Mendocino County Employees Retirement Association (MCERA)

Governmental Accounting Standards Board Statement 68 (GAS 68) Actuarial Valuation

Actuarial Valuation Based on June 30, 2023 Measurement Date for Employer Reporting as of June 30, 2024

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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May 23, 2024

Board of Retirement Mendocino County Employees Retirement Association 625-B Kings Court Ukiah, CA 95482-5027

Dear Board Members:

We are pleased to submit this Governmental Accounting Standards (GAS) 68 Actuarial Valuation based on a June 30, 2023 measurement date for employer reporting as of June 30, 2024. It contains various information that will need to be disclosed in order for MCERA employers to comply with GAS 68. Please refer to the funding Actuarial Valuation and Review as of June 30, 2023 for the data, assumptions, and plan of benefits underlying these calculations.

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 Plan). The census and financial information on which our calculations were based were 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, FCA, Enrolled Actuary. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. The assumptions used in this actuarial valuation were selected by the Board based upon our analysis and recommendations. In our opinion, the assumptions are reasonable and take into account the experience of the Plan and reasonable expectations. In addition, in our opinion, the combined effect of these assumptions is expected to have no significant bias.

Mendocino County Employees Retirement Association May 23, 2024

Segal makes no representation or warranty as to the future status of the Plan and does not guarantee any particular result. This document does not constitute legal, tax, accounting or investment advice or create or imply a fiduciary relationship. The Board is encouraged to discuss any issues raised in this report with the Plan's legal, tax and other advisors before taking, or refraining from taking, any action.

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

Sincerely,

Segal

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

Vice President and Actuary

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Table of Contents

Section 1: Actuarial Valuation Summary	5
Purpose and basis	5
General observations on GAS 68 actuarial valuation	5
Highlights of the valuation	6
Summary of key valuation results	8
Important information about actuarial valuations	9
Section 2: GAS 68 Information	11
General information about the pension plan	11
Net Pension Liability	14
Determination of discount rate and investment rates of return	16
Discount rate sensitivity	17
Schedule of changes in Net Pension Liability	18
Schedule of contributions	19
Determination of proportionate share	22
Pension expense	26
Deferred outflows of resources and deferred inflows of resources	30
Schedule of proportionate share of the Net Pension Liability	35
Schedule of reconciliation of Net Pension Liability	39
Schedule of recognition of changes in total Net Pension Liability	43
Allocation of changes in total Net Pension Liability	47
Section 3: Actuarial Assumptions and Methods and Appendices	51
Actuarial assumptions and methods	51
Appendix A: Projection of Plan Fiduciary Net Position for use in the calculation of discount rate as of June 30, 2023	66
Appendix B: Definition of terms	68



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, 2024. The results used in preparing this GAS 68 report are comparable to those used in preparing the GAS 67 report for the Plan based on a reporting date and a measurement date as of June 30, 2023. 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, 2023, provided by the Retirement Association;
- The assets of the plan as of June 30, 2023, provided by the Retirement Association;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board for the June 30, 2023 valuation; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc. adopted by the Board for the June 30, 2023 valuation.

General observations on GAS 68 actuarial valuation

- 1. The Governmental Accounting Standards Board (GASB) rules only define pension liability and expense for financial reporting purposes, and do not apply to contribution amounts for pension funding purposes. Employers and plans should 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 Fiduciary Net Position (plan assets). The Plan Fiduciary Net Position is equal to the market value of assets and therefore, the NPL measure is very similar to an Unfunded Actuarial Accrued Liability (UAAL) calculated on a market value basis. The NPL reflects all investment gains and losses as of the

measurement date. This is different from the UAAL¹ 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, 2024 and June 30, 2023. The NPL was measured as of June 30, 2023 and June 30, 2022, and determined based upon the results of the actuarial valuations as of June 30, 2023 and June 30, 2022, respectively. The Plan 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, 2023 and June 30, 2022 are not adjusted or rolled forward to the June 30, 2024 and June 30, 2023 reporting dates, respectively.
- 2. The NPL increased from \$250.0 million as of June 30, 2022 to \$263.1 million as of June 30, 2023. This was mainly due to (a) higher than expected salary increases for continuing active members (that loss was about \$9.8 million), (b) higher than expected cost-of-living adjustment increases for payees (that loss was about \$2.2 million), and (c) changes in the actuarial assumptions (that increase was about \$19.1 million), offset somewhat by (d) the return on the market value of assets of 8.12% during 2022/2023 that was more than the assumption of 6.75% used in the June 30, 2022 valuation (that gain was about \$8.5 million). Changes in these values during the last two fiscal years ending June 30, 2022 and June 30, 2023 can be found in Section 2, Schedule of changes in Net Pension Liability on page 18.
- 3. There was an increase in the total employer pension expense from \$33.3 million calculated last year to \$48.8 million calculated this year. The primary causes of the increase were the recognition of \$8.1 million from changes in actuarial assumptions and a reduction in the projected earnings on plan investments. (There was over a 10% reduction in the beginning of year plan assets which prompted a reduction in the projected earnings. The reduction in the projected earnings resulted in a \$5.1 million increase in this year's pension expense, compared to last year's).
- 4. The discount rates used to determine the TPLs and NPLs as of June 30, 2023 and 2022 were 6.50% and 6.75%, 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 6.50% assumption as of June 30, 2023 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.

¹ Besides the use of different values of assets, there is another minor difference due to the use of "replacement life with a tier" variant of the Entry Age cost method in the funding valuation which assumes each active member's current benefit formula has always been in effect. That variant of the Entry Age cost method is not used in this GAS 68 valuation.



For the General membership class, the NPLs as of June 30, 2022 and June 30, 2023 are allocated based on the actual employer contributions within that class made during 2021/2022 and 2022/2023, 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 22.

- 6. Results shown in this report exclude any employer contributions made after the measurement date of June 30, 2023. The employer should consult with their auditor to determine the deferred outflow that should be created for these contributions.
- 7. It is important to note that this actuarial valuation is based on plan assets as of June 30, 2023. 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 is based on Plan data as of June 30, 2023 and it does not include any possible short-term or long-term impacts on mortality of the covered population that may emerge after June 30, 2023 due to COVID-19. Segal is available to prepare projections of potential outcomes of market conditions and other demographic experience upon request.



