

# San Diego County Employees Retirement Association

## **Governmental Accounting Standard (GAS) 68**

Actuarial Valuation Based on June 30, 2019 Measurement Date for  
Employer Reporting as of June 30, 2020



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

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*June 17, 2020*

*Sally Choi  
Chief Financial Officer  
San Diego County Employees Retirement Association  
2275 Rio Bonito Way, Suite 100  
San Diego, CA 92108-1685*

*Dear Sally:*

*We are pleased to submit this Governmental Accounting Standards (GAS) 68 Actuarial Valuation based on June 30, 2019 measurement date for employer reporting as of June 30, 2020. It contains various information that will need to be disclosed in order for SDCERA employers to comply with GAS 68.*

*This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist the sponsors in preparing their financial report for their liabilities associated with the SDCERA pension plan. The census and financial information on which our calculations were based was provided 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: 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 (such as the end of an amortization period); and changes in plan provisions or applicable law.*

*The actuarial calculations were completed under the supervision of Andy Yeung, ASA, MAAA, FCA, EA. 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.*

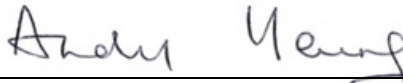
*We look forward to reviewing this report with you and to answering any questions.*

*Sincerely,*

*Segal*

By:   
\_\_\_\_\_  
*Paul Angelo, FSA, MAAA, FCA, EA  
Senior Vice President and Actuary*

*AW/jl*

  
\_\_\_\_\_  
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## SECTION 1: Valuation Summary for San Diego County Employees Retirement Association

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### Purpose

This report has been prepared by Segal to present certain disclosure information required by Governmental Accounting Standards (GAS) 68 for employer reporting as of June 30, 2020. The results used in preparing this GAS 68 report are comparable to those used in preparing the Governmental Accounting Standards (GAS) 67 report for the plan based on a reporting date and a measurement date as of June 30, 2019. 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, 2018, provided by SDCERA;
- The market value of assets of the Plan as of June 30, 2019, provided by SDCERA;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board for the June 30, 2019 valuation; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc. adopted by the Board for the June 30, 2019 valuation.

### General Observations on GAS 68 Actuarial Valuation

The following points should be considered when reviewing this GAS 68 report:

- 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.
- 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 exceptions of the Section 415(m) benefits, 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.
- The Net Pension Liability (NPL) is equal to the difference between the TPL and the Plan's Fiduciary Net Position. The Plan's Fiduciary Net Position is equal to the market value of assets (excluding the Health Insurance Allowance Reserve).

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With the exceptions of the liability associated with the Section 415(m) benefits, the NPL measure is very similar to UAAL on a market value basis.

- The NPLs measured as of June 30, 2019 and 2018 have been determined by rolling forward the TPLs as of June 30, 2018 and 2017 actuarial valuation dates, respectively. In addition, changes in actuarial assumptions, if any, that occurred between the June 30, 2018 valuation date and the June 30, 2019 measurement date have been reflected. The Plan's Fiduciary Net Position (plan assets) are valued as of the measurement dates.
- As we disclosed in our June 30, 2018 valuation report, in the June 30, 2018 funding valuation the liabilities and the contribution requirements to pay off the Unfunded Actuarial Accrued Liability (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 GASB 67/68, it is our understanding that those liabilities should be included for financial reporting purposes. Accordingly, a liability of \$17.3 million as of June 30, 2019 (rolled forward from June 30, 2018) has been included in this report.

### Key Findings in Valuation Year

The following key findings were the result of this actuarial valuation:

- The NPL increased from \$3.398 billion as of June 30, 2018 to \$4.043 billion as of June 30, 2019 primarily due to the changes in actuarial assumptions and the return on market value of assets during FY 2019 that was lower than the assumed rate of 7.25%. The \$4.043 billion was measured using the new actuarial assumptions and the NPL would have been lower by about \$0.402 billion if measured using the old assumptions. Changes in these values during the last two fiscal years ending June 30, 2019 and June 30, 2018 can be found in Exhibit 5 in Section 2.
- There was an increase in the total employer pension expense from \$575.3 million calculated last year to \$854.6 million calculated this year. The primary cause of the increase was full recognition of \$104.4 million in credit from asset gain that was identified in the June 30, 2014 valuation in developing last year's pension expense, \$83.2 million in new expense from using new actuarial assumptions as of June 30, 2019 and \$43.9 million in new expense from lower than expected return on market value of assets during FY 2019. A breakdown of the pension expenses for this year and last year can be found in Exhibit 8.

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- The discount rate originally used to determine the TPL and NPL as of June 30, 2019 was 7.25%, following the same assumption used by SDCERA in the pension funding valuation as of June 30, 2018. However, as the Board has approved a new discount rate of 7.00% (together with other new actuarial assumptions) for use in the pension funding valuation as of June 30, 2019, we have included the impact of this assumption change by (1) revaluing the actuarial valuation TPL as of June 30, 2018 (before the roll forward) and (2) using this revalued TPL in rolling forward the results from June 30, 2018 to June 30, 2019. The detailed derivation of the discount rate of 7.00% used in calculation of the TPL and NPL as of June 30, 2019 can be found in Appendix A of Section 3. Various other information that is required to be disclosed can be found throughout Exhibits 1 through 13 in Section 2.
- The Safety membership class has only one employer (i.e., the County), so all of the NPL for Safety as of both June 30, 2019 and June 30, 2018 are allocated to the County.

For General, the NPL (excluding liability for Section 415(m) Replacement Benefit Program) is allocated based on the actual employer contributions (excluding employer pickup of member contributions) for the Qualified Plan within the General membership class. The steps are as follows:

- Calculate ratio of employer's contributions to the total contributions for the membership class.
- Multiply this ratio by the NPL for the membership class to determine the employer's proportionate share of the NPL for the membership class.

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

The NPL associated with the Section 415(m) Replacement Benefit Program has been allocated according to the employer code provided for all retirees currently eligible to receive a benefit under that program.

The NPL allocation can be found in Exhibit 7 in Section 2.

- Results shown in this report exclude any employer contributions made after the measurement date of June 30, 2019. The employer should consult with their auditor to determine the deferred outflow that should be created for these contributions.
- The Coronavirus (COVID-19) pandemic is rapidly evolving and is having a significant impact on the US economy in 2020, including most retirement plans, and will likely continue to have an impact in the future. Our results do not include the impact of the following:

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- Changes in the market value of plan assets since June 30, 2019
- Changes in interest rates since June 30, 2019
- Short-term or long-term impacts on mortality of the covered population
- The potential for federal or state fiscal relief

Each of the above factors could significantly impact these results. The above factors generally will not have an impact on the June 30, 2019 valuation, since that is based on a snapshot of assets and liabilities prior to recent events. Given the high level of uncertainty and fluidity of the current events, you may wish to consider updated estimates to monitor the plan's financial status. We will keep you updated on emerging developments.

## SECTION 1: Valuation Summary for San Diego County Employees Retirement Association

### Summary of Key Valuation Results

Reporting Date for Employer under GAS 68	6/30/2020 <sup>(1)</sup>	6/30/2019 <sup>(1)</sup>
Measurement Date for Employer under GAS 68	6/30/2019	6/30/2018
<b>Disclosure elements for fiscal year ending June 30:</b>		
1. Service cost <sup>(2)</sup>	\$327,904,435	\$325,983,838
2. Total Pension Liability	16,906,012,093	15,672,207,857
3. Plan's Fiduciary net position <sup>(3)</sup>	12,862,921,656	12,274,478,626
4. Net Pension Liability	4,043,090,437	3,397,729,231
5. Pension expense	854,634,446	575,338,666
<b>Schedule of contributions for fiscal year ending June 30:</b>		
6. Actuarially determined contributions <sup>(4)</sup>	\$518,574,258	\$498,231,326
7. Actual contributions <sup>(5)</sup>	532,406,180	520,733,439
8. Contribution deficiency (excess) (6) – (7)	(13,831,922)	(22,502,113) <sup>(6)</sup>
<b>Demographic data for plan year ending June 30:<sup>(7)</sup></b>		
9. Number of retired members and beneficiaries	19,706	19,028
10. Number of vested terminated members	6,151	5,928
11. Number of active members	18,173	17,869
<b>Key assumptions as of June 30:</b>		
12. Investment rate of return	7.00%	7.25%
13. Inflation rate	2.75%	3.00%
14. Projected salary increases <sup>(8)</sup>	General: 4.15% to 10.50% and Safety: 4.25% to 12.00%	General: 4.25% to 10.25% and Safety: 4.50% to 12.00%

<sup>(1)</sup> The reporting dates and measurement dates for the plan are June 30, 2019 and June 30, 2018, respectively.

<sup>(2)</sup> The service cost is based on the previous year's valuation, meaning the 2019 and 2018 measurement date values are based on the valuations as of June 30, 2018 and June 30, 2017, respectively. Both of the service costs have been calculated using the assumptions shown in the 2018 measurement date column.

<sup>(3)</sup> Net of assets in 401(h) Reserve.

<sup>(4)</sup> Based on updated total employer contribution amounts provided by SDCERA after we finalized the June 30, 2018 and June 30, 2019 GAS 67 reports.

<sup>(5)</sup> Excludes employer pickup of member contributions.

<sup>(6)</sup> Based on updated excess employer contribution amount provided by SDCERA after we finalized the June 30, 2018 GAS 67 report.

<sup>(7)</sup> Data as of June 30, 2018 is used in the measurement of the TPL as of June 30, 2019.

<sup>(8)</sup> Includes inflation at 2.75% plus real across-the-board salary increases of 0.50% plus merit and promotion increases for June 30, 2019 and includes inflation at 3.00% plus real across-the-board salary increases of 0.50% plus merit and promotion increases for June 30, 2018.



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### 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 an actuarial 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** This valuation is based on the market 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.

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

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

## SECTION 1: Valuation Summary for San Diego County Employees Retirement Association

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- 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 68 Information for the San Diego County Employees Retirement Association

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### EXHIBIT 1

#### General Information – “Financial Statements”, Note Disclosures and Required Supplementary Information for a Cost-Sharing Pension Plan

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##### 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, 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, 2019, pension plan membership consisted of the following:

Retired members or beneficiaries currently receiving benefits	19,706
Vested terminated members entitled to, but not yet receiving benefits <sup>(1)</sup>	6,151
Active members	<u>18,173</u>
Total	44,030

<sup>(1)</sup> Includes inactive members who choose to leave member contributions on deposit with less than five years of service.

Note: Data as of June 30, 2019 is not used in the measurement of the TPL as of June 30, 2019.

*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 probation officers were added to Safety membership in 1998 and 1999,

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respectively. All other employees are classified as General members. The tiers and their basic provisions are listed in the following table:

<u>Tier Name</u>	<u>Governing Code</u>	<u>Membership Effective Date</u>	<u>Basic Provisions</u>	<u>Final Average Salary Period</u>
General Tier 1	§31676.12	Before March 8, 2002 <sup>(1)</sup>	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 <sup>(2)</sup>
General Tier D	§31676.01	July 1, 2018	1.62% at 65; maximum 2% COLA	Highest 3-year <sup>(2)</sup>
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	2.7% at 57; maximum 2% COLA	Highest 3-year <sup>(2)</sup>
Safety Tier D	§7522.25(c)	July 1, 2020	2.5% at 57; maximum 2% COLA	Highest 3-year <sup>(2)</sup>

<sup>(1)</sup> 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.

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

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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 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 Tier C or 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.

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SDCERA provides an annual cost-of-living benefit to all retirees. The cost-of-living adjustment, based upon the Consumer Price Index for the San Diego-Carlsbad Area<sup>1</sup> (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, 2019 for FY 2019 (based on the June 30, 2017 valuation) was 41.72% 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, 2019 for FY 2019 (based on the June 30, 2017 valuation) was 11.42% of compensation before adjustment to include any employer pick-up of member contributions.

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<sup>1</sup> Formerly the San Diego County Area.

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**EXHIBIT 2**

**Net Pension Liability**

<b>Reporting Date for Employer under GAS 68</b>	<b>June 30, 2020</b>	<b>June 30, 2019</b>
<b>Measurement Date for Employer under GAS 68</b>	<b>June 30, 2019</b>	<b>June 30, 2018</b>
The components of the Net Pension Liability are as follows:		
Total Pension Liability	\$16,906,012,093	\$15,672,207,857
Plan's Fiduciary Net Position	<u>(12,862,921,656)</u>	<u>(12,274,478,626)</u>
Net Pension Liability	\$4,043,090,437	\$3,397,729,231
Plan's Fiduciary Net Position as a percentage of the Total Pension Liability	76.08%	78.32%

The Net Pension Liability (NPL) was measured as of June 30, 2019 and 2018. The Plan's Fiduciary Net Position (plan assets) was valued as of the measurement date while the Total Pension Liability (TPL) was determined based upon rolling forward the TPL from actuarial valuations as of June 30, 2018 and 2017, respectively.

*Plan provisions.* The plan provisions used in the measurement of the NPL as of June 30, 2019 and 2018 are the same as those used in the SDCERA actuarial valuations as of June 30, 2019 and 2018, respectively.

