Employer under GAS 68	June 30, 2021	June 30, 2020
Measurement Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Deferred Outflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$105,082	\$595,131
• Changes of assumptions or other inputs	9,808,549	0
• Net excess of projected over actual earnings on pension plan investments (if any)	15,579,059	125,447
• Difference between actual and expected experience in the Total Pension Liability	<u>4,302,869</u>	<u>4,695,674</u>
• Total Deferred Outflows of Resources	\$29,795,559	\$5,416,252
Deferred Inflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$105,082	\$595,131
• Changes of assumptions or other inputs	0	0
• Net excess of actual over projected earnings on pension plan investments(if any)	N/A	160,840
• Difference between expected and actual experience in the Total Pension Liability	<u>41,617</u>	<u>10,640</u>
• Total Deferred Inflows of Resources	\$146,699	\$766,611
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GAS 68, Year Ended June 30:		
2021	N/A	\$6,131,200
2022	\$7,022,035	-5,622,577
2023	10,508,878	900,456
2024	7,679,254	3,240,562
2025	4,438,693	0
Thereafter	0	0

¹ Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

Section 2: GAS 68 Information

Deferred Outflows of Resources and Deferred Inflows of Resources (continued)

County of Mendocino

Reporting Date for Employer under GAS 68	June 30, 2021	June 30, 2020
Measurement Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Deferred Outflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$58,091	\$552,608
• Changes of assumptions or other inputs	9,471,410	0
• Net excess of projected over actual earnings on pension plan investments (if any)	14,897,585	N/A
• Difference between actual and expected experience in the Total Pension Liability	<u>4,132,622</u>	<u>4,539,013</u>
• Total Deferred Outflows of Resources	\$28,559,708	\$5,091,621
Deferred Inflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$0	\$0
• Changes of assumptions or other inputs	0	0
• Net excess of actual over projected earnings on pension plan investments(if any)	N/A	160,840
• Difference between expected and actual experience in the Total Pension Liability	<u>41,617</u>	<u>10,640</u>
• Total Deferred Inflows of Resources	\$41,617	\$171,480
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GAS 68, Year Ended June 30:		
2021	N/A	\$6,388,479
2022	\$6,795,893	-5,391,302
2023	10,090,489	832,073
2024	7,361,505	3,090,891
2025	4,270,204	0
Thereafter	0	0

¹ Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

Section 2: GAS 68 Information

Deferred Outflows of Resources and Deferred Inflows of Resources (continued)

Mendocino County Courts

Reporting Date for Employer under GAS 68	June 30, 2021	June 30, 2020
Measurement Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Deferred Outflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$30,555	\$0
• Changes of assumptions or other inputs	310,500	0
• Net excess of projected over actual earnings on pension plan investments (if any)	627,627	114,421
• Difference between actual and expected experience in the Total Pension Liability	<u>156,795</u>	<u>142,892</u>
• Total Deferred Outflows of Resources	\$1,125,477	\$257,313
Deferred Inflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$61,332	\$584,621
• Changes of assumptions or other inputs	0	0
• Net excess of actual over projected earnings on pension plan investments(if any)	N/A	N/A
• Difference between expected and actual experience in the Total Pension Liability	<u>0</u>	<u>0</u>
• Total Deferred Inflows of Resources	\$61,332	\$584,621
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GAS 68, Year Ended June 30:		
2021	N/A	-\$294,867
2022	\$214,491	-231,330
2023	401,836	62,373
2024	292,642	136,516
2025	155,176	0
Thereafter	0	0

¹ Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

Section 2: GAS 68 Information

Deferred Outflows of Resources and Deferred Inflows of Resources (continued)

Russian River Cemetery District

Reporting Date for Employer under GAS 68	June 30, 2021	June 30, 2020
Measurement Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Deferred Outflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$16,436	\$42,523
• Changes of assumptions or other inputs	26,639	0
• Net excess of projected over actual earnings on pension plan investments (if any)	53,847	11,026
• Difference between actual and expected experience in the Total Pension Liability	<u>13,452</u>	<u>13,769</u>
• Total Deferred Outflows of Resources	\$110,374	\$67,318
Deferred Inflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$43,750	\$10,510
• Changes of assumptions or other inputs	0	0
• Net excess of actual over projected earnings on pension plan investments(if any)	N/A	N/A
• Difference between expected and actual experience in the Total Pension Liability	<u>0</u>	<u>0</u>
• Total Deferred Inflows of Resources	\$43,750	\$10,510
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GAS 68, Year Ended June 30:		
2021	N/A	\$37,588
2022	\$11,651	55
2023	16,553	6,010
2024	25,107	13,155
2025	13,313	0
Thereafter	0	0

¹ Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

Section 2: GAS 68 Information

Deferred Outflows of Resources and Deferred Inflows of Resources (continued)

There are changes in each employer's proportionate share of the total NPL during the measurement period ended June 30, 2020. The net effect of the change on the employer's proportionate share of the collective NPL and collective deferred outflows of resources and deferred inflows of resources is recognized over the average of the expected remaining service lives of all employees that are provided with pensions through MCERA which is 2.63 years determined as of June 30, 2019 (the beginning of the measurement period ended June 30, 2020). This is described in Paragraph 33a. of GAS 68.

