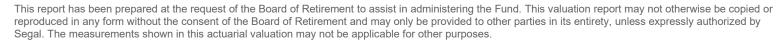
Sacramento County Employees' Retirement System (SCERS)

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

As of June 30, 2023



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November 16, 2023

Board of Retirement Sacramento County Employees' Retirement System 980 9th Street, Suite 1900 Sacramento, CA 95814

Dear Board Members:

We are pleased to submit this Governmental Accounting Standards Board Statement 67 (GASBS 67) Actuarial Valuation as of June 30, 2023. It contains various information that will need to be disclosed in order to comply with GASBS 67. Please refer to the Actuarial Valuation 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 SCERS in preparing items related to the pension plan in their financial report. The census and financial information on which our calculations were based was provided by the Retirement System. That assistance is gratefully acknowledged.

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

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

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

Sincerely,

Segal

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Todd Tauzer, FSA, MAAA, FCA, CERA Senior Vice President and Actuary

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Purpose and basis

This report has been prepared by Segal to present certain disclosure information required by Governmental Accounting Standards Board Statement 67 (GASBS 67) as of June 30, 2023. This report is based on financial information as of June 30, 2023 and the Actuarial Valuation and Review as of June 30, 2023, which reflects:

- The benefit provisions of SCERS, as administered by the Board;
- The characteristics of covered active members, terminated vested members, and retired members and beneficiaries as of June 30, 2023, provided by SCERS;
- The assets of the Plan as of June 30, 2023, provided by SCERS;
- 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 GASBS 67 actuarial valuation

- 1. It is important to note that Governmental Accounting Standards Board (GASB) rules only define pension liability and expense for financial reporting purposes, and do not apply to contribution amounts for pension funding purposes. Employers and plans should develop and adopt funding policies under current practices.
- 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 SCERS uses for funding. This means that the Total Pension Liability (TPL) measure for financial reporting shown in this report is determined on the same basis as SCERS' 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. 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 UAAL on an actuarial value of assets basis in the funding valuation that reflects investment gains and losses over seven-year periods.

Highlights of the valuation

- 1. The NPLs measured as of June 30, 2023 and June 30, 2022 have been determined from the actuarial valuations as of June 30, 2023 and June 30, 2022, respectively.
- 2. The NPL increased from \$1,748.6 million as of June 30, 2022 to \$1,995.6 million as of June 30, 2023 primarily as a result of unfavorable investment return (about \$92 million less than expected). 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 19.
- 3. The discount rate used to determine the TPL and NPL as of June 30, 2023 and 2022 was 6.75%, following the same assumptions used by SCERS in the funding valuations as of the same dates. Details on the derivation of the discount rate can be found in Section 3, Appendix A. Various other information that is required to be disclosed can be found throughout Section 2.
- 4. The Plan Fiduciary Net Position as of June 30, 2023 includes \$11.7 million that is available to offset a portion of the legacy members' future COLA contribution rates. Since the \$11.7 million can only be used in the future to reduce contribution rates for the legacy employees, we have included a liability of the same amount so that the employer's net NPL is unchanged by the availability of this amount.
- 5. On July 30, 2020, the California Supreme Court issued a decision in the case of Alameda County Deputy Sheriffs' Association et al. v. Alameda County Employees' Retirement Association (ACERA) and Board of Retirement of ACERA. That decision affected the benefits paid by SCERS to its members and/or the contributions received by SCERS from its members. In particular, the June 30, 2023 valuation reflected refunding member contributions to active and deferred vested members associated with the excluded premium pays under the Alameda Decision, and reduced retiree and beneficiary benefits as the result of reduced final average salary calculations caused by the excluded premium pays. However, when preparing the financial and membership data provided for the June 30, 2023 valuation, SCERS had not finished refunding member contributions and reducing retiree and beneficiary benefits.

We have reflected the contribution refunds and reduced retiree and beneficiary benefits noted above as part of experience gains and losses rather than as a plan amendment. We have estimated that the reduction in the TPL for the retirees and beneficiaries reported for this year's valuation to be about \$14 million as of June 30, 2023.

¹ Equal to about \$120 million investment loss net of investment expenses but gross of about \$28 million in administrative expenses.



