

Orange County Employees Retirement System (OCERS)

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

Actuarial Valuation Based on December 31, 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 OCERS 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 4, 2020

Board of Retirement
Orange County Employees Retirement System
2223 Wellington Avenue
Santa Ana, CA 92701

Dear Board Members:

We are pleased to submit this Governmental Accounting Standards Board (GASB) Statement 68 Actuarial Valuation based on December 31, 2019 measurement date for employer reporting as of June 30, 2020. It contains various information that will need to be disclosed in order for OCERS employers to comply with GASB Statement 68.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist Orange County Employees Retirement System (OCERS) in preparing items related to the pension plan in their financial report. The census and financial information on which our calculations were based were prepared by OCERS. That assistance is gratefully acknowledged.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (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, Enrolled Actuary. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in the actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and expectations for the System.

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

Sincerely,

Segal

A handwritten signature in black ink, appearing to read "Paul Angelo".

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

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

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

JY/jl

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Section 1: Actuarial Valuation Summary

Purpose and basis

This report has been prepared by Segal to present certain disclosure information required by Governmental Accounting Standards Board (GASB) Statement 68 for employer reporting as of June 30, 2020. The results used in preparing this GASB 68 report are comparable to those used in preparing the Governmental Accounting Standards Board (GASB) Statement 67 report for the plan based on a reporting date and a measurement date as of December 31, 2019. This valuation is based on:

- The benefit provisions of OCERS, as administered by the Board of Retirement;
- The characteristics of covered active members, inactive vested members, and retired members and beneficiaries as of December 31, 2018, provided by OCERS;
- The assets of the Plan as of December 31, 2019, provided by OCERS;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board for the December 31, 2019 valuation; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc. adopted by the Board for the December 31, 2019 valuation.

General observations on GASB 68 actuarial valuation

1. It is important to note that Governmental Accounting Standards Board (GASB) rules only define pension liability and expense for financial reporting purposes, and do not apply to contribution amounts for pension funding purposes. Employers and plans still develop and adopt funding policies under current practices.
2. When measuring pension liability GASB uses the same actuarial cost method (Entry Age method) and the same type of discount rate (expected return on assets) as OCERS uses for funding. This means that the Total Pension Liability (TPL) measure for financial reporting shown in this report is determined on generally the same basis as OCERS' Actuarial Accrued Liability (AAL) measure for funding. We note that the same is generally true for the Normal Cost component of the annual plan cost for funding and financial reporting.
3. The Net Pension Liability (NPL) is equal to the difference between the TPL and the Plan's Fiduciary Net Position. The Plan's Fiduciary Net Position is equal to the market value of assets and therefore, the NPL measure is very similar to an Unfunded Actuarial Accrued Liability (UAAL) calculated on a market value basis.

Section 1: Actuarial Valuation Summary

4. For this report, the reporting dates for the employers are June 30, 2020 and 2019. The NPL's measured as of December 31, 2019 and 2018 have been determined by rolling forward the TPL as of December 31, 2018 and 2017, respectively. The Plan's Fiduciary Net Positions were valued as of the measurement dates. In addition, any changes in actuarial assumptions or plan provisions that occurred between the valuation date and the measurement date have been reflected.

Highlights of the valuation

1. The NPL decreased from \$6,197.2 million as of December 31, 2018 to \$5,075.7 million as of December 31, 2019 primarily as a result a 14.79%¹ return on the market value of assets during 2019 that was higher than the assumed return of 7.00% of approximately \$1,171 million. The decrease in the total employer Pension Expense from \$783.7 million calculated last year to \$590.7 million calculated this year was mainly due to this investment gain. Changes in these values during the last two fiscal years ending December 31, 2019 and December 31, 2018 can be found in *Section 2, Schedule of changes in Net Pension Liability* on page 17.
2. The discount rate used to determine the TPL and NPL as of both December 31, 2019 and 2018 was 7.00% following the same assumption used by the System in the pension funding valuations as of the same dates. The detailed calculation of the discount rate of 7.00% used in the calculation of the TPL and NPL as of December 31, 2019 can be found in *Section 3, Appendix A*. Various other information that is required to be disclosed can be found throughout *Section 2*.
3. The Plan's Fiduciary Net Position of \$14,481,680,000 as of December 31, 2018 is equal to the final market value of assets in the Pension Trust Fund as of December 31, 2018. This differs from the \$14,349,790,000 market value of assets used in our December 31, 2018 funding valuation because the funding valuation excludes \$131,890,000 in the County Investment Account. (The balance of the O.C. Sanitation District Deferred Account as of December 31, 2018 was \$0 after a transfer of \$14,589,000 to offset a portion of the District's UAAL as of December 31, 2018.)

The Plan's Fiduciary Net Position of \$16,678,581,000 as of December 31, 2019 is equal to the final market value of assets in the Pension Trust Fund as of December 31, 2019. This differs from the \$16,516,108,000 market value of assets used in our December 31, 2019 funding valuation because the funding valuation excludes \$150,416,000 in the County Investment Account and \$12,057,000 in O.C. Sanitation District UAAL Deferred Account (after transfer of \$18,631,000 to offset the District's entire UAAL as of December 31, 2019).

¹ As documented in the funding valuation report, return on market value was calculated using a modified dollar-weighted approach based on pension plan assets net of accounting liabilities. Actual investment gain on net pension plan assets was \$2,123,258,000 during 2019 after including both the administrative expenses and discount for prepaid contributions while excluding the gains credited to County Investment Account and O.C. Sanitation District UAAL Deferred Account. Without these adjustments, the actual investment gain was \$2,183,808,000.

Section 1: Actuarial Valuation Summary

4. In Appendix B, we show the Schedule of Pension Amounts by Employer. The expanded information shown in Appendix B has been used to prepare the Schedules that show the Pension Expense as well as the Deferred Outflows of Resources and Deferred Inflows of Resources.
5. Results shown in this report exclude any employer contributions made after the measurement date of December 31, 2019. Employers should consult with their auditors to determine the deferred outflow that should be created for these contributions.
6. All Rate Groups except Rate Groups #1 and #2 only have one active employer, so all of the NPL for those Rate Groups is allocated to that employer.

For Rate Groups #1² and #2, the NPL is allocated based on the actual employer contributions within the Rate Group. The steps we used are as follows:

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

If the employer is in several Rate Groups, the employer's total allocated NPL is the sum of its allocated NPL from each Rate Group. 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 allocation can be found in the Schedule of Determination of Proportionate Share in Section 2.

7. 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:
 - Changes in the market value of plan assets since December 31, 2019
 - Changes in interest rates since December 31, 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 December 31, 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.

² The NPL for Rate Group #1 was adjusted by the NPLs for the O.C. Vector Control District, Cypress Recreation and Parks, Department of Education and U.C.I. prior to allocating the net NPL to the other employers in Rate Group #1 as the NPLs for these four employers were calculated separately.

Section 1: Actuarial Valuation Summary

Summary of key valuation results

Reporting Date for Employer under GASB 68 ¹		June 30, 2020	June 30, 2019
Measurement Date for Employer under GASB 68		December 31, 2019	December 31, 2018
Disclosure elements for fiscal year ending December 31:	• Service cost ²	\$499,255,591	\$491,372,822
	• Total Pension Liability	21,754,263,463	20,678,882,089
	• Plan's Fiduciary Net Position	16,678,581,000	14,481,680,000
	• Net Pension Liability	5,075,682,463	6,197,202,089
Schedule of contributions For plan year ending December 31:	• Pension expense	590,748,219	783,713,497
	• Actuarially determined contributions ³	\$583,057,000	\$556,728,000 ⁴
	• Actual contributions ³	653,793,000	580,905,000 ⁴
Demographic data for plan year ending December 31:	• Contribution deficiency / (excess) ⁵	(70,736,000)	(24,177,000)
	• Number of retired members and beneficiaries	18,420	17,674
	• Number of inactive vested members	6,520	6,026
Key assumptions as of December 31:	• Number of active members	22,257	21,929
	• Investment rate of return	7.00%	7.00%
	• Inflation rate	2.75%	2.75%
	• Projected salary increases ⁶	General: 4.25% to 12.25% and Safety: 4.75% to 17.25%	General: 4.25% to 12.25% and Safety: 4.75% to 17.25%

¹ The reporting date and measurement date for the plan are December 31, 2019 and December 31, 2018.

² 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 December 31, 2018 and December 31, 2017, respectively. Both service costs have been calculated using the assumptions shown in the December 31, 2018 measurement date column, as there had been no changes in the actuarial assumptions between the December 31, 2017 and December 31, 2018 valuations.

³ Reduced by discount for prepaid contributions and transfer from County Investment Account, if any.

⁴ Exclude transfer of \$14,589,000 from O.C. Sanitation District Deferred UAAL Account required to offset UAAL increase.

⁵ Includes additional contributions made by employers toward the reduction of their UAAL. Details are shown in Schedule of Contributions on page 20.

⁶ For measurement dates December 31, 2019 and December 31, 2018, includes inflation at 2.75% plus real across-the-board salary increases of 0.50% plus merit and promotion increases.

Section 1: Actuarial Valuation Summary

Important information about actuarial valuations

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

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

Plan of Benefits	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan 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 OCERS. 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 OCERS.
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 forecasted benefits are then discounted to a present value, typically based on an estimate of the rate of return that will be achieved on the plan's assets or, if there are no assets, a rate of return based on a yield or index rate of 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher (or equivalent quality on another rating scale). 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.

Section 1: Actuarial Valuation Summary

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

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

An actuarial valuation is a measurement of the plan's assets and liabilities at a specific date. Accordingly, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

If OCERS 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 OCERS, it is not a fiduciary in its capacity as actuaries and consultants with respect to OCERS.

Section 2: GASB 68 Information

General information about the pension plan

Plan Description

Plan administration. The Orange County Employees Retirement System (OCERS) was established by the County of Orange in 1945. OCERS is administered by the Board of Retirement and governed by the County Employees' Retirement Law of 1937 (California Government Code Section 31450 et. seq.). OCERS is a cost-sharing multiple employer public employee retirement system whose main function is to provide service retirement, disability, death and survivor benefits to the Safety and General members employed by the County of Orange. OCERS also provides retirement benefits to the employee members of the Orange County Courts, the Orange County Retirement System, two cities and thirteen special districts.

The management of OCERS is vested with the Orange County Board of Retirement. The Board consists of nine members and one alternate. The County Treasurer is a member of the Board of Retirement by law. Four members are appointed by the Board of Supervisors, one of whom may be a County Supervisor. Two members are elected by the General membership; one member and one alternate are elected by the Safety membership, one member is elected by the retired members of the System. All members of the Board of Retirement serve terms of three years except for the County Treasurer whose term runs concurrent with the County Treasurer term.

Plan membership. At December 31, 2019, pension plan membership consisted of the following:

Retired members or beneficiaries currently receiving benefits	18,420
Inactive vested members entitled to but not yet receiving benefits	6,520
Active members	<u>22,257</u>
Total	47,197

Note: Data as of December 31, 2019 is not used in the measurement of the TPL as of December 31, 2019.

Section 2: GASB 68 Information

Benefits provided. OCERS provides service retirement, disability, death and survivor benefits to eligible employees. All regular full-time employees of the County of Orange or contracting agencies who work a minimum of 20 hours per week become members of OCERS effective on the first day of employment in an eligible position. There are separate retirement plans for General and Safety member employees. Safety membership is extended to those involved in active law enforcement, fire suppression, and certain probation officers. Any new Safety member who becomes a member on or after January 1, 2013 is designated PEPRA Safety and is subject to the provisions of California Public Employees' Pension Reform Act of 2013 (PEPRA), California Government Code 7522 et seq. All other employees are classified as General members. New General members employed on or after January 1, 2013 are designated as PEPRA General subject to the provisions of California Government Code 7522 et. seq.

General members hired prior to January 1, 2013, including all members of Plan T and Plan W hired on or after January 1, 2013, are eligible to retire once they attain the age of 50 and have acquired ten or more years of retirement service credit. A member with thirty years of service is eligible to retire regardless of age. General members who are first hired on or after January 1, 2013, excluding members of Plan T and Plan W, are eligible to retire once they have attained the age of 52, and have acquired five years of retirement service credit.

Safety members hired prior to January 1, 2013, are eligible to retire once they attain the age of 50 and have acquired ten or more years of retirement service credit. A member with twenty years of service is eligible to retire regardless of age. Safety members who are first hired on or after January 1, 2013, are eligible to retire once they have attained the age of 50, and have acquired five years of retirement service credit.

All General and Safety members can also retire at the age of 70 regardless of service.

The retirement benefit the member will receive is based upon age at retirement, final average compensation, years of retirement service credit and retirement plan and tier.

General member benefits are calculated pursuant to the provisions of Sections 31676.01, 31676.1, 31676.12, 31676.16, 31676.18 or 31676.19. For Section 31676.01, the monthly allowance is equal to 1/90th of final compensation times years of accrued retirement service credit times age factor from that Section. For Section 31676.1, the monthly allowance is equal to 1/60th of final compensation times years of accrued retirement service credit times age factor from that Section. For Sections 31676.12, 31676.16, 31676.18 or 31676.19, the monthly allowance is equal to 1/50th of final compensation times years of accrued retirement service credit times age factor from the corresponding Section. General member benefits for those who are first hired on or after January 1, 2013, excluding members of Plan T and Plan W, are calculated pursuant to the provision of California Government Code Section 7522.20(a). The monthly allowance is equal to the final compensation multiplied by years of accrued retirement credit multiplied by the age factor from Section 7522.20(a).

Safety member benefits are calculated pursuant to the provisions of California Government Code Sections 31664.1 and 31664.2. The monthly allowance is equal to 3% of final compensation times years of accrued retirement service credit times age factor from the corresponding Section. Safety member benefits for those who are first hired on or after January 1, 2013, are calculated pursuant to the provision of California Government Code Section 7522.25(d). The monthly allowance is equal to the final compensation multiplied by years of accrued retirement credit multiplied by the age factor from Section 7522.25(d).

Section 2: GASB 68 Information

For members with membership dates before January 1, 2013, including all members of Plan T and Plan W hired on or after January 1, 2013, the maximum monthly retirement allowance is 100% of final compensation. There is no maximum for members with membership dates on or after January 1, 2013, excluding members of Plan T and Plan W.