In addition, the difference between the actual employer contributions and the proportionate share of the employer contributions during the measurement period ended June 30, 2020 is recognized over the same period.

The average of the expected remaining service lives of all employees was determined by:

- Calculating each active employees' expected remaining service life as the present value of \$1 per year of future service at zero percent interest.
- Setting the remaining service life to zero for each non-active or retired member.
- Dividing the sum of the above amounts by the total number of active, non-active and retired members.

Section 2: GAS 68 Information

Schedule of Proportionate Share of the Net Pension Liability

Total for All Employers

Reporting Date for Employer Under GAS 68 as of June 30	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered Payroll ¹	Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	Plan's Fiduciary Net Position as a Percentage of the Total Pension Liability
2014	100.000%	\$127,264,462	\$53,254,876	239.0%	75.1%
2015	100.000%	142,120,436	53,813,882	264.1%	75.7%
2016	100.000%	166,164,493	54,891,785	302.7%	72.8%
2017	100.000%	205,719,528	57,407,928	358.3%	67.5%
2018	100.000%	195,538,645	59,801,480	327.0%	71.2%
2019	100.000%	197,495,283	64,340,578	307.0%	72.5%
2020	100.000%	214,754,118	68,254,197	314.6%	71.3%
2021	100.000%	256,856,235	72,040,768	356.5%	67.7%

¹ 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 68 Information

Schedule of Proportionate Share of the Net Pension Liability (continued)

County of Mendocino

Reporting Date for Employer Under GAS 68 as of June 30	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered Payroll ¹	Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	Plan's Fiduciary Net Position as a Percentage of the Total Pension Liability
2014	92.782%	\$118,078,253	\$50,189,401	235.3%	75.1%
2015	91.968%	130,705,221	50,778,344	257.4%	75.6%
2016	93.236%	154,924,361	51,937,992	298.3%	72.7%
2017	93.864%	193,097,508	54,492,771	354.4%	67.4%
2018	95.173%	186,099,824	56,534,158	329.2%	71.2%
2019	96.226%	190,043,076	61,443,717	309.3%	72.5%
2020	96.254%	206,708,080	65,111,855	317.5%	71.3%
2021	96.258%	247,246,342	68,592,195	360.5%	67.7%

¹ 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 68 Information

Schedule of Proportionate Share of the Net Pension Liability (continued)

Mendocino County Courts

Reporting Date for Employer Under GAS 68 as of June 30	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered Payroll ¹	Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	Plan's Fiduciary Net Position as a Percentage of the Total Pension Liability
2014	6.870%	\$8,742,627	\$2,848,026	307.0%	74.9%
2015	7.665%	10,894,043	2,815,226	387.0%	76.2%
2016	6.437%	10,696,155	2,758,836	387.7%	73.7%
2017	5.794%	11,919,321	2,702,997	441.0%	68.3%
2018	4.513%	8,825,103	3,073,172	287.2%	71.9%
2019	3.486%	6,884,182	2,708,421	254.2%	73.1%
2020	3.417%	7,338,860	2,917,686	251.5%	71.3%
2021	3.446%	8,850,558	3,222,253	274.7%	67.6%

¹ 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 68 Information

Schedule of Proportionate Share of the Net Pension Liability (continued)

Russian River Cemetery District

Reporting Date for Employer Under GAS 68 as of June 30	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered Payroll ¹	Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	Plan's Fiduciary Net Position as a Percentage of the Total Pension Liability
2014	0.348%	\$443,582	\$217,449	204.0%	74.9%
2015	0.367%	521,172	220,312	236.6%	76.2%
2016	0.327%	543,977	194,957	279.0%	73.7%
2017	0.342%	702,699	212,160	331.2%	68.3%
2018	0.314%	613,718	194,150	316.1%	71.9%
2019	0.288%	568,025	188,440	301.4%	73.1%
2020	0.329%	707,178	224,656	314.8%	71.3%
2021	0.296%	759,335	226,320	335.5%	67.6%

¹ 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 68 Information

Schedule of Reconciliation of Net Pension Liability

Total for All Employers

Reporting Date for Employer under GAS 68	June 30, 2021	June 30, 2020
Measurement Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Beginning Net Pension Liability	\$214,754,118	\$197,495,283
• Pension Expense	41,750,030	40,085,911
• Employer Contributions	-24,647,132	-23,702,064
• New Net Deferred Inflows/Outflows	31,130,419	14,758,223
• Change in Allocation of Prior Deferred Inflows/Outflows	0	0
• New Net Deferred Flows Due to Change in Proportion	0	0
• Recognition of Prior Deferred Inflows/Outflows	-6,131,200	-13,883,235
• Recognition of Prior Deferred Flows Due to Change in Proportion	<u>0</u>	<u>0</u>
Ending Net Pension Liability	\$256,856,235	\$214,754,118

Section 2: GAS 68 Information

Schedule of Reconciliation of Net Pension Liability (continued)