Summary of key valuation results

Reporting Date for Employer under GAS 68 Measurement Date for Employer under GAS 68		June 30, 2024 ¹	June 30, 2023 ²
		June 30, 2023	June 30, 2022
Disclosure elements for	Service cost ³	\$16,836,674	\$16,393,123
fiscal year ending	 Total Pension Liability 	927,038,575	871,946,891
June 30:	 Plan Fiduciary Net Position 	663,909,608	621,934,385
	 Net Pension Liability 	263,128,967	250,012,506
	Pension expense	48,759,786	33,279,857
Schedule of contributions	Actuarially determined contributions	\$30,309,355	\$30,485,006
for fiscal year ending	 Actual contributions 	30,309,355	30,485,006
June 30:	 Contribution deficiency / (excess) 	0	0
Demographic data for plan	Number of retired members and beneficiaries	1,678	1,650
year ending June 30:	 Number of vested terminated members⁴ 	879	923
	 Number of active members 	1,150	1,123
Key assumptions as of	Investment rate of return	6.50%	6.75%
June 30:	Inflation rate	2.50%	2.75%
	Real across-the-board salary increase	0.50%	0.50%
	 Projected salary increases⁵ 	General: 8.00% to 4.00%; Safety and Probation: 8.25% to 4.00%	General, Safety and Probation: 8.25% to 4.25%
	Cost-of-living adjustments		
	 Non-CALPEPRA Tiers⁶ 	2.75%	2.75%
	 CALPEPRA Tiers⁶ 	0.00%	0.00%

¹ The reporting date and measurement date for the Plan are June 30, 2023.



² The reporting date and measurement date for the Plan are June 30, 2022.

³ The service cost is based on the previous year's valuation, meaning the June 30, 2023 and 2022 measurement date values are based on the valuations as of June 30, 2022 and June 30, 2021, respectively. Both service costs have been calculated using the assumptions shown in the June 30, 2022 measurement date column, as there had been no changes in the actuarial assumptions between the June 30, 2021 and June 30, 2022 valuations.

⁴ Includes terminated members due a refund of employee contributions.

⁵ Includes inflation at 2.50% (2.75% for the June 30, 2022 measurement date) plus real across the board salary increases of 0.50% plus merit and promotion increases that vary by service.

⁶ Non-CALPEPRA Tiers: General Tiers 1, 2, and 3, Safety Tiers 1 and 2, and Probation Tiers 1 and 2 CALPEPRA Tiers: General Tier 4, Safety Tier 3, and Probation Tier 3

Important information about actuarial valuations

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

Plan of benefits	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our 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.
Actuarial assumptions	In preparing an actuarial valuation, Segal starts by developing a forecast of the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of participants in each year, as well as forecasts of the plan's benefits for each of those events. In addition, the benefits forecasted for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments. The forecasted benefits are then discounted to a present value, typically based on an estimate of the rate of return that will be achieved on the plan's assets. All of these factors are uncertain and unknowable. Thus, there will be a range of reasonable assumptions, and the results may vary materially based on which assumptions are selected within that range. That is, there is no right answer (except with hindsight). It is important for any user of an actuarial valuation to understand and accept this constraint. The actuarial model may use approximations and estimates that will have an immaterial impact on our results. In addition, the actuarial assumptions may change over time, and while this can have a significant impact on the reported results, it does not mean that the previous assumptions or results were unreasonable or wrong.
Actuarial 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.

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

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

An actuarial valuation is a measurement 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.

Actuarial results in this report are not rounded, but that does not imply precision.

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.

While Segal maintains extensive quality assurance procedures, an actuarial valuation involves complex computer models and numerous inputs. In the event that an inaccuracy is discovered after presentation of Segal's valuation, Segal may revise that valuation or make an appropriate adjustment in the next valuation.

Segal's report shall be deemed to be final and accepted by the Association upon delivery and review. The Association should notify Segal immediately of any questions or concerns about the final content.

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.

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 Superior Court 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 and one alternative are 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, 2023, pension plan membership consisted of the following:

Retired members or beneficiaries currently receiving benefits	1,678
Vested terminated members entitled to but not yet receiving benefits ¹	879
Active members	1,150
Total	3,707

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



Includes terminated members due a refund of employee contributions.

may waive MCERA membership). There are separate retirement plans for General, Safety, and Probation member employees. Any new employees who become members on or after January 1, 2013 are subject to the provisions of California Public Employees' Pension Reform Act of 2013 (PEPRA), California Government Code 7522 et seq. and Assembly Bill (AB) 197.

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 have attained 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 have attained 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).

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."

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

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, that is, Option 1 (cash refund), Option 2 (100% continuance), Option 3 (50% continuance), and Option 4 (specific percentage continuance). Each of the optional retirement allowances requires a reduction in the unmodified retirement allowance in order to allow the member the ability to provide certain benefits to a surviving spouse, domestic partner, or named beneficiary having an insurable interest in the life of the member.

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

The County of Mendocino and contracting districts contribute to the retirement plan based upon actuarially determined contribution rates adopted by the Board of Retirement. Employer contribution rates are adopted annually based upon recommendations received from MCERA's actuary after the completion of the annual actuarial valuation. The average employer contribution rate as of June 30, 2023 for 2022-2023 (based on the June 30, 2021 valuation) was 35.35% 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, 2023 for 2022-2023 (based on the June 30, 2021 valuation) was 9.91% of covered payroll.

Net Pension Liability

The components of the Net Pension Liability were as follows:

Reporting Date for Employer under GAS 68	June 30, 2024	June 30, 2023
Measurement Date for Employer under GAS 68	June 30, 2023	June 30, 2022
Total Pension Liability	\$927,038,575	\$871,946,891
Plan Fiduciary Net Position	(663,909,608)	(621,934,385)
Net Pension Liability	\$263,128,967	\$250,012,506
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	71.6%	71.3%

The Net Pension Liability for the Plan was measured as of June 30, 2023 and June 30, 2022. The Plan 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, 2023 and 2022, respectively. Note, however, that the calculations of the TPL measured as of June 30, 2023 and June 30, 2022 are slightly different than the calculations of the AAL in the actuarial funding valuations as of June 30, 2023 and June 30, 2022, respectively.¹

Plan provisions. The plan provisions used in the measurement of the NPL as of June 30, 2023 and 2022 are the same as those used in the MCERA funding valuations as of June 30, 2023 and 2022, respectively.

Actuarial assumptions and actuarial cost method. The TPLs as of June 30, 2023 and June 30, 2022 that were measured by actuarial valuations as of June 30, 2023 and June 30, 2022, respectively, used the same actuarial assumptions and actuarial cost method as the June 30, 2023 and June 30, 2022 funding valuations. The actuarial assumptions used in the June 30, 2023 valuation were based on the results of an experience study for the period from July 1, 2019 through June 30, 2022. The assumptions are outlined in Section 3 of this report. In particular, the following actuarial assumptions were applied to all periods included in the June 30, 2023 measurement:

Again, 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.



Investment rate of return:	6.50%, net of pension plan investment expense, including inflation
Inflation rate:	2.50%
Real across-the-board salary increase:	0.50%
Projected salary increases:	General: 8.00% to 4.00% and Safety and Probation: 8.25% to 4.00%, varying by service, including inflation and across-the-board salary increases.
Cost of living adjustments:	Retiree benefits for General Tiers 1, 2, and 3, Safety Tiers 1 and 2, and Probation Tiers 1 and 2 are assumed to increase at 2.75% per year (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.
Other assumptions:	See the experience study report for the period July 1, 2019 through June 30, 2022.