Final average compensation consists of the highest 12 consecutive months for a General Tier 1 or Safety Tier 1 member and the highest 36 consecutive months for a General Tier 2, General PEPRA, Safety Tier 2 or Safety PEPRA member.

The member may elect an unmodified retirement allowance, or choose an optional retirement allowance. The unmodified retirement allowance provides the highest monthly benefit and a 60% continuance to an eligible surviving spouse 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 spouses or domestic partners 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.

OCERS provides an annual cost-of-living benefit to all retirees. The cost-of-living adjustment, based upon the Consumer Price Index for All Urban Consumers for the Los Angeles-Long Beach-Anaheim Area, is capped at 3.0%.

The County of Orange and contracting 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 OCERS' actuary after the completion of the annual actuarial valuation. The average employer contribution rate for the first six months of calendar year 2019 or the second half of fiscal year 2018-2019 (based on the December 31, 2016 valuation) was 36.56%¹ of compensation. The average employer contribution rate for the last six months of calendar year 2019 or the first half of fiscal year 2019-2020 (based on the December 31, 2017 valuation) was 37.97%¹ of compensation.

All members are required to make contributions to OCERS regardless of the retirement plan or tier in which they are included. The average member contribution rate for the first six months of calendar year 2019 or the second half of fiscal year 2018-2019 (based on the December 31, 2016 valuation) was 12.01%² of compensation. The average member contribution rate for the last six months of calendar year 2019 or the first half of fiscal year 2019-2020 (based on the December 31, 2017 valuation) was 12.63%² of compensation.

¹ These employer contribution rates may be higher or lower than the composite rate for 2019 as shown on page 18 of this report because these rates have not been adjusted to reflect any pick-ups or reverse pick-ups. These employer contribution rates also do not reflect the shift in payroll to the lower cost plans from the valuation date to the date of rate implementation.

² It should be noted that these member contribution rates provided above have not been adjusted to reflect any pick-ups or reverse pick-ups.

Section 2: GASB 68 Information

Net Pension Liability

Reporting Date for Employer under GASB 68	June 30, 2020	June 30, 2019
Measurement Date for Employer under GASB 68	December 31, 2019	December 31, 2018
Components of the Net Pension Liability		
Total Pension Liability	\$21,754,263,463	\$20,678,882,089
Plan's Fiduciary Net Position	(16,678,581,000)	(14,481,680,000)
Net Pension Liability	\$5,075,682,463	\$6,197,202,089
Plan's Fiduciary Net Position as a percentage of the Total Pension Liability	76.67%	70.03%

The Net Pension Liability (NPL) was measured as of December 31, 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 December 31, 2018 and 2017, respectively.

Plan provisions. The plan provisions used in the measurement of the NPL as of December 31, 2019 and 2018 are the same as those used in the OCERS actuarial valuations as of December 31, 2019 and 2018, respectively.

Actuarial assumptions. The TPLs as of December 31, 2019 and 2018 were determined by actuarial valuations as of December 31, 2018 and 2017, respectively. The actuarial assumptions used were based on the results of an experience study for the period from January 1, 2014 through December 31, 2016 and they are the same assumptions used in the December 31, 2019 and 2018 funding valuations for OCERS. In particular, the following actuarial assumptions were applied to all periods included in the measurements:

Inflation	2.75%
Salary Increases	General: 4.25% to 12.25% and Safety: 4.75% to 17.25%, 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 January 1, 2014 through December 31, 2016

Section 2: GASB 68 Information

Determination of discount rate and investment rates of return

The long-term expected rate of return on pension plan investments¹ was determined in 2017 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 investment expenses are shown in the following table. This information was used in the derivation of the long-term expected investment rate of return assumption for the December 31, 2019 and 2018 actuarial valuations. 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
Global Equity	35.0%	6.38%
Core Bonds	13.0%	1.03%
High Yield Bonds	4.0%	3.52%
Bank Loan	2.0%	2.86%
TIPS	4.0%	0.96%
Emerging Market Debt	4.0%	3.78%
Real Estate	10.0%	4.33%
Core Infrastructure	2.0%	5.48%
Natural Resources	10.0%	7.86%
Risk Mitigation	5.0%	4.66%
Mezzanine/Distressed Debts	3.0%	6.53%
Private Equity	8.0%	9.48%
Total	100.00%	

¹ 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: GASB 68 Information

Discount rate. The discount rate used to measure the TPL was 7.00% as of December 31, 2019 and 2018. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the actuarially determined contribution rates. For this purpose, only employer contributions that are intended to fund benefits for current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs for future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the Plan'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 December 31, 2019 and 2018.

Section 2: GASB 68 Information

Discount rate sensitivity

Sensitivity of the Net Pension Liability to changes in the discount rate. The following presents the NPL as of December 31, 2019, calculated using the discount rate of 7.00%, as well as what the 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:

	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
Orange County	\$6,456,264,720	\$4,124,212,240	\$2,227,308,689
O.C. Cemetery District	1,360,254	(228,119)	(1,520,109)
O.C. Law Library	1,563,992	(74,515)	(1,407,285)
O.C. Vector Control District	3,315,913	(625,500)	(3,831,466)
O.C. Retirement System	41,265,624	26,824,264	15,077,587
O.C. Fire Authority	664,737,575	354,395,457	101,961,573
Cypress Recreation and Parks	1,631,167	262,415	(850,935)
Department of Education	4,877,710	3,099,339	1,652,803
Transportation Corridor Agency	5,792,435	(1,753,164)	(7,890,793)
City of San Juan Capistrano	40,292,922	26,191,970	14,722,183
O.C. Sanitation District	58,125,867	(49,446,617)	(136,946,632)
O.C. Transportation Authority	370,129,397	224,284,548	105,653,594
U.C.I.	45,586,926	30,213,739	17,709,109
O.C. Children and Families Comm.	(34,892)	(646,472)	(1,143,934)
Local Agency Formation Comm.	2,291,619	1,489,642	837,309
Rancho Santa Margarita	4,604	(2,214)	(7,760)
O.C. Superior Court	518,070,697	336,766,149	189,292,092
O.C. IHSS Public Authority	<u>1,466,876</u>	<u>719,301</u>	<u>111,220</u>
Total for all Employers	\$8,216,743,406	\$5,075,682,463	\$2,520,727,245

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Schedule of changes in Net Pension Liability — Last two plan years

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
Total Pension Liability		
• Service cost	\$499,255,591	\$491,372,822
• Interest	1,452,644,872	1,379,917,267
• Change of benefit terms	0	0
• Differences between expected and actual experience	24,382,911	(118,124,401)
• Changes of assumptions	0	0
• Benefit payments, including refunds of member contributions	(900,902,000)	(828,278,000)
• Transfer of members among Rate Groups	0	0
• Other	0	0
Net change in Total Pension Liability	\$1,075,381,374	\$924,887,688
Total Pension Liability – beginning	20,678,882,089	19,753,994,401
Total Pension Liability – ending	<u>\$21,754,263,463</u>	<u>\$20,678,882,089</u>
Plan's Fiduciary Net Position		
• Contributions – employer ¹	\$653,793,000	\$580,905,000 ²⁽²⁾
• Contributions – member	279,373,000	270,070,000
• Net investment income	2,183,808,000	(324,628,000)
• Benefit payments, including refunds of member contributions	(900,902,000)	(828,278,000)
• Transfer of members among Rate Groups	0	0
• Administrative expense	(19,171,000)	(18,284,000)
• Other	0	0
Net change in Plan's Fiduciary Net Position	\$2,196,901,000	\$(320,215,000)
Plan's Fiduciary Net Position – beginning	14,481,680,000	14,801,895,000
Plan's Fiduciary Net Position – ending	<u>\$16,678,581,000</u>	<u>\$14,481,680,000</u>
Net Pension Liability – ending	<u>\$5,075,682,463</u>	<u>\$6,197,202,089</u>
Plan's Fiduciary Net Position as a percentage of the Total Pension Liability	76.67%	70.03%
Covered payroll³	\$1,783,054,000	\$1,718,798,000
Plan Net Pension Liability as percentage of covered payroll	284.66%	360.55%

¹ Reduced by discount for prepaid contributions and transfer from County Investment Account, if any

² \$14,589,000 transfer from O.C. Sanitation District Deferred UAAL Account required to offset UAAL increase for the actuarial losses as of December 31, 2018 has been excluded from this amount.

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

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Schedule of employer contributions — Last ten fiscal years

Year Ended December 31	Actuarially Determined Contributions ^{1,2}	Contributions in Relation to the Actuarially Determined Contributions ^{1,2}	Contribution Deficiency / (Excess)	Covered Payroll ³	Contributions as a Percentage of Covered Payroll ^{1,2}
2010	\$372,437,000	\$372,437,000	\$0	\$1,511,569,000	24.64%
2011	387,585,000	387,585,000	0	1,498,914,000	25.86%
2012	406,521,000	406,521,000	0	1,497,475,000	27.15%
2013	426,020,000	427,095,000 ⁴	(1,075,000)	1,494,745,000	28.57%
2014	476,320,000	625,520,000 ⁵	(149,200,000)	1,513,206,000	41.34%
2015	502,886,000	571,298,000 ⁶	(68,412,000)	1,521,036,000	37.56%
2016	521,447,000	567,196,000 ⁷	(45,749,000)	1,602,675,000	35.40%
2017	536,726,000 ⁸	572,104,000 ^{8,9}	(35,378,000)	1,678,322,000	34.09%
2018	556,728,000 ¹⁰	580,905,000 ^{10,11}	(24,177,000)	1,718,798,000	33.80%
2019	583,057,000	653,793,000 ¹²	(70,736,000)	1,783,054,000	36.67%

¹ Reduced by transfers from County Investment Account (funded by pension obligation proceeds held by OCERS). Those transfers are as follows:

Plan Year Ended December 31	Transfers from County Investment Account	Plan Year Ended December 31	Transfers from County Investment Account
2010	\$11,000,000	2015	\$0
2011	11,000,000	2016	0
2012	5,500,000	2017	0
2013	5,000,000	2018	0
2014	5,000,000	2019	0

² Reduced by discount for prepaid contributions.

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

⁴ Includes additional contributions of \$1,075,000 made by O.C. Fire Authority towards the reduction of their UAAL.

⁵ Includes additional contributions of \$1,663,000 made by O.C. Cemetery District, \$22,537,000 made by O.C. Fire Authority and \$125,000,000 made by O.C. Sanitation District towards the reduction of their UAAL.

⁶ Includes additional contributions of \$18,412,000 made by O.C. Fire Authority and \$50,000,000 made by O.C. Sanitation District towards the reduction of their UAAL.

⁷ Includes additional contributions of \$5,133,000 made by O.C. Fire Authority, \$1,500,000 made by Law Library and \$5,587,000 made by O.C. Sanitation District towards the reduction of their UAAL as well as \$33,529,000 made by O.C. Sanitation District to their UAAL Deferred Account.

⁸ \$24,042,000 transfer from O.C. Sanitation District Deferred UAAL Account required to offset UAAL increase for the assumption changes has been excluded from both these amounts.

⁹ Includes additional contributions of \$32,096,000 made by O.C. Fire Authority, \$1,538,000 made by Law Library and \$1,744,000 made by O.C. Children and Families Commission towards the reduction of their UAAL.

¹⁰ \$14,589,000 transfer from O.C. Sanitation District Deferred UAAL Account required to offset UAAL increase for the actuarial losses as of December 31, 2018 has been excluded from both these amounts.

¹¹ Includes additional contributions of \$23,437,000 made by O.C. Fire Authority and \$740,000 made by Cypress Recreation and Parks District towards the reduction of their UAAL.

¹² Includes additional contributions of \$19,043,000 made by O.C. Fire Authority, \$878,000 made by O.C. Vector Control, \$12,815,000 Transportation Corridor and \$8,116,000 made by O.C. Sanitation District towards the reduction of their UAAL as well as \$29,884,000 made by O.C. Sanitation District to their UAAL Deferred Account.

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Notes to Schedule:

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

Valuation Date:	Actuarially determined contribution rates for the first six months of calendar year 2019 or the second half of fiscal year 2018-2019 are calculated based on the December 31, 2016 valuation. Actuarially determined contribution rates for the last six months of calendar year 2019 or the first half of fiscal year 2019-2020 are calculated based on the December 31, 2017 valuation.
Actuarial Cost Method:	Entry Age Actuarial Cost Method
Amortization Method	Level percent of payroll for total unfunded actuarial accrued liability
Remaining Amortization Period:	Effective December 31, 2013, the outstanding balance of the UAAL from the December 31, 2012 valuation was combined and re-amortized over a declining 20-year period. Any changes in UAAL due to actuarial gains or losses or due to changes in assumptions or methods will be amortized over separate 20-year periods. Any changes in UAAL due to plan amendments will be amortized over separate 15-year periods and any change in UAAL due to early retirement incentive programs will be amortized over a separate period of up to 5 years.
Asset Valuation Method:	The Actuarial Value of Assets is determined by recognizing any difference between the actual and the expected market return over a five-year period. The Valuation Value of Assets is the Actuarial Value of Assets reduced by the value of the non-valuation reserves.

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Actuarial assumptions

Valuation Date	December 31, 2016 valuation	December 31, 2017 Valuation
Investment rate of return:	7.25%, net of pension plan investment expense, including inflation	7.00%, net of pension plan investment expense, including inflation
Inflation rate:	3.00%	2.75%
Real across-the-board salary increase:	0.50%	0.50%
Projected salary increases:	General: 4.25% to 13.50% and Safety: 5.00% to 17.50%, vary by service, including inflation	General: 4.25% to 12.25% and Safety: 4.75% to 17.25%, vary by service, including inflation
Cost of living adjustments:	3.00% of retirement income	2.75% of retirement income
Other assumptions:	Same as those used in the December 31, 2016 funding actuarial valuation	Same as those used in the December 31, 2017 funding actuarial valuation

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Determination of proportionate share

Actual Contributions (Excluding Employer Paid Member Contributions and Not Reduced for Discount Due to Prepaid Contributions) by Employer and Rate Group
January 1, 2018 to December 31, 2018

	Rate Group #1	Rate Group #1 Percentage	Rate Group #2	Rate Group #2 Percentage	Rate Group #3	Rate Group #3 Percentage
Orange County	\$13,361,000	98.591%	\$252,306,000	87.908%	\$0	0.000%
O.C. Cemetery District	0	0.000%	0	0.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	0	0.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	2,187,000	0.762%	0	0.000%
O.C. Fire Authority	0	0.000%	0	0.000%	0	0.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	0	0.000%
City of San Juan Capistrano	0	0.000%	2,437,000	0.849%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	7,728,000	100.000%
O.C. Transportation Authority	0	0.000%	0	0.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	185,000	0.064%	0	0.000%
Local Agency Formation Comm.	0	0.000%	120,000	0.042%	0	0.000%
Rancho Santa Margarita	0	0.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	29,779,000	10.375%	0	0.000%
O.C. IHSS Public Authority	<u>191,000</u>	<u>1.409%</u>	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>
Total for all Employers	\$13,552,000	100.000%	\$287,014,000	100.000%	\$7,728,000	100.000%

Note: Results may not total due to rounding.

