# San Diego County Employees Retirement Association (SDCERA)

## Governmental Accounting Standards Board Statement No. 67 (GAS 67) Actuarial Valuation

As of June 30, 2022



Segal

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October 24, 2022

Mr. Michael Pattison
Director of Finance
San Diego County Employees Retirement Association
2275 Rio Bonito Way, Suite 100
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Dear Mike:

We are pleased to submit this Governmental Accounting Standards Board Statement No. 67 (GAS 67) Actuarial Valuation as of June 30, 2022. It contains various information that will need to be disclosed in order to comply with GAS 67.

This report was prepared in accordance with generally accepted actuarial principles and practices at SDCERA's request to assist in administering the Plan. The census and financial information on which our calculations were based was prepared by SDCERA. 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; increases or decreases expected as part of the natural operation of the methodology used for these measurements; and changes in plan provisions or applicable law.

The actuarial calculations were completed under the supervision of Andy Yeung, ASA, Enrolled Actuary, MAAA, FCA. 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 SDCERA.

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

Sincerely,

Segal

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

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

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# Section 1: Actuarial Valuation Summary

## Purpose and basis

This report has been prepared by Segal to present certain disclosure information required by Governmental Accounting Standards Board Statement No. 67 (GAS 67) as of June 30, 2022. This valuation is based on:

- The benefit provisions of SDCERA, 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, 2021, provided by SDCERA;
- The market value of assets of the Plan as of June 30, 2022, provided by SDCERA;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board for the June 30, 2022 valuation; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc. adopted by the Board for the June 30, 2022 valuation.

## General observations on GAS 67 actuarial valuation

1. The Governmental Accounting Standards Board (GASB) rules only define pension liability and expense for financial reporting purposes, and do not apply to contribution amounts for pension funding purposes. Employers and plans still develop and adopt funding policies under current practices.
2. When measuring pension liability, GASB uses the same actuarial cost method (Entry Age method) and the same type of discount rate (expected return on assets) as SDCERA uses for funding. This means that with the exception of the Section 415(m) benefits for retirees in pay status, the Total Pension Liability (TPL) measure for financial reporting shown in this report is generally determined on the same basis as SDCERA'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. The Plan Fiduciary Net Position is equal to the market value of assets (excluding the Health Benefits 401(h) Account). With the exception of the liability associated with the Section 415(m) benefits for retirees in pay status, the NPL measure is very similar to UAAL on a market value basis.

4. As we disclosed in our June 30, 2021 valuation report, in the June 30, 2021 funding valuation the liabilities and the contribution requirements to pay off the UAAL were calculated after the Section 415(b) limit was applied to the retirees in pay status. This was done because the benefit amounts reported by SDCERA's pension administration system for use in the valuation included only benefits up to the Section 415(b) limit. Those calculations are consistent with the current practice that benefits in excess of the Section 415(b) limit are paid out of the employer's Section 415(m) replacement benefit program. However, for the purpose of GAS 67/68, it is our understanding that those liabilities should be included for financial reporting purposes. Accordingly, a liability of $26.2 million as of June 30, 2022 (rolled forward from June 30, 2021) has been included in this report.

## Highlights of the valuation

1. For this report, the reporting dates for the Plan are June 30, 2022 and June 30, 2021. The NPL was measured as of June 30, 2022 and June 30, 2021, respectively, and determined based upon rolling forward the TPL from actuarial valuations as of June 30, 2021 and June 30, 2020. The Plan Fiduciary Net Position (plan assets) was valued as of the measurement dates. In addition, any changes in actuarial assumptions or plan provisions that occurred between the valuation date and the measurement date have been reflected.
2. The June 30, 2022 measurement date results reflect an experience study of the actuarial assumptions based on the experience during the period July 1, 2018 through June 30, 2021. Based on the recommendations provided in that experience study report dated May 3, 2022, the Board adopted the updated actuarial assumptions for use in this valuation.
3. The NPL increased from $2.395 billion as of June 30, 2021 to $5.679 billion as of June 30, 2022 primarily due to the -9.37% return[1] on the market value of assets during FY 2022 (that was lower than the assumed return of 7.00% for a loss of $2.630 billion) and changes in actuarial assumptions[2] (an increase of $1.071 billion). Changes in these values during the last two fiscal years ending June 30, 2022 and June 30, 2021 can be found in *Section 2, Schedule of Changes in Net Pension Liability* on page 18.
4. The discount rate originally used to measure the TPL and NPL as of June 30, 2022 and June 30, 2021 was 7.00% following the same assumption used by SDCERA in the funding valuation as of June 30, 2021. However, as the Board approved a new set of actuarial assumptions (including a new discount rate of 6.50%) for use in the funding valuation as of June 30, 2022, we have included the impact of these assumption changes by (1) revaluing the TPL as of June 30, 2021 (before the roll forward) using the new actuarial assumptions and (2) using this revalued TPL in rolling forward the results from June 30, 2021 to June 30, 2022.