*Actuarial assumptions.* The TPL as of June 30, 2019 was remeasured by (1) revaluing the TPL as of June 30, 2018 (before the roll forward) to reflect the actuarial assumptions that the Retirement Board has adopted for use in the pension funding valuation as of June 30, 2019 and (2) using this revalued TPL in rolling forward the results from June 30, 2018 to June 30, 2019. In particular, the following actuarial assumptions were applied to all periods included in the June 30, 2019 measurement:

Inflation	2.75%
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

The TPL as of June 30, 2018 was measured as of June 30, 2017 using the same actuarial assumptions in the pension funding valuation as of June 30, 2018 and rolled forward the results from June 30, 2017 to June 30, 2018. In particular, the following actuarial assumptions were applied to all periods included in the June 30, 2018 measurement:

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**EXHIBIT 2 (continued)**

**Net Pension Liability**

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Inflation	3.00%
Salary increases	General: 4.25% to 10.25% and Safety: 4.50% to 12.00%, vary by service, including inflation
Investment rate of return	7.25%, net of pension plan investment expense, including inflation
Other assumptions	See analysis of actuarial experience during the period July 1, 2012 through June 30, 2015



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### EXHIBIT 3

#### Target Asset Allocation

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The long-term expected rate of return on pension plan investments<sup>2</sup> was determined in 2019 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, used in the derivation of the long-term expected investment rate of return assumption as of June 30, 2019 is summarized in the following table. This information will change every three years based on the actuarial experience study.

Asset Class	Target Allocation	Long-Term Expected Arithmetic Real Rate of Return
Large Cap 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%
<b>Total</b>	<b>100.00%</b>	

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<sup>2</sup> Note that 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.

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

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**EXHIBIT 3 (continued)**

**Target Asset Allocation**

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*Discount rate:* The discount rates used to measure the TPL were 7.00% and 7.25% as of June 30, 2019 and June 30, 2018, respectively. 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's Fiduciary Net Position was projected to be available to make all projected future benefit payments for current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the TPL as of both June 30, 2019 and June 30, 2018.

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

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**EXHIBIT 4**

**Discount Rate Sensitivity**

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*Sensitivity of the Net Pension Liability to changes in the discount rate.* The following presents the NPL of SDCERA as of June 30, 2019, calculated using the discount rate of 7.00%, as well as what the SDCERA's NPL would be if it were calculated using a discount rate that is 1-percentage-point lower (6.00%) or 1-percentage-point higher (8.00%) than the current rate. The determination of the NPL by employer is shown later in Exhibit 7.

<b>Net Pension Liability</b>	<b>1% Decrease (6.00%)</b>	<b>Current Discount Rate (7.00%)</b>	<b>1% Increase (8.00%)</b>
County of San Diego	\$6,010,762,438	\$3,790,433,788	\$1,975,189,807
Superior Court	394,360,135	249,037,680	130,224,955
San Dieguito River Valley Joint Powers Authority	3,068,930	1,932,897	1,004,144
Local Agency Formation Commission	2,677,037	1,686,072	875,918
San Diego County Office of Education	<u>0</u>	<u>0</u>	<u>0</u>
Total for all Employers	\$6,410,868,540	\$4,043,090,437	\$2,107,294,824

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 5**

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

<b>Reporting Date for Employer under GAS 68</b>	<b>June 30, 2020</b>	<b>June 30, 2019</b>
<b>Measurement Date for Employer under GAS 68</b>	<b>June 30, 2019</b>	<b>June 30, 2018</b>
<b>Total Pension Liability</b>		
1. Service cost	\$327,904,435	\$325,983,838
2. Interest	1,140,797,914	1,082,689,401
3. Change of benefit terms	0	0
4. Differences between expected and actual experience	106,963,162	(130,589,113)
5. Changes of assumptions	402,002,336	0
6. Benefit payments, including refunds of member contributions	<u>(743,863,611)</u>	<u>(689,937,960)</u>
7. Net change in Total Pension Liability	\$1,233,804,236	\$588,146,166
8. Total Pension Liability – beginning	<u>15,672,207,857</u>	<u>15,084,061,691</u>
9. Total Pension Liability – ending	<u>\$16,906,012,093</u>	<u>\$15,672,207,857</u>
<b>Plan’s Fiduciary Net Position</b>		
10. Contributions – employer <sup>(1)</sup>	\$532,406,180	\$520,733,439
11. Contributions – plan members <sup>(1)</sup>	145,745,717	140,401,589
12. Contributions – employer pickup of member contributions	2,185	3,753,129
13. Net investment income	667,577,544	915,650,418
14. Benefit payments, including refunds of member contributions	(743,863,611)	(689,937,960)
15. Administrative expense	(13,424,985)	(13,186,745)
16. Other	0	0
17. Net change in Plan’s Fiduciary Net Position	\$588,443,030	\$877,413,870
18. Plan’s Fiduciary Net Position – beginning	<u>12,274,478,626</u>	<u>11,397,064,756</u>
19. Plan’s Fiduciary Net Position – ending	\$12,862,921,656	\$12,274,478,626
20. Net Pension Liability – ending (9) – (19)	<u>\$4,043,090,437</u>	<u>\$3,397,729,231</u>
21. Plan’s Fiduciary Net Position as a percentage of the Total Pension Liability	76.08%	78.32%
22. Covered payroll <sup>(2)</sup>	\$1,276,238,540	\$1,232,104,786
23. Plan Net Pension Liability as percentage of covered payroll	316.80%	275.77%

<sup>(1)</sup> See footnoted (2) and (4) under Exhibit 6 on next page.

<sup>(2)</sup> Covered payroll represents payroll on which contributions to the pension plan are based.

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 6**

**Schedule of Employer's Contributions – Last Ten Fiscal Years**

<b>Year Ended June 30</b>	<b>Actuarially Determined Contributions<sup>(1)</sup></b>	<b>Contributions in Relation to the Actuarially Determined Contributions<sup>(2)</sup></b>	<b>Contribution Deficiency (Excess)</b>	<b>Covered Payroll<sup>(3)</sup></b>	<b>Contributions as a Percentage of Covered Payroll</b>
2010	\$188,414,000	\$189,470,000	\$(1,056,000)	\$1,050,985,450	18.03%
2011	205,799,000	235,392,000	(29,593,000)	1,036,693,162	22.71%
2012	274,106,000	274,106,000	0	1,047,414,147	26.17%
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 <sup>(4)</sup>	382,424,947 <sup>(4)</sup>	0	1,140,882,516	33.52%
2017	417,920,697 <sup>(4)</sup>	417,920,697 <sup>(4)</sup>	0	1,181,479,673	35.37%
2018	498,231,326 <sup>(4)</sup>	520,733,439 <sup>(4)</sup>	(22,502,113) <sup>(4)</sup>	1,232,104,786	42.26%
2019	518,574,258 <sup>(5)</sup>	532,406,180 <sup>(5)</sup>	(13,831,922)	1,276,238,540	41.72%

See accompanying notes to this schedule on next page.

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

<sup>(2)</sup> Excludes employer pickup of member contributions and proceeds from Pension Obligation Bonds.

<sup>(3)</sup> Covered payroll represents payroll on which contributions to the pension plan are based.

<sup>(4)</sup> Based on updated total employer contribution amount provided by SDCERA after we finalized the June 30, 2016, 2017 and 2018 GAS 67 reports.

<sup>(5)</sup> 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.

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**Notes to Exhibit 6**

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

<b>Valuation date</b>	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
<b>Actuarial cost method</b>	Entry Age Actuarial Cost Method
<b>Amortization method</b>	Level percent of payroll for total unfunded actuarial accrued liability
<b>Remaining amortization period</b>	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.
<b>Asset valuation method</b>	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.
<b>Actuarial assumptions:</b>	
June 30, 2017 valuation (for year ended 2019 ADC)	
Investment rate of return	7.25%, net of pension plan investment and administrative expenses, including inflation
Inflation rate	3.00%
Real across-the-board salary increases	0.50%
Projected salary increases	General: 4.25% to 10.25% and Safety: 4.50% to 12.00%, varying by service, including inflation
Cost of living adjustments	3.00% of retirement income for Tier 1 and Tier A 2.00% of retirement income for Tier B, Tier C and Tier D
Other assumptions	Same as those used in the June 30, 2017 funding actuarial valuation

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 7**

**Determination of Proportionate Share**

**Actual Employer Contributions by Employer and Membership Class for the Qualified Plan  
July 1, 2017 to June 30, 2018**

<b>Employer</b>	<b>General</b>	<b>General Percentage<sup>1</sup></b>	<b>Safety</b>	<b>Safety Percentage</b>	<b>Total Contributions</b>	<b>Total Percentage</b>
County of San Diego	\$332,276,443	91.424%	\$157,289,566	100.000%	\$489,566,009	94.015%
Superior Court	30,749,501	8.461%	0	0.000%	30,749,501	5.905%
San Dieguito River Valley Joint Powers Authority	245,909	0.068%	0	0.000%	245,909	0.047%
Local Agency Formation Commission	172,020	0.047%	0	0.000%	172,020	0.033%
San Diego County Office of Education	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>
Total for all Employers	\$363,443,873	100.000%	\$157,289,566	100.000%	\$520,733,439	100.000%

**PART ONE - Allocation of June 30, 2018 Net Pension Liability (NPL)  
Excluding Liability for Payment under Section 415(m) Replacement Benefit Program**

<b>Employer</b>	<b>General</b>	<b>General Percentage</b>	<b>Safety</b>	<b>Safety Percentage</b>	<b>Total NPL</b>	<b>Total Percentage</b>
County of San Diego	\$2,107,778,377	91.424%	\$1,077,178,080	100.000%	\$3,184,956,457	94.156%
Superior Court	195,057,864	8.461%	0	0.000%	195,057,864	5.766%
San Dieguito River Valley Joint Powers Authority	1,559,911	0.068%	0	0.000%	1,559,911	0.046%
Local Agency Formation Commission	1,091,200	0.047%	0	0.000%	1,091,200	0.032%
San Diego County Office of Education	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>
Total for all Employers	\$2,305,487,352	100.000%	\$1,077,178,080	100.000%	\$3,382,665,432	100.000%

<sup>1</sup> The unrounded percentages are used in the allocation of the NPL amongst the General employers.

Note: Results may not total due to rounding.

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 7 (continued)**

**Determination of Proportionate Share**

**PART TWO - Allocation of June 30, 2018 Net Pension Liability (NPL)  
Attributed to Liability for Payment under Section 415(m) Replacement Benefit Program**

<b>Employer</b>	<b>General</b>	<b>General Percentage</b>	<b>Safety</b>	<b>Safety Percentage</b>	<b>Total NPL</b>	<b>Total Percentage</b>
County of San Diego	\$11,150,835	84.022%	\$1,792,415	100.000%	\$12,943,250	85.923%
Superior Court	2,120,549	15.978%	0	0.000%	2,120,549	14.077%
San Dieguito River Valley Joint Powers Authority	0	0.000%	0	0.000%	0	0.000%
Local Agency Formation Commission	0	0.000%	0	0.000%	0	0.000%
San Diego County Office of Education	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>
<b>Total for all Employers</b>	<b>\$13,271,384</b>	<b>100.000%</b>	<b>\$1,792,415</b>	<b>100.000%</b>	<b>\$15,063,799</b>	<b>100.000%</b>

**PART THREE - Allocation of June 30, 2018 Net Pension Liability (NPL)  
Including Liability for Payment under Section 415(m) Replacement Benefit Program**

<b>Employer</b>	<b>General</b>	<b>General Percentage</b>	<b>Safety</b>	<b>Safety Percentage</b>	<b>Total NPL</b>	<b>Total Percentage</b>
County of San Diego	\$2,118,929,212	91.382%	\$1,078,970,495	100.000%	\$3,197,899,707	94.119%
Superior Court	197,178,413	8.504%	0	0.000%	197,178,413	5.803%
San Dieguito River Valley Joint Powers Authority	1,559,911	0.067%	0	0.000%	1,559,911	0.046%
Local Agency Formation Commission	1,091,200	0.047%	0	0.000%	1,091,200	0.032%
San Diego County Office of Education	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>
<b>Total for all Employers</b>	<b>\$2,318,758,736</b>	<b>100.000%</b>	<b>\$1,078,970,495</b>	<b>100.000%</b>	<b>\$3,397,729,231</b>	<b>100.000%</b>

Note: Results may not total due to rounding.



## SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association

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### EXHIBIT 7 (continued)

#### Determination of Proportionate Share

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##### Notes:

Based on July 1, 2017 through June 30, 2018 employer contributions (excluding employer pickup of member contributions) as provided by SDCERA.

The Net Pension Liability (NPL) for each membership class is the Total Pension Liability (TPL) minus the Plan's Fiduciary Net Position. The TPL for each membership class is obtained from internal valuation results based on actual membership data for each membership class. The Plan's Fiduciary Net Position for each membership class was determined by adjusting the Valuation Value of Assets (VVA) for each membership class by the ratio of the total SDCERA Plan's Fiduciary Net Position to the total SDCERA VVA.

##### PART ONE - Allocation of NPL (excluding Liability for Section 415(m) Replacement Benefit Program):

The Safety membership class has one employer (County), so all of the NPL for Safety is allocated to the County.

For General, the NPL (excluding Liability for Section 415(m) Replacement Benefit Program) is allocated based on the actual employer contributions (excluding employer pickup of member contributions) for the Qualified Plan within the General membership class. The steps are as follows:

- Calculate ratio of employer's contributions to the total contributions for the membership class.
- Multiply this ratio by the NPL for the membership class to determine the employer's proportionate share of the NPL for the membership class.

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

##### PART TWO - Allocation of NPL attributable to Liability for Section 415(m) Replacement Benefit Program:

- The Liability for Section 415(m) Replacement Benefit Program for each employer (County\* and Superior Court) has been calculated for retirees from each specific employer.