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Actual Contributions (Excluding Employer Paid Member Contributions and Not Reduced for Discount Due to Prepaid Contributions) by Employer and Rate Group

January 1, 2018 to December 31, 2018

	Rate Group #4	Rate Group #4 Percentage	Rate Group #5	Rate Group #5 Percentage	Rate Group #9	Rate Group #9 Percentage
Orange County	\$0	0.000%	\$0	0.000%	\$0	0.000%
O.C. Cemetery District	0	0.000%	0	0.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	0	0.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	0	0.000%	0	0.000%
O.C. Fire Authority	0	0.000%	0	0.000%	0	0.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	1,641,000	100.000%
City of San Juan Capistrano	0	0.000%	0	0.000%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	0	0.000%
O.C. Transportation Authority	0	0.000%	24,725,000	100.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	0	0.000%	0	0.000%
Local Agency Formation Comm.	0	0.000%	0	0.000%	0	0.000%
Rancho Santa Margarita	0	100.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	0	0.000%	0	0.000%
O.C. IHSS Public Authority	<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	\$0	100.000%	\$24,725,000	100.000%	\$1,641,000	100.000%

Note: Results may not total due to rounding.

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Actual Contributions (Excluding Employer Paid Member Contributions and Not Reduced for Discount Due to Prepaid Contributions) by Employer and Rate Group

January 1, 2018 to December 31, 2018

	Rate Group #10	Rate Group #10 Percentage	Rate Group #11	Rate Group #11 Percentage	Rate Group #12	Rate Group #12 Percentage
Orange County	\$0	0.000%	\$0	0.000%	\$0	0.000%
O.C. Cemetery District	0	0.000%	171,000	100.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	169,000	100.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	0	0.000%	0	0.000%
O.C. Fire Authority	8,206,000	100.000%	0	0.000%	0	0.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	0	0.000%
City of San Juan Capistrano	0	0.000%	0	0.000%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	0	0.000%
O.C. Transportation Authority	0	0.000%	0	0.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	0	0.000%	0	0.000%
Local Agency Formation Comm.	0	0.000%	0	0.000%	0	0.000%
Rancho Santa Margarita	0	0.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	0	0.000%	0	0.000%
O.C. IHSS Public Authority	<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	\$8,206,000	100.000%	\$171,000	100.000%	\$169,000	100.000%

Note: Results may not total due to rounding.

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Actual Contributions (Excluding Employer Paid Member Contributions and Not Reduced for Discount Due to Prepaid Contributions) by Employer and Rate Group

January 1, 2018 to December 31, 2018

	Rate Group #6	Rate Group #6 Percentage	Rate Group #7	Rate Group #7 Percentage	Rate Group #8	Rate Group #8 Percentage
Orange County	\$28,033,000	100.000%	\$143,462,000	100.000%	\$0	0.000%
O.C. Cemetery District	0	0.000%	0	0.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	0	0.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	0	0.000%	0	0.000%
O.C. Fire Authority	0	0.000%	0	0.000%	59,905,000	100.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	0	0.000%
City of San Juan Capistrano	0	0.000%	0	0.000%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	0	0.000%
O.C. Transportation Authority	0	0.000%	0	0.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	0	0.000%	0	0.000%
Local Agency Formation Comm.	0	0.000%	0	0.000%	0	0.000%
Rancho Santa Margarita	0	0.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	0	0.000%	0	0.000%
O.C. IHSS Public Authority	<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	\$28,033,000	100.000%	\$143,462,000	100.000%	\$59,905,000	100.000%

Note: Results may not total due to rounding.

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Actual Contributions (Excluding Employer Paid Member Contributions and Not Reduced for Discount Due to Prepaid Contributions) by Employer and Rate Group

January 1, 2018 to December 31, 2018

	Total Contributions ¹	Total Percentage
Orange County	\$437,162,000	76.079%
O.C. Cemetery District	171,000	0.030%
O.C. Law Library	169,000	0.029%
O.C. Vector Control District	0	0.000%
O.C. Retirement System	2,187,000	0.381%
O.C. Fire Authority	68,111,000	11.854%
Cypress Recreation and Parks	0	0.000%
Department of Education	0	0.000%
Transportation Corridor Agency	1,641,000	0.286%
City of San Juan Capistrano	2,437,000	0.424%
O.C. Sanitation District	7,728,000	1.345%
O.C. Transportation Authority	24,725,000	4.303%
U.C.I.	0	0.000%
O.C. Children and Families Comm.	185,000	0.032%
Local Agency Formation Comm.	120,000	0.021%
Rancho Santa Margarita	0	0.000%
O.C. Superior Court	29,779,000	5.183%
O.C. IHSS Public Authority	<u>191,000</u>	<u>0.033%</u>
Total for all Employers	\$574,606,000	100.000%

Note: Results may not total due to rounding.

¹ Excludes additional contributions of \$23,437,000 made by O.C. Fire Authority towards the reduction of their UAALs, combined contributions of \$3,916,000 made by Cypress Recreation and Parks, Department of Education and U.C.I. and combined employer pick-up contributions of \$164,000.

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Allocation of December 31, 2018 Net Pension Liability

	Rate Group #1	Rate Group #1 Percentage	Rate Group #2	Rate Group #2 Percentage	Rate Group #3	Rate Group #3 Percentage
Orange County	\$71,865,137	62.935%	\$3,246,653,910	87.685%	\$0	0.000%
O.C. Cemetery District	0	0.000%	0	0.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	0	0.000%
O.C. Vector Control District ¹	2,492,695	2.183%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	28,844,760	0.779%	0	0.000%
O.C. Fire Authority	0	0.000%	0	0.000%	0	0.000%
Cypress Recreation and Parks ¹	408,781	0.358%	0	0.000%	0	0.000%
Department of Education ¹	3,517,372	3.080%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	0	0.000%
City of San Juan Capistrano	0	0.000%	32,142,058	0.868%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	29,029,145	100.000%
O.C. Transportation Authority	0	0.000%	0	0.000%	0	0.000%
U.C.I. ¹	34,808,679	30.483%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	630,610	0.017%	0	0.000%
Local Agency Formation Comm.	0	0.000%	1,582,703	0.043%	0	0.000%
Rancho Santa Margarita	0	0.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	392,760,910	10.608%	0	0.000%
O.C. IHSS Public Authority	1,097,009	0.961%	0	0.000%	0	0.000%
Total for all Employers	\$114,189,673	100.000%	\$3,702,614,951	100.000%	\$29,029,145	100.000%

Note: Results may not total due to rounding.

¹ In determining the NPLs for the O.C. Vector Control District, Cypress Recreation and Parks, Department of Education and U.C.I., we first start by rolling forward the VVAs of these employers as of December 31, 2017 to December 31, 2018 for the actual contributions, benefit payments and return on their VVAs during 2018. Those VVAs are then marked to the Plan's Fiduciary Net Position as of December 31, 2018. The TPLs for these employers are obtained from internal valuation results (by rolling forward their TPLs from December 31, 2017).

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Allocation of December 31, 2018 Net Pension Liability

	Rate Group #4	Rate Group #4 Percentage	Rate Group #5	Rate Group #5 Percentage	Rate Group #9	Rate Group #9 Percentage
Orange County	\$0	0.000%	\$0	0.000%	\$0	0.000%
O.C. Cemetery District	0	0.000%	0	0.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	0	0.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	0	0.000%	0	0.000%
O.C. Fire Authority	0	0.000%	0	0.000%	0	0.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	13,253,632	100.000%
City of San Juan Capistrano	0	0.000%	0	0.000%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	0	0.000%
O.C. Transportation Authority	0	0.000%	269,788,642	100.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	0	0.000%	0	0.000%
Local Agency Formation Comm.	0	0.000%	0	0.000%	0	0.000%
Rancho Santa Margarita	1,284	100.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	0	0.000%	0	0.000%
O.C. IHSS Public Authority	0	0.000%	0	0.000%	0	0.000%
Total for all Employers	\$1,284	100.000%	\$269,788,642	100.000%	\$13,253,632	100.000%

Note: Results may not total due to rounding.

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Allocation of December 31, 2018 Net Pension Liability

	Rate Group #10	Rate Group #10 Percentage	Rate Group #11	Rate Group #11 Percentage	Rate Group #12	Rate Group #12 Percentage
Orange County	\$0	0.000%	\$0	0.000%	\$0	0.000%
O.C. Cemetery District	0	0.000%	962,119	100.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	573,252	100.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	0	0.000%	0	0.000%
O.C. Fire Authority	55,836,641	100.000%	0	0.000%	0	0.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	0	0.000%
City of San Juan Capistrano	0	0.000%	0	0.000%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	0	0.000%
O.C. Transportation Authority	0	0.000%	0	0.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	0	0.000%	0	0.000%
Local Agency Formation Comm.	0	0.000%	0	0.000%	0	0.000%
Rancho Santa Margarita	0	0.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	0	0.000%	0	0.000%
O.C. IHSS Public Authority	0	0.000%	0	0.000%	0	0.000%
Total for all Employers	\$55,836,641	100.000%	\$962,119	100.000%	\$573,252	100.000%

Note: Results may not total due to rounding.

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Allocation of December 31, 2018 Net Pension Liability

	Rate Group #6	Rate Group #6 Percentage	Rate Group #7	Rate Group #7 Percentage	Rate Group #8	Rate Group #8 Percentage
Orange County	\$289,061,877	100.000%	\$1,310,995,988	100.000%	\$0	0.000%
O.C. Cemetery District	0	0.000%	0	0.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	0	0.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	0	0.000%	0	0.000%
O.C. Fire Authority	0	0.000%	0	0.000%	410,894,885	100.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	0	0.000%
City of San Juan Capistrano	0	0.000%	0	0.000%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	0	0.000%
O.C. Transportation Authority	0	0.000%	0	0.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	0	0.000%	0	0.000%
Local Agency Formation Comm.	0	0.000%	0	0.000%	0	0.000%
Rancho Santa Margarita	0	0.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	0	0.000%	0	0.000%
O.C. IHSS Public Authority	0	0.000%	0	0.000%	0	0.000%
Total for all Employers	\$289,061,877	100.000%	\$1,310,995,988	100.000%	\$410,894,885	100.000%

Note: Results may not total due to rounding.

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Allocation of December 31, 2018 Net Pension Liability

	Total NPL	Total Percentage
Orange County	\$4,918,576,912	79.367%
O.C. Cemetery District	962,119	0.016%
O.C. Law Library	573,252	0.009%
O.C. Vector Control District ²	2,492,695	0.040%
O.C. Retirement System	28,844,760	0.465%
O.C. Fire Authority	466,731,526	7.531%
Cypress Recreation and Parks ²	408,781	0.007%
Department of Education ²	3,517,372	0.057%
Transportation Corridor Agency	13,253,632	0.214%
City of San Juan Capistrano	32,142,058	0.519%
O.C. Sanitation District	29,029,145	0.468%
O.C. Transportation Authority	269,788,642	4.353%
U.C.I. ²	34,808,679	0.562%
O.C. Children and Families Comm.	630,610	0.010%
Local Agency Formation Comm.	1,582,703	0.026%
Rancho Santa Margarita	1,284	0.000%
O.C. Superior Court	392,760,910	6.338%
O.C. IHSS Public Authority	<u>1,097,009</u>	<u>0.018%</u>
Total for all Employers	\$6,197,202,089	100.000%

Note: Results may not total due to rounding.

² In determining the NPLs for the O.C. Vector Control District, Cypress Recreation and Parks, Department of Education and U.C.I., we first start by rolling forward the VVAs of these employers as of December 31, 2017 to December 31, 2018 for the actual contributions, benefit payments and return on their VVAs during 2018. Those VVAs are then marked to the Plan's Fiduciary Net Position as of December 31, 2018. The TPLs for these employers are obtained from internal valuation results (by rolling forward their TPLs from December 31, 2017).

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Notes regarding determination of proportionate share as of December 31, 2018 measurement date

1. Based on the January 1, 2018 through December 31, 2018 employer contributions as provided by OCERS. These contributions have been adjusted to exclude employer paid member contributions and they have not been reduced for discount due to prepaid contributions. (It should be noted that we would also have included transfers made from the County Investment Account had those transfers been made in 2018.)
2.
 - a. The Net Pension Liability (NPL) for each Rate Group is the Total Pension Liability (TPL) minus the Plan's Fiduciary Net Position (plan assets). The TPL for each Rate Group is obtained from internal valuation results. The Plan's Fiduciary Net Position for each Rate Group is estimated by adjusting the Valuation Value of Assets (VVA) for each membership class by the ratio of the total OCERS Plan's Fiduciary Net Position (excluding the balance of the County Investment Account) to total OCERS VVA. As previously directed by OCERS, the County Investment Account is then allocated among the four County Rate Groups using the proportions of County POB contributions made during 2018. Again, as there were no such County POB contributions made during 2018, we have continued to apply the same proportions determined in 2014 for each of the four County Rate Groups to allocate the \$131,890,000 in the County Investment Account as of December 31, 2018. These amounts are provided in item 3. The O.C. Sanitation District UAAL Deferred Account is allocated entirely to Rate Group #3 and the remaining balance of \$14,589,000 in that account has been transferred at the end of the year to partially offset the actuarial losses (primarily from investment after smoothing) during 2018. The balance of the O.C. Sanitation District UAAL Deferred Account is \$0 at the end of the year after the transfer.
 - b. Each of General Rate Groups #3, #4, #5, #9, #10, #11 and #12 and Safety Rate Groups #6, #7 and #8 have only one active employer, so all of the NPL for that Rate Group is allocated to the corresponding employer.
 - c. For General Rate Groups #1 and #2, the NPL is allocated based on the actual employer contributions within the General Rate Group.
 - The NPL for Rate Group #1 was adjusted by the NPLs for the O.C. Vector Control District, Cypress Recreation and Parks, Department of Education and U.C.I. prior to allocating the net NPL to the other employers in Rate Group #1 as the NPLs for these four employers were calculated separately.