County of Mendocino

Reporting Date for Employer under GAS 68	June 30, 2021	June 30, 2020
Measurement Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Beginning Net Pension Liability	\$206,708,080	\$190,043,076
• Pension Expense	40,704,547	40,025,786
• Employer Contributions	-23,764,235	-22,844,905
• New Net Deferred Inflows/Outflows	29,973,147	14,097,094
• Change in Allocation of Prior Deferred Inflows/Outflows	774	4,138
• New Net Deferred Flows Due to Change in Proportion	13,195	116,160
• Recognition of Prior Deferred Inflows/Outflows	-5,881,454	-13,347,382
• Recognition of Prior Deferred Flows Due to Change in Proportion	<u>-507,712</u>	<u>-1,385,887</u>
Ending Net Pension Liability	\$247,246,342	\$206,708,080

Section 2: GAS 68 Information

Schedule of Reconciliation of Net Pension Liability (continued)

Mendocino County Courts

Reporting Date for Employer under GAS 68	June 30, 2021	June 30, 2020
Measurement Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Beginning Net Pension Liability	\$7,338,860	\$6,884,182
• Pension Expense	933,379	-67,727
• Employer Contributions	-813,134	-781,822
• New Net Deferred Inflows/Outflows	1,065,830	603,021
• Change in Allocation of Prior Deferred Inflows/Outflows	1,791	-5,652
• New Net Deferred Flows Due to Change in Proportion	30,555	-158,683
• Recognition of Prior Deferred Inflows/Outflows	-230,012	-488,756
• Recognition of Prior Deferred Flows Due to Change in Proportion	<u>523,289</u>	<u>1,354,297</u>
Ending Net Pension Liability	\$8,850,558	\$7,338,860

Section 2: GAS 68 Information

Schedule of Reconciliation of Net Pension Liability (continued)

Russian River Cemetery District

Reporting Date for Employer under GAS 68	June 30, 2021	June 30, 2020
Measurement Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Beginning Net Pension Liability	\$707,178	\$568,025
• Pension Expense	112,104	127,852
• Employer Contributions	-69,763	-75,337
• New Net Deferred Inflows/Outflows	91,442	58,108
• Change in Allocation of Prior Deferred Inflows/Outflows	-2,565	1,514
• New Net Deferred Flows Due to Change in Proportion	-43,750	42,523
• Recognition of Prior Deferred Inflows/Outflows	-19,734	-47,097
• Recognition of Prior Deferred Flows Due to Change in Proportion	<u>-15,577</u>	<u>31,590</u>
Ending Net Pension Liability	\$759,335	\$707,178

Section 2: GAS 68 Information

Schedule of Recognition of Changes in Total Net Pension Liability

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Differences between Expected and Actual Experience on Total Pension Liability

Reporting Date for Employer Under GAS 68, Year Ended June 30	Differences Between Expected and Actual Experience	Recognition Period (Years)	Reporting Date for Employer under GAS 68, Year Ended June 30:						
			2020	2021	2022	2023	2024	2025	Thereafter
2016	\$1,787,516	2.83	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2017	-3,396,702	2.81	0	0	0	0	0	0	0
2018	-5,836,962	2.80	-1,667,704	0	0	0	0	0	0
2019	12,682,464	2.59	4,896,704	2,889,056	0	0	0	0	0
2020	2,897,805	2.63	1,101,827	1,101,827	694,151	0	0	0	0
2021	5,755,507	2.63	<u>N/A</u>	<u>2,188,406</u>	<u>2,188,406</u>	<u>1,378,695</u>	<u>0</u>	<u>0</u>	<u>0</u>
Net Increase/(Decrease) in Pension Expense			\$4,330,827	\$6,179,289	\$2,882,557	\$1,378,695	\$0	\$0	\$0

As described in *Section 2, Schedule of Deferred Outflows of Resources and Deferred Inflows of Resources*, the average of the expected remaining service lives of all employees that are provided with pensions through MCERA (active and inactive employees) determined as of June 30, 2019 (the beginning of the measurement period ending June 30, 2020) is 2.63 years.

Amortization amounts prior to June 30, 2020 have been omitted from this exhibit. These amounts can be found in prior years' GAS 68 reports.

Section 2: GAS 68 Information

Schedule of Recognition of Changes in Total Net Pension Liability (continued)

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Assumption Changes

Reporting Date for Employer Under GAS 68, Year Ended June 30	Effects of Assumption Changes	Recognition Period (Years)	Reporting Date for Employer under GAS 68, Year Ended June 30:						
			2020	2021	2022	2023	2024	2025	Thereafter
2016	\$0	2.83	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2017	0	2.81	0	0	0	0	0	0	0
2018	28,220,986	2.80	8,063,138	0	0	0	0	0	0
2019	0	2.59	0	0	0	0	0	0	0
2020	0	2.63	0	0	0	0	0	0	0
2021	15,826,063	2.63	<u>N/A</u>	<u>6,017,514</u>	<u>6,017,514</u>	<u>3,791,035</u>	<u>0</u>	<u>0</u>	<u>0</u>
Net Increase/(Decrease) in Pension Expense			\$8,063,138	\$6,017,514	\$6,017,514	\$3,791,035	\$0	\$0	\$0

As described in Section 2, Schedule of Deferred Outflows of Resources and Deferred Inflows of Resources, the average of the expected remaining service lives of all employees that are provided with pensions through MCERA (active and inactive employees) determined as of June 30, 2019 (the beginning of the measurement period ending June 30, 2020) is 2.63 years.

Amortization amounts prior to June 30, 2020 have been omitted from this exhibit. These amounts can be found in prior years' GAS 68 reports.