NPL in PART THREE = NPL in PART ONE + NPL in PART TWO

*\* As directed earlier by SDCERA, we have included the liability for one retiree from the Office of Education with the retirees from the County.*

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 7 (continued)**

**Determination of Proportionate Share**

<b>Actual Employer Contributions by Employer and Membership Class for the Qualified Plan</b>						
<b>July 1, 2018 to June 30, 2019</b>						
<b>Employer</b>	<b>General</b>	<b>General Percentage<sup>1</sup></b>	<b>Safety</b>	<b>Safety Percentage</b>	<b>Total Contributions<sup>2</sup></b>	<b>Total Percentage</b>
County of San Diego	\$322,143,710	91.177%	\$179,089,414	100.000%	\$501,233,124	94.145%
Superior Court	30,722,774	8.696%	0	0.000%	30,722,774	5.771%
San Dieguito River Valley Joint Powers Authority	240,496	0.068%	0	0.000%	240,496	0.045%
Local Agency Formation Commission	209,786	0.059%	0	0.000%	209,786	0.039%
San Diego County Office of Education	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>
Total for all Employers	\$353,316,766	100.000%	\$179,089,414	100.000%	\$532,406,180	100.000%

<b>PART ONE - Allocation of June 30, 2019 Net Pension Liability (NPL)</b>						
<b>Excluding Liability for Payment under Section 415(m) Replacement Benefit Program</b>						
<b>Employer</b>	<b>General</b>	<b>General Percentage</b>	<b>Safety</b>	<b>Safety Percentage</b>	<b>Total NPL</b>	<b>Total Percentage</b>
County of San Diego	\$2,589,107,698	91.177%	\$1,186,149,837	100.000%	\$3,775,257,535	93.776%
Superior Court	246,922,627	8.696%	0	0.000%	246,922,627	6.134%
San Dieguito River Valley Joint Powers Authority	1,932,897	0.068%	0	0.000%	1,932,897	0.048%
Local Agency Formation Commission	1,686,072	0.059%	0	0.000%	1,686,072	0.042%
San Diego County Office of Education	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>
Total for all Employers	\$2,839,649,294	100.000%	\$1,186,149,837	100.000%	\$4,025,799,131	100.000%

<sup>1</sup> The unrounded percentages are used in the allocation of the NPL amongst the General employers.

<sup>2</sup> Based on updated contributions provided by SDCERA after we finalized our GAS 67 report as of June 30, 2019. In particular, \$45,647 of employer pickup of Safety member contributions were re-classified as Safety employer contributions.

Note: Results may not total due to rounding.

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 7 (continued)**

**Determination of Proportionate Share**

**PART TWO - Allocation of June 30, 2019 Net Pension Liability (NPL)  
Attributed to Liability for Payment under Section 415(m) Replacement Benefit Program**

<b>Employer</b>	<b>General</b>	<b>General Percentage</b>	<b>Safety</b>	<b>Safety Percentage</b>	<b>Total NPL</b>	<b>Total Percentage</b>
County of San Diego	\$11,916,368	84.926%	\$3,259,885	100.000%	\$15,176,253	87.768%
Superior Court	2,115,053	15.074%	0	0.000%	2,115,053	12.232%
San Dieguito River Valley Joint Powers Authority	0	0.000%	0	0.000%	0	0.000%
Local Agency Formation Commission	0	0.000%	0	0.000%	0	0.000%
San Diego County Office of Education	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>
Total for all Employers	\$14,031,421	100.000%	\$3,259,885	100.000%	\$17,291,306	100.000%

**PART THREE - Allocation of June 30, 2019 Net Pension Liability (NPL)  
Including Liability for Payment under Section 415(m) Replacement Benefit Program**

<b>Employer</b>	<b>General</b>	<b>General Percentage</b>	<b>Safety</b>	<b>Safety Percentage</b>	<b>Total NPL</b>	<b>Total Percentage</b>
County of San Diego	\$2,601,024,066	91.146%	\$1,189,409,722	100.000%	\$3,790,433,788	93.750%
Superior Court	249,037,680	8.727%	0	0.000%	249,037,680	6.160%
San Dieguito River Valley Joint Powers Authority	1,932,897	0.068%	0	0.000%	1,932,897	0.048%
Local Agency Formation Commission	1,686,072	0.059%	0	0.000%	1,686,072	0.042%
San Diego County Office of Education	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>
Total for all Employers	\$2,853,680,715	100.000%	\$1,189,409,722	100.000%	\$4,043,090,437	100.000%

Note: Results may not total due to rounding.

## SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association

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### EXHIBIT 7 (continued)

#### Determination of Proportionate Share

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##### Notes:

Based on July 1, 2018 through June 30, 2019 employer contributions (excluding employer pickup of member contributions) as provided by SDCERA.

The Net Pension Liability (NPL) for each membership class is the Total Pension Liability (TPL) minus the Plan's Fiduciary Net Position. The TPL for each membership class is obtained from internal valuation results based on actual membership data for each membership class. The Plan's Fiduciary Net Position for each membership class was determined by adjusting the Valuation Value of Assets (VVA) for each membership class by the ratio of the total SDCERA Plan's Fiduciary Net Position to the total SDCERA VVA.

##### PART ONE - Allocation of NPL (excluding Liability for Section 415(m) Replacement Benefit Program):

The Safety membership class has one employer (County), so all of the NPL for Safety is allocated to the County.

For General, the NPL (excluding Liability for Section 415(m) Replacement Benefit Program) is allocated based on the actual employer contributions (excluding employer pickup of member contributions) for the Qualified Plan within the General membership class. The steps are as follows:

- Calculate ratio of employer's contributions to the total contributions for the membership class.
- Multiply this ratio by the NPL for the membership class to determine the employer's proportionate share of the NPL for the membership class.

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

##### PART TWO - Allocation of NPL attributable to Liability for Section 415(m) Replacement Benefit Program:

- The Liability for Section 415(m) Replacement Benefit Program for each employer (County\* and Superior Court) has been calculated for retirees from each specific employer.

##### NPL in PART THREE = NPL in PART ONE + NPL in PART TWO

*\* As directed earlier by SDCERA, we have included the liability for one retiree from the Office of Education with the retirees from the County.*

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

## SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association

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### EXHIBIT 7 (continued)

#### Determination of Proportionate Share

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**Notes:**

Except for results associated with the liability attributable to liability for payments under Section 415(m) Replacement Benefit Program, the following items are allocated based on the corresponding proportionate share in Part One within each membership class. For the Section 415(m) Replacement Benefit Program, these items are allocated based specifically on the Section 415(m) NPL that has been calculated for retirees from each specific employer.

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

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 8**

**Pension Expense – Total for all Employers**

<b>Reporting Date for Employer under GAS 68</b>	<b>June 30, 2020</b>	<b>June 30, 2019</b>
<b>Measurement Date for Employer under GAS 68</b>	<b>June 30, 2019</b>	<b>June 30, 2018</b>
<b>Components of Pension Expense</b>		
1. Service cost	\$327,904,435	\$325,983,838
2. Interest on the Total Pension Liability	1,140,797,914	1,082,689,401
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
4. Expensed portion of current-period benefit changes	0	0
5. Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	22,145,582	(26,760,065)
6. Expensed portion of current-period changes of assumptions or other inputs	83,230,298	0
7. Member contributions	(145,745,717)	(140,401,589)
8. Employer pickup of member contributions	(2,185)	(3,753,129)
9. Projected earnings on plan investments	(887,031,074)	(824,901,120)
10. Expensed portion of current-period differences between projected and actual earnings on plan investments	43,890,706	(18,149,859)
11. Administrative expense	13,424,985	13,186,745
12. Other	0	0
13. Recognition of beginning of year deferred outflows of resources as pension expense	470,745,452	476,559,432
14. Recognition of beginning of year deferred inflows of resources as pension expense	(214,725,950)	(309,114,988)
15. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
<b>Pension Expense</b>	<b>\$854,634,446</b>	<b>\$575,338,666</b>

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 8 (continued)**

**Pension Expense – County of San Diego**

<b>Reporting Date for Employer under GAS 68</b>	<b>June 30, 2020</b>	<b>June 30, 2019</b>
<b>Measurement Date for Employer under GAS 68</b>	<b>June 30, 2019</b>	<b>June 30, 2018</b>
<b>Components of Pension Expense</b>		
1. Service cost	\$308,319,787	\$307,124,799
2. Interest on the Total Pension Liability	1,070,367,908	1,017,491,734
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	(1,162,447)	6,408,228
4. Expensed portion of current-period benefit changes	0	0
5. Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	20,903,588	(25,065,713)
6. Expensed portion of current-period changes of assumptions or other inputs	76,664,352	0
7. Member contributions	(136,873,074)	(131,805,870)
8. Employer pickup of member contributions	(2,045)	(3,752,758)
9. Projected earnings on plan investments	(831,934,100)	(774,891,281)
10. Expensed portion of current-period differences between projected and actual earnings on plan investments	41,141,399	(17,063,814)
11. Administrative expense	12,632,223	12,398,114
12. Other	0	0
13. Recognition of beginning of year deferred outflows of resources as pension expense	443,273,423	449,518,876
14. Recognition of beginning of year deferred inflows of resources as pension expense	(200,310,195)	(288,880,072)
15. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>7,670,534</u>	<u>5,047,518</u>
<b>Pension Expense</b>	<b>\$810,691,353</b>	<b>\$556,529,761</b>

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 8 (continued)**

**Pension Expense – Superior Court**

<b>Reporting Date for Employer under GAS 68</b>	<b>June 30, 2020</b>	<b>June 30, 2019</b>
<b>Measurement Date for Employer under GAS 68</b>	<b>June 30, 2019</b>	<b>June 30, 2018</b>
<b>Components of Pension Expense</b>		
1. Service cost	\$19,301,755	\$18,606,155
2. Interest on the Total Pension Liability	69,414,716	64,325,344
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	1,103,934	(6,326,018)
4. Expensed portion of current-period benefit changes	0	0
5. Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	1,223,541	(1,672,337)
6. Expensed portion of current-period changes of assumptions or other inputs	6,471,177	0
7. Member contributions	(8,744,482)	(8,480,457)
8. Employer pickup of member contributions	(138)	(366)
9. Projected earnings on plan investments	(54,301,121)	(49,339,250)
10. Expensed portion of current-period differences between projected and actual earnings on plan investments	2,709,594	(1,071,482)
11. Administrative expense	781,311	778,056
12. Other	0	0
13. Recognition of beginning of year deferred outflows of resources as pension expense	27,075,996	26,678,708
14. Recognition of beginning of year deferred inflows of resources as pension expense	(14,210,541)	(19,966,147)
15. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>(7,604,152)</u>	<u>(5,060,881)</u>
<b>Pension Expense</b>	<b>\$43,221,590</b>	<b>\$18,471,325</b>



**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 8 (continued)**

**Pension Expense – San Dieguito River Valley Joint Powers Authority**

<b>Reporting Date for Employer under GAS 68</b>	<b>June 30, 2020</b>	<b>June 30, 2019</b>
<b>Measurement Date for Employer under GAS 68</b>	<b>June 30, 2019</b>	<b>June 30, 2018</b>
<b>Components of Pension Expense</b>		
1. Service cost	\$151,093	\$148,798
2. Interest on the Total Pension Liability	542,268	513,274
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	1,914	(25,098)
4. Expensed portion of current-period benefit changes	0	0
5. Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	9,856	(12,954)
6. Expensed portion of current-period changes of assumptions or other inputs	50,616	0
7. Member contributions	(68,451)	(67,820)
8. Employer pickup of member contributions	(1)	(3)
9. Projected earnings on plan investments	(425,066)	(394,574)
10. Expensed portion of current-period differences between projected and actual earnings on plan investments	21,211	(8,569)
11. Administrative expense	6,116	6,222
12. Other	0	0
13. Recognition of beginning of year deferred outflows of resources as pension expense	211,522	212,911
14. Recognition of beginning of year deferred inflows of resources as pension expense	(109,605)	(158,143)
15. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>(26,416)</u>	<u>6,694</u>
<b>Pension Expense</b>	<b>\$365,057</b>	<b>\$220,738</b>

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 8 (continued)**

**Pension Expense – Local Agency Formation Commission**

<b>Reporting Date for Employer under GAS 68</b>	<b>June 30, 2020</b>	<b>June 30, 2019</b>
<b>Measurement Date for Employer under GAS 68</b>	<b>June 30, 2019</b>	<b>June 30, 2018</b>
<b>Components of Pension Expense</b>		
1. Service cost	\$131,800	\$104,086
2. Interest on the Total Pension Liability	473,022	359,049
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	56,599	(57,112)
4. Expensed portion of current-period benefit changes	0	0
5. Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	8,597	(9,061)
6. Expensed portion of current-period changes of assumptions or other inputs	44,153	0
7. Member contributions	(59,710)	(47,442)
8. Employer pickup of member contributions	(1)	(2)
9. Projected earnings on plan investments	(370,787)	(276,015)
10. Expensed portion of current-period differences between projected and actual earnings on plan investments	18,502	(5,994)
11. Administrative expense	5,335	4,353
12. Other	0	0
13. Recognition of beginning of year deferred outflows of resources as pension expense	184,511	148,937
14. Recognition of beginning of year deferred inflows of resources as pension expense	(95,609)	(110,626)
15. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>(39,966)</u>	<u>6,669</u>
<b>Pension Expense</b>	<b>\$356,446</b>	<b>\$116,842</b>

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 8 (continued)**

**Pension Expense – San Diego County Office of Education**

<b>Reporting Date for Employer under GAS 68</b>	<b>June 30, 2020</b>	<b>June 30, 2019</b>
<b>Measurement Date for Employer under GAS 68</b>	<b>June 30, 2019</b>	<b>June 30, 2018</b>
<b>Components of Pension Expense</b>		
1. Service cost	\$0	\$0
2. Interest on the Total Pension Liability	0	0
3. Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
4. Expensed portion of current-period benefit changes	0	0
5. Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	0	0
6. Expensed portion of current-period changes of assumptions or other inputs	0	0
7. Member contributions	0	0
8. Employer pickup of member contributions	0	0
9. Projected earnings on plan investments	0	0
10. Expensed portion of current-period differences between projected and actual earnings on plan investments	0	0
11. Administrative expense	0	0
12. Other	0	0
13. Recognition of beginning of year deferred outflows of resources as pension expense	0	0
14. Recognition of beginning of year deferred inflows of resources as pension expense	0	0
15. Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>0</u>	<u>0</u>
<b>Pension Expense</b>	<b>\$0</b>	<b>\$0</b>