6. 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

Measurement Date		June 30, 2023	June 30, 2022
Disclosure elements for	Service Cost ¹	\$270,739,734	\$264,372,132
plan year ending	Total Pension Liability	14,358,854,000	13,578,984,000
June 30:	 Plan Fiduciary Net Position 	12,363,258,000	11,830,351,000
	Net Pension Liability	1,995,596,000	1,748,633,000
Schedule of contributions ²	 Actuarially determined contributions 	\$360,673,968	\$323,609,923
for plan year ending	 Actual contributions 	360,673,968	323,609,923
June 30:	 Contribution deficiency / (excess) 	0	0
Demographic data for plan	 Number of retired members and beneficiaries 	13,934	13,635
year ending June 30:	 Number of vested terminated members³ 	4,702	4,423
	 Number of active members 	13,167	12,757
Key assumptions as of	 Investment rate of return 	6.75%	6.75%
June 30:	 Inflation rate 	2.50%	2.75%
	 Real across-the-board salary increase 	0.25%	0.25%
	 Projected salary increases⁴ 	4.25% - 9.75%	4.25% - 10.50%
	Cost of living adjustments	2.75% for Miscellaneous and Safety Tier 1, 0% for Miscellaneous Tier 2, 2.00% for all other Tiers	2.75% for Miscellaneous and Safety Tier 1, 0% for Miscellaneous Tier 2, 2.00% for all other Tiers

The Service Cost is based on the previous year's valuation, meaning the June 30, 2023 and June 30, 2022 measurement 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 column, as there had been no changes in the actuarial assumptions between the June 30, 2021 and June 30, 2022 valuations.

These amounts exclude \$10,573,829 and \$(17,274,684) in receivable contributions due from Sacramento Metropolitan Fire (SMF) in the 2023 and 2022 valuations, respectively. (They represent the change in the withdrawal liability for SMF as a result of our annual update.)

³ Includes terminated members with member contributions on deposit.

Includes inflation at 2.50% plus real across the board salary increases of 0.25% plus merit and promotional increases that vary by service as of June 30, 2023. Includes inflation at 2.75% plus real across the board salary increases of 0.25% plus merit and promotional increases that vary by service as of June 30, 2022.

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 SCERS. 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 SCERS.
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.
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 valuation is prepared at the request of the Board to assist SCERS 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 – it is not a prediction of a plan's future financial condition. 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 SCERS 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 System upon delivery and review. The System 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 SCERS, it is not a fiduciary in its capacity as actuaries and consultants with respect to SCERS.

General information about the pension plan

Plan Description

Plan administration. The Sacramento County Employees' Retirement System (SCERS) was established by the County of Sacramento in 1941. SCERS is administered by the Board of Retirement and governed by the County Employees' Retirement Law of 1937 (California Government Code Section 31450 et. seq). SCERS 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 Safety and Miscellaneous members employed by the County of Sacramento. SCERS also provides retirement benefits to the employee members of the Superior Court of California (County of Sacramento) and nine Special Districts.

The management of SCERS is vested with the Sacramento County Board of Retirement. The Board consists of nine members and two alternates. Four members are appointed by the Board of Supervisors, two members are elected by the Miscellaneous membership, one member and one alternate are elected by the Safety membership, one member and one alternate are elected by the retired members of the System; and the County Director of Finance serves as ex officio member. All members of the Board of Retirement serve terms of three years except for the County Director of Finance whose term runs concurrent with his term as Director of Finance.

Plan membership. At June 30, 2023, pension plan membership consisted of the following:

Retired members or beneficiaries currently receiving benefits	13,934
Vested terminated members entitled to but not yet receiving benefits	4,702
Active members	<u>13,167</u>
Total	31,803

Benefits provided. SCERS provides service retirement, disability, death and survivor benefits to eligible employees. All permanent full-time or part-time employees of the County of Sacramento or contracting district become members of SCERS upon employment. There are separate retirement plans for Safety and Miscellaneous members. Safety membership is extended to those involved in active law enforcement, fire suppression, and certain other classifications. There are four tiers applicable to Safety members. Those entering prior to June 25, 1995 are Tier 1 members. Those entering on or after June 25, 1995 are Tier 2 members. County employees entering on or after January 1, 2012 but prior to January 1, 2013 are members of Tier 3. Any new Safety employee who becomes a member on or after January 1, 2013 is designated PEPRA Safety (Tier 4) and is 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. All

other employees are classified as Miscellaneous members. There are five tiers applicable to Miscellaneous members. Those entering prior to September 27, 1981 are Tier 1 members. Those hired on or after September 27, 1981 and June 27, 1993 are members of Tier 2 or Tier 3, respectively. County employees entering on or after January 1, 2012 but prior to January 1, 2013 are members of Tier 4. Any new Miscellaneous employee who becomes a member on or after January 1, 2013 is designated as PEPRA Miscellaneous (Tier 5) and are subject to the provisions of California Government Code 7522 et seq. and AB 197.