Section 2: GAS 68 Information

Schedule of Recognition of Changes in Total Net Pension Liability (continued)

Increase (Decrease) in Pension Expense Arising from the Recognition of Differences between Projected and Actual Earnings on Pension Plan Investments

Reporting Date for Employer Under GAS 68, Year Ended June 30	Differences between Projected and Actual Earnings	Recognition Period (Years)	Reporting Date for Employer under GAS 68, Year Ended June 30:						
			2020	2021	2022	2023	2024	2025	Thereafter
2016	18,456,704	5.00	\$3,691,340	\$0	\$0	\$0	\$0	\$0	\$0
2017	42,285,229	5.00	8,457,046	8,457,045	0	0	0	0	0
2018	-36,085,925	5.00	-7,217,185	-7,217,185	-7,217,185	0	0	0	0
2019	-11,700,521	5.00	-2,340,104	-2,340,104	-2,340,104	-2,340,105	0	0	0
2020	16,202,806	5.00	3,240,561	3,240,561	3,240,561	3,240,561	3,240,562	0	0
2021	22,193,461	5.00	N/A	<u>4,438,692</u>	<u>4,438,692</u>	<u>4,438,692</u>	<u>4,438,692</u>	<u>4,438,693</u>	<u>0</u>
Net Increase/(Decrease) in Pension Expense			\$5,831,658	\$6,579,009	-\$1,878,036	\$5,339,148	\$7,679,254	\$4,438,693	\$0

The differences between projected and actual earnings on pension plan investments are recognized over a five-year period per Paragraph 33b. of GASB 68.

Amortization amounts prior to June 30, 2020 have been omitted from this exhibit. These amounts can be found in prior years' GAS 68 reports.

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Section 2: GAS 68 Information

Schedule of Recognition of Changes in Total Net Pension Liability (continued)

Increase (Decrease) in Pension Expense

Reporting Date for Employer Under GAS 68, Year Ended June 30	Total Differences and Changes	Reporting Date for Employer under GAS 68, Year Ended June 30:						
		2020	2021	2022	2023	2024	2025	Thereafter
2016	\$20,244,220	\$3,691,340	\$0	\$0	\$0	\$0	\$0	\$0
2017	38,888,527	8,457,046	8,457,045	0	0	0	0	0
2018	-13,701,901	-821,751	-7,217,185	-7,217,185	0	0	0	0
2019	981,943	2,556,600	548,952	-2,340,104	-2,340,105	0	0	0
2020	19,100,611	4,342,388	4,342,388	3,934,712	3,240,561	3,240,562	0	0
2021	43,775,031	<u>N/A</u>	<u>12,644,612</u>	<u>12,644,612</u>	<u>9,608,422</u>	<u>4,438,692</u>	<u>4,438,693</u>	<u>0</u>
Net Increase/(Decrease) in Pension Expense		\$18,225,623	\$18,775,812	\$7,022,035	\$10,508,878	\$7,679,254	\$4,438,693	\$0

Amortization amounts prior to June 30, 2020 have been omitted from this exhibit. These amounts can be found in prior years' GAS 68 reports.

Section 2: GAS 68 Information

Allocation of Changes in Total Net Pension Liability

In addition to the amounts shown in the preceding *Schedule of Recognition of Changes in Net Pension Liability*, there are changes in each employer's proportionate share of the total Net Pension Liability during the measurement period ending on June 30, 2020. The net effect of the change on the employer's proportionate share of the collective Net Pension Liability and collective deferred outflows of resources and deferred inflows of resources is also recognized over the average of the expected remaining service lives of all employees shown above. The difference between the actual employer contributions and the proportionate share of the employer contributions during the measurement period ending on June 30, 2020 is recognized over the same periods. These amounts are shown below. While these amounts are different for each employer, they sum to zero over the entire Retirement Association.

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer Contributions for the Reporting Date for Employer under GAS 68, Year Ended June 30, 2021

	Total Change to be Recognized	Recognition Period (Years)	2021	2022	2023	2024	Thereafter
County of Mendocino	\$21,291	2.63	\$8,096	\$8,096	\$5,099	\$0	\$0
Mendocino County Courts	49,300	2.63	18,745	18,745	11,810	0	0
Russian River Cemetery District	<u>-70,591</u>	2.63	<u>-26,841</u>	<u>-26,841</u>	<u>-16,909</u>	<u>0</u>	<u>0</u>
Total for All Employers	\$0		\$0	\$0	\$0	\$0	\$0

Section 2: GAS 68 Information

Allocation of Changes in Total Net Pension Liability (continued)

The corresponding amounts for the measurement period ending on June 30, 2019 are shown below.

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer Contributions for the Reporting Date for Employer under GAS 68, Year Ended June 30, 2020

	Total Change to be Recognized	Recognition Period (Years)	2020	2021	2022	2023	Thereafter
County of Mendocino	\$187,424	2.63	\$71,264	\$71,264	\$44,896	\$0	\$0
Mendocino County Courts	-256,034	2.63	-97,351	-97,351	-61,332	0	0
Russian River Cemetery District	<u>68,610</u>	2.63	<u>26,087</u>	<u>26,087</u>	<u>16,436</u>	<u>0</u>	<u>0</u>
Total for All Employers	\$0		\$0	\$0	\$0	\$0	\$0

Section 2: GAS 68 Information

Allocation of Changes in Total Net Pension Liability (continued)

The corresponding amounts for the measurement period ending on June 30, 2018 are shown below.