The actuarial assumptions used in the June 30, 2022 valuation were based on the results of an experience study for the period from July 1, 2016 through June 30, 2019. In particular, the following actuarial assumptions were applied to all periods included in the June 30, 2022 measurement:

Investment rate of return:	6.75%, net of pension plan investment expense, including inflation
Inflation rate:	2.75%
Real across-the-board salary increase:	0.50%
Projected salary increases:	General, Safety and Probation: 8.25% to 4.25%, varying by service, including inflation and across-the-board salary increases.
Cost of living adjustments:	Retiree benefits for General Tiers 1, 2, and 3, Safety Tiers 1 and 2, and Probation Tiers 1 and 2 are assumed to increase at 2.75% per year (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.
Other assumptions:	See the experience study report for the period July 1, 2016 through June 30, 2019.

Determination of discount rate and investment rates of return

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected arithmetic real rates of return (expected returns, net of inflation and, beginning with June 30, 2023, any applicable investment management expenses) are developed for each major asset class. These returns are combined to produce the long-term expected arithmetic rate of return for the portfolio by weighting the expected arithmetic real rates of return by the target asset allocation percentage, adding expected inflation and subtracting expected investment expenses (beginning with June 30, 2023 including only investment consulting fees, custodian fees and other miscellaneous investment expenses) and a risk margin. Beginning with June 30, 2023 this portfolio return is also adjusted to an expected geometric real rate of return for the portfolio. The target allocation and projected arithmetic real rates of return for each major asset class (after deducting inflation) are shown in the following table. These values are after deducting applicable investment management expenses. This information was used in the derivation of the long-term expected investment rate of return assumption in the June 30, 2023 actuarial valuation. This information will 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	25.9%	6.00%
Small cap U.S. equity	11.1%	6.65%
Global ex-US equity	25.0%	7.05%
US fixed income	21.0%	1.97%
Real estate	11.0%	3.86%
Private infrastructure	6.0%	4.65%
Total	100.0%	5.17%

Discount rate. The discount rates used to measure the TPLs were 6.50% and 6.75% as of June 30, 2023 and June 30, 2022, respectively. 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 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, 2023 and June 30, 2022.

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, 2023, which is allocated to all employers, calculated using the discount rate of 6.50%, as well as what MCERA's NPL would be if it were calculated using a discount rate that is 1-percentage-point lower (5.50%) or 1-percentage-point higher (7.50%) than the current rate:

		Current	
	1% Decrease (5.50%)	Discount Rate (6.50%)	1% Increase (7.50%)
County of Mendocino	\$371,049,141	\$254,022,797	\$157,650,638
Mendocino County Superior Court	12,121,435	8,400,677	5,313,425
Russian River Cemetery District	1,017,964	705,493	446,224
Total for all employers	\$384,188,540	\$263,128,967	\$163,410,287

Schedule of changes in Net Pension Liability

Reporting Date for Employer under GAS 68 Measurement Date for Employer under GAS 68	June 30, 2024 June 30, 2023	June 30, 2023 June 30, 2022
Total Pension Liability		
Service cost ¹	\$16,836,674	\$16,393,123
Interest	58,458,800	54,987,747
Change of benefit terms	0	0^{2}
Differences between expected and actual experience	6,180,810	24,499,126
Changes of assumptions	19,069,933	0
Benefit payments, including refunds of member contributions	(45,454,533)	(44,346,543)
Net change in Total Pension Liability	\$55,091,684	\$51,533,453
Total Pension Liability – beginning	\$871,946,891	<u>\$</u> 820,413,438
Total Pension Liability – ending	\$927,038,575	\$871,946,891
Plan Fiduciary Net Position		
Contributions – employer	\$30,309,355	\$30,485,006
Contributions – employee	8,492,670	8,185,773
Net investment income	50,177,503	(67,368,382)
Benefit payments, including refunds of member contributions	(45,454,533)	(44,346,543)
Administrative expense	(1,549,772)	(1,462,771)
• Other	0	0
Net change in Plan Fiduciary Net Position	\$41,975,223	\$(74,506,917)
Plan Fiduciary Net Position – beginning	\$621,934,385	\$696,441,302
Plan Fiduciary Net Position – ending	\$663,909,608	\$621,934,385
Net Pension Liability – ending	\$263,128,967	\$250,012,506
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	71.6%	71.3%
Covered payroll ³	\$85,729,491	\$81,780,476
Net Pension Liability as percentage of covered payroll	306.9%	305.7%

¹ The service cost is based on the previous year's valuation, meaning the June 30, 2023 and June 30, 2022 measurement date values are based on the valuations as of June 30, 2022 and June 30, 2021, respectively. Both service costs have been calculated using the assumptions shown on page 8 in the June 30, 2022 measurement date column, as there had been no changes in the actuarial assumptions between the June 30, 2021 and June 30, 2022 valuations.

² We have reflected the reduction in the retiree and beneficiary benefits and contribution refunds under the Alameda Decision, and corrections under the Voluntary Correction Program as experience gains and losses.

³ Covered payroll represents Compensation Earnable and Pensionable Compensation and is defined as the payroll on which contributions to the pension plan are based.

Schedule of contributions

Year Ended June 30	Actuarially Determined Contributions	Contributions in Relation to the Actuarially Determined Contributions	Contribution Deficiency / (Excess)	Covered Payroll ¹	Contributions as a Percentage of Covered Payroll
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	23,702,0642	23,702,064 ²	0	68,254,197	34.73%
2020	24,647,132	24,647,132	0	72,040,768	34.21%
2021	26,333,815	26,333,815	0	77,319,043	34.06%
2022	30,485,006	30,485,006	0	81,780,476	37.28%
2023	30,309,355	30,309,355	0	85,729,491	35.35%

See accompanying notes to this schedule on the next page.

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

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.

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. On December 15, 2021, the Board reduced the amortization period for the 2012 UAAL restart layer by 3 years, from 18 years remaining as of June 30, 2021 to 15 years (13 years as of June 30, 2023). 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, 2021 (for the year ended June 30, 2023 ADC)
Investment rate of return:	6.75%
Inflation rate:	2.75%
Real across-the-board salary increase:	0.50%
Projected salary increases:1	Ranges from 8.25% to 4.25%, based on years of service
Cost of living adjustments:	Retiree benefits for General Tiers 1, 2, and 3, Safety Tiers 1 and 2, and Probation Tiers 1 and 2 are assumed to increase at 2.75% per year (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.
Mortality (post-retirement):	 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
Other assumptions:	Same as those used in the June 30, 2021 funding actuarial valuation



¹ Includes inflation at 2.75% plus across the board salary increases of 0.50% plus merit and promotion increases.