[1] This was the rate of return net of investment expense and excludes the rate of return for the Health Benefits 401(h) Account.
[2] The Board adopted new actuarial assumptions for use in the June 30, 2022 which include lowering the investment return assumption from 7.00% to 6.50% and the inflation assumption from 2.75% to 2.50%. However, the 2.75% assumption used to anticipate COLA increase for those Tiers with a maximum 3.00% COLA has remained unchanged.

The detailed derivation of the discount rate of 6.50% used in calculation of the TPL and NPL as of June 30, 2022 can be found in *Section 3, Appendix A*. Various other information that is required to be disclosed can be found throughout *Section 2*.

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 has important implications for SDCERA and its members. In particular, the decision requires pension systems like SDCERA to exclude certain pay items from a legacy member's compensation earnable. In response to that decision, the Board determined that three specific earn codes previously considered pensionable compensation for legacy members should be excluded from pensionable compensation prospectively starting January 29, 2021. Such action will not affect any current retirees or members who received such compensation prior to January 29, 2021. It should be noted that the salary information in the June 30, 2021 membership's data provided by SDCERA reflects this exclusion and therefore the June 30, 2022 liabilities (i.e., liabilities rolled forward from June 30, 2021) that we calculated using the June 30, 2021 membership data were the first results that reflect the impact of this California Supreme Court decision.
6. It is important to note that this actuarial valuation is based on plan assets as of June 30, 2022. Due to the COVID-19 pandemic, market conditions have changed significantly since the onset of the Public Health Emergency. The plan's funded status does not reflect short-term fluctuations of the market, but rather is based on the market values on the last day of the Plan Year. Moreover, this actuarial valuation does not include any possible short-term or long-term impacts on mortality of the covered population that may emerge after June 30, 2022. While it is impossible to determine how the pandemic will affect market conditions and other demographic experience of the plan in future valuations, Segal is available to prepare projections of potential outcomes upon request.

## Summary of key valuation results

| Measurement Date | | June 30, 2022 | June 30, 2021 |
|---|---|---|---|
| **Disclosure elements for plan year ending June 30:** | • Service cost[1] | $365,090,935 | $366,716,019 |
| | • Total Pension Liability | 20,182,527,810 | 18,521,524,468 |
| | • Plan Fiduciary Net Position[2] | 14,503,991,327 | 16,126,340,792 |
| | • Net Pension Liability | 5,678,536,483 | 2,395,183,676 |
| **Schedule of contributions for plan year ending June 30:** | • Actuarially determined contributions | 632,594,539 | $615,698,887 |
| | • Actual contributions[3] | 632,594,539 | 615,698,887 |
| | • Contribution deficiency / (excess) | 0 | 0 |
| **Demographic data for plan year ending June 30:[4]** | • Number of retired members and beneficiaries | 21,491 | 20,700 |
| | • Number of inactive vested members | 7,588 | 6,804 |
| | • Number of active members | 18,138 | 18,200 |
| **Key assumptions as of June 30:** | • Investment rate of return | 6.50% | 7.00% |
| | • Inflation rate | 2.50% | 2.75% |
| | • Projected salary increases[5] | | |
| | - General | 3.90% to 10.50% | 4.15% to 10.50% |
| | - Safety | 4.10% to 11.75% | 4.25% to 12.00% |
| | • Cost of living adjustments | | |
| | - Tiers with 3% COLA | 2.75% | 2.75% |
| | - Tiers with 2% COLA | 2.00% | 2.00% |

[1] The Service cost is based on the previous year's valuation, meaning the June 30, 2022 and June 30, 2021 measurement date values are based on the valuations as of June 30, 2021 and June 30, 2020, respectively. Both service costs have been calculated using the assumption shown in the June 30, 2021 measurement date column, as there had been no changes in the actuarial assumptions between the June 30, 2021 and June 30, 2020 valuations.