Safety members hired prior to January 1, 2013, are eligible to retire once they attain the age of 50 and have acquired 10 or more years of retirement service credit. A member with 20 years of service is eligible to retire regardless of age. Safety 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 five years of retirement service credit.

Miscellaneous members hired prior to January 1, 2013, are eligible to retire once they attain the age of 50 and have acquired 10 or more years of retirement service credit. A member with 30 years of service is eligible to retire regardless of age. Miscellaneous 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 five years of retirement service credit.

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.

Safety member benefits for Tier 1 and Tier 2 are calculated pursuant to the provisions of California Government Code Section 31664.1. Safety member benefits for Tier 3 are calculated pursuant to the provision of California Government Code Section 31664.2. The monthly allowance is equal to 2% of the first \$350 of final compensation, plus 3% of the excess final compensation times years of accrued retirement service credit times age factor from either Section 31664.1 (Tier 1 and 2) or 31664.2 (Tier 3). 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).

Miscellaneous member benefits for Tier 1, Tier 2 and Tier 3 are calculated pursuant to the provisions of California Government Code Section 31676.14. Miscellaneous member benefits for Tier 4 are calculated pursuant to the provisions of California Government Code Section 31676.1. The monthly allowance is equal to 1/90th of the first \$350 of final compensation, plus 1/60th of the excess final compensation times years of accrued retirement service credit times age factor from either Section 31676.14 (Tier 1, Tier 2 and Tier 3) or Section 31676.1 (Tier 4). Miscellaneous 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 compensation multiplied by years of accrued retirement credit multiplied by the age factor from Section 7522.20(a).

For members with membership dates before January 1, 2013, the maximum monthly retirement allowance is 100% of final compensation. There is no maximum for members with membership dates on or after January 1, 2013.

Final average compensation consists of the highest 12 consecutive months for a Tier 1 Safety or Tier 1 Miscellaneous member and the highest 36 consecutive months for a Tier 2, Tier 3, Tier 4 or Tier 5 member.

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. An eligible surviving spouse is one married to the member one year prior to the effective retirement date. There are four optional retirement allowances the member may choose. Each of the optional retirement allowances requires a reduction in the unmodified retirement allowance in order to allow the member the ability to provide certain benefits to a surviving spouse or named beneficiary having an insurable interest in the life of the member.

SCERS provides an annual cost-of-living benefit to Safety Tier 1, Tier 2, Tier 3 and Tier 4 members and Miscellaneous Tier 1, Tier 3, Tier 4 and Tier 5 members. The cost-of-living adjustment, based upon the ratio of the past two Consumer Price Indices for the San Francisco-Oakland-Hayward area, is capped at 4.0% for Tier 1 members and 2% for all other members eligible for a cost-of-living adjustment.

The County of Sacramento 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 SCERS' 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 30.69% of compensation.

All members are required to make contributions to SCERS regardless of the retirement plan or tier in which they are included. The average member contribution rate as of June 30, 2023 for 2022/2023 (based on the June 30, 2021 valuation) was 11.87% of compensation.

Net Pension Liability

Measurement Date	June 30, 2023	June 30, 2022
Components of the Net Pension Liability		
Total Pension Liability	\$14,358,854,000	\$13,578,984,000
Plan Fiduciary Net Position	(12,363,258,000)	(11,830,351,000)
Net Pension Liability	\$1,995,596,000	\$1,748,633,000
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	86.10%	87.12%

The Net Pension Liability (NPL) for the Plan was measured as of June 30, 2023 and June 30, 2022. The Plan's Fiduciary Net Position (plan assets) and Total Pension Liability (TPL) were valued as of the measurement date and are from actuarial valuations as of June 30, 2023 and June 30, 2022, respectively.