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- Calculate ratio of employer's contributions to the total contributions for the Rate Group. For this purpose, the employer contributions exclude the following amounts:
 - 1) Rate Group #1 (Department of Education): \$301,000
 - 2) Rate Group #1 (U.C.I.): \$2,875,000
 - 3) Rate Group #1 (Cypress Recreation and Parks): \$740,000
 - Multiply this ratio (unrounded) by the NPL for the Rate Group to determine the employer's proportionate share of the NPL for the Rate Group.
 - The UAAL contributions referenced in (i), (ii) and (iii) above are adjusted with interest to December 31, 2018 and are used to reduce the NPL for the three employers as of December 31, 2018.
3. The percentages of contributions by employer are not exactly equal to the percentages we use to allocate the NPL by employer because the NPL for the County has been reduced to reflect the portion of the County Investment Account that has been allocated among the four County Rate Groups. The amounts of the County Investment Account that have been allocated to those Rate Groups are as follows:

Rate Group #1:	\$4,873,766
Rate Group #2:	81,058,036
Rate Group #6:	8,424,297
Rate Group #7:	<u>37,533,901</u>
Total:	\$131,890,000

In addition, the NPL for Rate Group #2 was allocated prior to applying the adjusted balance of the \$1,744,454 in additional UAAL contributions made by O.C. Children and Families Commission on November 15, 2017. That balance is equal to \$1,809,390 as of December 31, 2018 when adjusted with interest for the entire year and UAAL contribution offset starting from July 1, 2018 to December 31, 2018. We would continue to maintain the outstanding balance of the additional UAAL contributions for use in determining the NPL for this employer.

4. If the employer is in several Rate Groups, the employer's total allocated NPL is the sum of its allocated NPL from each Rate Group. Proportionate share of total plan NPL is then the ratio of the employer's total allocated NPL to the total NPL of all employers.

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Actual Contributions (Excluding Employer Paid Member Contributions and Not Reduced for Discount Due to Prepaid Contributions) by Employer and Rate Group

January 1, 2019 to December 31, 2019

	Rate Group #1	Rate Group #1 Percentage	Rate Group #2	Rate Group #2 Percentage	Rate Group #3	Rate Group #3 Percentage
Orange County	\$13,232,000	98.599%	\$264,402,000	87.836%	\$0	0.000%
O.C. Cemetery District	0	0.000%	0	0.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	0	0.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	2,503,000	0.832%	0	0.000%
O.C. Fire Authority	0	0.000%	0	0.000%	0	0.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	0	0.000%
City of San Juan Capistrano	0	0.000%	2,444,000	0.812%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	8,056,000	100.000%
O.C. Transportation Authority	0	0.000%	0	0.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	106,000	0.035%	0	0.000%
Local Agency Formation Comm.	0	0.000%	139,000	0.046%	0	0.000%
Rancho Santa Margarita	0	0.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	31,424,000	10.439%	0	0.000%
O.C. IHSS Public Authority	<u>188,000</u>	<u>1.401%</u>	<u>0</u>	<u>0.000%</u>	<u>0</u>	<u>0.000%</u>
Total for all Employers	\$13,420,000	100.000%	\$301,018,000	100.000%	\$8,056,000	100.000%

Note: Results may not total due to rounding.

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Actual Contributions (Excluding Employer Paid Member Contributions and Not Reduced
for Discount Due to Prepaid Contributions) by Employer and Rate Group
January 1, 2019 to December 31, 2019

	Rate Group #4	Rate Group #4 Percentage	Rate Group #5	Rate Group #5 Percentage	Rate Group #9	Rate Group #9 Percentage
Orange County	\$0	0.000%	\$0	0.000%	\$0	0.000%
O.C. Cemetery District	0	0.000%	0	0.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	0	0.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	0	0.000%	0	0.000%
O.C. Fire Authority	0	0.000%	0	0.000%	0	0.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	1,248,000	100.000%
City of San Juan Capistrano	0	0.000%	0	0.000%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	0	0.000%
O.C. Transportation Authority	0	0.000%	26,415,000	100.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	0	0.000%	0	0.000%
Local Agency Formation Comm.	0	0.000%	0	0.000%	0	0.000%
Rancho Santa Margarita	0	100.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	0	0.000%	0	0.000%
O.C. IHSS Public Authority	<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	\$0	100.000%	\$26,415,000	100.000%	\$1,248,000	100.000%

Note: Results may not total due to rounding.

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Actual Contributions (Excluding Employer Paid Member Contributions and Not Reduced for Discount Due to Prepaid Contributions) by Employer and Rate Group

January 1, 2019 to December 31, 2019

	Rate Group #10	Rate Group #10 Percentage	Rate Group #11	Rate Group #11 Percentage	Rate Group #12	Rate Group #12 Percentage
Orange County	\$0	0.000%	\$0	0.000%	\$0	0.000%
O.C. Cemetery District	0	0.000%	187,000	100.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	118,000	100.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	0	0.000%	0	0.000%
O.C. Fire Authority	8,578,000	100.000%	0	0.000%	0	0.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	0	0.000%
City of San Juan Capistrano	0	0.000%	0	0.000%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	0	0.000%
O.C. Transportation Authority	0	0.000%	0	0.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	0	0.000%	0	0.000%
Local Agency Formation Comm.	0	0.000%	0	0.000%	0	0.000%
Rancho Santa Margarita	0	0.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	0	0.000%	0	0.000%
O.C. IHSS Public Authority	<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	\$8,578,000	100.000%	\$187,000	100.000%	\$118,000	100.000%

Note: Results may not total due to rounding.

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Actual Contributions (Excluding Employer Paid Member Contributions and Not Reduced for Discount Due to Prepaid Contributions) by Employer and Rate Group

January 1, 2019 to December 31, 2019

	Rate Group #6	Rate Group #6 Percentage	Rate Group #7	Rate Group #7 Percentage	Rate Group #8	Rate Group #8 Percentage
Orange County	\$30,025,000	100.000%	\$151,060,000	100.000%	\$0	0.000%
O.C. Cemetery District	0	0.000%	0	0.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	0	0.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	0	0.000%	0	0.000%
O.C. Fire Authority	0	0.000%	0	0.000%	61,888,000	100.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	0	0.000%
City of San Juan Capistrano	0	0.000%	0	0.000%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	0	0.000%
O.C. Transportation Authority	0	0.000%	0	0.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	0	0.000%	0	0.000%
Local Agency Formation Comm.	0	0.000%	0	0.000%	0	0.000%
Rancho Santa Margarita	0	0.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	0	0.000%	0	0.000%
O.C. IHSS Public Authority	<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	\$30,025,000	100.000%	\$151,060,000	100.000%	\$61,888,000	100.000%

Note: Results may not total due to rounding.

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Actual Contributions (Excluding Employer Paid Member Contributions and Not Reduced for Discount Due to Prepaid Contributions) by Employer and Rate Group

January 1, 2019 to December 31, 2019

	Total Contributions ³	Total Percentage
Orange County	\$458,719,000	76.197%
O.C. Cemetery District	187,000	0.031%
O.C. Law Library	118,000	0.020%
O.C. Vector Control District	0	0.000%
O.C. Retirement System	2,503,000	0.416%
O.C. Fire Authority	70,466,000	11.705%
Cypress Recreation and Parks	0	0.000%
Department of Education	0	0.000%
Transportation Corridor Agency	1,248,000	0.207%
City of San Juan Capistrano	2,444,000	0.406%
O.C. Sanitation District	8,056,000	1.338%
O.C. Transportation Authority	26,415,000	4.388%
U.C.I.	0	0.000%
O.C. Children and Families Comm.	106,000	0.018%
Local Agency Formation Comm.	139,000	0.023%
Rancho Santa Margarita	0	0.000%
O.C. Superior Court	31,424,000	5.220%
O.C. IHSS Public Authority	<u>188,000</u>	<u>0.031%</u>
Total for all Employers	\$602,013,000	100.000%

Note: Results may not total due to rounding.

³ Excludes combined additional contributions of \$69,858,000 made by O.C. Fire Authority, Transportation Corridor Agency and O.C. Sanitation District towards the reduction of their UAALs, combined contributions of \$3,934,000 made by O.C. Vector Control District, Department of Education and U.C.I. and combined employer pick-up contributions of \$35,000.

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Allocation of December 31, 2019 Net Pension Liability

	Rate Group #1	Rate Group #1 Percentage	Rate Group #2	Rate Group #2 Percentage	Rate Group #3	Rate Group #3 Percentage
Orange County	\$45,068,171	57.238%	\$2,741,111,450	87.527%	\$0	0.000%
O.C. Cemetery District	0	0.000%	0	0.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	0	0.000%
O.C. Vector Control District ⁴	(625,500)	(0.794%)	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	26,824,264	0.857%	0	0.000%
O.C. Fire Authority	0	0.000%	0	0.000%	0	0.000%
Cypress Recreation and Parks ⁴	262,415	0.333%	0	0.000%	0	0.000%
Department of Education ⁴	3,099,339	3.936%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	0	0.000%
City of San Juan Capistrano	0	0.000%	26,191,970	0.836%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	(49,446,617)	100.000%
O.C. Transportation Authority	0	0.000%	0	0.000%	0	0.000%
U.C.I. ⁴	30,213,739	38.373%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	(646,472)	(0.021%)	0	0.000%
Local Agency Formation Comm.	0	0.000%	1,489,642	0.048%	0	0.000%
Rancho Santa Margarita	0	0.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	336,766,149	10.753%	0	0.000%
O.C. IHSS Public Authority	719,301	0.914%	0	0.000%	0	0.000%
Total for all Employers	\$78,737,465	100.000%	\$3,131,737,003	100.000%	\$(49,446,617)	100.000%

Note: Results may not total due to rounding.

⁴ In determining the NPLs for the O.C. Vector Control District, Cypress Recreation and Parks, Department of Education and U.C.I., we first start by rolling forward the VVAs of these employers as of December 31, 2018 to December 31, 2019 for the actual contributions, benefit payments and return on their VVAs during 2019. Those VVAs are then marked to the Plan's Fiduciary Net Position as of December 31, 2019. The TPLs for these employers are obtained from internal valuation results (by rolling forward their TPLs from December 31, 2018).

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Allocation of December 31, 2019 Net Pension Liability

	Rate Group #4	Rate Group #4 Percentage	Rate Group #5	Rate Group #5 Percentage	Rate Group #9	Rate Group #9 Percentage
Orange County	\$0	0.000%	\$0	0.000%	\$0	0.000%
O.C. Cemetery District	0	0.000%	0	0.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	0	0.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	0	0.000%	0	0.000%
O.C. Fire Authority	0	0.000%	0	0.000%	0	0.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	(1,753,164)	100.000%
City of San Juan Capistrano	0	0.000%	0	0.000%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	0	0.000%
O.C. Transportation Authority	0	0.000%	224,284,548	100.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	0	0.000%	0	0.000%
Local Agency Formation Comm.	0	0.000%	0	0.000%	0	0.000%
Rancho Santa Margarita	(2,214)	100.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	0	0.000%	0	0.000%
O.C. IHSS Public Authority	0	0.000%	0	0.000%	0	0.000%
Total for all Employers	\$(2,214)	100.000%	\$224,284,548	100.000%	\$(1,753,164)	100.000%

Note: Results may not total due to rounding.

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Allocation of December 31, 2019 Net Pension Liability

	Rate Group #10	Rate Group #10 Percentage	Rate Group #11	Rate Group #11 Percentage	Rate Group #12	Rate Group #12 Percentage
Orange County	\$0	0.000%	\$0	0.000%	\$0	0.000%
O.C. Cemetery District	0	0.000%	(228,119)	100.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	(74,515)	100.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	0	0.000%	0	0.000%
O.C. Fire Authority	32,453,715	100.000%	0	0.000%	0	0.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	0	0.000%
City of San Juan Capistrano	0	0.000%	0	0.000%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	0	0.000%
O.C. Transportation Authority	0	0.000%	0	0.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	0	0.000%	0	0.000%
Local Agency Formation Comm.	0	0.000%	0	0.000%	0	0.000%
Rancho Santa Margarita	0	0.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	0	0.000%	0	0.000%
O.C. IHSS Public Authority	<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	\$32,453,715	100.000%	\$(228,119)	100.000%	\$(74,515)	100.000%

Note: Results may not total due to rounding.

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Allocation of December 31, 2019 Net Pension Liability

	Rate Group #6	Rate Group #6 Percentage	Rate Group #7	Rate Group #7 Percentage	Rate Group #8	Rate Group #8 Percentage
Orange County	\$235,494,376	100.000%	\$1,102,538,243	100.000%	\$0	0.000%
O.C. Cemetery District	0	0.000%	0	0.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	0	0.000%
O.C. Vector Control District	0	0.000%	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	0	0.000%	0	0.000%
O.C. Fire Authority	0	0.000%	0	0.000%	321,941,742	100.000%
Cypress Recreation and Parks	0	0.000%	0	0.000%	0	0.000%
Department of Education	0	0.000%	0	0.000%	0	0.000%
Transportation Corridor Agency	0	0.000%	0	0.000%	0	0.000%
City of San Juan Capistrano	0	0.000%	0	0.000%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	0	0.000%
O.C. Transportation Authority	0	0.000%	0	0.000%	0	0.000%
U.C.I.	0	0.000%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	0	0.000%	0	0.000%
Local Agency Formation Comm.	0	0.000%	0	0.000%	0	0.000%
Rancho Santa Margarita	0	0.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	0	0.000%	0	0.000%
O.C. IHSS Public Authority	0	0.000%	0	0.000%	0	0.000%
Total for all Employers	\$235,494,376	100.000%	\$1,102,538,243	100.000%	\$321,941,742	100.000%

Note: Results may not total due to rounding.