Determination of proportionate share

Actual Employer Contributions by Employer and Membership Class July 1, 2021 to June 30, 2022

Employer	General Contributions	General Percentage ¹	Safety Contributions	Safety Percentage	Probation Contributions	Probation Percentage	Total Contributions	Total Percentage
County of Mendocino	\$20,799,133	95.181%	\$7,273,830	100.000%	\$1,358,915	100.000%	\$29,431,878	96.545%
Mendocino County Superior Court	966,047	4.421%	0	0.000%	0	0.000%	966,047	3.169%
Russian River Cemetery District	87,081	0.398%	0	0.000%	0	0.000%	87,081	0.286%
Total for all employers	\$21,852,261	100.000%	\$7,273,830	100.000%	\$1,358,915	100.000%	\$30,485,006	100.000%

Allocation of June 30, 2022 Net Pension Liability

Employer	General NPL	General Percentage	Safety NPL	Safety Percentage	Probation NPL	Probation Percentage	Total NPL	Total Percentage
County of Mendocino	\$173,547,250	95.181%	\$62,704,264	100.000%	\$4,973,728	100.000%	\$241,225,242	96.485%
Mendocino County Superior Court	8,060,663	4.421%	0	0.000%	0	0.000%	8,060,663	3.224%
Russian River Cemetery District	726,601	0.398%	0	0.000%	0	0.000%	726,601	0.291%
Total for all employers	\$182,334,514	100.000%	\$62,704,264	100.000%	\$4,973,728	100.000%	\$250,012,506	100.000%



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

Notes:

Based on the July 1, 2021 through June 30, 2022 employer contributions as provided by MCERA.

The NPL for each membership class is the TPL minus the Plan Fiduciary Net Position. The Total Pension Liability for each membership class is obtained from internal valuation results. The Plan 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 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, 2023. The reporting date and measurement date for the plan under GAS 67 are June 30, 2022. Consistent with the provisions of GAS 68, the assets and liabilities measured as of June 30, 2022 are not adjusted or "rolled forward" to the June 30, 2023 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:

- 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

Actual Employer Contributions by Employer and Membership Class July 1, 2022 to June 30, 2023

Employer	General Contributions	General Percentage ¹	Safety Contributions	Safety Percentage	Probation Contributions	Probation Percentage	Total Contributions	Total Percentage
County of Mendocino	\$21,230,333	95.137%	\$6,595,037	100.000%	\$1,398,875	100.000%	\$29,224,245	96.420%
Mendocino County Superior Court	1,001,042	4.486%	0	0.000%	0	0.000%	1,001,042	3.303%
Russian River Cemetery District	84,068	0.377%	0	0.000%	0	0.000%	84,068	0.277%
Total for all employers	\$22,315,443	100.000%	\$6,595,037	100.000%	\$1,398,875	100.000%	\$30,309,355	100.000%

Allocation of June 30, 2023 Net Pension Liability

Employer	General NPL	General Percentage	Safety NPL	Safety Percentage	Probation NPL	Probation Percentage	Total NPL	Total Percentage
County of Mendocino	\$178,163,522	95.137%	\$71,760,260	100.000%	\$4,099,015	100.000%	\$254,022,797	96.539%
Mendocino County Superior Court	8,400,677	4.486%	0	0.000%	0	0.000%	8,400,677	3.193%
Russian River Cemetery District	705,493	0.377%	0	0.000%	0	0.000%	705,493	0.268%
Total for all employers	\$187,269,692	100.000%	\$71,760,260	100.000%	\$4,099,015	100.000%	\$263,128,967	100.000%



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

Notes:

Based on the July 1, 2022 through June 30, 2023 employer contributions as provided by MCERA.

The NPL for each membership class is the TPL minus the Plan Fiduciary Net Position. The Total Pension Liability for each membership class is obtained from internal valuation results. The Plan 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 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, 2024. The reporting date and measurement date for the plan under GAS 67 are June 30, 2023. Consistent with the provisions of GAS 68, the assets and liabilities measured as of June 30, 2023 are not adjusted or "rolled forward" to the June 30, 2024 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:

- 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

Pension expense

Total for All Employers

Reporting Date for Employer under GAS 68	June 30, 2024	June 30, 2023
Measurement Date for Employer under GAS 68	June 30, 2023	June 30, 2022
Service cost	\$16,836,674	\$16,393,123
Interest on the Total Pension Liability	58,458,800	54,987,747
 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	2,630,132	9,422,742
Expensed portion of current-period changes of assumptions or other inputs	8,114,864	0
Actual member contributions	(8,492,670)	(8,185,773)
Projected earnings on plan investments	(41,703,744)	(46,768,862)
 Expensed portion of current-period differences between actual and projected earnings on plan investments 	(1,694,752)	22,827,449
Administrative expense	1,549,772	1,462,771
• Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	40,081,246	13,113,921
Recognition of beginning of year deferred inflows of resources as pension expense	(27,020,536)	(29,973,261)
 Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions 	0	0
Pension expense	\$48,759,786	\$33,279,857

County of Mendocino

Reporting Date for Employer under GAS 68	June 30, 2024	June 30, 2023
Measurement Date for Employer under GAS 68	June 30, 2023	June 30, 2022
Service cost	\$16,231,842	\$15,809,575
Interest on the Total Pension Liability	56,424,724	53,086,392
 Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions 	(28,102)	(77,511)
Current-period benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	2,556,426	9,104,475
Expensed portion of current-period changes of assumptions or other inputs	7,887,150	0
Actual member contributions	(8,170,667)	(7,880,944)
Projected earnings on plan investments	(40,263,368)	(45,166,411)
 Expensed portion of current-period differences between actual and projected earnings on plan investments 	(1,631,556)	22,050,258
Administrative expense	1,493,571	1,411,405
• Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	38,676,885	12,643,269
Recognition of beginning of year deferred inflows of resources as pension expense	(26,103,491)	(28,960,013)
 Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions 	105,944	305,845
Pension expense	\$47,179,358	\$32,326,340

Mendocino County Superior Court

Reporting Date for Employer under GAS 68	June 30, 2024	June 30, 2023
Measurement Date for Employer under GAS 68	June 30, 2023	June 30, 2022
Service cost	\$557,973	\$535,296
Interest on the Total Pension Liability	1,876,488	1,744,136
 Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions 	42,237	60,642
Current-period benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	67,996	291,950
Expensed portion of current-period changes of assumptions or other inputs	210,072	0
Actual member contributions	(297,056)	(279,623)
Projected earnings on plan investments	(1,328,784)	(1,469,948)
 Expensed portion of current-period differences between actual and projected earnings on plan investments 	(58,300)	712,927
Administrative expense	51,847	47,119
• Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	1,295,559	431,735
Recognition of beginning of year deferred inflows of resources as pension expense	(845,998)	(929,465)
 Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions 	(107,959)	(264,585)
Pension expense	\$1,464,075	\$880,184