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 9**

**Deferred Outflows of Resources and Deferred Inflows of Resources – Total for all Employers**

<b>Reporting Date for Employer under GAS 68</b>	<b>June 30, 2020</b>	<b>June 30, 2019</b>
<b>Measurement Date for Employer under GAS 68</b>	<b>June 30, 2019</b>	<b>June 30, 2018</b>
<b>Deferred Outflows of Resources</b>		
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>(1)</sup>	\$25,847,189	\$31,457,812
2. Changes of assumptions or other inputs	459,645,740	360,177,639
3. Net excess of projected over actual earnings on pension plan investments (if any)	58,959,486	13,346,456
4. Difference between expected and actual experience in the Total Pension Liability	<u>85,526,742</u>	<u>2,006,811</u>
5. Total Deferred Outflows of Resources	\$629,979,157	\$406,988,718
<b>Deferred Inflows of Resources</b>		
6. Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>(1)</sup>	\$25,847,189	\$31,457,812
7. Changes of assumptions or other inputs	29,707	0
8. Net excess of actual over projected earnings on pension plan investments (if any)	0	0
9. Difference between expected and actual experience in the Total Pension Liability	<u>153,490,164</u>	<u>248,051,749</u>
10. Total Deferred Inflows of Resources	\$179,367,060	\$279,509,561

Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:

**Reporting Date for Employer under GAS 68 Year Ended June 30:**

2020	N/A	\$256,019,502
2021	\$242,313,547	93,046,961
2022	(30,622,005)	(179,888,591)
2023	107,567,871	(41,698,715)
2024	131,352,684	0
2025	0	0
Thereafter	0	0

<sup>(1)</sup> Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 9 (continued)**

**Deferred Outflows of Resources and Deferred Inflows of Resources – County of San Diego**

<b>Reporting Date for Employer under GAS 68</b>	<b>June 30, 2020</b>	<b>June 30, 2019</b>
<b>Measurement Date for Employer under GAS 68</b>	<b>June 30, 2019</b>	<b>June 30, 2018</b>
<b>Deferred Outflows of Resources</b>		
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>(1)</sup>	\$20,330,804	\$29,189,195
2. Changes of assumptions or other inputs	427,349,569	341,831,282
3. Net excess of projected over actual earnings on pension plan investments (if any)	55,183,851	12,355,063
4. Difference between expected and actual experience in the Total Pension Liability	<u>80,614,257</u>	<u>1,964,382</u>
5. Total Deferred Outflows of Resources	\$583,478,481	\$385,339,922
<b>Deferred Inflows of Resources</b>		
6. Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>(1)</sup>	\$5,485,606	\$2,221,291
7. Changes of assumptions or other inputs	29,707	0
8. Net excess of actual over projected earnings on pension plan investments (if any)	0	0
9. Difference between expected and actual experience in the Total Pension Liability	<u>143,116,471</u>	<u>231,347,785</u>
10. Total Deferred Inflows of Resources	\$148,631,784	\$233,569,076

Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:

**Reporting Date for Employer under GAS 68 Year Ended June 30:**

2020	N/A	\$251,004,177
2021	\$233,103,825	95,668,039
2022	(23,552,583)	(161,418,970)
2023	104,137,502	(33,482,400)
2024	121,157,953	0
2025	0	0
Thereafter	0	0

<sup>(1)</sup> Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 9 (continued)**

**Deferred Outflows of Resources and Deferred Inflows of Resources – Superior Court**

<b>Reporting Date for Employer under GAS 68</b>	<b>June 30, 2020</b>	<b>June 30, 2019</b>
<b>Measurement Date for Employer under GAS 68</b>	<b>June 30, 2019</b>	<b>June 30, 2018</b>
<b>Deferred Outflows of Resources</b>		
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>(1)</sup>	\$5,209,394	\$2,109,287
2. Changes of assumptions or other inputs	31,830,255	18,101,061
3. Net excess of projected over actual earnings on pension plan investments (if any)	3,721,097	978,099
4. Difference between expected and actual experience in the Total Pension Liability	<u>4,841,811</u>	<u>42,429</u>
5. Total Deferred Outflows of Resources	\$45,602,557	\$21,230,876
<b>Deferred Inflows of Resources</b>		
6. Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>(1)</sup>	\$20,121,216	\$28,853,328
7. Changes of assumptions or other inputs	0	0
8. Net excess of actual over projected earnings on pension plan investments (if any)	0	0
9. Difference between expected and actual experience in the Total Pension Liability	<u>10,230,093</u>	<u>16,486,751</u>
10. Total Deferred Inflows of Resources	\$30,351,309	\$45,340,079

Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:

**Reporting Date for Employer under GAS 68 Year Ended June 30:**

2020	N/A	\$4,909,533
2021	\$8,956,532	(2,657,228)
2022	(7,046,640)	(18,251,474)
2023	3,328,878	(8,110,034)
2024	10,012,478	0
2025	0	0
Thereafter	0	0

<sup>(1)</sup> Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 9 (continued)**

**Deferred Outflows of Resources and Deferred Inflows of Resources – San Dieguito River Valley Joint Powers Authority**

<b>Reporting Date for Employer under GAS 68</b>	<b>June 30, 2020</b>	<b>June 30, 2019</b>
<b>Measurement Date for Employer under GAS 68</b>	<b>June 30, 2019</b>	<b>June 30, 2018</b>
<b>Deferred Outflows of Resources</b>		
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>(1)</sup>	\$40,540	\$71,385
2. Changes of assumptions or other inputs	248,846	144,332
3. Net excess of projected over actual earnings on pension plan investments (if any)	29,129	7,822
4. Difference between expected and actual experience in the Total Pension Liability	<u>37,747</u>	<u>0</u>
5. Total Deferred Outflows of Resources	\$356,262	\$223,539
<b>Deferred Inflows of Resources</b>		
6. Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>(1)</sup>	\$75,884	\$140,475
7. Changes of assumptions or other inputs	0	0
8. Net excess of actual over projected earnings on pension plan investments (if any)	0	0
9. Difference between expected and actual experience in the Total Pension Liability	<u>76,697</u>	<u>127,808</u>
10. Total Deferred Inflows of Resources	\$152,581	\$268,283

Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:

**Reporting Date for Employer under GAS 68 Year Ended June 30:**

2020	N/A	\$74,891
2021	\$120,341	36,562
2022	(31,072)	(114,143)
2023	41,422	(42,054)
2024	72,990	0
2025	0	0
Thereafter	0	0

<sup>(1)</sup> Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 9 (continued)**

**Deferred Outflows of Resources and Deferred Inflows of Resources – Local Agency Formation Commission**

<b>Reporting Date for Employer under GAS 68</b>	<b>June 30, 2020</b>	<b>June 30, 2019</b>
<b>Measurement Date for Employer under GAS 68</b>	<b>June 30, 2019</b>	<b>June 30, 2018</b>
<b>Deferred Outflows of Resources</b>		
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>(1)</sup>	\$266,451	\$87,945
2. Changes of assumptions or other inputs	217,070	100,964
3. Net excess of projected over actual earnings on pension plan investments (if any)	25,409	5,472
4. Difference between expected and actual experience in the Total Pension Liability	<u>32,927</u>	<u>0</u>
5. Total Deferred Outflows of Resources	\$541,857	\$194,381
<b>Deferred Inflows of Resources</b>		
6. Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>(1)</sup>	\$164,483	\$242,718
7. Changes of assumptions or other inputs	0	0
8. Net excess of actual over projected earnings on pension plan investments (if any)	0	0
9. Difference between expected and actual experience in the Total Pension Liability	<u>66,903</u>	<u>89,405</u>
10. Total Deferred Inflows of Resources	\$231,386	\$332,123

Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:

**Reporting Date for Employer under GAS 68 Year Ended June 30:**

2020	N/A	\$30,901
2021	\$132,849	(412)
2022	8,290	(104,004)
2023	60,069	(64,227)
2024	109,263	0
2025	0	0
Thereafter	0	0

<sup>(1)</sup> Calculated in accordance with Paragraphs 54 and 55 of GAS 68.



**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 9 (continued)**

**Deferred Outflows of Resources and Deferred Inflows of Resources – San Diego County Office of Education**

<b>Reporting Date for Employer under GAS 68</b>	<b>June 30, 2020</b>	<b>June 30, 2019</b>
<b>Measurement Date for Employer under GAS 68</b>	<b>June 30, 2019</b>	<b>June 30, 2018</b>
<b>Deferred Outflows of Resources</b>		
1. Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>(1)</sup>	\$0	\$0
2. Changes of assumptions or other inputs	0	0
3. Net excess of projected over actual earnings on pension plan investments (if any)	0	0
4. Difference between expected and actual experience in the Total Pension Liability	<u>0</u>	<u>0</u>
5. Total Deferred Outflows of Resources	\$0	\$0
<b>Deferred Inflows of Resources</b>		
6. Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>(1)</sup>	\$0	\$0
7. Changes of assumptions or other inputs	0	0
8. Net excess of actual over projected earnings on pension plan investments (if any)	0	0
9. Difference between expected and actual experience in the Total Pension Liability	<u>0</u>	<u>0</u>
10. Total Deferred Inflows of Resources	\$0	\$0
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
<b>Reporting Date for Employer under GAS 68 Year Ended June 30:</b>		
2020	N/A	\$0
2021	\$0	0
2022	0	0
2023	0	0
2024	0	0
2025	0	0
Thereafter	0	0

<sup>(1)</sup> Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

## SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association

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### EXHIBIT 9 (continued)

#### Deferred Outflows of Resources and Deferred Inflows of Resources

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There are changes in each employer's proportionate share of the total Net Pension Liability (NPL) during the measurement period ended June 30, 2019. The net effect of the change on the employer's proportionate share of the collective NPL and collective deferred outflows of resources and deferred inflows of resources for the current period (i.e., 2018/2019) is recognized over the average of the expected remaining service lives of all employees that are provided with pensions through SDCERA which is 4.83 years determined as of June 30, 2018 (the beginning of the measurement period ending June 30, 2019). This is described in Paragraph 33a. of GAS 68.

In addition, the difference between the actual employer contributions and the proportionate share of the employer contributions during the measurement period ended June 30, 2019 is recognized over the same period.

The net effects of the change on the employer's proportionate share of the collective NPL and collective deferred outflows of resources and deferred inflows of resources for prior periods are continued to be recognized based on the expected remaining service lives of all employees calculated as of those prior measurement dates.

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

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

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 10**

**Schedule of Proportionate Share of the Net Pension Liability – Total for all Employers**

<b>Reporting Date for Employer under GAS 68 as of June 30</b>	<b>Proportion of the Net Pension Liability</b>	<b>Proportionate share of Net Pension Liability</b>	<b>Covered payroll</b>	<b>Proportionate share of the Net Pension Liability as a percentage of its covered payroll</b>	<b>Plan's Fiduciary Net Position as a percentage of the Total Pension Liability</b>
2014	100.0%	\$2,832,308,136	\$1,028,420,277	275.40%	76.18%
2015	100.0%	2,137,714,053	1,072,896,037	199.25%	82.65%
2016	100.0%	2,807,566,790	1,120,001,088	250.68%	78.63%
2017	100.0%	4,297,990,879	1,140,882,516	376.73%	70.48%
2018	100.0%	3,686,996,935	1,181,479,673	312.07%	75.56%
2019	100.0%	3,397,729,231	1,232,104,786	275.77%	78.32%
2020	100.0%	4,043,090,437	1,276,238,540	316.80%	76.08%

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 10 (continued)**

**Schedule of Proportionate Share of the Net Pension Liability – County of San Diego**

<b>Reporting Date for Employer under GAS 68 as of June 30</b>	<b>Proportion of the Net Pension Liability</b>	<b>Proportionate share of Net Pension Liability</b>	<b>Covered payroll</b>	<b>Proportionate share of the Net Pension Liability as a percentage of its covered payroll</b>	<b>Plan's Fiduciary Net Position as a percentage of the Total Pension Liability<sup>(1)</sup></b>
2014	91.513%	\$2,591,937,606	\$942,156,555	275.11%	76.25%
2015	92.241%	1,971,856,482	992,238,786	198.73%	82.70%
2016	92.789%	2,605,107,176	1,039,786,686	250.54%	78.65%
2017	92.898%	3,992,747,772	1,058,119,168	377.34%	70.45%
2018	93.136%	3,433,950,452	1,096,698,251	313.12%	75.52%
2019	94.119%	3,197,899,707	1,151,417,666	277.74%	78.28%
2020	93.750%	3,790,433,788	1,195,050,537	317.18%	76.09%

<sup>(1)</sup> There is a separate calculation of the Plan's Fiduciary Net Position as a percentage of the Total Pension Liability for each of the General and Safety membership classes (using the assets and liabilities maintained in the valuation for the two membership classes). For the County with members in both membership classes, this percentage is calculated by using the County's proportionate share of the assets and liabilities in those classes.