Plan Provisions. The plan provisions used in the measurement of the NPL are the same as those used in the SCERS actuarial 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. In particular, the following actuarial assumptions were applied to all periods included in the June 30, 2023 measurement:

Investment rate of return:	6.75%, net of pension plan investment expense, including inflation.
mivestinent rate of return.	0.7570, fiet of perision plan investment expense, including initiation.
Inflation rate:	2.50%
Real across-the-board salary increase:	0.25%
Projected salary increases:	4.25% to 9.75%, varying by service, including inflation and across-the-board salary increases.
Cost of living adjustments:	2.75% for Miscellaneous and Safety Tier 1, 0% for Miscellaneous Tier 2, 2.00% for all other Tiers.
Other assumptions:	See the analysis of actuarial experience study 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:	0.25%
Projected salary increases:	4.25% to 10.50%, varying by service, including inflation and across-the-board salary increases.
Cost of living adjustments:	2.75% for Miscellaneous and Safety Tier 1, 0% for Miscellaneous Tier 2, 2.00% for all other Tiers.
Other assumptions:	See the analysis of actuarial experience study 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 tables. For June 30, 2022 these rates are before deducting investment management expenses while for June 30, 2023 they 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 and June 30, 2022 actuarial valuations. This information will change every three years based on the actuarial experience study.

June 30, 2023

Asset Class	Target Allocation	Long-Term Expected Arithmetic Real Rate of Return
Global Equity	40.00%	7.05%
Private Equity	11.00%	10.12%
Public Credit – High Yield	1.00%	4.63%
Public Credit – Leveraged Loan	1.00%	4.07%
Private Credit	5.00%	6.69%
Fixed Income – Core	12.00%	1.97%
Fixed Income – U.S. Treasury	4.00%	1.31%
Core Real Estate	6.00%	3.86%
Value Added Real Estate	1.50%	6.70%
Opportunistic Real Estate	1.50%	8.60%
Absolute Return	7.00%	3.00%
Real Assets	7.00%	7.30%
Liquid Real Return	2.00%	4.40%
Cash	<u>1.00%</u>	0.63%
Total	100.00%	5.92%

June 30, 2022

Asset Class	Target Allocation	Long-Term Expected Arithmetic Real Rate of Return
U.S. Large Cap Equity	18.00%	5.42%
U.S. Small Cap Equity	2.00%	6.21%
International Developed Equity	16.00%	6.50%
Emerging Markets Equity	4.00%	8.80%
Core Plus Bonds	10.00%	1.13%
High Yield Bonds	1.00%	3.40%
Global Bonds	3.00%	(0.04%)
Bank Loans	1.00%	3.89%
U.S. Treasury	5.00%	0.30%
Real Estate	5.00%	4.57%
Cash	1.00%	(0.03%)
Liquid Real Return	2.00%	4.47%
Hedge Fund Growth	3.00%	2.40%
Hedge Fund Diversifying	7.00%	2.40%
Value Added Real Estate	2.00%	8.10%
Private Equity	9.00%	9.40%
Private Real Assets	7.00%	8.05%
Private Credit	4.00%	5.60%
Total	100.00%	5.04%

Discount rate. The discount rate used to measure the TPL was 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 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 for future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the 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 June 30, 2023 NPL to changes in the discount rate. The following presents the NPL of the SCERS as of June 30, 2023, calculated using the discount rate of 6.75%, as well as what the SCERS' NPL would be if it were calculated using a discount rate that is 1 percentage-point lower (5.75%) or 1 percentage-point higher (7.75%) than the current rate:

	Current		
	1% Decrease (5.75%)	Discount Rate (6.75%)	1% Increase (7.75%)
Net Pension Liability as of June 30, 2023	3,925,717,000	\$1,995,596,000	\$410,690,000

Sensitivity of the June 30, 2022 NPL to changes in the discount rate. The following presents the NPL of the SCERS as of June 30, 2022, calculated using the discount rate of 6.75%, as well as what the SCERS' NPL would be if it were calculated using a discount rate that is 1 percentage-point lower (5.75%) or 1 percentage-point higher (7.75%) than the current rate:

	Current		
	1% Decrease (5.75%)	Discount Rate (6.75%)	1% Increase (7.75%)
Net Pension Liability as of June 30, 2022	\$3,598,671,000	\$1,748,633,000	\$234,183,000

Schedule of changes in Net Pension Liability – Last two fiscal years

Measurement Date	June 30, 2023	June 30, 2022
Total Pension Liability		
Service Cost ¹	\$270,739,734	\$264,372,132
• Interest	912,500,116	873,480,721
Change of benefit terms	0	0
Differences between expected and actual experience	279,701,150 ²	74,494,147
Changes of assumptions	(20,664,000)	0
Benefit payments, including refunds of member contributions	(662,407,000)	(618,892,000)
• Other	<u>0</u>	<u>0</u>
Net change in Total Pension Liability	\$779,870,000	\$593,455,000
Total Pension Liability – beginning	<u>13,578,984,000</u>	<u>12,985,529,000</u>
Total Pension Liability – ending	\$14,358,854,000	\$13,578,984,000
Plan Fiduciary Net Position		
Contributions – employer	\$360,674,000	\$323,610,000
Contributions – employee	139,521,000	132,526,000
Net investment income	710,907,000	(547,787,000)
Benefit payments, including refunds of member contributions	(662,407,000)	(618,892,000)
Administrative expense	$(28,178,000)^3$	(8,971,000)
• Other	<u>12,390,000</u> ⁴	(14,284,000) ⁵
Net change in Plan Fiduciary Net Position	\$532,907,000	\$(733,798,000)
Plan Fiduciary Net Position – beginning	<u>11,830,351,000</u>	<u>12,564,149,000</u>
Plan Fiduciary Net Position – ending	<u>\$12,363,258,000</u>	<u>\$11,830,351,000</u>
Net Pension Liability – ending	\$1,995,596,000	\$1,748,633,000
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	86.10%	87.12%
Covered payroll ⁶	\$1,175,393,299	\$1,078,235,461
Net Pension Liability as percentage of covered payroll	169.78%	162.18%

The Service Cost is based on the previous year's valuation, meaning the 2023 and 2022 values are based on the valuations as of June 30, 2022 and June 30, 2021, respectively.

We have reflected the reduction in the retiree and beneficiary benefits reported for this year's valuation under the Alameda Decision as experience gains and losses as discussed on page 6.

Includes a one-time impairment amount of \$17.1 million associated with termination of pension administration services provided by an outside vendor.

We have classified the \$1,775,000 interest contribution made by Sacramento Metropolitan Fire, a non-active employer, during 2022/2023 as well as the \$10,573,829 receivable contributions due from Sacramento Metropolitan Fire, in the "Other" category. We have also classified \$41,000 of miscellaneous income and federal tax credit in the "Other" category. This is done to anticipate that the NPL for the active employers to be disclosed later in our GASBS 68 actuarial valuation as of June 30, 2024 will be allocated using the employer contributions excluding the total \$12,349,000 contributions made and

- miscellaneous income and federal tax credit received during 2022/2023. Following last year's practice, we have continued to treat the \$41,000 in miscellaneous income and federal tax credit as an amount to be recognized immediately as of the June 30, 2023 measurement date.
- We have classified the \$2,941,000 interest contribution made by Sacramento Metropolitan Fire, a non-active employer, during 2021/2022 as well as the \$(17,275,000) offset to receivable contributions due from Sacramento Metropolitan Fire, in the "Other" category. We have also classified \$49,000 of miscellaneous income and federal tax credit in the "Other" category. This is done to anticipate that the NPL for the active employers to be disclosed later in our GASBS 68 actuarial valuation as of June 30, 2023 will be allocated using the employer contributions excluding the total \$(14,334,000) offset to contributions made and miscellaneous income and federal tax credit received during 2021/2022. Following the prior year's practice, we have continued to treat the \$49,000 in miscellaneous income and federal tax credit as an amount to be recognized immediately as of the June 30, 2022 measurement date.
- ⁶ Covered payroll represents compensation earnable and pensionable compensation. Only compensation earnable and pensionable compensation that would possibly go into the determination of the retirement benefits are included.