Russian River Cemetery District

Reporting Date for Employer under GAS 68	June 30, 2024	June 30, 2023
Measurement Date for Employer under GAS 68	June 30, 2023	June 30, 2022
Service cost	\$46,859	\$48,252
Interest on the Total Pension Liability	157,588	157,219
 Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions 	(14,135)	16,869
Current-period benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	5,710	26,317
Expensed portion of current-period changes of assumptions or other inputs	17,642	0
Actual member contributions	(24,947)	(25,206)
Projected earnings on plan investments	(111,592)	(132,503)
 Expensed portion of current-period differences between actual and projected earnings on plan investments 	(4,896)	64,264
Administrative expense	4,354	4,247
• Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	108,802	38,917
Recognition of beginning of year deferred inflows of resources as pension expense	(71,047)	(83,783)
 Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions 	2,015	(41,260)
Pension expense	\$116,353	\$73,333

Deferred outflows of resources and deferred inflows of resources

Total For All Employers

Reporting Date for Employer under GAS 68 Measurement Date for Employer under GAS 68	June 30, 2024 June 30, 2023	June 30, 2023 June 30, 2022
Deferred Outflows of Resources	·	
 Changes in proportion and differences between employer's contributions and proportionate share of contributions* 	\$103,528	\$307,473
Changes of assumptions or other inputs	10,955,069	0
Net excess of projected over actual earnings on pension plan investments (if any)	13,967,044	25,165,260
Difference between actual and expected experience in the Total Pension Liability	9,592,845	15,228,185
Total Deferred Outflows of Resources	\$34,618,486	\$40,700,918
Deferred Inflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions[*] 	\$103,528	\$307,473
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	388,525	933,042
Total Deferred Inflows of Resources	\$492,053	\$1,240,515
Deferred outflows of resources and deferred inflows of resources related to pension will be	oe recognized as follow	s:
Reporting date for employer under GAS 68, year ended June 30:		
2024	N/A	\$13,060,710
2025	\$15,882,534	6,832,290
2026	(1,194,046)	(3,260,045)
2027	21,132,696	22,827,448
2028	(1,694,751)	0
Thereafter	0	0



^{*} Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

County of Mendocino

Reporting Date for Employer under GAS 68	June 30, 2024	June 30, 2023
Measurement Date for Employer under GAS 68	June 30, 2023	June 30, 2022
Deferred Outflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions* 	\$0	\$183,455
Changes of assumptions or other inputs	10,647,654	0
Net excess of projected over actual earnings on pension plan investments (if any)	13,452,083	24,194,673
Difference between actual and expected experience in the Total Pension Liability	9,300,667	14,718,957
Total Deferred Outflows of Resources	\$33,400,404	\$39,097,085
Deferred Inflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions[*] 	\$84,446	\$124,018
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	388,525	888,076
Total Deferred Inflows of Resources	\$472,971	\$1,012,094
Deferred outflows of resources and deferred inflows of resources related to pension will be	oe recognized as follow	s:
Reporting date for employer under GAS 68, year ended June 30:		
2024	N/A	\$12,683,677
2025	\$15,305,949	6,524,378
2026	(1,158,681)	(3,173,321)
2027	20,411,720	22,050,257
2028	(1,631,555)	0
Thereafter	0	0



^{*} Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

Mendocino County Superior Court

Reporting Date for Employer under GAS 68	June 30, 2024	June 30, 2023
Measurement Date for Employer under GAS 68	June 30, 2023	June 30, 2022
Deferred Outflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions[*] 	\$93,406	\$97,027
Changes of assumptions or other inputs	283,598	0
Net excess of projected over actual earnings on pension plan investments (if any)	475,065	890,331
Difference between actual and expected experience in the Total Pension Liability	269,542	467,121
Total Deferred Outflows of Resources	\$1,121,611	\$1,454,479
Deferred Inflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions[*] 	\$0	\$168,601
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	0	41,248
Total Deferred Inflows of Resources	\$0	\$209,849
Deferred outflows of resources and deferred inflows of resources related to pension will be	e recognized as follow	s:
Reporting date for employer under GAS 68, year ended June 30:		
2024	N/A	\$335,082
2025	\$541,708	276,175
2026	(26,916)	(79,553)
2027	665,119	712,926
2028	(58,300)	0
Thereafter	0	0



^{*} Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

Russian River Cemetery District

Reporting Date for Employer under GAS 68	June 30, 2024	June 30, 2023
Measurement Date for Employer under GAS 68	June 30, 2023	June 30, 2022
Deferred Outflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions* 	\$10,122	\$26,991
Changes of assumptions or other inputs	23,817	0
Net excess of projected over actual earnings on pension plan investments (if any)	39,896	80,256
Difference between actual and expected experience in the Total Pension Liability	22,636	42,107
Total Deferred Outflows of Resources	\$96,471	\$149,354
Deferred Inflows of Resources		
 Changes in proportion and differences between employer's contributions and proportionate share of contributions[*] 	\$19,082	\$14,854
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	0	3,718
Total Deferred Inflows of Resources	\$19,082	\$18,572
Deferred outflows of resources and deferred inflows of resources related to pension will be	e recognized as follow	s:
Reporting date for employer under GAS 68, year ended June 30:		
2024	N/A	\$41,951
2025	\$34,877	31,737
2026	(8,449)	(7,171)
2027	55,857	64,265
2028	(4,896)	0
Thereafter	0	0



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

Notes:

There are changes in each employer's proportionate share of the total NPL during the measurement period ended June 30, 2023. 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 2.35 years determined as of June 30, 2022 (the beginning of the measurement period ended June 30, 2023). 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, 2023 is recognized over the same period.

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

- 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 non-active or retired member.
- Dividing the sum of the above amounts by the total number of active, non-active and retired members.

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*	Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
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%
2022	100.000%	123,972,136	77,319,043	160.3%	84.9%
2023	100.000%	250,012,506	81,780,476	305.7%	71.3%
2024	100.000%	263,128,967	85,729,491	306.9%	71.6%

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

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*	Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
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%
2022	96.473%	119,599,668	73,993,153	161.6%	84.9%
2023	96.485%	241,225,242	78,512,481	307.2%	71.3%
2024	96.539%	254,022,797	81,685,344	311.0%	71.6%

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

Mendocino County Superior Court

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*	Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
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%
2022	3.249%	4,027,851	3,106,874	129.6%	84.2%
2023	3.224%	8,060,663	3,030,875	266.0%	70.8%
2024	3.193%	8,400,677	3,803,855	220.8%	71.6%

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

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*	Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
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%
2022	0.278%	344,617	219,016	157.3%	84.2%
2023	0.291%	726,601	237,120	306.4%	70.8%
2024	0.268%	705,493	240,292	293.6%	71.6%

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

Schedule of reconciliation of Net Pension Liability

Total for All Employers

Reporting Date for Employer under GAS 68	June 30, 2024	June 30, 2023
Measurement Date for Employer under GAS 68	June 30, 2023	June 30, 2022
Beginning Net Pension Liability	\$250,012,506	\$123,972,136
Pension expense	48,759,786	33,279,857
Employer contributions	(30,309,355)	(30,485,006)
New net deferred inflows/outflows	7,726,740	106,386,179
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	(13,060,710)	16,859,340
Recognition of prior deferred flows due to change in proportion	0	0
Ending Net Pension Liability	\$263,128,967	\$250,012,506