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer Contributions for the Reporting Date for Employer under GAS 68, Year Ended June 30, 2019

	Total Change to be Recognized	Recognition Period (Years)	2019	2020	2021	2022	Thereafter
County of Mendocino	\$1,915,932	2.59	\$739,742	\$739,742	\$436,448	\$0	\$0
Mendocino County Courts	-1,869,796	2.59	-721,929	-721,929	-425,938	0	0
Russian River Cemetery District	<u>-46,136</u>	2.59	<u>-17,813</u>	<u>-17,813</u>	<u>-10,510</u>	<u>0</u>	<u>0</u>
Total for All Employers	\$0		\$0	\$0	\$0	\$0	\$0

Section 2: GAS 68 Information

Allocation of Changes in Total Net Pension Liability (continued)

The corresponding amounts for the measurement period ending on June 30, 2017 are shown below.

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer Contributions for the Reporting Date for Employer under GAS 68, Year Ended June 30, 2018

	Total Change to be Recognized	Recognition Period (Years)	2018	2019	2020	2021	Thereafter
County of Mendocino	\$2,261,505	2.80	\$807,680	\$807,680	\$646,145	\$0	\$0
Mendocino County Courts	-2,213,288	2.80	-790,460	-790,460	-632,368	0	0
Russian River Cemetery District	<u>-48,217</u>	2.80	<u>-17,220</u>	<u>-17,220</u>	<u>-13,777</u>	<u>0</u>	<u>0</u>
Total for All Employers	\$0		\$0	\$0	\$0	\$0	\$0

Section 3: Actuarial Assumptions and Methods and Appendices

Actuarial Assumptions and Methods

Rationale for Assumptions

The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in the July 1, 2016 through June 30, 2019 Actuarial Experience Study report dated June 11, 2020. Unless otherwise noted, all actuarial assumptions and methods shown below apply to all membership groups (i.e., General, Safety, and Probation) and tiers. These assumptions were adopted by the Board.

Economic Assumptions

Net Investment Return:	6.75%; net of investment expenses.
Employee Contribution Crediting Rate:	6.75%, compounded semi-annually.
Consumer Price Index:	Increase of 2.75% per year. Retiree COLA increases due to CPI are subject to a 2.75% maximum change per year for General Tiers 1, 2, and 3, Safety Tiers 1 and 2, and Probation Tiers 1 and 2 (for non-CalPEPRA members with a sufficient COLA bank, withdrawals from the bank can be made to increase the retiree COLA up to 3% per year). No COLA increases for General Tier 4, Safety Tier 3, and Probation Tier 3.
Payroll Growth:	Inflation of 2.75% per year plus real “across the board” salary increases of 0.50% per year, used to amortize the Unfunded Actuarial Accrued Liability as a level percentage of payroll.
Increase in Internal Revenue Code Section 401(a)(17) Compensation Limit:	Increase of 2.75% per year from the valuation date.
Increase in Section 7522.10 Compensation Limit:	Increase of 2.75% per year from the valuation date.

Section 3: Actuarial Assumptions and Methods and Appendices

Salary Increases:

The annual rate of compensation increase includes: inflation at 2.75%, plus “across the board” salary increases of 0.50% per year, plus the following merit and promotion increases:

Years of Service	Merit and Promotion Increases	
	Rate (%)	
	General	Safety and Probation
Less than 1	5.00	5.00
1 – 2	4.50	4.25
2 – 3	4.00	3.75
3 – 4	3.25	3.25
4 – 5	2.75	2.50
5 – 6	2.25	2.00
6 – 7	2.00	1.75
7 – 8	1.75	1.25
8 – 9	1.25	1.00
9 – 10	1.00	1.00
10 & Over	1.00	1.00

Demographic Assumptions

Post-Retirement Mortality Rates:

Healthy

- **General Members:** Pub-2010 General Healthy Retiree Amount-Weighted Mortality Tables (separate tables for males and females) with rates decreased by 5% for males and increased by 5% for females, projected generationally with the two-dimensional mortality improvement scale MP-2019
- **Safety and Probation Members:** Pub-2010 Safety Healthy Retiree Amount-Weighted Mortality Tables (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019

Disabled

- **General Members:** Pub-2010 Non-Safety Disabled Retiree Amount-Weighted Mortality Tables (separate tables for males and females) with rates decreased by 5%, projected generationally with the two-dimensional mortality improvement scale MP-2019
- **Safety and Probation Members:** Pub-2010 Safety Disabled Retiree Amount-Weighted Mortality Tables (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019

Section 3: Actuarial Assumptions and Methods and Appendices

Post-Retirement Mortality Rates (continued):

Beneficiaries

- **All Beneficiaries:** Pub-2010 Contingent Survivor Amount-Weighted Mortality Tables (separate tables for males and females) with rates increased by 5%, projected generationally with the two-dimensional mortality improvement scale MP-2019

Pre-Retirement Mortality Rates:

- **General Members:** Pub-2010 General Employee Amount-Weighted Mortality Tables (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019
- **Safety and Probation Members:** Pub-2010 Safety Employee Amount-Weighted Mortality Tables (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019