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Allocation of December 31, 2019 Net Pension Liability

	Total NPL	Total Percentage
Orange County	\$4,124,212,240	81.254%
O.C. Cemetery District	(228,119)	(0.004%)
O.C. Law Library	(74,515)	(0.001%)
O.C. Vector Control District ⁵	(625,500)	(0.012%)
O.C. Retirement System	26,824,264	0.529%
O.C. Fire Authority	354,395,457	6.982%
Cypress Recreation and Parks ⁵	262,415	0.005%
Department of Education ⁵	3,099,339	0.061%
Transportation Corridor Agency	(1,753,164)	(0.035%)
City of San Juan Capistrano	26,191,970	0.516%
O.C. Sanitation District	(49,446,617)	(0.974%)
O.C. Transportation Authority	224,284,548	4.419%
U.C.I. ⁵	30,213,739	0.595%
O.C. Children and Families Comm.	(646,472)	(0.013%)
Local Agency Formation Comm.	1,489,642	0.029%
Rancho Santa Margarita	(2,214)	(0.000%)
O.C. Superior Court	336,766,149	6.635%
O.C. IHSS Public Authority	<u>719,301</u>	<u>0.014%</u>
Total for all Employers	\$5,075,682,463	100.000%

Note: Results may not total due to rounding.

⁵ In determining the NPLs for the O.C. Vector Control District, Cypress Recreation and Parks, Department of Education and U.C.I., we first start by rolling forward the VVAs of these employers as of December 31, 2018 to December 31, 2019 for the actual contributions, benefit payments and return on their VVAs during 2019. Those VVAs are then marked to the Plan's Fiduciary Net Position as of December 31, 2019. The TPLs for these employers are obtained from internal valuation results (by rolling forward their TPLs from December 31, 2018).

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Notes regarding determination of proportionate share as of December 31, 2019 measurement date

5. Based on the January 1, 2019 through December 31, 2019 employer contributions as provided by OCERS. These contributions have been adjusted to exclude employer paid member contributions and they have not been reduced for discount due to prepaid contributions. (It should be noted that we would also have included transfers made from the County Investment Account had those transfers been made in 2019.)
6.
 - a. The Net Pension Liability (NPL) for each Rate Group is the Total Pension Liability (TPL) minus the Plan's Fiduciary Net Position (plan assets). The TPL for each Rate Group is obtained from internal valuation results. The Plan's Fiduciary Net Position for each Rate Group is estimated by adjusting the Valuation Value of Assets (VVA) for each membership class by the ratio of the total OCERS Plan's Fiduciary Net Position (excluding the balance of the County Investment Account and the O.C. Sanitation District UAAL Deferred Account) to total OCERS VVA. As previously directed by OCERS, the County Investment Account is then allocated among the four County Rate Groups using the proportions of County POB contributions made during 2019. Again, as there were no such County POB contributions made during 2019, we have continued to apply the same proportions determined in 2014 for each of the four County Rate Groups to allocate the \$150,416,000 in the County Investment Account as of December 31, 2019. These amounts are provided in item 3. The O.C. Sanitation District UAAL Deferred Account is allocated entirely to Rate Group #3 and the balance of that account has been reduced by from \$30,688,000 to \$12,057,000 at the end of the year to mitigate the additional UAAL due to actuarial losses (and that UAAL was measured on a VVA basis). Nonetheless, the balance of the O.C. Sanitation District UAAL Deferred Account was used to reduce the NPL for the O.C. Sanitation District as of the measurement date.
 - b. Each of General Rate Groups #3, #4, #5, #9, #10, #11 and #12 and Safety Rate Groups #6, #7 and #8 have only one active employer, so all of the NPL for that Rate Group is allocated to the corresponding employer.
 - c. For General Rate Groups #1 and #2, the NPL is allocated based on the actual employer contributions within the General Rate Group.
 - The NPL for Rate Group #1 was adjusted by the NPLs for the O.C. Vector Control District, Cypress Recreation and Parks, Department of Education and U.C.I. prior to allocating the net NPL to the other employers in Rate Group #1 as the NPLs for these four employers were calculated separately.

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- Calculate ratio of employer's contributions to the total contributions for the Rate Group. For this purpose, the employer contributions exclude the following amounts:
 - 1) Rate Group #1 (Department of Education): \$267,000
 - 2) Rate Group #1 (U.C.I.): \$2,789,000
 - 3) Rate Group #1 (Cypress Recreation and Parks): \$878,000
 - Multiply this ratio (unrounded) by the NPL for the Rate Group to determine the employer's proportionate share of the NPL for the Rate Group.
 - The UAAL contributions referenced in (i), (ii) and (iii) above are adjusted with interest to December 31, 2019 and are used to reduced the NPL for the three employers as of December 31, 2019.
7. The percentages of contributions by employer are not exactly equal to the percentages we use to allocate the NPL by employer because the NPL for the County has been reduced to reflect the portion of the County Investment Account that has been allocated among the four County Rate Groups. The amounts of the County Investment Account that have been allocated to those Rate Groups are as follows:

Rate Group #1:	\$5,558,363
Rate Group #2:	92,443,896
Rate Group #6:	9,607,620
Rate Group #7:	<u>42,806,121</u>
Total:	\$150,416,000

In addition, the NPL for Rate Group #2 was allocated prior to applying the adjusted balance of the \$1,744,454 in additional UAAL contributions made by O.C. Children and Families Commission on November 15, 2017. That balance is equal to \$1,809,390 as of December 31, 2018 and is equal to \$1,782,458 as of December 31, 2019 when adjusted with interest for the entire year and UAAL contribution offset starting from January 1, 2019 to December 31, 2019. We would continue to maintain the outstanding balance of the additional UAAL contributions for use in determining the NPL for this employer.

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8. If the employer is in several Rate Groups, the employer's total allocated NPL is the sum of its allocated NPL from each Rate Group. Proportionate share of total plan NPL is then the ratio of the employer's total allocated NPL to the total NPL of all employers.

For the active employers, the following items are allocated based on the corresponding proportionate share within each Rate Group:

- a. Net Pension Liability
- b. Service cost
- c. Interest on the Total Pension Liability
- d. Expensed portion of current-period benefit changes
- e. Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability
- f. Expensed portion of current-period changes of assumptions or other inputs
- g. Member contributions
- h. Projected earnings on plan investments
- i. Expensed portion of current-period differences between actual and projected earnings on plan investments
- j. Administrative expense
- k. Recognition of beginning of year deferred outflows of resources as pension expense
- l. Recognition of beginning of year deferred inflows of resources as pension expense

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Pension expense

Total for All Employers

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Components of Pension Expense	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Service cost	\$499,255,591	\$491,372,822
• Interest on the Total Pension Liability	1,452,644,872	1,379,917,267
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
• Expensed portion of current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	4,160,905	(19,987,206)
• Expensed portion of current-period changes of assumptions or other inputs	0	0
• Member contributions ¹	(279,408,000)	(270,234,000)
• Projected earnings on plan investments	(1,012,912,065)	(1,035,650,701)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(234,179,185)	272,055,741
• Administrative expense	19,171,000	18,284,000
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	613,106,124	399,004,768
• Recognition of beginning of year deferred inflows of resources as pension expense	(471,091,023)	(451,049,194)
• 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>
Pension Expense	\$590,748,219	\$783,713,497

¹ Member contributions include employer paid member contributions, if any.

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Pension expense (continued)

Orange County

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Components of Pension Expense	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Service cost	\$366,249,523	\$361,704,111
• Interest on the Total Pension Liability	1,076,190,936	1,025,915,198
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	(971,449)	2,225,549
• Expensed portion of current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	(2,795,814)	(14,167,674)
• Expensed portion of current-period changes of assumptions or other inputs	0	0
• Member contributions ¹	(213,046,536)	(207,127,558)
• Projected earnings on plan investments	(730,206,990)	(748,179,749)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(168,900,852)	195,956,417
• Administrative expense	13,419,571	13,464,032
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	449,703,448	298,563,409
• Recognition of beginning of year deferred inflows of resources as pension expense	(341,078,002)	(327,351,945)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>7,241,587</u>	<u>5,016,038</u>
Pension Expense	\$455,805,422	\$606,017,828

¹ Member contributions include employer paid member contributions, if any.

Section 2: GASB 68 Information

Pension expense (continued)

O.C. Cemetery District

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Components of Pension Expense	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Service cost	\$351,892	\$348,025
• Interest on the Total Pension Liability	730,794	708,227
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
• Expensed portion of current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	(83,319)	24,792
• Expensed portion of current-period changes of assumptions or other inputs	0	0
• Member contributions ¹	(153,000)	(141,000)
• Projected earnings on plan investments	(684,372)	(696,211)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(155,024)	185,536
• Administrative expense	6,821	6,553
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	415,056	232,446
• Recognition of beginning of year deferred inflows of resources as pension expense	(301,651)	(301,651)
• 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>
Pension Expense	\$127,197	\$366,717

¹ Member contributions include employer paid member contributions, if any.

Section 2: GASB 68 Information

Pension expense (continued)

O.C. Law Library

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Components of Pension Expense	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Service cost	\$303,555	\$322,890
• Interest on the Total Pension Liability	757,369	710,772
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
• Expensed portion of current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	8,931	(59,333)
• Expensed portion of current-period changes of assumptions or other inputs	0	0
• Member contributions ¹	(159,000)	(159,000)
• Projected earnings on plan investments	(701,619)	(726,252)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(158,795)	193,384
• Administrative expense	5,567	6,897
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	862,354	782,777
• Recognition of beginning of year deferred inflows of resources as pension expense	(686,027)	(626,694)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>(372,508)</u>	<u>(372,508)</u>
Pension Expense	\$(140,173)	\$72,933

¹ Member contributions include employer paid member contributions, if any.

Section 2: GASB 68 Information

Pension expense (continued)

O.C. Vector Control District

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Components of Pension Expense	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Service cost	\$0	\$0
• Interest on the Total Pension Liability	1,838,973	1,848,812
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
• Expensed portion of current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	(63,304)	(196,473)
• Expensed portion of current-period changes of assumptions or other inputs	0	0
• Member contributions ¹	0	0
• Projected earnings on plan investments	(1,749,918)	(1,848,408)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(395,310)	497,306
• Administrative expense	18,033	0
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	1,062,703	721,308
• Recognition of beginning of year deferred inflows of resources as pension expense	(1,062,441)	(865,968)
• 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>
Pension Expense	\$(351,264)	\$156,577

¹ Member contributions include employer paid member contributions, if any.

Section 2: GASB 68 Information

Pension expense (continued)

O.C. Retirement System

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Components of Pension Expense	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Service cost	\$2,204,272	\$1,995,184
• Interest on the Total Pension Liability	6,886,777	5,980,605
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	449,510	368,482
• Expensed portion of current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	(10,876)	(79,280)
• Expensed portion of current-period changes of assumptions or other inputs	0	0
• Member contributions ¹	(1,499,664)	(1,344,479)
• Projected earnings on plan investments	(4,653,533)	(4,355,868)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(1,072,280)	1,144,155
• Administrative expense	81,847	75,152
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	2,728,584	1,591,215
• Recognition of beginning of year deferred inflows of resources as pension expense	(2,347,848)	(2,056,153)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>703,821</u>	<u>335,339</u>
Pension Expense	\$3,470,610	\$3,654,352

¹ Member contributions include employer paid member contributions, if any.

Section 2: GASB 68 Information

Pension expense (continued)

O.C. Fire Authority

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Components of Pension Expense	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Service cost	\$58,846,217	\$57,116,725
• Interest on the Total Pension Liability	143,191,634	132,967,401
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
• Expensed portion of current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	4,913,957	(2,961,807)
• Expensed portion of current-period changes of assumptions or other inputs	0	0
• Member contributions ¹	(25,523,000)	(23,623,000)
• Projected earnings on plan investments	(107,793,739)	(107,511,750)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(24,840,760)	28,451,707
• Administrative expense	2,331,831	2,443,231
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	60,681,021	37,792,896
• Recognition of beginning of year deferred inflows of resources as pension expense	(44,682,965)	(41,721,158)
• 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>
Pension Expense	\$67,124,196	\$82,954,245

¹ Member contributions include employer paid member contributions, if any.

Section 2: GASB 68 Information

Pension expense (continued)

Cypress Recreation and Parks

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Components of Pension Expense	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Service cost	\$0	\$0
• Interest on the Total Pension Liability	308,444	300,934
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
• Expensed portion of current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	20,711	3,345
• Expensed portion of current-period changes of assumptions or other inputs	0	0
• Member contributions ¹	0	0
• Projected earnings on plan investments	(271,334)	(259,495)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(60,969)	70,660
• Administrative expense	0	15,899
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	807,951	733,946
• Recognition of beginning of year deferred inflows of resources as pension expense	(800,458)	(800,458)
• 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>
Pension Expense	\$4,345	\$64,831

¹ Member contributions include employer paid member contributions, if any.

Section 2: GASB 68 Information

Pension expense (continued)

Department of Education

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Components of Pension Expense	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Service cost	\$0	\$0
• Interest on the Total Pension Liability	846,896	856,137
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
• Expensed portion of current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	44,534	34,113
• Expensed portion of current-period changes of assumptions or other inputs	0	0
• Member contributions ¹	0	0
• Projected earnings on plan investments	(590,740)	(675,747)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(134,644)	180,008
• Administrative expense	5,494	6,477
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	596,709	382,586
• Recognition of beginning of year deferred inflows of resources as pension expense	(496,921)	(504,215)
• 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>
Pension Expense	\$271,328	\$279,359

¹ Member contributions include employer paid member contributions, if any.

Section 2: GASB 68 Information

Pension expense (continued)

Transportation Corridor Agency

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Components of Pension Expense	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Service cost	\$1,628,951	\$1,693,722
• Interest on the Total Pension Liability	3,487,510	3,137,101
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
• Expensed portion of current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	111,634	(31,117)
• Expensed portion of current-period changes of assumptions or other inputs	0	0
• Member contributions ¹	(748,000)	(840,000)
• Projected earnings on plan investments	(2,907,084)	(2,396,991)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(683,108)	624,025
• Administrative expense	303,189	51,803
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	1,317,753	806,977
• Recognition of beginning of year deferred inflows of resources as pension expense	(1,134,685)	(1,103,568)
• 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>
Pension Expense	\$1,376,160	\$1,941,952

¹ Member contributions include employer paid member contributions, if any.