[2] Net of assets in Health Benefits 401(h) Account.

[3] Excludes employer pickup of member contributions.

[4] Data as of June 30, 2021 is used in the measurement of the TPL as of June 30, 2022.

[5] Includes inflation at 2.50% plus real across-the-board salary increases of 0.50% plus merit and promotion increases that vary by service for the June 30, 2022 measurement date and includes inflation at 2.75% plus real across-the-board salary increases of 0.50% plus merit and promotion increases that vary by service for the June 30, 2021 measurement date.

## Important information about actuarial valuations

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

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

| | |
|---|---|
| **Plan of benefits** | Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan description in this report (as well as the plan summary included in our funding valuation report) to confirm that Segal has correctly interpreted the plan of benefits. |
| **Participant data** | An actuarial valuation for a plan is based on data provided to the actuary by SDCERA. 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** | The valuation is based on the fair value of assets as of the measurement date, as provided by SDCERA. |
| **Actuarial assumptions** | In preparing an actuarial valuation, Segal projects the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This projection requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year. In addition, the benefits projected to be paid for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments. The projected benefits are then discounted to a present value, based on the assumed rate of return that is expected to be achieved on the plan's assets. There is a reasonable range for each assumption used in the projection and the results may vary materially based on which assumptions are selected. It is important for any user of an actuarial valuation to understand this concept. Actuarial assumptions are periodically reviewed to ensure that future valuations reflect emerging plan experience. While future changes in actuarial assumptions may have a significant impact on the reported results, that does not mean that the previous assumptions were unreasonable. |
| **Models** | Segal valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are presented to meet regulatory, legislative and client requirements. Our Actuarial Technology and Systems unit, comprised of both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuary. |

# Section 1: Actuarial Valuation Summary

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

| |
|---|
| The valuation is prepared at the request of the SDCERA Board of Retirement to assist SDCERA in preparing items related to the pension plan in their financial reports. Segal is not responsible for the use or misuse of its report, particularly by any other party. |
| An actuarial valuation is a measurement of the plan's assets and liabilities at a specific date. Accordingly, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan. |
| If SDCERA is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it. |
| Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. The Board should look to their other advisors for expertise in these areas. |

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

# Section 2: GAS 67 Information

## General information about the pension plan

**Plan Description**

*Plan administration.* The San Diego County Employees Retirement Association (SDCERA) was established by the County of San Diego on July 1, 1939. SDCERA is administered by the Board of Retirement and governed by the County Employees' Retirement Law of 1937 (California Government Code Section 31450 et. seq.) SDCERA 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 members employed by the County of San Diego. SDCERA also provides retirement benefits to the employee members of the Superior Court, Air Pollution Control District, San Dieguito River Valley Joint Powers Authority, Local Agency Formation Commission and San Diego County Office of Education.

The management of SDCERA is vested with the San Diego County Board of Retirement. The Board consists of nine members and two alternates made up of member-elected representatives, Board of Supervisors-appointed representatives and the County Treasurer-Tax Collector who is elected by the general public and a member of the Board of Retirement by law. All members of the Board of Retirement serve terms of three years except for the County Treasurer-Tax Collector whose term runs concurrent with his term as County Treasurer.

*Plan membership.* At June 30, 2022, pension plan membership consisted of the following:

| | |
|---|---|
| Retired members or beneficiaries currently receiving benefits | 21,491 |
| Inactive vested members entitled to but not yet receiving benefits[1] | 7,588 |
| Active members | 18,138 |
| Total | 47,217 |

Note: Data as of June 30, 2022 is not used in the measurement of the TPL as of June 30, 2022.