County of Mendocino

Reporting Date for Employer under GAS 68	June 30, 2024	June 30, 2023
Measurement Date for Employer under GAS 68	June 30, 2023	June 30, 2022
Beginning Net Pension Liability	\$241,225,242	\$119,599,668
Pension expense	47,179,358	32,326,340
Employer contributions	(29,224,245)	(29,431,878)
New net deferred inflows/outflows	7,572,606	102,768,188
Change in allocation of prior deferred inflows/outflows	(12,887)	76,043
New net deferred flows due to change in proportion	(37,939)	(124,018)
Recognition of prior deferred inflows/outflows	(12,573,394)	16,316,744
Recognition of prior deferred flows due to change in proportion	(105,944)	(305,845)
Ending Net Pension Liability	\$254,022,797	\$241,225,242

Mendocino County Superior Court

Reporting Date for Employer under GAS 68	June 30, 2024	June 30, 2023
Measurement Date for Employer under GAS 68	June 30, 2023	June 30, 2022
Beginning Net Pension Liability	\$8,060,663	\$4,027,851
Pension expense	1,464,075	880,184
Employer contributions	(1,001,042)	(966,047)
New net deferred inflows/outflows	142,192	3,318,826
Change in allocation of prior deferred inflows/outflows	19,370	(59,493)
New net deferred flows due to change in proportion	57,021	97,027
Recognition of prior deferred inflows/outflows	(449,561)	497,730
Recognition of prior deferred flows due to change in proportion	107,959	264,585
Ending Net Pension Liability	\$8,400,677	\$8,060,663

Russian River Cemetery District

Reporting Date for Employer under GAS 68	June 30, 2024	June 30, 2023
Measurement Date for Employer under GAS 68	June 30, 2023	June 30, 2022
Beginning Net Pension Liability	\$726,601	\$344,617
Pension expense	116,353	73,333
Employer contributions	(84,068)	(87,081)
New net deferred inflows/outflows	11,942	299,165
Change in allocation of prior deferred inflows/outflows	(6,483)	(16,550)
New net deferred flows due to change in proportion	(19,082)	26,991
Recognition of prior deferred inflows/outflows	(37,755)	44,866
Recognition of prior deferred flows due to change in proportion	(2,015)	41,260
Ending Net Pension Liability	\$705,493	\$726,601

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)	2023	Reporting	Date for Employ 2025	er under GAS 6 2026	68, Year Ended . 2027	June 30: 2028	Thereafter
2019	\$12,682,464	2.59	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2020	2,897,805	2.63	0	0	0	0	0	0	0
2021	5,755,507	2.63	1,378,695	0	0	0	0	0	0
2022	(3,342,689)	2.61	(1,280,724)	(781,241)	0	0	0	0	0
2023	24,499,126	2.60	9,422,742	9,422,742	5,653,642	0	0	0	0
2024	6,180,810	2.35	N/A	2,630,132	2,630,132	920,546	0	0	0
Net increase/(decrease) in pen	sion expense	\$9,520,713	\$11,271,633	\$8,283,774	\$920,546	\$0	\$0	\$0

As described in Section 2, 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, 2022 (the beginning of the measurement period ending June 30, 2023) is 2.35 years.

Amortization amounts prior to June 30, 2023 have been omitted from this exhibit. These amounts can be found in prior years' GAS 68 reports.

Reporting

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

Date for Employer Under GAS 68, Year Ended June 30	Effects of Assumption Changes	Recognition Period (Years)	2023	Reporting 2024	Date for Emplo	yer under GAS 6 2026	68, Year Ended . 2027	June 30: 2028	Thereafter
		, ,							
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	3,791,035	0	0	0	0	0	0
2022	0	2.61	0	0	0	0	0	0	0
2023	0	2.60	0	0	0	0	0	0	0
2024	19,069,933	2.35	N/A	8,114,864	8,114,864	2,840,205	0	0	0
Net increase/(d	lecrease) in pen	sion expense	\$3,791,035	\$8,114,864	\$8,114,864	\$2,840,205	\$0	\$0	\$0

As described in *Section 2, 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, 2022 (the beginning of the measurement period ending June 30, 2023) is 2.35 years.

Amortization amounts prior to June 30, 2023 have been omitted from this exhibit. These amounts can be found in prior years' GAS 68 reports.

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)	2023	Reporting 2024	Date for Emplo 2025	yer under GAS 2026	68, Year Ended 2027	June 30: 2028	Thereafter
2019	\$(11,700,521)	5.00	\$(2,340,105)	\$0	\$0	\$0	\$0	\$0	\$0
2020	16,202,806	5.00	3,240,561	3,240,562	0	0	0	0	0
2021	22,193,461	5.00	4,438,692	4,438,692	4,438,693	0	0	0	0
2022	(130,437,470)	5.00	(26,087,494)	(26,087,494)	(26,087,494)	(26,087,494)	0	0	0
2023	114,137,244	5.00	22,827,449	22,827,449	22,827,449	22,827,449	22,827,448	0	0
2024	(8,473,759)	5.00	N/A	(1,694,752)	(1,694,752)	(1,694,752)	(1,694,752)	(1,694,751)	0
Net increase/(decrease) in pen	sion expense	\$2,079,103	\$2,724,457	\$(516,104)	\$(4,954,797)	\$21,132,696	\$(1,694,751)	\$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, 2023 have been omitted from this exhibit. These amounts can be found in prior years' GAS 68 reports.

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Increase (Decrease) in Pension Expense

Reporting Date for Employer Under GAS 68, Year Ended June 30	Total Differences and Changes	2023	Reporting 2024	Date for Emplo 2025	yer under GAS 2026	68, Year Ended 2027	June 30: 2028	Thereafter
2019	\$981,943	\$(2,340,105)	\$0	\$0	\$0	\$0	\$0	\$0
2020	19,100,611	3,240,561	3,240,562	0	0	0	0	0
2021	43,775,031	9,608,422	4,438,692	4,438,693	0	0	0	0
2022	(133,780,159)	(27,368,218)	(26,868,735)	(26,087,494)	(26,087,494)	0	0	0
2023	138,636,370	32,250,191	32,250,191	28,481,091	22,827,449	22,827,448	0	0
2024	16,776,984	N/A	9,050,244	9,050,244	2,065,999	(1,694,752)	(1,694,751)	0
Net increase/(decrease) in pension expense	\$15,390,851	\$22,110,954	\$15,882,534	\$(1,194,046)	\$21,132,696	\$(1,694,751)	\$0

Amortization amounts prior to June 30, 2023 have been omitted from this exhibit. These amounts can be found in prior years' GAS 68 reports.

Allocation of changes in total Net Pension Liability

In addition to the amounts shown in the preceding *Schedule of recognition of changes in total 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, 2023. 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, 2023 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.