Section 2: GASB 68 Information

Pension expense (continued)

City of San Juan Capistrano

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Components of Pension Expense	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Service cost	\$2,152,313	\$2,223,256
• Interest on the Total Pension Liability	6,724,443	6,664,259
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	(197,603)	(24,181)
• Expensed portion of current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	(10,620)	(88,342)
• Expensed portion of current-period changes of assumptions or other inputs	0	0
• Member contributions ¹	(1,464,314)	(1,498,168)
• Projected earnings on plan investments	(4,543,841)	(4,853,795)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(1,047,004)	1,274,945
• Administrative expense	79,918	83,742
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	2,664,267	1,773,109
• Recognition of beginning of year deferred inflows of resources as pension expense	(2,292,505)	(2,291,196)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>(100,772)</u>	<u>(76,591)</u>
Pension Expense	\$1,964,282	\$3,187,038

¹ Member contributions include employer paid member contributions, if any.

Section 2: GASB 68 Information

Pension expense (continued)

O.C. Sanitation District

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Components of Pension Expense	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Service cost	\$17,019,396	\$16,436,454
• Interest on the Total Pension Liability	49,777,766	46,856,849
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
• Expensed portion of current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	1,527,660	558,074
• Expensed portion of current-period changes of assumptions or other inputs	0	0
• Member contributions ¹	(7,999,000)	(7,825,000)
• Projected earnings on plan investments	(46,959,052)	(48,767,818)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(10,929,917)	13,140,559
• Administrative expense	1,103,626	327,747
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	25,093,591	12,786,061
• Recognition of beginning of year deferred inflows of resources as pension expense	(18,624,486)	(18,624,486)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>372,508</u>	<u>372,508</u>
Pension Expense	\$10,382,092	\$15,260,948

¹ Member contributions include employer paid member contributions, if any.

Section 2: GASB 68 Information

Pension expense (continued)

O.C. Transportation Authority

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Components of Pension Expense	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Service cost	\$22,489,191	\$21,969,087
• Interest on the Total Pension Liability	67,523,163	64,268,721
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
• Expensed portion of current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	434,162	(2,053,634)
• Expensed portion of current-period changes of assumptions or other inputs	0	0
• Member contributions ¹	(9,822,000)	(9,162,000)
• Projected earnings on plan investments	(48,088,883)	(49,856,360)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(11,118,571)	13,108,760
• Administrative expense	721,096	705,212
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	29,054,915	18,923,272
• Recognition of beginning of year deferred inflows of resources as pension expense	(24,856,850)	(22,803,216)
• 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>
Pension Expense	\$26,336,223	\$35,099,842

¹ Member contributions include employer paid member contributions, if any.

Section 2: GASB 68 Information

Pension expense (continued)

U.C.I

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Components of Pension Expense	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Service cost	\$0	\$0
• Interest on the Total Pension Liability	7,314,482	7,453,561
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
• Expensed portion of current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	217,420	115,980
• Expensed portion of current-period changes of assumptions or other inputs	0	0
• Member contributions ¹	0	0
• Projected earnings on plan investments	(4,883,758)	(5,577,083)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(1,113,640)	1,483,017
• Administrative expense	57,294	61,773
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	3,586,875	1,987,876
• Recognition of beginning of year deferred inflows of resources as pension expense	(3,010,050)	(3,684,569)
• 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>
Pension Expense	\$2,168,623	\$1,840,555

¹ Member contributions include employer paid member contributions, if any.

Section 2: GASB 68 Information

Pension expense (continued)

O.C. Children and Families Comm.

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Components of Pension Expense	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Service cost	\$(53,122)	\$43,618
• Interest on the Total Pension Liability	(165,973)	130,749
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	(189,450)	(61,098)
• Expensed portion of current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	262	(1,733)
• Expensed portion of current-period changes of assumptions or other inputs	0	0
• Member contributions ¹	36,142	(29,393)
• Projected earnings on plan investments	112,151	(95,229)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	25,842	25,014
• Administrative expense	(1,973)	1,643
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	(65,760)	34,787
• Recognition of beginning of year deferred inflows of resources as pension expense	56,584	(44,952)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>(350,297)</u>	<u>(289,199)</u>
Pension Expense	\$(595,594)	\$(285,793)

¹ Member contributions include employer paid member contributions, if any.

Section 2: GASB 68 Information

Pension expense (continued)

Local Agency Formation Comm.

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Components of Pension Expense	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Service cost	\$122,410	\$109,475
• Interest on the Total Pension Liability	382,446	328,154
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	26,906	2,334
• Expensed portion of current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	(604)	(4,350)
• Expensed portion of current-period changes of assumptions or other inputs	0	0
• Member contributions ¹	(83,281)	(73,771)
• Projected earnings on plan investments	(258,426)	(239,005)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(59,547)	62,779
• Administrative expense	4,545	4,124
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	151,527	87,309
• Recognition of beginning of year deferred inflows of resources as pension expense	(130,384)	(112,820)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>31,249</u>	<u>28,915</u>
Pension Expense	\$186,841	\$193,144

¹ Member contributions include employer paid member contributions, if any.

Section 2: GASB 68 Information

Pension expense (continued)

Rancho Santa Margarita

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Components of Pension Expense	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Service cost	\$0	\$0
• Interest on the Total Pension Liability	3,220	3,220
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
• Expensed portion of current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	133	132
• Expensed portion of current-period changes of assumptions or other inputs	0	0
• Member contributions ¹	0	0
• Projected earnings on plan investments	(3,076)	(3,328)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(884)	586
• Administrative expense	0	0
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	3,874	4,028
• Recognition of beginning of year deferred inflows of resources as pension expense	(3,362)	(3,362)
• 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>
Pension Expense	\$(95)	\$1,276

¹ Member contributions include employer paid member contributions, if any.

Section 2: GASB 68 Information

Pension expense (continued)

O.C. Superior Court

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Components of Pension Expense	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Service cost	\$27,673,610	\$27,167,159
• Interest on the Total Pension Liability	86,460,274	81,434,123
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	878,732	(2,508,769)
• Expensed portion of current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	(136,545)	(1,079,499)
• Expensed portion of current-period changes of assumptions or other inputs	0	0
• Member contributions ¹	(18,827,583)	(18,306,917)
• Projected earnings on plan investments	(58,422,939)	(59,311,106)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(13,461,975)	15,579,236
• Administrative expense	1,027,549	1,023,291
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	34,256,104	21,666,565
• Recognition of beginning of year deferred inflows of resources as pension expense	(29,476,139)	(27,997,338)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>(7,563,741)</u>	<u>(5,054,972)</u>
Pension Expense	\$22,407,347	\$32,611,773

¹ Member contributions include employer paid member contributions, if any.

Section 2: GASB 68 Information

Pension expense (continued)

O.C. IHSS Public Authority

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Components of Pension Expense	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Service cost	\$267,383	\$243,116
• Interest on the Total Pension Liability	385,718	352,444
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	3,354	(2,317)
• Expensed portion of current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	(17,417)	(400)
• Expensed portion of current-period changes of assumptions or other inputs	0	0
• Member contributions ¹	(118,764)	(103,714)
• Projected earnings on plan investments	(304,912)	(296,506)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(71,747)	77,647
• Administrative expense	6,592	6,424
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	185,152	134,201
• Recognition of beginning of year deferred inflows of resources as pension expense	(162,833)	(155,445)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>38,153</u>	<u>40,470</u>
Pension Expense	\$210,679	\$295,920

¹ Member contributions include employer paid member contributions, if any.

Section 2: GASB 68 Information

Deferred outflows of resources and deferred inflows of resources

Total For All Employers

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
Deferred Outflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$28,080,600	\$30,727,591
• Changes of assumptions or other inputs	419,380,310	585,314,769
• Difference between projected and actual earnings on pension plan investments	816,168,467	1,258,427,015
• Difference between expected and actual experience in the Total Pension Liability	<u>55,757,456</u>	<u>18,724,448</u>
• Total Deferred Outflows of Resources	\$1,319,386,833	\$1,893,193,823
Deferred Inflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$28,080,600	\$30,727,591
• Changes of assumptions or other inputs	8,813,853	57,779,687
• Difference between projected and actual earnings on pension plan investments	1,383,375,142	691,386,466
• Difference between expected and actual experience in the Total Pension Liability	<u>298,374,305</u>	<u>454,047,301</u>
• Total Deferred Inflows of Resources	\$1,718,643,900	\$1,233,941,045
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GASB 68 Year Ended June 30:		
2020	N/A	\$142,015,101
2021	\$(197,815,147)	32,203,133
2022	(106,623,593)	123,394,687
2023	148,545,006	378,563,286
2024	(246,941,719)	(16,923,429)
2025	3,578,386	0
2026	0	0
Thereafter	0	0

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

Section 2: GASB 68 Information

Deferred outflows of resources and deferred inflows of resources (continued)

Orange County

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
Deferred Outflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$18,170,596	\$25,452,653
• Changes of assumptions or other inputs	322,870,826	451,779,162
• Difference between projected and actual earnings on pension plan investments	587,160,184	907,051,313
• Difference between expected and actual experience in the Total Pension Liability	<u>13,982,779</u>	<u>10,053,569</u>
• Total Deferred Outflows of Resources	\$942,184,385	\$1,394,336,697
Deferred Inflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$4,789,699	\$108,921
• Changes of assumptions or other inputs	6,642,961	43,625,464
• Difference between projected and actual earnings on pension plan investments	997,095,584	498,410,128
• Difference between expected and actual experience in the Total Pension Liability	<u>206,914,979</u>	<u>315,142,849</u>
• Total Deferred Inflows of Resources	\$1,215,443,223	\$857,287,362
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GASB 68 Year Ended June 30:		
2020	N/A	\$115,938,471
2021	\$(135,857,568)	36,829,538
2022	(67,712,535)	105,067,064
2023	116,022,910	289,031,435
2024	(182,471,793)	(9,817,173)
2025	(3,239,852)	0
2026	0	0
Thereafter	0	0

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

Section 2: GASB 68 Information

Deferred outflows of resources and deferred inflows of resources (continued)

O.C. Cemetery District

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
Deferred Outflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$0	\$0
• Changes of assumptions or other inputs	244,428	325,633
• Difference between projected and actual earnings on pension plan investments	556,607	859,393
• Difference between expected and actual experience in the Total Pension Liability	<u>103,588</u>	<u>134,653</u>
• Total Deferred Outflows of Resources	\$904,623	\$1,319,679
Deferred Inflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$0	\$0
• Changes of assumptions or other inputs	5,895	38,647
• Difference between projected and actual earnings on pension plan investments	911,694	450,507
• Difference between expected and actual experience in the Total Pension Liability	<u>582,255</u>	<u>287,311</u>
• Total Deferred Inflows of Resources	\$1,499,844	\$776,465
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GASB 68 Year Ended June 30:		
2020	N/A	\$113,405
2021	\$(181,116)	57,227
2022	(145,381)	92,962
2023	18,248	256,591
2024	(215,315)	23,029
2025	(71,657)	0
2026	0	0
Thereafter	0	0

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

Section 2: GASB 68 Information

Deferred outflows of resources and deferred inflows of resources (continued)

O.C. Law Library

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
Deferred Outflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$9,214	\$60,420
• Changes of assumptions or other inputs	214,778	286,133
• Difference between projected and actual earnings on pension plan investments	580,153	1,371,152
• Difference between expected and actual experience in the Total Pension Liability	<u>43,407</u>	<u>0</u>
• Total Deferred Outflows of Resources	\$847,552	\$1,717,705
Deferred Inflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$449,137	\$872,851
• Changes of assumptions or other inputs	30,514	200,032
• Difference between projected and actual earnings on pension plan investments	921,702	437,711
• Difference between expected and actual experience in the Total Pension Liability	<u>409,176</u>	<u>774,494</u>
• Total Deferred Inflows of Resources	\$1,810,529	\$2,285,088
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GASB 68 Year Ended June 30:		
2020	N/A	\$(196,181)
2021	\$(666,537)	(516,673)
2022	(145,192)	4,672
2023	44,331	194,195
2024	(203,262)	(53,396)
2025	7,683	0
2026	0	0
Thereafter	0	0

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

Section 2: GASB 68 Information

Deferred outflows of resources and deferred inflows of resources (continued)

O.C. Vector Control District

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
Deferred Outflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$0	\$0
• Changes of assumptions or other inputs	435,411	580,065
• Difference between projected and actual earnings on pension plan investments	1,491,917	2,352,302
• Difference between expected and actual experience in the Total Pension Liability	<u>170,770</u>	<u>228,434</u>
• Total Deferred Outflows of Resources	\$2,098,098	\$3,160,801
Deferred Inflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$0	\$0
• Changes of assumptions or other inputs	0	0
• Difference between projected and actual earnings on pension plan investments	2,404,780	1,278,263
• Difference between expected and actual experience in the Total Pension Liability	<u>1,511,789</u>	<u>1,811,847</u>
• Total Deferred Inflows of Resources	\$3,916,569	\$3,090,110
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GASB 68 Year Ended June 30:		
2020	N/A	\$262
2021	\$(821,430)	(362,816)
2022	(349,110)	109,504
2023	41,921	500,535
2024	(635,409)	(176,794)
2025	(54,443)	0
2026	0	0
Thereafter	0	0

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

Section 2: GASB 68 Information

Deferred outflows of resources and deferred inflows of resources (continued)

O.C. Retirement System

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
Deferred Outflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$3,962,866	\$2,594,615
• Changes of assumptions or other inputs	2,018,023	2,445,231
• Difference between projected and actual earnings on pension plan investments	3,773,899	5,304,404
• Difference between expected and actual experience in the Total Pension Liability	0	0
• Total Deferred Outflows of Resources	\$9,754,788	\$10,344,250
Deferred Inflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$218,343	\$330,892
• Changes of assumptions or other inputs	62,731	374,031
• Difference between projected and actual earnings on pension plan investments	6,362,377	2,919,627
• Difference between expected and actual experience in the Total Pension Liability	1,273,114	1,894,371
• Total Deferred Inflows of Resources	\$7,916,565	\$5,518,921
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GASB 68 Year Ended June 30:		
2020	N/A	\$1,050,111
2021	\$27,575	652,140
2022	246,502	826,474
2023	1,558,040	2,027,486
2024	(371,122)	269,118
2025	377,228	0
2026	0	0
Thereafter	0	0