*Benefits provided.* SDCERA provides service retirement, disability, death and survivor benefits to eligible employees. All employees appointed to a permanent position and work at least half time or 20 hours weekly for the County of San Diego or the other participating agencies become members of SDCERA effective on the first day of the first full pay period after employment in a permanent position. There are separate retirement plans for General and Safety member employees. Safety membership is extended to those involved in active law enforcement or who otherwise qualify for Safety membership. Court service officers and

[1] Includes members who choose to leave their contributions on deposit even though they have less than five years of service.

probation officers were added to Safety membership in 1998 and 1999, respectively. All other employees are classified as General members. The tiers and their basic provisions are listed in the following table:

| Tier | Governing Code | Membership Effective Date | Basic Provisions | Final Average Salary Period |
|---|---|---|---|---|
| General Tier 1 | §31676.12 | Before March 8, 2002[1] | 2.62% at 62; maximum 3% COLA | Highest 1-year |
| General Tier A | §31676.17 | March 8, 2002 to August 27, 2009 | 3.0% at 60; maximum 3% COLA | Highest 1-year |
| General Tier B | §31676.12 | August 28, 2009 to December 31, 2012 | 2.62% at 62; maximum 2% COLA | Highest 3-year |
| General Tier C | §7522.20(a) | January 1, 2013 to June 30, 2018 | 2.5% at 67; maximum 2% COLA | Highest 3-year[2] |
| General Tier D | §31676.01 | July 1, 2018 | 1.62% at 65; maximum 2% COLA | Highest 3-year[2] |
| Safety Tier A | §31664.1 | Before August 28, 2009 | 3.0% at 50; maximum 3% COLA | Highest 1-year |
| Safety Tier B | §31664.2 | August 28, 2009 to December 31, 2012 | 3.0% at 55; maximum 2% COLA | Highest 3-year |
| Safety Tier C | §7522.25(d) | January 1, 2013 to June 30, 2020 | 2.7% at 57; maximum 2% COLA | Highest 3-year[2] |
| Safety Tier D | §7522.25(c) | July 1, 2020 | 2.5% at 57; maximum 2% COLA | Highest 3-year[2] |

Any new member who becomes a member on or after January 1, 2013 is placed into Tier C or Tier D and is subject to the provisions of California Public Employees' Pension Reform Act of 2013 (PEPRA) and California Government Code 7522 et seq.

General members enrolled in Tier 1, A or B are eligible to retire once they attain the age of 70 regardless of service or at age 50 (55 for Tier B) and have acquired 10 or more years of retirement service credit. A General member in Tier 1, A or B with 30 years of

1 All General members with membership dates before March 8, 2002 who made a specific and irrevocable election to opt out of General Tier A. This also included those General Members in deferred status on March 8, 2002.

2 PEPRA limits the amount of compensation that can be used to calculate retirement benefit for Tier C and Tier D to 100% and 120% of the 2013 Social Security taxable wage base limit for General members and Safety members, respectively. These amounts will be adjusted with price inflation starting in 2014.

service is eligible to retire regardless of age. General members enrolled in General Tier C or D are eligible to retire once they attain the age of 70 regardless of service or at age of 52 and have acquired five or more years of retirement service credit.

Safety members enrolled in Tier A or B are eligible to retire once they attain the age of 70 regardless of service or at age 50 and have acquired 10 or more years of retirement service credit. A Safety member in Tier A or B with 20 years of service is eligible to retire regardless of age. Safety members enrolled in Safety Tier C or D are eligible to retire once they have attained the age of 70 regardless of service or at age of 50 and have acquired five or more 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.

For members enrolled in Tier 1, A or B, the maximum monthly retirement allowance is 100% of final compensation. There is no maximum for members enrolled in General Tier C, Safety Tier C or Safety Tier D.

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 one married to or registered with the member one year prior to the effective retirement date. Certain surviving spouse or domestic partner may also be eligible if marriage or domestic partnership was at least two years prior to the date of death and the surviving spouse or domestic partner has attained age 55. There are four optional retirement allowances the member may choose. Each of the optional retirement allowances requires a reduction in the unmodified retirement allowance in order to allow the member the ability to provide certain benefits to a surviving spouse, domestic partner, or named beneficiary having an insurable interest in the life of the member.

SDCERA provides an annual cost-of-living benefit to all retirees. The cost-of-living adjustment, based upon the ratio of the past two annual Consumer Price Indices for the San Diego-Carlsbad Area (with 1982-84 as the base period), is capped at 3.0% for Tier 1 and Tier A; and capped at 2.0% for Tier B, Tier C and Tier D.

The County of San Diego and the other participating agencies 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 SDCERA's actuary after the completion of the annual actuarial valuation. The average employer contribution rate as of June 30, 2022 for FY 2022 was 43.60% of compensation before adjustment to include any employer pick-up of member contributions.

All members are required to make contributions to SDCERA regardless of the retirement plan or tier in which they are included. The average member contribution rate as of June 30, 2022 for FY 2022 was 11.31% of compensation before adjustment to include any employer pick-up of member contributions.