Notes to Schedule:

Benefit changes: None

Schedule of contributions – Last ten fiscal years

Year Ended June 30	Actuarially Determined Contributions ¹	Contributions in Relation to the Actuarially Determined Contributions	Contribution Deficiency / (Excess)	Covered Payroll ²	Contributions as a Percentage of Covered Payroll
2014	\$209,367,323	\$209,367,323	\$0	\$858,343,000	24.39%
2015	221,823,365	221,823,365	0	873,328,000	25.40%
2016	207,884,162	207,884,162	0	912,421,000	22.78%
2017	201,928,297	201,928,297	0	958,934,000	21.06%
2018	198,331,133	198,331,133	0	985,375,000	20.13%
2019	240,237,090	240,237,090	0	1,017,885,000	23.60%
2020	274,054,940	274,054,940	0	1,059,984,000	25.85%
2021	292,533,591	292,533,591	0	1,034,343,000	28.28%
2022	323,609,923	323,609,923	0	1,078,235,000	30.01%
2023	360,673,968	360,673,968	0	1,175,393,000	30.69%

All "Actuarially Determined Contributions" through June 30, 2015 were determined as the "Annual Required Contribution" under GASBS 25 and 27.

See accompanying notes to this schedule on the next page.

² Covered payroll represents compensation earnable and pensionable compensation. Only compensation earnable and pensionable compensation that would possibly go into the determination of the retirement benefits are included.

Notes to Schedule:

Methods and assumptions used to establish "actuarially determined contribution" rates:

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.	
Entry Age Actuarial Cost Method	
Level percent of payroll	
June 30, 2021 valuation	
14 years (declining) as of June 30, 2021 (which sets the rates for the 2022-2023 fiscal year) for the outstanding balance of the June 30, 2012 UAAL. Effective June 30, 2013, any changes in UAAL due to actuarial gains or losses or due to changes in actuarial assumptions or methods will be amortized over a 20-year closed period effective with each valuation. Any change in UAAL that arises due to plan amendments will be amortized over its own declining 15-year period and any change in UAAL due to retirement incentive programs will be amortized over a declining period of up to 5 years.	
The market value of assets less unrecognized returns from each of the last six years. Unrecognized return is equal to the difference between actual and expected returns on a market value basis and is recognized over a seven-year period. The deferred return is further adjusted, if necessary, so that the actuarial value of assets will stay within 30% of the market value of assets.	
All members with membership dates on or after January 1, 2013 enter the new tiers created by the California Public Employees' Pension Reform Act of 2013 (PEPRA).	

Actuarial assumptions: June 30, 2021 valuation (used for the year ended June 30, 2023 ADC) 6.75%, net of pension plan investment expense, including inflation. Investment rate of return: Inflation rate: 2.75% 0.25% Real across-the-board salary increase: **Projected salary increases:** Miscellaneous: 4.25% to 8.00% and Safety: 5.50% to 10.50%, varying by service, including inflation and across-the-board salary increases. Cost of living adjustments: Miscellaneous and Safety Tier 1 benefits are assumed to increase at 2.75% per year. Miscellaneous Tier 3, Tier 4 and Tier 5 and Safety Tier 2, Tier 3 and Tier 4 benefits are assumed to increase at 2.00% per year. Miscellaneous Tier 2 receive no COLA increases. Other assumptions: Same as those used in the June 30, 2021 funding actuarial valuation.

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 June 30	Projected Beginning Plan Fiduciary Net Position (a)	Projected Total Contributions (b)	Projected Benefit Payments (c)	Projected Administrative Expenses (d)	Projected Investment Earnings (e)	Projected Beginning Plan Fiduciary Net Position (f) = (a) + (b) - (c) - (d) + (e)
2023	\$12,363	\$497	\$740	\$12	\$823	\$12,932
2024	12,932	492	767	12	861	13,505
2025	13,505	490	806	13	898	14,074
2026	14,074	488	844	13	935	14,639
2027	14,639	482	884	14	971	15,195
2028	15,195	497	923	14	1,008	15,763
2029	15,763	497	963	15	1,044	16,326
2030	16,326	496	1,003	15	1,081	16,884
2031	16,884	495	1,044	16	1,117	17,436
2032	17,436	494	1,084	16	1,153	17,983
					·	
2048	20,885	102	1,503	20	1,357	20,822
2049	20,822	94	1,515	19	1,352	20,733
2050	20,733	88	1,526	19	1,345	20,621
2051	20,621	83	1,534	19	1,337	20,488
2052	20,488	78	1,541	19	1,328	20,334
2107	91,642	87*	3	86	6,186	97,825
2108	97,825	92*	2	91	6,603	104,426
2109	104,426	98*	2	98	7,049	111,474
2110	111,474	105*	1	104	7,524	118,998
2111	118,998	112*	1	111	8,032	127,030
2136	609,162	569*	0**	569	41,118	650,281
2137	650,281					
2137						
Discounted Value	379***					