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 10 (continued)**

**Schedule of Proportionate Share of the Net Pension Liability – Superior Court**

<b>Reporting Date for Employer under GAS 68 as of June 30</b>	<b>Proportion of the Net Pension Liability</b>	<b>Proportionate share of Net Pension Liability</b>	<b>Covered payroll</b>	<b>Proportionate share of the Net Pension Liability as a percentage of its covered payroll</b>	<b>Plan’s Fiduciary Net Position as a percentage of the Total Pension Liability</b>
2014	8.391%	\$237,649,347	\$85,276,900	278.68%	75.48%
2015	7.662%	163,783,996	79,623,207	205.70%	81.94%
2016	7.129%	200,137,552	79,272,513	252.47%	78.32%
2017	7.012%	301,395,361	81,683,147	368.98%	70.91%
2018	6.773%	249,703,370	83,635,234	298.56%	76.09%
2019	5.803%	197,178,413	79,606,601	247.69%	78.89%
2020	6.160%	249,037,680	79,936,769	311.54%	75.99%

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 10 (continued)**

**Schedule of Proportionate Share of the Net Pension Liability – San Dieguito River Valley Joint Powers Authority**

<b>Reporting Date for Employer under GAS 68 as of June 30</b>	<b>Proportion of the Net Pension Liability</b>	<b>Proportionate share of Net Pension Liability</b>	<b>Covered payroll</b>	<b>Proportionate share of the Net Pension Liability as a percentage of its covered payroll</b>	<b>Plan's Fiduciary Net Position as a percentage of the Total Pension Liability</b>
2014	0.053%	\$1,489,372	\$540,026	275.80%	75.48%
2015	0.055%	1,179,860	589,698	200.08%	81.94%
2016	0.046%	1,298,694	530,657	244.73%	78.32%
2017	0.051%	2,186,365	617,304	354.18%	70.91%
2018	0.050%	1,841,454	638,204	288.54%	76.09%
2019	0.046%	1,559,911	635,759	245.36%	78.89%
2020	0.048%	1,932,897	635,760	304.03%	75.99%

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 10 (continued)**

**Schedule of Proportionate Share of the Net Pension Liability – Local Agency Formation Commission**

<b>Reporting Date for Employer under GAS 68 as of June 30</b>	<b>Proportion of the Net Pension Liability</b>	<b>Proportionate share of Net Pension Liability</b>	<b>Covered payroll</b>	<b>Proportionate share of the Net Pension Liability as a percentage of its covered payroll</b>	<b>Plan's Fiduciary Net Position as a percentage of the Total Pension Liability</b>
2014	0.043%	\$1,231,811	\$446,796	275.70%	75.48%
2015	0.042%	893,715	444,346	201.13%	81.94%
2016	0.036%	1,023,368	411,232	248.85%	78.32%
2017	0.039%	1,661,381	462,897	358.91%	70.91%
2018	0.041%	1,501,659	507,984	295.61%	76.09%
2019	0.032%	1,091,200	444,760	245.35%	78.89%
2020	0.042%	1,686,072	615,474	273.95%	75.99%

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 10 (continued)**

**Schedule of Proportionate Share of the Net Pension Liability – San Diego County Office of Education**

<b>Reporting Date for Employer under GAS 68 as of June 30</b>	<b>Proportion of the Net Pension Liability</b>	<b>Proportionate share of Net Pension Liability</b>	<b>Covered payroll</b>	<b>Proportionate share of the Net Pension Liability as a percentage of its covered payroll</b>	<b>Plan's Fiduciary Net Position as a percentage of the Total Pension Liability</b>
2014	0.000%	\$0	\$0	0%	N/A
2015	0.000%	0	0	0%	N/A
2016	0.000%	0	0	0%	N/A
2017	0.000%	0	0	0%	N/A
2018	0.000%	0	0	0%	N/A
2019	0.000%	0	0	0%	N/A
2020	0.000%	0	0	0%	N/A



**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 11**

**Schedule of Reconciliation of Net Pension Liability – Total for all Employers**

<b>Reporting Date for Employer under GAS 68</b>	<b>June 30, 2020</b>	<b>June 30, 2019</b>
<b>Measurement Date for Employer under GAS 68</b>	<b>June 30, 2019</b>	<b>June 30, 2018</b>
<b>Reconciliation of Net Pension Liability</b>		
1. Beginning Net Pension Liability	\$3,397,729,231	\$3,686,996,935
2. Pension Expense	854,634,446	575,338,666
3. Employer Contributions	(532,406,180)	(520,733,439)
4. New Net Deferred Inflows/Outflows	579,152,442	(176,428,487)
5. Change in Allocation of Prior Deferred Inflows/Outflows	0	0
6. New Net Deferred Flows Due to Change in Proportion	0	0
7. Recognition of Prior Deferred Inflows/Outflows	(256,019,502)	(167,444,444)
8. Recognition of Prior Deferred Flows Due to Change in Proportion	<u>0</u>	<u>0</u>
9. Ending Net Pension Liability	\$4,043,090,437	\$3,397,729,231

*Note: Results may not add due to rounding.*

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 11 (continued)**

**Schedule of Reconciliation of Net Pension Liability – County of San Diego**

<b>Reporting Date for Employer under GAS 68</b>	<b>June 30, 2020</b>	<b>June 30, 2019</b>
<b>Measurement Date for Employer under GAS 68</b>	<b>June 30, 2019</b>	<b>June 30, 2018</b>
<b>Reconciliation of Net Pension Liability</b>		
1. Beginning Net Pension Liability	\$3,197,899,707	\$3,433,950,452
2. Pension Expense	810,691,353	556,529,761
3. Employer Contributions	(501,233,124)	(489,566,009)
4. New Net Deferred Inflows/Outflows	538,250,804	(165,510,224)
5. Change in Allocation of Prior Deferred Inflows/Outflows	(89,018)	3,318,124
6. New Net Deferred Flows Due to Change in Proportion	(4,452,172)	24,863,925
7. Recognition of Prior Deferred Inflows/Outflows	(242,963,228)	(160,638,804)
8. Recognition of Prior Deferred Flows Due to Change in Proportion	<u>(7,670,534)</u>	<u>(5,047,518)</u>
9. Ending Net Pension Liability	\$3,790,433,788	\$3,197,899,707

*Note: Results may not add due to rounding.*

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 11 (continued)**

**Schedule of Reconciliation of Net Pension Liability – Superior Court**

<b>Reporting Date for Employer under GAS 68</b>	<b>June 30, 2020</b>	<b>June 30, 2019</b>
<b>Measurement Date for Employer under GAS 68</b>	<b>June 30, 2019</b>	<b>June 30, 2018</b>
<b>Reconciliation of Net Pension Liability</b>		
1. Beginning Net Pension Liability	\$197,178,413	\$249,703,370
2. Pension Expense	43,221,590	18,471,325
3. Employer Contributions	(30,722,774)	(30,749,501)
4. New Net Deferred Inflows/Outflows	40,309,150	(10,774,594)
5. Change in Allocation of Prior Deferred Inflows/Outflows	84,537	(3,275,557)
6. New Net Deferred Flows Due to Change in Proportion	4,228,067	(24,544,950)
7. Recognition of Prior Deferred Inflows/Outflows	(12,865,455)	(6,712,561)
8. Recognition of Prior Deferred Flows Due to Change in Proportion	<u>7,604,152</u>	<u>5,060,881</u>
9. Ending Net Pension Liability	\$249,037,680	\$197,178,413

*Note: Results may not add due to rounding.*

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 11 (continued)**

**Schedule of Reconciliation of Net Pension Liability – San Dieguito River Valley Joint Powers Authority**

<b>Reporting Date for Employer under GAS 68</b>	<b>June 30, 2020</b>	<b>June 30, 2019</b>
<b>Measurement Date for Employer under GAS 68</b>	<b>June 30, 2019</b>	<b>June 30, 2018</b>
<b>Reconciliation of Net Pension Liability</b>		
1. Beginning Net Pension Liability	\$1,559,911	\$1,841,454
2. Pension Expense	365,057	220,738
3. Employer Contributions	(240,496)	(245,909)
4. New Net Deferred Inflows/Outflows	316,449	(84,535)
5. Change in Allocation of Prior Deferred Inflows/Outflows	147	(12,995)
6. New Net Deferred Flows Due to Change in Proportion	7,330	(97,380)
7. Recognition of Prior Deferred Inflows/Outflows	(101,917)	(54,768)
8. Recognition of Prior Deferred Flows Due to Change in Proportion	<u>26,416</u>	<u>(6,694)</u>
9. Ending Net Pension Liability	\$1,932,897	\$1,559,911

*Note: Results may not add due to rounding.*

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 11 (continued)**

**Schedule of Reconciliation of Net Pension Liability – Local Agency Formation Commission**

<b>Reporting Date for Employer under GAS 68</b>	<b>June 30, 2020</b>	<b>June 30, 2019</b>
<b>Measurement Date for Employer under GAS 68</b>	<b>June 30, 2019</b>	<b>June 30, 2018</b>
<b>Reconciliation of Net Pension Liability</b>		
1. Beginning Net Pension Liability	\$1,091,200	\$1,501,659
2. Pension Expense	356,446	116,842
3. Employer Contributions	(209,786)	(172,020)
4. New Net Deferred Inflows/Outflows	276,039	(59,134)
5. Change in Allocation of Prior Deferred Inflows/Outflows	4,334	(29,572)
6. New Net Deferred Flows Due to Change in Proportion	216,775	(221,595)
7. Recognition of Prior Deferred Inflows/Outflows	(88,902)	(38,311)
8. Recognition of Prior Deferred Flows Due to Change in Proportion	<u>39,966</u>	<u>(6,669)</u>
9. Ending Net Pension Liability	\$1,686,072	\$1,091,200

*Note: Results may not add due to rounding.*

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

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**EXHIBIT 11 (continued)**

**Schedule of Reconciliation of Net Pension Liability – San Diego County Office of Education**

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<b>Reporting Date for Employer under GAS 68</b>	<b>June 30, 2020</b>	<b>June 30, 2019</b>
<b>Measurement Date for Employer under GAS 68</b>	<b>June 30, 2019</b>	<b>June 30, 2018</b>
<b>Reconciliation of Net Pension Liability</b>		
1. Beginning Net Pension Liability	\$0	\$0
2. Pension Expense	0	0
3. Employer Contributions	0	0
4. New Net Deferred Inflows/Outflows	0	0
5. Change in Allocation of Prior Deferred Inflows/Outflows	0	0
6. New Net Deferred Flows Due to Change in Proportion	0	0
7. Recognition of Prior Deferred Inflows/Outflows	0	0
8. Recognition of Prior Deferred Flows Due to Change in Proportion	<u>0</u>	<u>0</u>
9. Ending Net Pension Liability	\$0	\$0

*Note: Results may not add due to rounding.*

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 12**

**Schedule of Recognition of Changes in Total Net Pension Liability**

Reporting Date for Employer under GAS 68 Year Ended June 30	Differences between Expected and Actual Experience	Recognition Period (Years)	Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Differences between Expected and Actual Experience on Total Pension Liability							
			Reporting Date for Employer under GAS 68 Year Ended June 30:							
			2015	2016	2017	2018	2019	2020	2021	2022
2015	\$(194,580,085)	4.80	\$(40,537,518)	\$(40,537,518)	\$(40,537,518)	\$(40,537,518)	\$(32,430,013)	\$0	\$0	\$0
2016	(126,947,901)	4.91	N/A	(25,854,970)	(25,854,970)	(25,854,970)	(25,854,970)	(23,528,021)	0	0
2017	(20,774,030)	4.87	N/A	N/A	(4,265,715)	(4,265,715)	(4,265,715)	(4,265,715)	(3,711,170)	0
2018	(188,131,254)	4.86	N/A	N/A	N/A	(38,710,135)	(38,710,135)	(38,710,135)	(38,710,135)	(33,290,714)
2019	(130,589,113)	4.88	N/A	N/A	N/A	N/A	(26,760,065)	(26,760,065)	(26,760,065)	(26,760,065)
2020	106,963,162	4.83	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>22,145,582</u>	<u>22,145,582</u>	<u>22,145,582</u>
Net increase (decrease) in pension expense			\$(40,537,518)	\$(66,392,488)	\$(70,658,203)	\$(109,368,338)	\$(128,020,898)	\$(71,118,354)	\$(47,035,788)	\$(37,905,197)

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 12 (continued)**

**Schedule of Recognition of Changes in Total Net Pension Liability**

Reporting Date for Employer under GAS 68 Year Ended June 30	Differences between Expected and Actual Experience	Recognition Period (Years)	Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Differences between Expected and Actual Experience on Total Pension Liability							
			Reporting Date for Employer under GAS 68 Year Ended June 30:							
			2023	2024	2025	2026	2027	2028	2029	2030
2015	\$(194,580,085)	4.80	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2016	(126,947,901)	4.91	0	0	0	0	0	0	0	0
2017	(20,774,030)	4.87	0	0	0	0	0	0	0	0
2018	(188,131,254)	4.86	0	0	0	0	0	0	0	0
2019	(130,589,113)	4.88	(23,548,853)	0	0	0	0	0	0	0
2020	106,963,162	4.83	<u>22,145,582</u>	<u>18,380,834</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Net increase (decrease) in pension expense			\$(1,403,271)	\$18,380,834	\$0	\$0	\$0	\$0	\$0	\$0

As described in Exhibit 9, for the current period, the average of the expected remaining service lives of all employees that are provided with pensions through SDCERA (active and inactive employees) determined as of June 30, 2018 (the beginning of the measurement period ending June 30, 2019) is 4.83 years.