## Net Pension Liability

| Measurement Date | June 30, 2022 | June 30, 2021 |
|---|---|---|
| **Components of the Net Pension Liability** | | |
| Total Pension Liability | $20,182,527,810 | $18,521,524,468 |
| Plan Fiduciary Net Position | (14,503,991,327) | (16,126,340,792) |
| **Net Pension Liability** | **$5,678,536,483** | **$2,395,183,676** |
| Plan Fiduciary Net Position as a percentage of the Total Pension Liability | 71.86% | 87.07% |

The Net Pension Liability (NPL) for the plan was measured as of June 30, 2022 and June 30, 2021. Plan Fiduciary Net Position (plan assets) was valued as of the measurement dates and the Total Pension Liability (TPL) was determined based upon rolling forward the TPL from actuarial valuations as of June 30, 2021 and June 30, 2020, respectively.

*Plan provisions.* The plan provisions used in the measurement of the NPL as of June 30, 2022 and June 30, 2021 are the same as those used in the SDCERA actuarial valuations as of June 30, 2022 and June 30, 2021, respectively.

*Actuarial assumptions.* The TPL as of June 30, 2022 was remeasured by (1) revaluing the TPL as of June 30, 2021 (before the roll forward) to include the following actuarial assumptions that the Retirement Board adopted for use in the funding valuation as of June 30, 2022 and (2) using this revalued TPL in rolling forward the results from June 30, 2021 to June 30, 2022:

| | |
|---|---|
| **Inflation:** | 2.50% |
| **Cost of living adjustments** | 2.75% of retirement income for Tiers with 3% COLA<br>2.00% of retirement income for Tiers with 2% COLA |
| **Salary increases:** | General: 3.90% to 10.50% and Safety: 4.10% to 11.75%, vary by service, including inflation |
| **Investment rate of return:** | 6.50%, net of pension plan investment expense, including inflation |
| **Other assumptions:** | See analysis of actuarial experience during the period July 1, 2018 through June 30, 2021 |

# Section 2: GAS 67 Information

The TPL as of June 30, 2021 was determined by the actuarial valuation as of June 30, 2020. The actuarial assumptions used were based on the results of an experience study for the period from July 1, 2015 through June 30, 2018 and they are the same as those used in the June 30, 2021 funding valuation for SDCERA.

| | |
|---|---|
| **Inflation:** | 2.75% |
| **Cost of living adjustments** | 2.75% of retirement income for Tiers with 3% COLA<br>2.00% of retirement income for Tiers with 2% COLA |
| **Salary increases:** | General: 4.15% to 10.50% and Safety: 4.25% to 12.00%, vary by service, including inflation |
| **Investment rate of return:** | 7.00%, net of pension plan investment expense, including inflation |
| **Other assumptions:** | See analysis of actuarial experience during the period July 1, 2015 through June 30, 2018 |

## Determination of Discount Rate and Investment Rates of Return

The long-term expected rate of return on pension plan investments[1] was determined using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage, adding expected inflation and subtracting expected investment expenses and a risk margin. The target allocation and projected arithmetic real rates of return for each major asset class, after deducting inflation but before deducting investment expenses, are shown in the following two tables. As indicated in the table headings, this information was used in the derivation of the long-term expected investment rate of return assumption in the June 30, 2022 and June 30, 2021 actuarial valuations. This information will change every three years based on the actuarial experience study (as it did between the 2021 and 2022 valuations).

**June 30, 2022**

| Asset Class | Target Allocation | Long-Term Expected Arithmetic Real Rate of Return |
|---|---|---|
| Large Cap Equity | 19.00% | 5.40% |
| Small Cap Equity | 3.00% | 6.17% |
| Developed International Equity | 15.00% | 6.13% |
| Global Equity | 11.50% | 6.20% |
| Emerging Market Equity | 5.00% | 8.17% |
| High Yield Bonds | 6.40% | 2.76% |
| Bank Loan | 0.60% | 2.02% |
| Real Estate | 7.40% | 4.59% |
| Private Equity | 5.00% | 10.83% |
| Private Credit | 1.00% | 5.93% |
| Timberland | 0.80% | 4.44% |
| Farmland – Row Crops | 0.70% | 5.62% |
| Infrastructure | 1.50% | 6.02% |
| Real Estate (Non-Core) | 2.60% | 7.94% |
| Intermediate Duration Bonds - Gov't | 10.30% | -0.24% |
| Intermediate Duration Bonds - Credit | 10.20% | 0.70% |