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

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

^{*** \$650,281} million when discounted with interest at the rate of 6.75% per annum has a value of \$379 million (or 3.07% of the Plan Fiduciary Net Position) as of June 30, 2023.

Notes:

- 1. Amounts may not total exactly due to rounding.
- 2. Various years have been omitted from this table.
- 3. **Column (a):** Except for the "discounted value" shown for 2137, none of the projected beginning Plan Fiduciary Net Position amounts shown have been adjusted for the time value of money.
- 4. **Column (b):** Projected total contributions include employee and employer Normal Cost contributions based on closed group projections (based on covered active members as of June 30, 2023), plus employer contributions to the Unfunded Actuarial Accrued Liability, based on the Plan's funding policy. Contributions are assumed to occur halfway through the year, on average.
- 5. **Column (c):** Projected benefit payments have been determined in accordance with paragraph 39 of GASB 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 valuation report.
- 6. **Column (d):** Projected administrative expenses are calculated as approximately 0.09% of the projected beginning Plan Fiduciary Net Position amount. The 0.09% proportion was based on the actual fiscal year 2022-2023 administrative expenses (excluding a one-time impairment amount of \$17.1 million associated with termination of pension administration services provided by an outside vendor) 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.
- 7. Column (e): Projected investment earnings are based on the assumed investment rate of return of 6.75% per annum.
- 8. As illustrated in this Appendix, the Plan Fiduciary Net Position was projected to be available to make all projected future benefit payments for current Plan members. In other words, there is no projected "cross-over date" when projected benefits are not covered by projected assets. Therefore, the long-term expected rate of return on Plan investments of 6.75% per annum was applied to all periods of projected benefit payments to determine the Total Pension Liability as of June 30, 2023 shown earlier in this report, pursuant to paragraph 44 of GASB Statement No. 67.
- 9. 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 67. The terms may have different meanings in other contexts.

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

Defined Benefit Pensions:	Pensions for which the income or other benefits that the employee will receive at or after separation from employment are defined by the benefit terms. The pensions may be stated as a specified dollar amount or as an amount that is calculated based on one or more factors such as age, years of service, and compensation. (A pension that does not meet the criteria of a defined contribution pension is classified as a defined benefit pension for purposes of Statement 67.)
Defined Contribution Pension Plans:	Pension plans that are used to provide defined contribution pensions.
Defined Contribution Pensions:	Pensions having terms that (1) provide an individual account for each employee; (2) define the contributions that an employer is required to make (or the credits that it is required to provide) to an active employee's account for periods in which that employee renders service; and (3) provide that the pensions an employee will receive will depend only on the contributions (or credits) to the employee's account, actual earnings on investments of those contributions (or credits), and the effects of forfeitures of contributions (or credits) made for other employees, as well as pension plan administrative costs, that are allocated to the employee's account.
Discount Rate:	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: 1. 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 67) to be greater than the benefit payments that are projected to be made in that period and (b) pension plan assets up to that point are expected to be invested using a strategy to achieve the long-term expected rate of return, calculated using the long-term expected rate of return on pension plan investments. 2. The actuarial present value of projected benefit payments not included in (1), calculated using the municipal bond rate.
Entry Age Actuarial Cost Method:	A method under which the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age(s). The portion of this actuarial present value allocated to a valuation year is called the normal cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is called the actuarial accrued liability.
Inactive Employees:	Terminated individuals that have accumulated benefits but are not yet receiving them, and retirees or their beneficiaries currently receiving benefits.
Multiple-Employer Defined Benefit Pension Plan:	A defined benefit pension plan that is used to provide pensions to the employees of more than one employer.
Net Pension Liability (NPL):	The liability of employers and non-employer contributing entities to employees for benefits provided through a defined benefit pension plan.

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