**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 12 (continued)**

**Schedule of Recognition of Changes in Total Net Pension Liability**

Reporting Date for Employer under GAS 68 Year Ended June 30	Effects of Assumption Changes	Recognition Period (Years)	Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Assumption Changes								
			Reporting Date for Employer under GAS 68 Year Ended June 30:								
			2015	2016	2017	2018	2019	2020	2021	2022	
2015	\$0	4.80	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2016	309,945,021	4.91	N/A	63,125,258	63,125,258	63,125,258	63,125,258	63,125,258	57,443,989	0	0
2017	788,402,615	4.87	N/A	N/A	161,889,655	161,889,655	161,889,655	161,889,655	161,889,655	140,843,995	0
2018	0	4.86	N/A	N/A	N/A	0	0	0	0	0	0
2019	0	4.88	N/A	N/A	N/A	N/A	0	0	0	0	0
2020	402,002,336	4.83	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>83,230,298</u>	<u>83,230,298</u>	<u>83,230,298</u>
Net increase (decrease) in pension expense			\$0	\$63,125,258	\$225,014,913	\$225,014,913	\$225,014,913	\$302,563,942	\$224,074,293	\$83,230,298	

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 12 (continued)**

**Schedule of Recognition of Changes in Total Net Pension Liability**

Reporting Date for Employer under GAS 68 Year Ended June 30	Effects of Assumption Changes	Recognition Period (Years)	Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Assumption Changes								
			Reporting Date for Employer under GAS 68 Year Ended June 30:								
			2023	2024	2025	2026	2027	2028	2029	2030	
2015	\$0	4.80	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2016	309,945,021	4.91	0	0	0	0	0	0	0	0	0
2017	788,402,615	4.87	0	0	0	0	0	0	0	0	0
2018	0	4.86	0	0	0	0	0	0	0	0	0
2019	0	4.88	0	0	0	0	0	0	0	0	0
2020	402,002,336	4.83	<u>83,230,298</u>	<u>69,081,144</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Net increase (decrease) in pension expense			\$83,230,298	\$69,081,144	\$0	\$0	\$0	\$0	\$0	\$0	\$0

As described in Exhibit 9, for the current period, the average of the expected remaining service lives of all employees that are provided with pensions through SDCERA (active and inactive employees) determined as of June 30, 2018 (the beginning of the measurement period ending June 30, 2019) is 4.83 years.

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 12 (continued)**

**Schedule of Recognition of Changes in Total Net Pension Liability**

Reporting Date for Employer under GAS 68 Year Ended June 30	Differences between Projected and Actual Earnings	Recognition Period (Years)	Increase (Decrease) in Pension Expense Arising from the Recognition of Differences between Projected and Actual Earnings on Pension Plan Investments							
			Reporting Date for Employer under GAS 68 Year Ended June 30:							
			2015	2016	2017	2018	2019	2020	2021	2022
2015	\$(522,046,446)	5.00	\$(104,409,289)	\$(104,409,289)	\$(104,409,289)	\$(104,409,289)	\$(104,409,290)	\$0	\$0	\$0
2016	542,827,294	5.00	N/A	108,565,459	108,565,459	108,565,459	108,565,459	108,565,458	0	0
2017	706,110,735	5.00	N/A	N/A	141,222,147	141,222,147	141,222,147	141,222,147	141,222,147	0
2018	(508,439,761)	5.00	N/A	N/A	N/A	(101,687,952)	(101,687,952)	(101,687,952)	(101,687,952)	(101,687,953)
2019	(90,749,298)	5.00	N/A	N/A	N/A	N/A	(18,149,859)	(18,149,859)	(18,149,859)	(18,149,859)
2020	219,453,530	5.00	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>43,890,706</u>	<u>43,890,706</u>	<u>43,890,706</u>
Net increase (decrease) in pension expense			\$(104,409,289)	\$4,156,170	\$145,378,317	\$43,690,365	\$25,540,505	\$173,840,500	\$65,275,042	\$(75,947,106)

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 12 (continued)**

**Schedule of Recognition of Changes in Total Net Pension Liability**

Reporting Date for Employer under GAS 68 Year Ended June 30	Differences between Projected and Actual Earnings	Recognition Period (Years)	Increase (Decrease) in Pension Expense Arising from the Recognition of Differences between Projected and Actual Earnings on Pension Plan Investments								
			Reporting Date for Employer under GAS 68 Year Ended June 30:								
			2023	2024	2025	2026	2027	2028	2029	2030	
2015	\$(522,046,446)	5.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2016	542,827,294	5.00	0	0	0	0	0	0	0	0	0
2017	706,110,735	5.00	0	0	0	0	0	0	0	0	0
2018	(508,439,761)	5.00	0	0	0	0	0	0	0	0	0
2019	(90,749,298)	5.00	(18,149,862)	0	0	0	0	0	0	0	0
2020	219,453,530	5.00	<u>43,890,706</u>	<u>43,890,706</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Net increase (decrease) in pension expense			\$25,740,844	\$43,890,706	\$0	\$0	\$0	\$0	\$0	\$0	0

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

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 12 (continued)**

**Schedule of Recognition of Changes in Total Net Pension Liability**

Reporting Date for Employer under GAS 68 Year Ended June 30	Total Differences	Total Increase (Decrease) in Pension Expense							
		Reporting Date for Employer under GAS 68 Year Ended June 30:							
		2015	2016	2017	2018	2019	2020	2021	2022
2015	\$(716,626,531)	\$(144,946,807)	\$(144,946,807)	\$(144,946,807)	\$(144,946,807)	\$(136,839,303)	\$0	\$0	\$0
2016	725,824,414	N/A	145,835,747	145,835,747	145,835,747	145,835,747	142,481,426	0	0
2017	1,473,739,320	N/A	N/A	298,846,087	298,846,087	298,846,087	298,846,087	278,354,972	0
2018	(696,571,015)	N/A	N/A	N/A	(140,398,087)	(140,398,087)	(140,398,087)	(140,398,087)	(134,978,667)
2019	(221,338,411)	N/A	N/A	N/A	N/A	(44,909,924)	(44,909,924)	(44,909,924)	(44,909,924)
2020	728,419,028	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>149,266,586</u>	<u>149,266,586</u>	<u>149,266,586</u>
Net increase (decrease) in pension expense		\$(144,946,807)	\$888,940	\$299,735,027	\$159,336,940	\$122,534,520	\$405,286,088	\$242,313,547	\$(30,622,005)

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 12 (continued)**

**Schedule of Recognition of Changes in Total Net Pension Liability**

Reporting Date for Employer under GAS 68 Year Ended June 30	Total Differences	Total Increase (Decrease) in Pension Expense								
		Reporting Date for Employer under GAS 68 Year Ended June 30:								
		2023	2024	2025	2026	2027	2028	2029	2030	
2015	\$(716,626,531)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2016	725,824,414	0	0	0	0	0	0	0	0	0
2017	1,473,739,320	0	0	0	0	0	0	0	0	0
2018	(696,571,015)	0	0	0	0	0	0	0	0	0
2019	(221,338,411)	(41,698,715)	0	0	0	0	0	0	0	0
2020	728,419,028	<u>149,266,586</u>	<u>131,352,684</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Net increase (decrease) in pension expense		\$107,567,871	\$131,352,684	\$0	\$0	\$0	\$0	\$0	\$0	\$0

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 13**

**Allocation of Changes in Total Net Pension Liability**

In addition to the amounts shown in Exhibit 12, there are changes in each employer’s proportionate share of the total NPL during the measurement period ending on June 30, 2019. The net effect of the change in the employer’s proportionate share of the collective NPL and collective deferred outflows of resources and deferred inflows of resources is also recognized over the average of the expected remaining service lives of all employees shown above. These amounts are shown on the following table, with the corresponding amounts for the measurement periods ending on June 30 beginning in 2015 shown on the following pages. While these amounts are different for each employer, they sum to zero over the entire SDCERA.

**Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer and Member Contributions for the Year Ended June 30, 2019**

	Total Change to be Recognized	Recognition Period (Years)	Reporting Date for Employer under GAS 68 Year Ended June 30:					
			2020	2021	2022	2023	2024	2025
County of San Diego	\$(5,614,619)	4.83	\$(1,162,447)	\$(1,162,447)	\$(1,162,447)	\$(1,162,447)	\$(964,831)	\$0
Superior Court	5,332,001	4.83	1,103,934	1,103,934	1,103,934	1,103,934	916,265	0
San Dieguito River Valley Joint Powers Authority	9,244	4.83	1,914	1,914	1,914	1,914	1,588	0
Local Agency Formation Commission	273,374	4.83	56,599	56,599	56,599	56,599	46,978	0
San Diego County Office of Education	<u>0</u>	4.83	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total for all Employers	\$0		\$0	\$0	\$0	\$0	\$0	\$0

**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 13 (continued)**

**Allocation of Changes in Total Net Pension Liability**

The amounts as of June 30, 2018 are as follows:

**Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer and Member Contributions for the Year Ended June 30, 2018**

	Total Change to be Recognized	Recognition Period (Years)	Reporting Date for Employer under GAS 68 Year Ended June 30:					
			2019	2020	2021	2022	2023	2024
County of San Diego	\$31,272,153	4.88	\$6,408,228	\$6,408,228	\$6,408,228	\$6,408,228	\$5,639,241	\$0
Superior Court	(30,870,968)	4.88	(6,326,018)	(6,326,018)	(6,326,018)	(6,326,018)	(5,566,896)	0
San Dieguito River Valley Joint Powers Authority	(122,478)	4.88	(25,098)	(25,098)	(25,098)	(25,098)	(22,086)	0
Local Agency Formation Commission	(278,707)	4.88	(57,112)	(57,112)	(57,112)	(57,112)	(50,259)	0
San Diego County Office of Education	<u>0</u>	4.88	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total for all Employers	\$0		\$0	\$0	\$0	\$0	\$0	\$0

The amounts as of June 30, 2017 are as follows:

**Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer and Member Contributions for the Year Ended June 30, 2017**

	Total Change to be Recognized	Recognition Period (Years)	Reporting Date for Employer under GAS 68 Year Ended June 30:					
			2018	2019	2020	2021	2022	2023
County of San Diego	\$4,899,476	4.86	\$1,008,123	\$1,008,123	\$1,008,123	\$1,008,123	\$866,984	\$0
Superior Court	(4,970,483)	4.86	(1,022,733)	(1,022,733)	(1,022,733)	(1,022,733)	(879,551)	0
San Dieguito River Valley Joint Powers Authority	(9,413)	4.86	(1,937)	(1,937)	(1,937)	(1,937)	(1,665)	0
Local Agency Formation Commission	80,420	4.86	16,547	16,547	16,547	16,547	14,232	0
San Diego County Office of Education	<u>0</u>	4.86	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total for all Employers	\$0		\$0	\$0	\$0	\$0	\$0	\$0



**SECTION 2: GAS 68 Information for the San Diego County Employees Retirement Association**

**EXHIBIT 13 (continued)**

**Allocation of Changes in Total Net Pension Liability**

The amounts as of June 30, 2016 are as follows:

**Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer and Member Contributions for the Year Ended June 30, 2016**

	Total Change to be Recognized	Recognition Period (Years)	Reporting Date for Employer under GAS 68 Year Ended June 30:					
			2017	2018	2019	2020	2021	2022
County of San Diego	\$(5,784,862)	4.87	\$(1,187,857)	\$(1,187,857)	\$(1,187,857)	\$(1,187,857)	\$(1,033,434)	\$0
Superior Court	5,493,167	4.87	1,127,960	1,127,960	1,127,960	1,127,960	981,327	0
San Dieguito River Valley Joint Powers Authority	185,910	4.87	38,175	38,175	38,175	38,175	33,210	0
Local Agency Formation Commission	105,785	4.87	21,722	21,722	21,722	21,722	18,897	0
San Diego County Office of Education	<u>0</u>	4.87	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total for all Employers	\$0		\$0	\$0	\$0	\$0	\$0	\$0

The amounts as of June 30, 2015 are as follows:

**Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer and Member Contributions for the Year Ended June 30, 2015**

	Total Change to be Recognized	Recognition Period (Years)	Reporting Date for Employer under GAS 68 Year Ended June 30:					
			2016	2017	2018	2019	2020	2021
County of San Diego	\$7,780,664	4.91	\$1,584,656	\$1,584,656	\$1,584,656	\$1,584,656	\$1,442,040	\$0
Superior Court	(7,464,061)	4.91	(1,520,175)	(1,520,175)	(1,520,175)	(1,520,175)	(1,383,361)	0
San Dieguito River Valley Joint Powers Authority	(202,640)	4.91	(41,271)	(41,271)	(41,271)	(41,271)	(37,556)	0
Local Agency Formation Commission	(113,963)	4.91	(23,210)	(23,210)	(23,210)	(23,210)	(21,123)	0
San Diego County Office of Education	<u>0</u>	4.91	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total for all Employers	\$0		\$0	\$0	\$0	\$0	\$0	\$0

**SECTION 3: Actuarial Assumptions and Methods and Appendices for the San Diego County Employees Retirement Association**

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**Actuarial Assumptions and Methods**

**For June 30, 2019 Measurement Date and Employer Reporting as of June 30, 2020**

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**Rationale for Assumptions:** The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in the July 1, 2015 through June 30, 2018 Actuarial Experience Study dated April 5, 2019. Unless otherwise noted, all actuarial assumptions and methods shown below apply to members for all tiers. These assumptions were adopted by the Board.

**Economic Assumptions**

**Net Investment Return:** 7.00%; net of investment expenses.

**Employee Contribution Crediting Rate:** One-half of the net investment return credited semi-annually.

**Consumer Price Index:** Increase of 2.75% per year, retiree COLA increases due to CPI subject to a 3% maximum change per year for Tier 1 and Tier A, and 2% maximum change per year for Tier B, Tier C and Tier D.

For member that have COLA banks, we have reflected those amounts in projecting their future COLAs.

**Payroll Growth:** Inflation of 2.75% per year plus “across the board” real salary increases of 0.50% per year.

**Increase in Internal Revenue Code Section 401(a)(17) Compensation Limit:** Increase of 2.75% per year from the valuation date.