[1] The investment return assumption for funding purposes is developed net of both investment and administrative expenses; however, the same investment return assumption is used for financial reporting purposes, where it is considered gross of administrative expenses.

| **Total** | **100.00%** | **4.80%** |
|---|---|---|

**June 30, 2021**

| Asset Class | Target Allocation | Long-Term Expected Arithmetic Real Rate of Return |
|---|---|---|
| Large Cap Equity | 18.00% | 5.44% |
| Small Cap Equity | 2.00% | 6.18% |
| Developed International Equity | 15.00% | 6.54% |
| Global Equity | 5.80% | 6.45% |
| Emerging Market Equity | 7.00% | 8.73% |
| High Yield Bonds | 6.00% | 3.64% |
| Intermediate Bonds | 19.20% | 1.25% |
| Private Real Estate (Core) | 7.20% | 4.51% |
| Private Real Estate (Non-Core) | 1.80% | 5.82% |
| Private Equity | 7.00% | 9.00% |
| Infrastructure | 4.50% | 5.83% |
| Hedge Funds | 4.00% | 4.90% |
| Private Debt | 1.00% | 6.50% |
| Timber | 0.75% | 4.34% |
| Farmland | 0.75% | 5.63% |
| **Total** | **100.00%** | **5.19%** |

*Discount rate.* The discount rate used to measure the TPL was 6.50% as of June 30, 2022 and 7.00% as of June 30, 2021. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rates 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, 2022 and June 30, 2021.

## Discount Rate Sensitivity

*Sensitivity of the Net Pension Liability to changes in the discount rate.* The following presents the NPL of SDCERA as of June 30, 2022, calculated using the discount rate of 6.50%, as well as what SDCERA'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.

| | 1% Decrease (5.50%) | Current Discount Rate (6.50%) | 1% Increase (7.50%) |
|---|---|---|---|
| **Net Pension Liability as of June 30, 2022** | $8,541,661,152 | $5,678,536,483 | $3,344,206,356 |

## Schedule of Changes in Net Pension Liability – Last Two Fiscal Years

| Measurement Date | June 30, 2022 | June 30, 2021 |
|---|---|---|
| **Total Pension Liability** | | |
| • Service cost | $365,090,935 | $366,716,019 |
| • Interest | 1,290,669,661 | 1,236,773,297 |
| • Change of benefit terms | 0 | 0 |
| • Differences between expected and actual experience | (169,077,563) | 38,982,611 |
| • Changes of assumptions | 1,071,275,069 | 0 |
| • Benefit payments, including refunds of member contributions | (896,954,760) | (844,842,778) |
| **Net change in Total Pension Liability** | **$1,661,003,342** | **$797,629,149** |
| **Total Pension Liability – beginning** | **18,521,524,468** | **17,723,895,319** |
| **Total Pension Liability – ending** | **$20,182,527,810** | **$18,521,524,468** |
| **Plan Fiduciary Net Position** | | |
| • Contributions – employer[1] | $632,594,539 | $615,698,887 |
| • Contributions – member[1] | 164,088,914 | 162,740,017 |
| • Contributions – employer pickup of member contributions | 377 | 176 |
| • Net investment income | (1,505,641,644) | 3,298,653,870 |
| • Benefit payments, including refunds of member contributions | (896,954,760) | (844,842,778) |
| • Administrative expense | (16,436,891) | (14,912,753) |
| • Other | 0 | 0 |
| **Net change in Plan Fiduciary Net Position** | **$(1,622,349,465)** | **$3,217,337,419** |
| **Plan Fiduciary Net Position – beginning** | **16,126,340,792** | **12,909,003,373** |
| **Plan Fiduciary Net Position – ending** | **$14,503,991,327** | **$16,126,340,792** |
| **Net Pension Liability – ending** | **$5,678,536,483** | **$2,395,183,676** |
| **Plan Fiduciary Net Position as a percentage of the Total Pension Liability** | **71.86%** | **87.07%** |
| **Covered payroll[2]** | **$1,450,979,727** | **$1,391,053,973** |
| **Net Pension Liability as percentage of covered payroll** | **391.36%** | **172.18%** |

Note: Results may be slightly off due to rounding.