Age	Rate (%)			
	General		Safety and Probation	
	Male	Female	Male	Female
25	0.03	0.01	0.04	0.02
30	0.04	0.02	0.04	0.03
35	0.05	0.02	0.05	0.04
40	0.07	0.04	0.06	0.05
45	0.10	0.06	0.08	0.07
50	0.15	0.08	0.12	0.09
55	0.22	0.12	0.18	0.12
60	0.32	0.19	0.26	0.17
65	0.47	0.30	0.41	0.23
70	0.70	0.49	0.77	0.45

Note that generational projections beyond the base year (2010) are not reflected in the above mortality rates. All General pre-retirement deaths are assumed to be non-service connected deaths. All Safety and Probation pre-retirement deaths are assumed to be service connected deaths.

Mortality Rates for Member Contributions:

- **General Members:** Pub-2010 General Healthy Retiree Amount-Weighted Mortality Tables (separate tables for males and females) with rates decreased by 5% for males and increased by 5% for females, projected 30 years (from 2010) with the two-dimensional mortality improvement scale MP-2019, weighted 30% male and 70% female
- **Safety and Probation Members:** Pub-2010 Safety Healthy Retiree Amount-Weighted Mortality Tables (separate tables for males and females), projected 30 years (from 2010) with the two-dimensional mortality improvement scale MP-2019, weighted 80% male and 20% female

Section 3: Actuarial Assumptions and Methods and Appendices

Disability Incidence:

Age	Rate (%)		
	General	Safety	Probation
20	0.01	0.10	0.10
25	0.01	0.13	0.13
30	0.01	0.18	0.18
35	0.02	0.98	0.98
40	0.13	1.68	1.68
45	0.29	1.80	1.80
50	0.44	2.37	2.37
55	0.50	2.75	2.75
60	0.56	0.00	0.00
65	0.63	0.00	0.00

50% of General disabilities are assumed to be service connected disabilities. The other 50% are assumed to be non-service connected disabilities.

90% of Safety and Probation disabilities are assumed to be service connected disabilities. The other 10% are assumed to be non-service connected disabilities.

Section 3: Actuarial Assumptions and Methods and Appendices

Termination:

Less Than Five Years of Service

Years of Service	Rate (%)		
	General	Safety	Probation
Less than 1	24.00	14.00	14.00
1 – 2	16.00	13.00	13.00
2 – 3	14.00	12.00	12.00
3 – 4	12.00	10.00	10.00
4 – 5	11.00	8.00	8.00

85% of all terminated members with less than 5 years of service are assumed to choose a refund of contributions. The other 15% are assumed to choose a deferred vested benefit. No termination is assumed after a member is eligible for retirement (as long as a retirement rate is present).

Five or More Years of Service

Age	Rate (%)		
	General	Safety	Probation
20	8.00	7.00	7.00
25	8.00	7.00	7.00
30	8.00	6.40	6.40
35	8.00	6.00	6.00
40	8.00	4.80	4.80
45	6.80	3.40	3.40
50	6.00	1.80	1.80
55	6.00	0.40	0.40
60	5.40	0.00	0.00
65	4.40	0.00	0.00

25% of all terminated members with 5 or more years of service are assumed to choose a refund of contributions. The other 75% are assumed to choose a deferred vested benefit. No termination is assumed after a member is eligible for retirement (as long as a retirement rate is present).

Section 3: Actuarial Assumptions and Methods and Appendices

Retirement Rates:

Age	Rate (%)					
	General Tiers 1, 2, & 3	General Tier 4	Safety Tiers 1 & 2	Safety Tier 3	Probation Tiers 1 & 2	Probation Tier 3
50	5.00	0.00	8.00	3.00	5.00	4.00
51	5.00	0.00	8.00	3.00	5.00	4.00
52	5.00	6.00	8.00	3.00	5.00	4.00
53	5.00	3.00	8.00	3.00	5.00	4.00
54	5.00	3.00	8.00	3.00	5.00	4.00
55	10.00	5.00	10.00	4.00	23.00	13.00
56	10.00	5.00	15.00	10.00	23.00	24.00
57	10.00	5.00	20.00	12.00	23.00	24.00
58	10.00	5.00	25.00	15.00	23.00	24.00
59	10.00	5.00	30.00	30.00	23.00	24.00
60	12.00	6.00	100.00	100.00	100.00	100.00
61	15.00	9.00	100.00	100.00	100.00	100.00
62	25.00	12.00	100.00	100.00	100.00	100.00
63	20.00	14.00	100.00	100.00	100.00	100.00
64	20.00	12.00	100.00	100.00	100.00	100.00
65	45.00	32.00	100.00	100.00	100.00	100.00
66	45.00	32.00	100.00	100.00	100.00	100.00
67	45.00	32.00	100.00	100.00	100.00	100.00
68	45.00	32.00	100.00	100.00	100.00	100.00
69	45.00	32.00	100.00	100.00	100.00	100.00
70 & Over	100.00	100.00	100.00	100.00	100.00	100.00

The retirement rates only apply to members that are eligible to retire at the age shown.