**Increase in Section 7522.10 Compensation Limit:** Increase of 2.75% per year from the valuation date.

**SECTION 3: Actuarial Assumptions and Methods and Appendices for the San Diego County Employees Retirement Association**

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**Individual Salary Increases:**

**Annual Rate of Compensation Increase**

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Inflation: 2.75% per year; plus “across the board” real salary increases of 0.50% per year; plus the following merit and promotion increases:

Years of Service	General	Safety
Less than 1	7.25%	8.75%
1 – 2	5.50	6.25
2 – 3	5.00	5.00
3 – 4	4.25	4.60
4 – 5	3.00	4.50
5 – 6	2.50	2.75
6 – 7	2.00	2.40
7 – 8	1.75	1.75
8 – 9	1.50	1.50
9 – 10	1.40	1.40
10 – 11	1.30	1.30
11 – 12	1.20	1.20
12 – 13	1.10	1.15
13 – 14	1.00	1.10
14 – 15	0.95	1.05
15 & Over	0.90	1.00

### SECTION 3: Actuarial Assumptions and Methods and Appendices for the San Diego County Employees Retirement Association

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#### Demographic Assumptions

##### **Post-Retirement Mortality Rates:**

##### **Healthy Retirement:**

For General Members and all Beneficiaries: Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) times 100% for males and 105% for females, projected generationally with the two-dimensional mortality improvement scale MP-2018.

For Safety Members: Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) times 105% for males and 95% for females, projected generationally with the two-dimensional mortality improvement scale MP-2018.

##### **Disabled Retirement:**

For General Members: Pub-2010 Non-Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females) times 75% for males and 75% for females, projected generationally with the two-dimensional mortality improvement scale MP-2018.

For Safety Members: Pub-2010 Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females) times 100% for males and 100% for females, projected generationally with the two-dimensional mortality improvement scale MP-2018.

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

**Pre-Retirement Mortality Rates:** For General Members: Pub-2010 General Employee Amount-Weighted Above-Median Mortality Table (separate tables for males and females) times 100% for males and 100% for females, projected generationally with the two-dimensional mortality improvement scale MP-2018.

For Safety Members: Pub-2010 Safety Employee Amount-Weighted Above-Median Mortality Table (separate tables for males and females) times 100% for males and 100% for females, projected generationally with the two-dimensional mortality improvement scale MP-2018.

**SECTION 3: Actuarial Assumptions and Methods and Appendices for the San Diego County Employees Retirement Association**

Rate (%)				
Mortality				
Age	General		Safety	
	Male	Female	Male	Female
25	0.02	0.01	0.03	0.02
30	0.03	0.01	0.04	0.02
35	0.04	0.02	0.04	0.03
40	0.06	0.03	0.05	0.04
45	0.09	0.05	0.07	0.06
50	0.13	0.08	0.10	0.08
55	0.19	0.11	0.15	0.11
60	0.28	0.17	0.23	0.14
65	0.41	0.27	0.35	0.20
70	0.61	0.44	0.66	0.39

Note: Generational projections beyond the base year (2010) are not reflected in the above mortality rates.

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

**Member Contribution Rates:** For General Members: Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) times 100% for males and 105% for females, projected 30 years with the two-dimensional mortality improvement scale MP-2018, weighted 30% male and 70% female.

For Safety Members: Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) times 105% for males and 95% for females, projected 30 years with the two-dimensional mortality improvement scale MP-2018, weighted 75% male and 25% female.

**SECTION 3: Actuarial Assumptions and Methods and Appendices for the San Diego County Employees Retirement Association**

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**Disability Rates:**

Age	Rate (%)	
	General	Safety
20	0.00	0.02
25	0.01	0.07
30	0.03	0.19
35	0.05	0.37
40	0.13	0.48
45	0.20	0.62
50	0.24	1.06
55	0.31	1.42
60	0.41	1.68
65	0.48	1.92
70	0.56	1.70
75	0.60	1.50

70% of General disabilities are assumed to be service connected disabilities and the other 30% are assumed to be non-service connected disabilities.

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

**SECTION 3: Actuarial Assumptions and Methods and Appendices for the San Diego County Employees Retirement Association**

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**Termination Rates:**

Years of Service	Rate (%)	
	Termination	
	General	Safety
Less than 1	12.00	7.50
1 – 2	8.25	5.75
2 – 3	7.00	4.25
3 – 4	5.50	3.25
4 – 5	5.50	3.00
5 – 6	5.25	2.75
6 – 7	4.50	2.50
7 – 8	4.25	2.50
8 – 9	3.75	2.25
9 – 10	3.50	2.00
10 – 11	3.25	1.75
11 – 12	3.00	1.50
12 – 13	2.75	1.25
13 – 14	2.50	1.00
14 – 15	2.25	0.90
15 – 16	2.00	0.80
16 – 17	1.75	0.70
17 – 18	1.70	0.60
18 – 19	1.65	0.50
19 – 20	1.60	0.50
20 & Over	1.50	0.50

The greater of a refund of member contributions and a deferred annuity is valued when a member terminates.

No termination is assumed after a member is first assumed to retire.

**SECTION 3: Actuarial Assumptions and Methods and Appendices for the San Diego County Employees Retirement Association**

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**Retirement Rates:**

<u>Age</u>	<u>Rate (%)</u>				
	<u>General Tiers 1 and A (Less than 30 Years of Service)</u>	<u>General Tiers 1 and A (30 or More Years of Service)</u>	<u>General Tier B</u>	<u>General Tier C</u>	<u>General Tier D</u>
49	0.0	75.0	0.0	0.0	0.0
50	4.0	10.0	0.0	0.0	0.0
51	4.0	10.0	0.0	0.0	0.0
52	4.0	10.0	0.0	4.0	3.0
53	5.0	10.0	0.0	4.0	3.0
54	6.0	14.0	0.0	4.0	3.0
55	8.0	16.0	5.0	4.0	3.0
56	9.0	18.0	6.0	4.5	4.0
57	9.0	20.0	7.0	5.5	5.0
58	9.0	20.0	7.0	5.5	5.0
59	11.0	24.0	7.0	5.5	6.0
60	16.0	24.0	9.0	7.0	9.0
61	18.0	25.0	13.0	10.0	12.0
62	20.0	26.0	18.0	14.0	15.0
63	22.0	27.0	18.0	14.0	17.0
64	22.0	28.0	18.0	14.0	19.0
65	32.0	32.0	30.0	26.0	23.0
66	35.0	35.0	30.0	30.0	26.0
67	35.0	35.0	30.0	30.0	26.0
68	35.0	35.0	30.0	30.0	26.0
69	30.0	30.0	30.0	30.0	26.0
70	30.0	30.0	30.0	30.0	30.0
71	25.0	25.0	25.0	25.0	25.0
72	25.0	25.0	25.0	25.0	25.0
73	25.0	25.0	25.0	25.0	25.0
74	25.0	25.0	25.0	25.0	25.0
75 and later	100.0	100.0	100.0	100.0	100.0



**SECTION 3: Actuarial Assumptions and Methods and Appendices for the San Diego County Employees Retirement Association**

**Retirement Rates (continued):**

<u>Age</u>	<u>Rate (%)</u>				
	<u>Safety Tier A (Less than 30 Years of Service)</u>	<u>Safety Tier A (30 or More Years of Service)</u>	<u>Safety Tier B</u>	<u>Safety Tier C</u>	<u>Safety Tier D</u>
41	6.0	0.0	6.0	0.0	0.0
42	6.0	0.0	6.0	0.0	0.0
43	6.0	0.0	6.0	0.0	0.0
44	2.0	0.0	2.0	0.0	0.0
45	2.0	0.0	2.0	0.0	0.0
46	2.0	0.0	2.0	0.0	0.0
47	3.0	0.0	3.0	0.0	0.0
48	4.0	4.0	4.0	0.0	0.0
49	11.0	11.0	4.5	0.0	0.0
50	15.0	37.5	11.5	15.0	15.0
51	15.0	37.5	11.0	9.5	9.5
52	15.0	37.5	11.0	10.5	10.5
53	15.0	37.5	11.0	10.5	10.5
54	15.0	37.5	12.5	11.0	11.0
55	15.0	30.0	19.0	16.5	15.0
56	15.0	32.0	22.5	20.0	18.0
57	15.0	32.0	20.0	20.0	18.0
58	15.0	32.0	20.0	20.0	18.0
59	15.0	32.0	20.0	22.0	20.0
60	22.0	33.0	22.0	22.0	20.0
61	25.0	37.5	26.0	26.0	26.0
62	25.0	37.5	26.0	26.0	26.0
63	25.0	37.5	26.0	26.0	26.0
64	28.0	42.0	30.0	30.0	30.0
65	50.0	75.0	50.0	50.0	50.0
66	50.0	75.0	50.0	50.0	50.0
67	50.0	75.0	50.0	50.0	50.0
68	50.0	75.0	50.0	50.0	50.0
69	50.0	75.0	50.0	50.0	50.0
70 and later	100.0	100.0	100.0	100.0	100.0

**SECTION 3: Actuarial Assumptions and Methods and Appendices for the San Diego County Employees Retirement Association**

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**Retirement Age and Benefit for Deferred Vested Members:**

General Retirement Age

Reciprocal members: 60

Other members: 57

Safety Retirement Age

Reciprocal members: 53

Other members: 50

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

20% of future General and 30% of future Safety deferred vested members are assumed to continue to work for a reciprocal employer. For reciprocals, 4.15% and 4.25% compensation increases are assumed per annum for General and Safety members, respectively.

**Future Benefit Accruals:**

1.0 year of service per year.

**Unknown Data for Members:**

Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male.

**Definition of Active Members:**

First day of pay period following employment.

**Form of Payment:**

All active and inactive members are assumed to elect the unmodified option at retirement.

**Percent Married:**

For all active and inactive members, 70% of male members and 55% of female members are assumed to be married at pre-retirement death or retirement.

**Age and Gender of Spouse:**

For all active and inactive members, male members are assumed to have a female spouse who is 3 years younger than the member and female members are assumed to have a male spouse who is 2 years older than the member.

**SECTION 3: Actuarial Assumptions and Methods and Appendices for the San Diego County Employees Retirement Association**

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**Service Converted From Unused Sick Leave:**

The following assumptions for service converted from unused sick leave as a percentage of service at retirement are used:

General:	1.00%
Safety:	1.50%

Pursuant to Section 31641.02, the cost of this benefit for Tiers 1, A and B members will be charged only to employers and will not affect member contribution rates.

**Actuarial Cost Method:**

Entry Age Actuarial Cost Method. Entry Age is calculated as age on the valuation date minus years of service. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are based on costs allocated as a level percentage of compensation.

**Expected Remaining Service Lines:**

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

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

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**Changed Actuarial Assumptions:**

The following assumptions have been changed since the prior valuation. Rationale for these changes are presented in the July 1, 2015 through June 30, 2018 Actuarial Experience Study:

**Net Investment Return:**

7.25%; net of investment expenses.

**Consumer Price Index:**

Increase of 3.00% per year, retiree COLA increases due to CPI subject to a 3% maximum change per year for Tier 1 and Tier A, and 2% maximum change per year for Tier B, Tier C and Tier D.

**Payroll Growth:**

Inflation of 3.00% per year plus "across the board" real salary increases of 0.50% per year.

**SECTION 3: Actuarial Assumptions and Methods and Appendices for the San Diego County Employees Retirement Association**

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**Changed Actuarial Assumption (continued):**

**Increase in Section 7522.10 Compensation Limit:** Increase of 3.00% per year from the valuation date.

**Individual Salary Increases:**

**Annual Rate of Compensation Increase**

Inflation: 3.00% per year; plus “across the board” real salary increases of 0.50% per year; plus the following merit and promotional increases:

<u>Years of Service</u>	<u>General</u>	<u>Safety</u>
0	6.75%	8.50%
1	5.00	6.25
2	4.50	5.00
3	3.50	4.75
4	2.50	4.50
5	1.50	2.25
6	1.40	1.60
7	1.30	1.40
8	1.20	1.20
9	1.10	1.10
10	1.00	1.00
11	0.95	1.00
12	0.90	1.00
13	0.85	1.00
14	0.80	1.00
15+	0.75	1.00

**SECTION 3: Actuarial Assumptions and Methods and Appendices for the San Diego County Employees Retirement Association**

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**Changed Actuarial Assumption (continued):**

**Post-Retirement Mortality Rates:**

**Healthy Retirement:** For General Members and all Beneficiaries: Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table projected 20 years with the two-dimensional scale MP2015D, set forward one year for females.

For Safety Members: Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table projected 20 years with the two-dimensional scale MP2015D, set back two years.

**Disabled Retirement:** For General Members: Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table projected 20 years with the two-dimensional scale MP2015D, set forward five years for males and four years for females.

For Safety Members: Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table projected 20 years with the two-dimensional scale MP2015D, set forward one year.

**Pre-Retirement Mortality Rates:** For General and Safety Members: Headcount-Weighted RP-2014 Employee Mortality Table projected 20 years with the two-dimensional scale MP2015D times 75%. For General, all pre-retirement deaths are assumed to be non-service connected death while for Safety, all pre-retirement deaths are assumed to be service connected death.

The above mortality tables contain about a 20% margin, based on actual to expected deaths, to reflect future mortality improvement, based on a review of mortality experience as of the measurement date.

**Member Contribution Rates:** For General Members: Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table projected 20 years with the two-dimensional scale MP2015D, set forward one year for females weighted 30% male and 70% female.

For Safety Members: Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table projected 20 years with the two-dimensional scale MP2015D, set back two years weighted 75% male and 25% female.