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

Section 2: GASB 68 Information

Deferred outflows of resources and deferred inflows of resources (continued)

O.C. Fire Authority

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
Deferred Outflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹⁽¹⁾	\$0	\$0
• Changes of assumptions or other inputs	29,267,911	44,462,250
• Difference between projected and actual earnings on pension plan investments	85,355,117	130,602,672
• Difference between expected and actual experience in the Total Pension Liability	<u>24,478,887</u>	<u>703,034</u>
• Total Deferred Outflows of Resources	\$139,101,915	\$175,767,956
Deferred Inflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$0	\$0
• Changes of assumptions or other inputs	130,986	858,688
• Difference between projected and actual earnings on pension plan investments	144,282,784	69,359,310
• Difference between expected and actual experience in the Total Pension Liability	<u>38,937,675</u>	<u>58,320,223</u>
• Total Deferred Inflows of Resources	\$183,351,445	\$128,538,221
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GASB 68 Year Ended June 30:		
2020	N/A	\$15,998,056
2021	\$(22,142,217)	(2,215,414)
2022	(14,700,769)	5,226,034
2023	10,935,776	30,862,579
2024	(22,568,325)	(2,641,520)
2025	4,226,005	0
2026	0	0
Thereafter	0	0

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

Section 2: GASB 68 Information

Deferred outflows of resources and deferred inflows of resources (continued)

Cypress Recreation and Parks

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
Deferred Outflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$0	\$0
• Changes of assumptions or other inputs	70,336	93,704
• Difference between projected and actual earnings on pension plan investments	211,982	282,642
• Difference between expected and actual experience in the Total Pension Liability	<u>2,252,572</u>	<u>2,865,838</u>
• Total Deferred Outflows of Resources	\$2,534,890	\$3,242,184
Deferred Inflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$0	\$0
• Changes of assumptions or other inputs	0	0
• Difference between projected and actual earnings on pension plan investments	1,844,790	2,401,373
• Difference between expected and actual experience in the Total Pension Liability	<u>0</u>	<u>0</u>
• Total Deferred Inflows of Resources	\$1,844,790	\$2,401,373
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GASB 68 Year Ended June 30:		
2020	N/A	\$7,493
2021	\$(32,765)	7,493
2022	(32,764)	7,494
2023	767,695	807,953
2024	(29,879)	10,378
2025	17,813	0
2026	0	0
Thereafter	0	0

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

Section 2: GASB 68 Information

Deferred outflows of resources and deferred inflows of resources (continued)

Department of Education

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
Deferred Outflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$0	\$0
• Changes of assumptions or other inputs	177,787	236,853
• Difference between projected and actual earnings on pension plan investments	540,022	872,456
• Difference between expected and actual experience in the Total Pension Liability	<u>380,618</u>	<u>369,390</u>
• Total Deferred Outflows of Resources	\$1,098,427	\$1,478,699
Deferred Inflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$0	\$0
• Changes of assumptions or other inputs	10,085	66,119
• Difference between projected and actual earnings on pension plan investments	858,174	499,033
• Difference between expected and actual experience in the Total Pension Liability	<u>678,741</u>	<u>940,191</u>
• Total Deferred Inflows of Resources	\$1,547,000	\$1,505,343
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GASB 68 Year Ended June 30:		
2020	N/A	\$99,788
2021	\$(237,096)	(146,986)
2022	(166,861)	(76,751)
2023	(22,380)	67,730
2024	(60,537)	29,575
2025	38,301	0
2026	0	0
Thereafter	0	0

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

Section 2: GASB 68 Information

Deferred outflows of resources and deferred inflows of resources (continued)

Transportation Corridor Agency

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
Deferred Outflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$0	\$0
• Changes of assumptions or other inputs	880,388	1,172,875
• Difference between projected and actual earnings on pension plan investments	1,872,077	2,855,534
• Difference between expected and actual experience in the Total Pension Liability	<u>615,484</u>	<u>114,750</u>
• Total Deferred Outflows of Resources	\$3,367,949	\$4,143,159
Deferred Inflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$0	\$0
• Changes of assumptions or other inputs	28,116	184,306
• Difference between projected and actual earnings on pension plan investments	3,760,486	1,588,385
• Difference between expected and actual experience in the Total Pension Liability	<u>940,190</u>	<u>1,358,355</u>
• Total Deferred Inflows of Resources	\$4,728,792	\$3,131,046
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GASB 68 Year Ended June 30:		
2020	N/A	\$183,068
2021	\$(519,370)	52,104
2022	(387,284)	184,190
2023	49,310	620,784
2024	(599,506)	(28,033)
2025	96,007	0
2026	0	0
Thereafter	0	0

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

Section 2: GASB 68 Information

Deferred outflows of resources and deferred inflows of resources (continued)

City of San Juan Capistrano

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
Deferred Outflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹⁽¹⁾	\$887,243	\$1,434,064
• Changes of assumptions or other inputs	1,970,455	2,724,750
• Difference between projected and actual earnings on pension plan investments	3,684,941	5,910,760
• Difference between expected and actual experience in the Total Pension Liability	0	0
• Total Deferred Outflows of Resources	\$6,542,639	\$10,069,574
Deferred Inflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$1,975,710	\$1,662,955
• Changes of assumptions or other inputs	61,252	416,787
• Difference between projected and actual earnings on pension plan investments	6,212,405	3,253,375
• Difference between expected and actual experience in the Total Pension Liability	1,243,105	2,110,920
• Total Deferred Inflows of Resources	\$9,492,472	\$7,444,037
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GASB 68 Year Ended June 30:		
2020	N/A	\$285,103
2021	\$(1,477,829)	(218,881)
2022	(718,794)	558,425
2023	771,469	2,093,974
2024	(1,345,609)	(93,084)
2025	(179,070)	0
2026	0	0
Thereafter	0	0

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

Section 2: GASB 68 Information

Deferred outflows of resources and deferred inflows of resources (continued)

O.C. Sanitation District

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
Deferred Outflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$449,137	\$872,851
• Changes of assumptions or other inputs	12,311,067	16,401,122
• Difference between projected and actual earnings on pension plan investments	39,421,678	59,867,140
• Difference between expected and actual experience in the Total Pension Liability	<u>9,606,499</u>	<u>2,740,145</u>
• Total Deferred Outflows of Resources	\$61,788,381	\$79,881,258
Deferred Inflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$9,214	\$60,420
• Changes of assumptions or other inputs	372,978	2,445,073
• Difference between projected and actual earnings on pension plan investments	64,842,567	32,687,002
• Difference between expected and actual experience in the Total Pension Liability	<u>5,416,832</u>	<u>10,405,119</u>
• Total Deferred Inflows of Resources	\$70,641,591	\$45,597,614
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GASB 68 Year Ended June 30:		
2020	N/A	\$6,841,613
2021	\$(5,922,898)	3,479,359
2022	(2,855,374)	6,546,883
2023	7,473,909	16,876,166
2024	(8,862,635)	539,623
2025	1,313,788	0
2026	0	0
Thereafter	0	0

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

Section 2: GASB 68 Information

Deferred outflows of resources and deferred inflows of resources (continued)

O.C. Transportation Authority

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
Deferred Outflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$0	\$0
• Changes of assumptions or other inputs	21,920,909	29,203,603
• Difference between projected and actual earnings on pension plan investments	39,326,279	60,889,928
• Difference between expected and actual experience in the Total Pension Liability	<u>2,331,117</u>	<u>429,659</u>
• Total Deferred Outflows of Resources	\$63,578,305	\$90,523,190
Deferred Inflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$0	\$0
• Changes of assumptions or other inputs	595,454	3,903,525
• Difference between projected and actual earnings on pension plan investments	66,279,519	33,794,383
• Difference between expected and actual experience in the Total Pension Liability	<u>21,768,391</u>	<u>31,328,024</u>
• Total Deferred Inflows of Resources	\$88,643,364	\$69,025,932
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GASB 68 Year Ended June 30:		
2020	N/A	\$4,198,065
2021	\$(10,403,779)	280,630
2022	(7,287,395)	3,397,014
2023	4,762,038	15,446,447
2024	(12,509,305)	(1,824,898)
2025	373,382	0
2026	0	0
Thereafter	0	0

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

Section 2: GASB 68 Information

Deferred outflows of resources and deferred inflows of resources (continued)

U.C.I.

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
Deferred Outflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$0	\$0
• Changes of assumptions or other inputs	1,425,191	1,898,677
• Difference between projected and actual earnings on pension plan investments	4,449,052	7,212,467
• Difference between expected and actual experience in the Total Pension Liability	<u>1,790,493</u>	<u>1,083,806</u>
• Total Deferred Outflows of Resources	\$7,664,736	\$10,194,950
Deferred Inflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$0	\$0
• Changes of assumptions or other inputs	79,608	521,873
• Difference between projected and actual earnings on pension plan investments	7,119,985	4,163,238
• Difference between expected and actual experience in the Total Pension Liability	<u>2,432,087</u>	<u>3,502,059</u>
• Total Deferred Inflows of Resources	\$9,631,680	\$8,187,170
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GASB 68 Year Ended June 30:		
2020	N/A	\$576,825
2021	\$(1,008,659)	(112,439)
2022	(736,329)	159,891
2023	384,924	1,281,144
2024	(793,861)	102,359
2025	186,981	0
2026	0	0
Thereafter	0	0

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

Section 2: GASB 68 Information

Deferred outflows of resources and deferred inflows of resources (continued)

O.C. Children and Families Comm.

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
Deferred Outflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$0	\$0
• Changes of assumptions or other inputs	(48,635)	53,458
• Difference between projected and actual earnings on pension plan investments	(90,952)	115,966
• Difference between expected and actual experience in the Total Pension Liability	0	0
• Total Deferred Outflows of Resources	\$(139,587)	\$169,424
Deferred Inflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$1,652,118	\$1,081,690
• Changes of assumptions or other inputs	(1,512)	8,177
• Difference between projected and actual earnings on pension plan investments	(153,335)	63,829
• Difference between expected and actual experience in the Total Pension Liability	(30,682)	41,415
• Total Deferred Inflows of Resources	\$1,466,589	\$1,195,111
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GASB 68 Year Ended June 30:		
2020	N/A	\$(342,726)
2021	\$(471,966)	(304,205)
2022	(411,273)	(221,833)
2023	(342,312)	(99,138)
2024	(217,925)	(57,785)
2025	(162,700)	0
2026	0	0
Thereafter	0	0

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

Section 2: GASB 68 Information

Deferred outflows of resources and deferred inflows of resources (continued)

Local Agency Formation Comm.

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
Deferred Outflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ⁽¹⁾	\$246,158	\$204,067
• Changes of assumptions or other inputs	112,068	134,169
• Difference between projected and actual earnings on pension plan investments	209,577	291,051
• Difference between expected and actual experience in the Total Pension Liability	<u>0</u>	<u>0</u>
• Total Deferred Outflows of Resources	\$567,803	\$629,287
Deferred Inflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$77,447	\$134,872
• Changes of assumptions or other inputs	3,484	20,523
• Difference between projected and actual earnings on pension plan investments	353,324	160,199
• Difference between expected and actual experience in the Total Pension Liability	<u>70,700</u>	<u>103,944</u>
• Total Deferred Inflows of Resources	\$504,955	\$419,538
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GASB 68 Year Ended June 30:		
2020	N/A	\$50,250
2021	\$(24,951)	7,729
2022	39,056	68,962
2023	61,377	84,409
2024	(35,256)	(1,601)
2025	22,622	0
2026	0	0
Thereafter	0	0

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

Section 2: GASB 68 Information

Deferred outflows of resources and deferred inflows of resources (continued)

Rancho Santa Margarita

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
Deferred Outflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$0	\$0
• Changes of assumptions or other inputs	480	639
• Difference between projected and actual earnings on pension plan investments	3,008	6,148
• Difference between expected and actual experience in the Total Pension Liability	<u>1,242</u>	<u>1,170</u>
• Total Deferred Outflows of Resources	\$4,730	\$7,957
Deferred Inflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$0	\$0
• Changes of assumptions or other inputs	29	203
• Difference between projected and actual earnings on pension plan investments	5,535	2,995
• Difference between expected and actual experience in the Total Pension Liability	<u>5,388</u>	<u>7,578</u>
• Total Deferred Inflows of Resources	\$10,952	\$10,776
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GASB 68 Year Ended June 30:		
2020	N/A	\$512
2021	\$(1,764)	(1,013)
2022	(2,772)	(2,021)
2023	(1,159)	(408)
2024	(642)	111
2025	115	0
2026	0	0
Thereafter	0	0

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

Section 2: GASB 68 Information

Deferred outflows of resources and deferred inflows of resources (continued)

O.C. Superior Court

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
Deferred Outflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$4,270,636	\$0
• Changes of assumptions or other inputs	25,335,345	33,295,171
• Difference between projected and actual earnings on pension plan investments	47,379,540	72,226,722
• Difference between expected and actual experience in the Total Pension Liability	0	0
• Total Deferred Outflows of Resources	\$76,985,521	\$105,521,893
Deferred Inflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$18,899,874	\$26,463,615
• Changes of assumptions or other inputs	787,559	5,092,945
• Difference between projected and actual earnings on pension plan investments	79,876,681	39,754,715
• Difference between expected and actual experience in the Total Pension Liability	15,983,355	25,794,457
• Total Deferred Inflows of Resources	\$115,547,469	\$97,105,732
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GASB 68 Year Ended June 30:		
2020	N/A	\$(2,848,528)
2021	\$(18,032,264)	(5,329,545)
2022	(11,227,431)	1,391,461
2023	5,992,846	18,403,968
2024	(15,933,378)	(3,201,195)
2025	638,279	0
2026	0	0
Thereafter	0	0

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

Section 2: GASB 68 Information

Deferred outflows of resources and deferred inflows of resources (continued)

O.C. IHSS Public Authority

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
Deferred Outflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$84,750	\$108,921
• Changes of assumptions or other inputs	173,542	221,274
• Difference between projected and actual earnings on pension plan investments	243,386	354,965
• Difference between expected and actual experience in the Total Pension Liability	0	0
• Total Deferred Outflows of Resources	\$501,678	\$685,160
Deferred Inflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹	\$9,058	\$11,375
• Changes of assumptions or other inputs	3,713	23,294
• Difference between projected and actual earnings on pension plan investments	396,090	162,393
• Difference between expected and actual experience in the Total Pension Liability	237,210	224,144
• Total Deferred Inflows of Resources	\$646,071	\$421,206
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GASB 68 Year Ended June 30:		
2020	N/A	\$59,514
2021	\$(40,513)	44,885
2022	(29,887)	54,262
2023	26,063	107,436
2024	(87,960)	(2,143)
2025	(12,096)	0
2026	0	0
Thereafter	0	0

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

Section 2: GASB 68 Information

Deferred outflows of resources and deferred inflows of resources (continued)

There are changes in each employer's proportionate share of the total NPL during the measurement period ended December 31, 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., 2019) is recognized over the average of the expected remaining service lives of all employees that are provided with pensions through OCERS which is 5.86 years determined as of December 31, 2018 (the beginning of the measurement period ended December 31, 2019). This is described in Paragraph 33a. of GASB 68.