1 See footnote 2 under the *Schedule of Employer Contributions – Last Ten Fiscal Years* on next page.

2 Covered payroll represents payroll on which contributions to the pension plan are based.

# Schedule of Employer Contributions – Last Ten Fiscal Years

| Year Ended June 30 | Actuarially Determined Contributions[1] | Contributions in Relation to the Actuarially Determined Contributions[2] | Contribution Deficiency / (Excess) | Covered Payroll[3] | Contributions as a Percentage of Covered Payroll |
|---|---|---|---|---|---|
| 2013 | $298,128,000 | $312,288,000 | $(14,160,000) | $1,028,420,277 | 30.37% |
| 2014 | 353,841,000 | 353,841,000 | 0 | 1,072,896,037 | 32.98% |
| 2015 | 386,041,000 | 386,041,000 | 0 | 1,120,001,088 | 34.47% |
| 2016 | 382,424,947[4] | 382,424,947[4] | 0 | 1,140,882,516 | 33.52% |
| 2017 | 417,920,697[4] | 417,920,697[4] | 0 | 1,181,479,673 | 35.37% |
| 2018 | 498,231,326[4] | 520,733,439 | (22,502,113)[4] | 1,232,104,786 | 42.26% |
| 2019 | 518,574,258[4,5] | 532,406,180[4,5] | (13,831,922) | 1,276,238,540 | 41.72% |
| 2020 | 558,903,678 | 568,923,801 | (10,020,123) | 1,349,433,902 | 42.16% |
| 2021 | 615,698,887 | 615,698,887 | 0 | 1,391,053,973 | 44.26% |
| 2022 | 632,594,539 | 632,594,539 | 0 | 1,450,979,727 | 43.60% |

See accompanying notes to this schedule on the next page.

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

2 Excludes employer pickup of member contributions and proceeds from Pension Obligation Bonds.

3 Covered payroll represents payroll on which contributions to the pension plan are based.

4 Based on updated total employer contribution amount provided by SDCERA after we finalized the corresponding GAS 67 reports.

5 Per SDCERA, these amounts include $8 million required to "true up" the prepaid contributions made by the County for FY 2018. In addition, this is based on updated total employer contribution amount provided by SDCERA after we finalized the June 30, 2019 GAS 67 report.

**Notes to Schedule:**

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

| | |
|---|---|
| **Valuation date:** | Actuarially determined contribution rates are calculated as of June 30, one year prior to the end of the fiscal year in which contributions are reported |
| **Actuarial cost method:** | Entry Age Actuarial Cost Method |
| **Amortization method:** | Level percent of payroll for total Unfunded Actuarial Accrued Liability (UAAL) |
| **Remaining amortization period:** | Prior to July 1, 2013, the Association's UAAL was amortized over 20-year fixed (i.e. decreasing) layered amortization periods. As of July 1, 2013, any new UAAL resulting from plan amendments is amortized over separate decreasing 15-year periods; early retirement incentive programs (ERIPs) are amortized over separate decreasing periods of up to 5 years; assumption and method changes are amortized over separate decreasing 20-year periods; and experience gains/losses are amortized over separate decreasing 20-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 market value and is recognized over a five-year period. The Actuarial Value of Assets is reduced by the value of the non-valuation reserves and designations. |

**Actuarial assumptions:**

| | |
|---|---|
| **Valuation date:** | June 30, 2020 valuation (for year ended 2022 actuarially determined contributions) |
| **Investment rate of return:** | 7.00%, net of pension plan investment and administrative expense, including inflation |
| **Inflation rate:** | 2.75% |
| **Real across-the-board salary increase:** | 0.50% |
| **Projected salary increases:**[1] | General: 4.15% to 10.50% and Safety: 4.25% to 12.00%, varying by service, including inflation |
| **Consumer Price Index (CPI) and Cost of Living Adjustments (COLA):** | CPI increase of 2.75% per year<br>Retiree COLA increases of 2.75% per year for Tiers 1 and A and 2.00% for Tiers B, C and D.<br>For Tiers 1 and A members that have COLA banks, we assume they receive 3.0% COLA increases until their COLA banks are exhausted and 2.75% thereafter. |
| **Other assumptions:** | Same as those used in the June 30, 2020 funding actuarial valuation |

[1] Includes inflation at 2.75% plus real across-the-board salary increases of 0.50% plus merit and promotion increases that vary by service.