Section 3: Actuarial Assumptions and Methods and Appendices

Retirement Age and Benefit for Deferred Vested Members:	<p>For current and future deferred vested members, retirement age assumptions are as follows:</p> <p>General Retirement Age: 60</p> <p>Safety and Probation Retirement Age: 54</p> <p>Deferred vested members who terminate with less than five years of service and are not vested are assumed to retire at age 70 if they decide to leave their contributions on deposit.</p> <p>65% of future deferred vested members are assumed to continue to work for a reciprocal employer. For reciprocals, 4.25% compensation increases are assumed per annum.</p>
Future Benefit Accruals:	1.0 year of service per year of employment, plus 0.017 years of additional service to anticipate conversion of unused sick leave for each year of employment, for members expected to retire directly from active employment and to receive a service retirement benefit.
Unknown Data for Members:	Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male.
Inclusion of Deferred Vested Members:	All deferred vested members are included in the valuation.
Form of Payment:	All active and inactive members are assumed to elect the unmodified option at retirement.
Percent Married:	For all active and inactive members, 70% of male members and 50% of female members are assumed to be married at pre-retirement death or retirement.
Age and Gender of Spouse:	For all active and inactive members, male members are assumed to have a female spouse who is 2 years younger than the member and female members are assumed to have a male spouse who is 2 years older than the member.

Actuarial Methods

Actuarial Cost Method:	Entry Age Cost Method. Entry Age is calculated as the age on the valuation date minus years of service. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are based on costs allocated as a level percentage of compensation.
Expected Remaining Service Lives:	<p>The average of the expected service lives of all employees is determined by:</p> <ul style="list-style-type: none"> • Calculating each active employee's expected remaining service life as the present value of \$1 per year of future service at zero percent interest. • Setting the remaining service life to zero for each nonactive or retired member. • Dividing the sum of the above amounts by the total number of active employee, nonactive and retired members.

Section 3: Actuarial Assumptions and Methods and Appendices

Changes in Actuarial Assumptions

The following assumptions have been changed since the prior valuation. Rationale for these changes are presented in the July 1, 2016 through June 30, 2019 Actuarial Experience Study Report dated June 11, 2020. Previously, these assumptions were as follows:

Economic Assumptions

Net Investment Return:	7.00%; net of investment expenses.
Employee Contribution Crediting Rate:	7.00%, compounded semi-annually.
Consumer Price Index:	Increase of 3.00% per year. Retiree COLA increases due to CPI are subject to a 3% maximum change per year for General Tiers 1, 2, and 3, Safety Tiers 1 and 2, and Probation Tiers 1 and 2 (no COLA increases for General Tier 4, Safety Tier 3, and Probation Tier 3).
Payroll Growth:	Inflation of 3.00% per year plus real “across the board” salary increases of 0.50% per year, used to amortize the Unfunded Actuarial Accrued Liability as a level percentage of payroll.
Increase in Internal Revenue Code Section 401(a)(17) Compensation Limit:	Increase of 3.00% per year from the valuation date.
Increase in Section 7522.10 Compensation Limit:	Increase of 3.00% per year from the valuation date.
Salary Increases:	The annual rate of compensation increase includes: inflation at 3.00%, plus “across the board” salary increases of 0.50% per year, plus the following merit and promotion increases:

Years of Service	Merit and Promotion Increases	
	Rate (%)	
	General	Safety and Probation
Less than 1	5.00	5.00
1 – 2	3.75	3.75
2 – 3	3.50	3.00
3 – 4	2.75	2.25
4 – 5	2.25	1.00
5 – 6	1.75	0.75
6 – 7	1.50	0.75
7 – 8	1.25	0.75
8 – 9	1.00	0.75
9 – 10	0.75	0.75
10 & Over	0.50	0.50

Section 3: Actuarial Assumptions and Methods and Appendices

Changes in Actuarial Assumptions (continued)

Demographic Assumptions

Post-Retirement Mortality Rates:

Healthy

- **All Members and All Beneficiaries:** Headcount-Weighted RP-2014 (RPH-2014) Healthy Annuitant Mortality Tables, set back one year for males and set forward one year females, projected 20 years with the two-dimensional mortality improvement Scale MP-2016.

Disabled

- **All Members:** Headcount-Weighted RP-2014 (RPH-2014) Healthy Annuitant Mortality Tables, set forward four years for males and set forward six years for females, projected 20 years with the two-dimensional mortality improvement Scale MP-2016.

Pre-Retirement Mortality Rates:

- **General, Safety and Probation Members:** Headcount-Weighted RP-2014 (RPH-2014) Employee 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.

Age	Rate (%)			
	General		Safety and Probation	
	Male	Female	Male	Female
25	0.05	0.02	0.05	0.02
30	0.05	0.02	0.05	0.02
35	0.05	0.03	0.05	0.03
40	0.07	0.05	0.07	0.05
45	0.09	0.08	0.09	0.08
50	0.15	0.13	0.15	0.13
55	0.25	0.19	0.25	0.19
60	0.42	0.28	0.42	0.28
65	0.75	0.42	0.75	0.42

All General pre-retirement deaths are assumed to be non-service connected deaths. All Safety and Probation pre-retirement deaths are assumed to be service connected deaths.

Mortality Rates for Member Contributions:

- **General Members:** 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, weighted 30% male and 70% female.
- **Safety and Probation Members:** 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, weighted 80% male and 20% female.