**SECTION 3: Actuarial Assumptions and Methods and Appendices for the San Diego County Employees Retirement Association**

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**Changed Actuarial Assumption (continued):**

**Termination Rates Before Retirement:**

**Mortality Rates:**

General and Safety:

Headcount-Weighted RP-2014 Employee Mortality Table projected 20 years with the two-dimensional scale MP2015D times 75%.

Age	Rate (%)			
	Mortality			
	General		Safety	
	Male	Female	Male	Female
25	0.03	0.01	0.03	0.01
30	0.03	0.02	0.03	0.02
35	0.04	0.02	0.04	0.02
40	0.04	0.03	0.04	0.03
45	0.07	0.05	0.07	0.05
50	0.11	0.08	0.11	0.08
55	0.20	0.13	0.20	0.13
60	0.35	0.19	0.35	0.19
65	0.60	0.27	0.60	0.27

For General members, all pre-retirement deaths are assumed to be non-service connected. For Safety members, all pre-retirement deaths are assumed to be service connected.

**SECTION 3: Actuarial Assumptions and Methods and Appendices for the San Diego County Employees Retirement Association**

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**Changed Actuarial Assumption (continued):**

**Disability Rates:**

Age	Rate (%)			
	Non-Service Connected Disability		Service Connected Disability	
	General	Safety	General	Safety
20	0.00	0.00	0.00	0.03
25	0.00	0.00	0.01	0.08
30	0.01	0.00	0.03	0.18
35	0.02	0.05	0.04	0.33
40	0.05	0.08	0.06	0.52
45	0.09	0.08	0.13	0.63
50	0.11	0.08	0.17	1.22
55	0.14	0.10	0.26	1.84
60	0.17	0.12	0.31	2.30
65	0.22	0.05	0.23	2.50

**SECTION 3: Actuarial Assumptions and Methods and Appendices for the San Diego County Employees Retirement Association**

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**Changed Actuarial Assumption (continued):**

**Withdrawal Rates:**

Years of Service	Rate (%)	
	Termination (< 5 Years of Service)*	
	General	Safety
0	11.75	9.00
1	8.50	7.00
2	7.00	4.00
3	5.75	3.00
4	5.50	2.90

\* 65% of all terminating members will choose a refund of contributions and 35% will choose a deferred vested benefit.

Age	Rate (%)	
	Termination (5+ Years of Service)**	
	General	Safety
20	5.35	3.30
25	4.84	3.12
30	4.20	2.40
35	3.64	1.76
40	2.86	1.24
45	2.44	0.88
50	2.40	1.04
55	2.40	1.08
60	2.40	1.00
65	2.40	0.40

\*\* 20% of all terminating members will choose a refund of contributions and 80% will choose a deferred vested benefit. Termination rates are zero at ages where members are expected to retire.



**SECTION 3: Actuarial Assumptions and Methods and Appendices for the San Diego County Employees Retirement Association**

**Changed Actuarial Assumption (continued):**

**Retirement Rates:**

Age	Rates (%)					
	General			Safety		
	Tier 1 and Tier A	Tier B	Tier C	Tier A	Tier B	Tier C
45	-	-	-	2.0	2.0	-
46	-	-	-	2.0	2.0	-
47	-	-	-	2.0	2.0	-
48	-	-	-	3.0	3.0	-
49	65.0	-	-	9.0	3.5	-
50	6.0	-	-	14.0	11.0	14.0
51	4.0	-	-	12.0	11.0	9.5
52	4.0	-	-	11.0	10.0	9.5
53	5.0	-	-	15.0	11.0	9.5
54	6.0	-	-	15.0	12.0	10.5
55	10.0	5.0	4.0	15.0	19.0	16.5
56	10.0	6.0	4.5	18.0	22.0	19.0
57	10.0	7.0	5.5	18.0	20.0	20.0
58	11.0	7.0	5.5	19.0	20.0	20.0
59	15.0	7.0	5.5	20.0	20.0	22.0
60	18.0	9.0	7.0	22.0	22.0	22.0
61	20.0	13.0	10.0	25.0	25.0	25.0
62	23.0	19.0	14.0	25.0	25.0	25.0
63	24.0	19.0	15.0	25.0	25.0	25.0
64	25.0	19.0	15.0	25.0	25.0	25.0
65	31.0	30.0	26.0	50.0	50.0	50.0
66	35.0	30.0	30.0	50.0	50.0	50.0
67	33.0	30.0	30.0	50.0	50.0	50.0
68	32.0	30.0	30.0	50.0	50.0	50.0
69	31.0	30.0	30.0	50.0	50.0	50.0
70	35.0	35.0	35.0	100.0	100.0	100.0
71	35.0	35.0	35.0	100.0	100.0	100.0
72	35.0	35.0	35.0	100.0	100.0	100.0
73	35.0	35.0	35.0	100.0	100.0	100.0
74	40.0	40.0	40.0	100.0	100.0	100.0
75 and later	100.0	100.0	100.0	100.0	100.0	100.0

**SECTION 3: Actuarial Assumptions and Methods and Appendices for the San Diego County Employees Retirement Association**

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**Changed Actuarial Assumption (continued):**

**Retirement Age and Benefit for Deferred Vested Members:**

Reciprocal and Non-reciprocal Members

General: Age 57

Safety: Age 51

We assume that 20% of General and 30% of Safety future deferred vested members will continue to work for a reciprocal employer. For these members, we assume 4.25% and 4.50% compensation increases per annum for General and Safety members, respectively.

**Percent Married:**

75% of male members and 55% of female members are assumed to be married at retirement or pre-retirement death.

**Service Converted From Unused Sick Leave:**

The following assumptions for service converted from unused sick leave as a percentage of service at retirement are used:

General: 2.00%

Safety: 2.25%

Pursuant to Section 31641.02, the cost of this benefit for Tiers 1, A and B members will be charged only to employers and will not affect member contribution rates.

**SECTION 3: Actuarial Assumptions and Methods and Appendices for the San Diego County Employees Retirement Association**

**APPENDIX A**

**Calculation of Discount Rate as of June 30, 2019  
Projection of Pension Plan's Fiduciary Net Position (\$ 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)
2018	\$12,274	\$678	\$744	\$13	\$668	\$12,863
2019	12,863	747	813	14	898	13,681
2020	13,681	758	860	15	954	14,517
2021	14,517	758	908	16	1,010	15,361
2022	15,361	761	958	17	1,068	16,215
2023	16,215	772	1,008	18	1,126	17,088
2024	17,088	595	1,059	19	1,180	17,785
2025	17,785	570	1,111	19	1,226	18,451
2026	18,451	593	1,163	20	1,271	19,132
2027	19,132	653	1,215	21	1,319	19,868
2043	24,553	116	1,946	27	1,655	24,351
2044	24,351	110	1,967	27	1,640	24,107
2045	24,107	105	1,985	26	1,622	23,823
2046	23,823	99	2,000	26	1,601	23,498
2047	23,498	94	2,011	26	1,578	23,134
2092	345	8	106	0 *	21	267
2093	267	7	86	0 *	16	204
2094	204	6	68	0 *	12	154
2095	154	5	53	0 *	9	115
2096	115	5	41	0 *	7	85
2132	16	0 *	0 *	0 *	1	17
2133	17					
2133 Discounted Value:	0 **					

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

\*\* \$17 million when discounted with interest at the rate of 7.00% per annum has a value of less than \$1 million as of June 30, 2018.

**SECTION 3: Actuarial Assumptions and Methods and Appendices for the San Diego County Employees Retirement Association**

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**APPENDIX A (continued)**

**Calculation of Discount Rate as of June 30, 2019  
Projection of Pension Plan's Fiduciary Net Position (\$ in millions)**

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Notes:

- (1) Amounts may not total exactly due to rounding.
  - (2) Amounts shown in the year beginning July 1, 2018 row are actual amounts, based on the unaudited financial statements provided by SDCERA.
  - (3) Years 2028-2042, 2048-2091, and 2097-2131 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, 2018), 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, 2018. The projected benefit payments reflect the cost of living increase assumptions used in the June 30, 2018 valuation report.
  - (7) Column (d): Projected administrative expenses are calculated as approximately 0.11% of the projected beginning Plan's Fiduciary Net Position amount. The 0.11% portion was based on the actual Fiscal Year 2019 administrative expenses as a percentage of the actual beginning Plan's Fiduciary Net Position as of July 1, 2018. 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 7.00% 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 7.00% per annum was applied to all periods of projected benefit payments to determine the Total Pension Liability as of June 30, 2019 shown earlier in this report, pursuant to paragraph 44 of GASB Statement No. 67.
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**SECTION 3: Actuarial Assumptions and Methods and Appendices for the San Diego County Employees Retirement Association**

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**APPENDIX B**

**GLOSSARY**

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Definitions of certain terms *as they are used in Statement 68*; the terms may have different meanings in other contexts.

**Active employees**

Individuals employed at the end of the reporting or measurement period, as applicable.

**Actual contributions**

Cash contributions recognized as additions to a Pension Plan's Fiduciary Net Position.

**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.

**SECTION 3: Actuarial Assumptions and Methods and Appendices for the San Diego County Employees Retirement Association**

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**APPENDIX B (continued)**

**GLOSSARY**

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**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).

**Closed period**

A specific number of years that is counted from one date and declines to zero with the passage of time. For example, if the recognition period initially is five years on a closed basis, four years remain after the first year, three years after the second year, and so forth.

**Collective deferred outflows of resources and deferred inflows of resources related to pensions**

Deferred outflows of resources and deferred inflows of resources related to pensions arising from certain changes in the collective Net Pension Liability.

**Collective Net Pension Liability**

The Net Pension Liability for benefits provided through (1) a cost-sharing pension plan or (2) a single-employer or agent pension plan in circumstances in which there is a special funding situation.

**Collective pension expense**

Pension expense arising from certain changes in the collective Net Pension Liability.

**Contributions**

Additions to a pension plan's fiduciary net position for amounts from employers, nonemployer contributing entities (for example, state government contributions to a local government pension plan), or employees. Contributions can result from cash receipts by the pension plan or from recognition by the pension plan of a receivable from one of these sources.

**Cost-of-living adjustments**

Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.

**SECTION 3: Actuarial Assumptions and Methods and Appendices for the San Diego County Employees Retirement Association**

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**APPENDIX B (continued)**

**GLOSSARY**

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**Cost-sharing employer**

An employer whose employees are provided with pensions through a cost-sharing multiple-employer defined benefit pension plan.

**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**

The payroll on which contributions to a pension plan are based.

**Defined benefit pension plans**

Pension plans that are used to provide defined benefit pensions.

**Defined benefit pensions**

Pensions for which the income or other benefits that the employee will receive at or after separation from employment are defined by the benefit terms. The pensions may be stated as a specified dollar amount or as an amount that is calculated based on one or more factors such as age, years of service, and compensation. (A pension that does not meet the criteria of a defined contribution pension is classified as a defined benefit pension for purposes of Statement 68.)

**Defined contribution pension plans**

Pension plans that are used to provide defined contribution pensions.

**Defined contribution pensions**

Pensions having terms that (1) provide an individual account for each employee; (2) define the contributions that an employer is required to make (or the credits that it is required to provide) to an active employee's account for periods in which that employee renders service; and (3) provide that the pensions an employee will receive will depend only on the contributions (or credits) to the employee's account, actual earnings on investments of those contributions (or credits), and the effects of forfeitures of contributions (or credits) made for other employees, as well as pension plan administrative costs, that are allocated to the employee's account.

**SECTION 3: Actuarial Assumptions and Methods and Appendices for the San Diego County Employees Retirement Association**

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**APPENDIX B (continued)**

**GLOSSARY**

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**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's fiduciary net position is projected (under the requirements of Statement 68) to be greater than the benefit payments that are projected to be made in that period and (b) pension plan assets up to that point are expected to be invested using a strategy to achieve the long-term expected rate of return, calculated using the long-term expected rate of return on pension plan investments.
2. The actuarial present value of projected benefit payments not included in (1), calculated using the municipal bond rate.

**Entry age actuarial cost method**

A method under which the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age(s). The portion of this actuarial present value allocated to a valuation year is called the *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.

**Measurement period**

The period between the prior and the current measurement dates.

**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**

The liability of employers and nonemployer contributing entities to employees for benefits provided through a defined benefit pension plan.



**SECTION 3: Actuarial Assumptions and Methods and Appendices for the San Diego County Employees Retirement Association**

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**APPENDIX B (continued)**

**GLOSSARY**

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**Other postemployment benefits**

All postemployment benefits other than retirement income (such as death benefits, life insurance, disability, and long-term care) that are provided separately from a pension plan, as well as postemployment healthcare benefits, regardless of the manner in which they are provided. Other postemployment benefits do not include termination benefits.

**Pension plans**

Arrangements through which pensions are determined, assets dedicated for pensions are accumulated and managed, and benefits are paid as they come due.

**Pensions**

Retirement income and, if provided through a pension plan, postemployment benefits other than retirement income (such as death benefits, life insurance, and disability benefits). Pensions do not include postemployment healthcare benefits and termination benefits.

**Plan members**

Individuals that are covered under the terms of a pension plan. Plan members generally include (1) employees in active service (active plan members) and (2) terminated employees who have accumulated benefits but are not yet receiving them and retirees or their beneficiaries currently receiving benefits (inactive plan members).

**Postemployment**

The period after employment.

**Postemployment benefit changes**

Adjustments to the pension of an inactive employee.

**Postemployment healthcare benefits**

Medical, dental, vision, and other health-related benefits paid subsequent to the termination of employment.

**Projected benefit payments**

All benefits estimated to be payable through the pension plan to current active and inactive employees as a result of their past service and their expected future service.

**SECTION 3: Actuarial Assumptions and Methods and Appendices for the San Diego County Employees Retirement Association**

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**APPENDIX B (continued)**

**GLOSSARY**

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**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.

**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**

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.

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