# Section 3: Appendices

## Appendix A: Projection of Plan Fiduciary Net Position for use in the Calculation of Discount Rate as of June 30, 2022 ($ in millions)

| Year Beginning July 1 | Projected Beginning Plan's Fiduciary Net Position (a) | Projected Total Contributions (b) | Projected Benefit Payments (c) | Projected Administrative Expenses (d) | Projected Investment Earnings (e) | Projected Ending Plan's Fiduciary Net Position (f) = (a) + (b) - (c) - (d) + (e) |
|---|---|---|---|---|---|---|
| 2021 | $16,126 | $797 | $897 | $16 | -$1,506 | $14,504 |
| 2022 | 14,504 | 917 | 965 | 15 | 941 | 15,382 |
| 2023 | 15,382 | 934 | 1,015 | 16 | 997 | 16,282 |
| 2024 | 16,282 | 956 | 1,066 | 17 | 1,054 | 17,210 |
| 2025 | 17,210 | 817 | 1,117 | 18 | 1,108 | 18,000 |
| 2026 | 18,000 | 859 | 1,169 | 18 | 1,160 | 18,832 |
| 2027 | 18,832 | 863 | 1,221 | 19 | 1,212 | 19,666 |
| 2028 | 19,666 | 867 | 1,274 | 20 | 1,265 | 20,504 |
| 2029 | 20,504 | 872 | 1,327 | 21 | 1,318 | 21,345 |
| 2030 | 21,345 | 821 | 1,381 | 22 | 1,369 | 22,133 |
| | | | | | | |
| 2046 | 27,179 | 125 | 2,048 | 28 | 1,704 | 26,933 |
| 2047 | 26,933 | 119 | 2,065 | 27 | 1,688 | 26,647 |
| 2048 | 26,647 | 112 | 2,079 | 27 | 1,668 | 26,321 |
| 2049 | 26,321 | 106 | 2,091 | 27 | 1,647 | 25,956 |
| 2050 | 25,956 | 100 | 2,100 | 26 | 1,622 | 25,552 |
| | | | | | | |
| 2095 | 17,111 | 23 | 64 | 17 | 1,110 | 18,163 |
| 2096 | 18,163 | 23 | 49 | 19 | 1,179 | 19,298 |
| 2097 | 19,298 | 24 | 38 | 20 | 1,253 | 20,518 |
| 2098 | 20,518 | 25 | 29 | 21 | 1,333 | 21,825 |
| 2099 | 21,825 | 25 | 22 | 22 | 1,418 | 23,225 |
| | | | | | | |
| 2132 | 173,890 | 177 | 0 * | 177 | 11,303 | 185,193 |
| 2133 | 185,193 | | | | | |
| 2133 Discounted Value: | 171 ** | | | | | |

* Less than $1 million, when rounded.

** $185,193 million when discounted with interest at the rate of 6.50% per annum has a value of $171 million as of June 30, 2022.

Notes:

(1) Amounts may not total exactly due to rounding.

(2) Amounts shown in the year beginning July 1, 2021 row are actual amounts, based on the unaudited financial statements provided by SDCERA.

(3) Various years have been omitted from this table.

(4) Column (a): Except for the "discounted value" shown for 2133, none of the projected beginning Plan's Fiduciary Net Position amounts shown have been adjusted for the time value of money.

(5) Column (b): Projected total contributions include employee and employer normal cost rates applied to closed group projected payroll (based on covered active members as of June 30, 2021), plus employer contributions to the unfunded actuarial accrued liability. Contributions are assumed to occur halfway through the year, on average.

(6) Column (c): Projected benefit payments have been determined in accordance with paragraph 39 of GASB Statement No. 67, and are based on the closed group of active, inactive vested, retired members, and beneficiaries as of June 30, 2021. The projected benefit payments reflect the cost of living increase assumptions used in the June 30, 2022 valuation report.

(7) Column (d): Projected administrative expenses are calculated as approximately 0.10% of the projected beginning Plan's Fiduciary Net Position amount. The 0.10% portion was based on the actual Fiscal Year 2022 administrative expenses as a percentage of the actual beginning Plan's Fiduciary Net Position as of July 1, 2021. 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's 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, 2022 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 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:<br>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.<br>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. |

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