	Total Change to be Recognized	Recognition Period (Years)	2024	2025	2026	2027	Thereafter
County of Mendocino	\$(66,041)	2.35	\$(28,102)	\$(28,102)	\$(9,837)	\$0	\$0
Mendocino County Superior Court	99,258	2.35	42,237	42,237	14,784	0	0
Russian River Cemetery District	(33,217)	2.35	(14,135)	(14,135)	(4,947)	0	0
Total for all employers	\$0		\$0	\$0	\$0	\$0	\$0

The corresponding amounts for the measurement period ending on June 30, 2022 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, 2023

	Total Change to be Recognized	Recognition Period (Years)	2023	2024	2025	2026	Thereafter
County of Mendocino	\$(201,529)	2.60	\$(77,511)	\$(77,511)	\$(46,507)	\$0	\$0
Mendocino County Superior Court	157,669	2.60	60,642	60,642	36,385	0	0
Russian River Cemetery District	43,860	2.60	16,869	16,869	10,122	0	0
Total for all employers	\$0		\$0	\$0	\$0	\$0	\$0

The corresponding amounts for the measurement period ending on June 30, 2021 are shown below.

	Total Change to be Recognized	Recognition Period (Years)	2022	2023	2024	2025	Thereafter
County of Mendocino	\$784,947	2.61	\$300,746	\$300,746	\$183,455	\$0	\$0
Mendocino County Superior Court	(721,391)	2.61	(276,395)	(276,395)	(168,601)	0	0
Russian River Cemetery District	(63,556)	2.61	(24,351)	(24,351)	(14,854)	0	0
Total for all employers	\$0		\$0	\$0	\$0	\$0	\$0

The corresponding amounts for the measurement period ending on June 30, 2020 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, 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 Superior Court	49,300	2.63	18,745	18,745	11,810	0	0
Russian River Cemetery District	(70,591)	2.63	(26,841)	(26,841)	(16,909)	0	0
Total for all employers	\$0		\$0	\$0	\$0	\$0	\$0

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

	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 Superior Court	(256,034)	2.63	(97,351)	(97,351)	(61,332)	0	0
Russian River Cemetery District	68,610	2.63	26,087	26,087	16,436	0	0
Total for all employers	\$0		\$0	\$0	\$0	\$0	\$0

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

	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 Superior Court	(1,869,796)	2.59	(721,929)	(721,929)	(425,938)	0	0
Russian River Cemetery District	(46,136)	2.59	(17,813)	(17,813)	(10,510)	0	0
Total for all employers	\$0		\$0	\$0	\$0	\$0	\$0

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, 2019 through June 30, 2022 Actuarial Experience Study report dated May 11, 2023. 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:	6.50%; net of investment expenses.
Employee contribution crediting rate:	6.50%, compounded semi-annually.
Cost of living adjustment:	Retiree benefits for General Tiers 1, 2, and 3, Safety Tiers 1 and 2, and Probation Tiers 1 and 2 are assumed to increase at 2.75% per year (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 2.50% 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 2.50% per year from the valuation date.
Increase in Section 7522.10 compensation limit:	Increase of 2.50% per year from the valuation date.

Salary increases:

The annual rate of compensation increase includes:

- Inflation at 2.50%, plus
- "Across the board" salary increases of 0.50% per year, plus
- The following merit and promotion increases:

Years of Service	General	Safety and Probation
Less than 1	5.00%	5.25%
1 – 2	4.75%	5.00%
2 – 3	4.50%	4.50%
3 – 4	4.25%	3.25%
4 – 5	3.50%	3.00%
5 – 6	2.75%	2.25%
6 – 7	2.25%	2.00%
7 – 8	1.75%	1.50%
8 – 9	1.50%	1.25%
9 – 10	1.00%	1.25%
10 – 11	1.00%	1.25%
11 – 12	1.00%	1.25%
12 and 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-2021.
- 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-2021.

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-2021.
- 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-2021.

Beneficiaries

- Beneficiaries not currently in pay status: 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-2021.
- **Beneficiaries currently in pay status:** 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-2021.

The Pub-2010 mortality tables and adjustments as shown above reasonably reflect the mortality experience as of the measurement date. These mortality tables were adjusted to future years using the generational projection to reflect future mortality improvement between the measurement date and those years.

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-2021
- 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-2021

Age	General Male	General Female	Safety and Probation Male	Safety and Probation 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-2021, 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-2021, weighted 80% male and 20% female.

Disability incidence:				
	Age	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	0.26%	1.80%	1.80%
	50	0.42%	2.37%	2.37%
	55	0.50%	2.75%	2.75%
	60	0.56%	3.20%	3.20%
	65	0.60%	0.00%	0.00%

60% of General disabilities are assumed to be service connected disabilities. The other 40% 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.

Termination rates:

Years of Service	General	Safety	Probation
Less than 1	23.00%	16.00%	16.00%
1 – 2	19.00%	15.00%	15.00%
2 – 3	14.00%	14.00%	14.00%
3 – 4	12.00%	13.00%	13.00%
4 – 5	9.00%	12.00%	12.00%
5 – 6	8.00%	7.00%	7.00%
6 – 7	7.00%	6.00%	6.00%
7 – 8	7.00%	5.00%	5.00%
8 – 9	7.00%	5.00%	5.00%
9 – 10	6.50%	4.00%	4.00%
10 – 11	6.50%	2.50%	2.50%
11 – 12	6.50%	2.50%	2.50%
12 – 13	6.50%	2.50%	2.50%
13 – 14	6.50%	2.50%	2.50%
14 – 15	6.50%	2.00%	2.00%
15 – 16	6.50%	2.00%	2.00%
16 – 17	6.50%	1.50%	1.50%
17 – 18	6.50%	1.50%	1.50%
18 – 19	6.50%	1.50%	1.50%
19 – 20	6.50%	1.50%	1.50%
20 and over	6.50%	1.50%	1.50%

90% of all terminated members with less than 5 years of service are assumed to choose a refund of contributions. The other 10% are assumed to choose a deferred vested benefit.

20% of all terminated members with 5 or more years of service are assumed to choose a refund of contributions. The other 80% 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).