Section 3: Actuarial Assumptions and Methods and Appendices

Changes in Actuarial Assumptions (continued)

Disability Incidence:

Age	Rate (%)		
	General	Safety	Probation
20	0.01	0.10	0.10
25	0.01	0.13	0.13
30	0.01	0.18	0.18
35	0.02	0.98	0.98
40	0.13	1.65	1.65
45	0.35	1.75	1.75
50	0.51	2.35	2.35
55	0.58	2.75	2.75
60	0.60	0.00	0.00
65	0.63	0.00	0.00

35% of General disabilities are assumed to be service connected disabilities. The other 65% are assumed to be non-service connected disabilities.

95% of Safety and Probation disabilities are assumed to be service connected disabilities. The other 5% are assumed to be non-service connected disabilities.

Section 3: Actuarial Assumptions and Methods and Appendices

Changes in Actuarial Assumptions (continued)

Termination: *Less Than Five Years of Service*

Years of Service	Rate (%)		
	General	Safety	Probation
Less than 1	22.00	16.00	16.00
1 – 2	16.00	13.00	13.00
2 – 3	14.00	10.00	10.00
3 – 4	13.00	9.00	9.00
4 – 5	12.00	8.00	8.00

85% of all terminated members with less than 5 years of service are assumed to choose a refund of contributions. The other 15% are assumed to choose a deferred vested benefit. No termination is assumed after a member is eligible for retirement (as long as a retirement rate is present).

Five or More Years of Service

Age	Rate (%)		
	General	Safety	Probation
20	7.50	7.40	7.40
25	7.50	6.40	6.40
30	7.50	5.40	5.40
35	7.50	4.40	4.40
40	7.50	3.40	3.40
45	7.50	2.70	2.70
50	7.50	2.20	2.20
55	6.90	0.80	0.80
60	5.90	0.00	0.00
65	4.90	0.00	0.00

25% of all terminated members with 5 or more years of service are assumed to choose a refund of contributions. The other 75% are assumed to choose a deferred vested benefit. No termination is assumed after a member is eligible for retirement (as long as a retirement rate is present).

Section 3: Actuarial Assumptions and Methods and Appendices

Changes in Actuarial Assumptions (continued)

Retirement Rates:

Age	Rate (%)					
	General Tiers 1, 2, & 3	General Tier 4	Safety Tiers 1 & 2	Safety Tier 3	Probation Tiers 1 & 2	Probation Tier 3
50	6.00	0.00	8.00	3.00	5.00	4.00
51	6.00	0.00	8.00	3.00	5.00	4.00
52	6.00	6.00	8.00	3.00	5.00	4.00
53	6.00	3.00	8.00	3.00	5.00	4.00
54	6.00	3.00	8.00	3.00	5.00	4.00
55	11.00	5.00	9.00	4.00	20.00	11.00
56	11.00	5.00	9.00	6.00	20.00	21.00
57	11.00	5.00	10.00	7.00	20.00	21.00
58	11.00	5.00	20.00	9.00	20.00	21.00
59	11.00	5.00	30.00	30.00	20.00	21.00
60	12.00	6.00	100.00	100.00	100.00	100.00
61	16.00	9.00	100.00	100.00	100.00	100.00
62	30.00	12.00	100.00	100.00	100.00	100.00
63	20.00	14.00	100.00	100.00	100.00	100.00
64	20.00	12.00	100.00	100.00	100.00	100.00
65	45.00	32.00	100.00	100.00	100.00	100.00
66	45.00	32.00	100.00	100.00	100.00	100.00
67	45.00	32.00	100.00	100.00	100.00	100.00
68	45.00	32.00	100.00	100.00	100.00	100.00
69	45.00	32.00	100.00	100.00	100.00	100.00
70 & Over	100.00	100.00	100.00	100.00	100.00	100.00

The retirement rates only apply to members that are eligible to retire at the age shown.

Retirement Age and Benefit for Deferred Vested Members:

For current and future deferred vested members, retirement age assumptions are as follows:

General Retirement Age: 60

Safety and Probation Retirement Age: 55

Deferred vested members who terminate with less than five years of service and are not vested are assumed to retire at age 70 if they decide to leave their contributions on deposit.

60% of future deferred vested members are assumed to continue to work for a reciprocal employer. For reciprocals, 4.00% compensation increases are assumed per annum.

Future Benefit Accruals:

1.0 year of service per year of employment, plus 0.018 years of additional service to anticipate conversion of unused sick leave for each year of employment, for members expected to retire directly from active employment and to receive a service retirement benefit.

Percent Married:

For all active and inactive members, 75% of male members and 50% of female members are assumed to be married at pre-retirement death or retirement.

Section 3: Actuarial Assumptions and Methods and Appendices

Appendix A: Projection of Pension 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.

Section 3: Actuarial Assumptions and Methods and Appendices

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.

Section 3: Actuarial Assumptions and Methods and Appendices

Appendix B: Definition of Terms

Definitions of certain terms as they are used in Statement 68. 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.

Section 3: Actuarial Assumptions and Methods and Appendices

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 68.)
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 68) 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 <i>normal cost</i> . 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 <i>actuarial accrued liability</i> .
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.

Section 3: Actuarial Assumptions and Methods and Appendices

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 68.