Retirement rates (General):	Age	General Tiers 1, 2, and 3 Less than 30 Years of Service	General Tiers 1, 2, and 3 30 or More Years of Service	General Tier 4
	50	5.00%	5.00%	0.00%
	51	5.00%	5.00%	0.00%
	52	5.00%	5.00%	6.00%
	53	5.00%	5.00%	3.00%
	54	5.00%	5.00%	3.00%
	55	5.00%	5.00%	5.00%
	56	5.00%	5.00%	5.00%
	57	10.00%	15.00%	6.00%
	58	10.00%	15.00%	6.00%
	59	10.00%	15.00%	6.00%
	60	12.00%	25.00%	6.00%
	61	14.00%	25.00%	10.00%
	62	22.00%	35.00%	12.00%
	63	20.00%	25.00%	14.00%
	64	20.00%	25.00%	12.00%
	65	40.00%	45.00%	30.00%
	66	40.00%	45.00%	30.00%
	67	40.00%	45.00%	30.00%
	68	40.00%	45.00%	30.00%
	69	40.00%	45.00%	30.00%
	70	50.00%	50.00%	50.00%
	71	50.00%	50.00%	50.00%
	72	50.00%	50.00%	50.00%
	73	50.00%	50.00%	50.00%
	74	50.00%	50.00%	50.00%
	75	100.00%	100.00%	100.00%

Retirement rates (Safety and Probation):	Age	Safety Tiers 1 and 2 Less than 25 Years of Service	Safety Tiers 1 and 2 25 or More Years of Service	Safety Tier 3	Probation Tiers 1 and 2	Probation Tier 3			
	50	6.00%	15.00%	3.00%	5.00%	4.00%			
	51	6.00%	15.00%	3.00%	5.00%	4.00%			
	52	6.00%	15.00%	3.00%	5.00%	4.00%			
	53	8.00%	20.00%	3.00%	5.00%	4.00%			
	54	12.00%	30.00%	4.00%	5.00%	4.00%			
	55	15.00%	35.00%	6.00%	20.00%	12.00%			
	56	20.00%	45.00%	12.00%	20.00%	21.00%			
	57	25.00%	45.00%	15.00%	20.00%	21.00%			
	58	30.00%	45.00%	18.005	20.00%	21.00%			
	59	40.00%	45.00%	40.00%	20.00%	21.00%			
	60	50.00%	50.00%	50.00%	50.00%	50.00%			
	61	50.00%	50.00%	50.00%	50.00%	50.00%			
	62	50.00%	50.00%	50.00%	50.00%	50.00%			
	63	50.00%	50.00%	50.00%	50.00%	50.00%			
	64	50.00%	50.00%	50.00%	50.00%	50.00%			
	65	100.00%	100.00%	100.00%	100.00%	100.00%			
	The retirement rates only apply to members who are eligible to retire at the age shown.								
Retirement age and benefit	For current and future deferred vested members, retirement age assumptions are as follows:								
for deferred vested	• Gen	eral Retirement Age	: 61						
members:	Safety and Probation Retirement Age: 54								
	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.								
	65% 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 0.017 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 defe	erred vested membe	rs are included in the v	/aluation.					

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 rounded down. 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:	 The average of the expected service lives of all employees is determined by: 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.

Changes in actuarial assumptions and methods

Based on the Actuarial Experience Study, the following assumptions and methods were changed. Previously, these assumptions and methods were as follows:

Net investment return:	6.75%; net of investment expenses.
Employee contribution crediting rate:	6.75%, compounded semi-annually.
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.
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:
	Merit and Promotion Increases

Years of Service	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 and over	1.00%	1.00%

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 twodimensional 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

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:		ales and females				bles (separate tables ity improvement scale
	(sepa		nales and females), p		ee Amount-Weighted nally with the two-dir	
	·	Age	General Male	General Female	Safety and Probation Male	Safety and Probation 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					ne above mortality rates.
	All Gener	al pre-retiremen		d to be non-service	e connected deaths.	All Safety and Probation
Mortality rates for member contributions:	tables projed	for males and f	emales) with rates dom 2010) with the tw	ecreased by 5% fo	r males and increase	lity Tables (separate ed by 5% for females, scale MP-2019, weighted
	(sepa	rate tables for m		rojected 30 years	(from 2010) with the	ghted Mortality Tables two-dimensional

Disability incidence:

Age	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.

Termination rates:

Less Than Five Years of Service

Years of Service

	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	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).

Retirement rates:		General Tiers 1, 2,	General	Safety	Safety	Probation	Probation
	Age	and 3	Tier 4	Tiers 1 and 2	Tier 3	Tiers 1 and 2	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 and over	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
	The retirement ra	ates only apply t	o members tha	t are eligible to re	tire at the age	e shown.	
etirement age and benefit for	For current and f	uture deferred v	ested member	s, retirement age	assumptions	are as follows:	
eferred vested members:	General Retirem	ent Age:	60				
	Safety and Proba	Safety and Probation Retirement Age: 54					
	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.						
				sumed to continue assumed per anr		a reciprocal emplo	oyer. For
ctuarial cost method:		d Liability are ca		n the valuation dat individual basis at			

Appendix A: Projection of Plan Fiduciary Net Position for use in the calculation of discount rate as of June 30, 2023 (\$ 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)
2022	\$622	\$39	\$45	\$2	\$50	\$664
2023	664	43	51	2	43	697
2024	697	42	52	2	45	729
2025	729	41	55	2	47	761
2026	761	43	57	2	49	793
2027	793	43	60	2	51	825
2028	825	43	62	2	53	856
2029	856	43	64	2	55	887
2030	887	43	67	2	57	918
2031	918	43	69	2	59	949
2047	941	7	83	2	58	921
2048	921	6	82	2	57	900
2049	900	6	81	2	56	878
2050	878	6	80	2	54	856
2051	856	6	80	2	53	832
2096	649	2 *	2	2	42	689
2097	689	2 *	1	2	45	733
2098	733	2 *	1	2	48	780
2099	780	2 *	1	2	51	830
2100	830	2 *	1	2	54	884
2125	4,003	10 *	0 **	10	260	4,263
2126	4,263					
2126	Discounted Value: 6 ***					

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

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.

^{**} Less than \$1 million, when rounded.

^{*** \$4,263} million when discounted with interest at the rate of 6.50% per annum has a value of \$6 million (or 0.98% of the Plan Fiduciary Net Position) as of June 30, 2023.

Notes:

- 1. Amounts may not total exactly due to rounding.
- 2. Amounts shown for the year beginning July 1, 2022 row are actual amounts, based on the unaudited financial statements provided by MCERA.
- 3. Various years have been omitted from this table.
- 4. <u>Column (a)</u>: Except for the "discounted value" shown for 2126, none of the projected beginning Plan Fiduciary Net Position amounts shown have been adjusted for the time value of money.
- 5. <u>Column (b):</u> Projected total contributions include employee and employer normal cost contributions based on closed group projections (based on covered active members as of June 30, 2023); 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, based on the Plan's funding policy. Contributions are assumed to occur halfway through the year, on average.
- 6. <u>Column (c):</u> 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, 2023. The projected benefit payments reflect the cost of living increase assumptions used in the June 30, 2023 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 6.50% was applied to all periods of projected benefit payments to determine the discount rate.
- 7. <u>Column (d)</u>: Projected administrative expenses are calculated as approximately 0.25% of the projected beginning Plan Fiduciary Net Position amount. The 0.25% proportion was based on the actual fiscal year 2022-2023 administrative expenses as a percentage of the beginning Plan Fiduciary Net Position amount as of July 1, 2022. 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 6.50% 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 6.50% per annum was applied to all periods of projected benefit payments to determine the Total Pension Liability as of June 30, 2023 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.



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.
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	 The single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the total of the following: The actuarial present value of benefit payments projected to be made in future periods in which (a) the amount of the pension Plan 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. 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.		
Other Postemployment Benefits (OPEB)	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 healthcaplans 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.

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