In addition, the difference between the actual employer contributions and the proportionate share of the employer contributions during the measurement period ended December 31, 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 employees' expected remaining service life as the present value of \$1 per year of future service at zero percent interest.
- Setting the remaining service life to zero for each nonactive or retired member.
- Dividing the sum of the above amounts by the total number of active employee, nonactive and retired members.

Section 2: GASB 68 Information

Schedule of proportionate share of the net pension liability

Total for All Employers

Reporting Date for Employer under GASB 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered payroll ¹	Proportionate share of the Net Pension Liability as a percentage of its covered payroll	Plan's Fiduciary Net Position as a percentage of the Total Pension Liability
2014	100.000%	\$5,291,126,088	\$1,494,745,333	353.98%	67.16%
2015	100.000%	5,082,480,673	1,513,206,357	335.87%	69.42%
2016	100.000%	5,716,604,741	1,521,035,820	375.84%	67.10%
2017	100.000%	5,191,216,603	1,602,675,426	323.91%	71.16%
2018	100.000%	4,952,099,401	1,678,322,080	295.06%	74.93%
2019	100.000%	6,197,202,089	1,718,798,287	360.55%	70.03%
2020	100.000%	5,075,682,463	1,783,054,087	284.66%	76.67%

¹ Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Schedule of proportionate share of the net pension liability (continued)

Orange County

Reporting Date for Employer under GASB 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered payroll ¹	Proportionate share of the Net Pension Liability as a percentage of its covered payroll	Plan's Fiduciary Net Position as a percentage of the Total Pension Liability
2014	74.198%	\$3,925,918,613	\$1,086,993,804	361.17%	66.88%
2015	76.680%	3,897,232,634	1,107,550,873	351.88%	68.16%
2016	76.813%	4,391,070,880	1,117,547,827	392.92%	65.66%
2017	77.898%	4,043,855,643	1,199,272,843	337.19%	69.56%
2018	80.445%	3,983,695,231	1,246,487,036	319.59%	72.85%
2019	79.367%	4,918,576,912	1,271,800,976	386.74%	68.06%
2020	81.254%	4,124,212,240	1,312,799,835	314.15%	74.47%

¹ Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Schedule of proportionate share of the net pension liability (continued)

O.C. Cemetery District

Reporting Date for Employer under GASB 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered payroll ¹	Proportionate share of the Net Pension Liability as a percentage of its covered payroll	Plan's Fiduciary Net Position as a percentage of the Total Pension Liability
2014	0.034%	\$1,820,018	\$1,183,960	153.72%	76.02%
2015	(0.002%)	(95,350)	1,202,916	(7.93%)	101.24%
2016	0.009%	533,906	1,247,006	42.82%	93.62%
2017	0.004%	222,409	1,288,388	17.26%	97.47%
2018	(0.004%)	(173,677)	1,419,045	(12.24%)	101.78%
2019	0.016%	962,119	1,518,808	63.35%	91.02%
2020	(0.004%)	(228,119)	1,595,506	(14.30%)	102.07%

¹ Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Schedule of proportionate share of the net pension liability (continued)

O.C. Law Library

Reporting Date for Employer under GASB 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered payroll ¹	Proportionate share of the Net Pension Liability as a percentage of its covered payroll	Plan's Fiduciary Net Position as a percentage of the Total Pension Liability
2014	0.063%	\$3,314,766	\$1,191,662	278.16%	63.14%
2015	0.063%	3,221,570	1,193,852	269.85%	66.76%
2016	0.061%	3,472,003	1,153,022	301.12%	62.38%
2017	0.034%	1,770,282	1,106,587	159.98%	80.96%
2018	(0.001%)	(36,317)	1,095,599	(3.31%)	100.35%
2019	0.009%	573,252	1,075,119	53.32%	94.64%
2020	(0.001%)	(74,515)	1,057,915	(7.04%)	100.66%

¹ Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Schedule of proportionate share of the net pension liability (continued)

O.C. Vector Control District

Reporting Date for Employer under GASB 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered payroll ¹	Proportionate share of the Net Pension Liability as a percentage of its covered payroll	Plan's Fiduciary Net Position as a percentage of the Total Pension Liability
2014	0.047%	\$2,464,723	\$0	N/A	91.24%
2015	0.057%	2,900,367	0	N/A	89.85%
2016	0.034%	1,941,891	0	N/A	92.66%
2017	0.032%	1,669,793	0	N/A	93.78%
2018	0.024%	1,166,920	0	N/A	95.89%
2019	0.040%	2,492,695	0	N/A	90.92%
2020	(0.012%)	(625,500)	0	N/A	102.29%

¹ Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Schedule of proportionate share of the net pension liability (continued)

O.C. Retirement System

Reporting Date for Employer under GASB 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered payroll ¹	Proportionate share of the Net Pension Liability as a percentage of its covered payroll	Plan's Fiduciary Net Position as a percentage of the Total Pension Liability
2014	0.402%	\$21,259,813	\$5,368,550	396.01%	64.40%
2015	0.406%	20,656,114	5,655,725	365.22%	67.15%
2016	0.433%	24,747,342	6,063,327	408.15%	64.73%
2017	0.422%	21,886,393	6,190,905	353.52%	68.69%
2018	0.433%	21,427,080	6,486,488	330.33%	71.95%
2019	0.465%	28,844,760	7,501,588	384.52%	67.06%
2020	0.528%	26,824,264	8,491,615	315.89%	73.18%

¹ Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Schedule of proportionate share of the net pension liability (continued)

O.C. Fire Authority

Reporting Date for Employer under GASB 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered payroll ¹	Proportionate share of the Net Pension Liability as a percentage of its covered payroll	Plan's Fiduciary Net Position as a percentage of the Total Pension Liability
2014	8.366%	\$442,651,348	\$129,689,221	341.32%	69.66%
2015	9.188%	466,968,323	129,187,729	361.46%	70.35%
2016	9.056%	517,669,806	129,452,647	399.89%	68.90%
2017	9.043%	469,430,660	124,514,004	377.01%	73.11%
2018	7.485%	370,674,668	148,890,685	248.96%	80.44%
2019	7.531%	466,731,526	155,479,486	300.19%	76.63%
2020	6.982%	354,395,457	164,583,742	215.33%	83.51%

¹ Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Schedule of proportionate share of the net pension liability (continued)

Cypress Recreation and Parks

Reporting Date for Employer under GASB 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered payroll ¹	Proportionate share of the Net Pension Liability as a percentage of its covered payroll	Plan's Fiduciary Net Position as a percentage of the Total Pension Liability
2014	0.000%	\$0	\$0	N/A	N/A
2015	0.000%	0	0	N/A	N/A
2016	0.000%	0	0	N/A	N/A
2017	0.000%	0	0	N/A	N/A
2018	0.015%	718,340	0	N/A	83.78%
2019	0.007%	408,781	0	N/A	90.81%
2020	0.005%	262,415	0	N/A	94.23%

¹ Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Schedule of proportionate share of the net pension liability (continued)

Department of Education

Reporting Date for Employer under GASB 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered payroll ¹	Proportionate share of the Net Pension Liability as a percentage of its covered payroll	Plan's Fiduciary Net Position as a percentage of the Total Pension Liability
2014	0.051%	\$2,691,224	\$62,538	4303.34%	81.08%
2015	0.072%	3,637,615	0	N/A	75.31%
2016	0.075%	4,306,689	0	N/A	69.50%
2017	0.085%	4,415,517	0	N/A	68.18%
2018	0.051%	2,530,324	0	N/A	80.00%
2019	0.057%	3,517,372	0	N/A	71.79%
2020	0.061%	3,099,339	0	N/A	74.84%

¹ Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Schedule of proportionate share of the net pension liability (continued)

Transportation Corridor Agency

Reporting Date for Employer under GASB 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered payroll ¹	Proportionate share of the Net Pension Liability as a percentage of its covered payroll	Plan's Fiduciary Net Position as a percentage of the Total Pension Liability
2014	0.215%	\$11,359,334	\$6,054,822	187.61%	66.44%
2015	0.210%	10,682,807	6,118,067	174.61%	69.62%
2016	0.222%	12,713,136	6,088,331	208.81%	66.45%
2017	0.239%	12,423,364	6,431,272	193.17%	69.93%
2018	0.207%	10,242,769	6,775,031	151.18%	76.84%
2019	0.214%	13,253,632	6,609,886	200.51%	71.83%
2020	(0.035%)	(1,753,164)	6,809,655	(25.75%)	103.35%

¹ Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Schedule of proportionate share of the net pension liability (continued)

City of San Juan Capistrano

Reporting Date for Employer under GASB 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered payroll ¹	Proportionate share of the Net Pension Liability as a percentage of its covered payroll	Plan's Fiduciary Net Position as a percentage of the Total Pension Liability
2014	0.535%	\$28,312,625	\$6,324,207	447.69%	64.40%
2015	0.548%	27,866,378	6,863,345	406.02%	67.15%
2016	0.512%	29,249,120	6,464,876	452.43%	64.73%
2017	0.483%	25,089,009	6,636,488	378.05%	68.69%
2018	0.528%	26,138,852	7,227,226	361.67%	71.95%
2019	0.519%	32,142,058	7,253,654	443.12%	67.06%
2020	0.516%	26,191,970	7,294,439	359.07%	73.18%

¹ Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Schedule of proportionate share of the net pension liability (continued)

O.C. Sanitation District

Reporting Date for Employer under GASB 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered payroll ¹	Proportionate share of the Net Pension Liability as a percentage of its covered payroll	Plan's Fiduciary Net Position as a percentage of the Total Pension Liability
2014	3.832%	\$202,747,516	\$58,954,754	343.90%	63.14%
2015	1.130%	57,418,760	58,641,163	97.92%	89.61%
2016	0.742%	42,439,759	59,789,927	70.98%	92.74%
2017	(0.200%)	(10,384,510)	60,000,017	(17.31%)	101.70%
2018	(0.799%)	(39,571,102)	62,341,796	(63.47%)	105.96%
2019	0.468%	29,029,145	66,475,479	43.67%	95.86%
2020	(0.974%)	(49,446,617)	71,395,906	(69.26%)	106.64%

¹ Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Schedule of proportionate share of the net pension liability (continued)

O.C. Transportation Authority

Reporting Date for Employer under GASB 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered payroll ¹	Proportionate share of the Net Pension Liability as a percentage of its covered payroll	Plan's Fiduciary Net Position as a percentage of the Total Pension Liability
2014	4.112%	\$217,568,793	\$92,199,745	235.98%	71.77%
2015	4.006%	203,591,950	95,061,437	214.17%	74.00%
2016	4.377%	250,192,983	93,109,984	268.71%	69.82%
2017	4.436%	230,260,478	94,507,309	243.64%	73.17%
2018	4.283%	212,117,162	94,528,116	224.40%	77.15%
2019	4.353%	269,788,642	97,229,545	277.48%	71.97%
2020	4.419%	224,284,548	101,980,885	219.93%	77.80%

¹ Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Schedule of proportionate share of the net pension liability (continued)

U.C.I.

Reporting Date for Employer under GASB 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered payroll ¹	Proportionate share of the Net Pension Liability as a percentage of its covered payroll	Plan's Fiduciary Net Position as a percentage of the Total Pension Liability
2014	0.609%	\$32,214,491	\$643,375	5007.11%	74.44%
2015	0.523%	26,578,391	574,780	4624.10%	77.81%
2016	0.633%	36,184,065	285,025	12695.05%	69.50%
2017	0.696%	36,113,699	43,707	82626.81%	68.96%
2018	0.558%	27,644,960	14,874	185860.97%	75.13%
2019	0.562%	34,808,679	0	N/A	67.93%
2020	0.595%	30,213,739	0	N/A	71.62%

¹ Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Schedule of proportionate share of the net pension liability (continued)

O.C. Children and Families Comm.

Reporting Date for Employer under GASB 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered payroll ¹	Proportionate share of the Net Pension Liability as a percentage of its covered payroll	Plan's Fiduciary Net Position as a percentage of the Total Pension Liability
2014	0.087%	\$4,590,845	\$1,116,074	411.34%	64.40%
2015	0.078%	3,957,425	1,043,030	379.42%	67.15%
2016	0.071%	4,066,523	1,042,786	389.97%	64.73%
2017	0.061%	3,158,290	925,031	341.43%	68.69%
2018	0.019%	962,204	849,266	113.30%	90.09%
2019	0.010%	630,610	966,061	65.28%	91.49%
2020	(0.013%)	(646,472)	1,061,044	(60.93%)	115.26%

¹ Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Schedule of proportionate share of the net pension liability (continued)

Local Agency Formation Comm.

Reporting Date for Employer under GASB 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered payroll ¹	Proportionate share of the Net Pension Liability as a percentage of its covered payroll	Plan's Fiduciary Net Position as a percentage of the Total Pension Liability
2014	0.022%	\$1,187,537	\$273,719	433.85%	64.40%
2015	0.026%	1,303,484	334,804	389.33%	67.15%
2016	0.020%	1,156,534	287,698	402.00%	64.73%
2017	0.026%	1,340,888	374,792	357.77%	68.69%
2018	0.026%	1,268,133	394,760	321.24%	71.95%
2019	0.026%	1,582,703	419,538	377.25%	67.06%
2020	0.029%	1,489,642	475,099	313.54%	73.18%

¹ Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Schedule of proportionate share of the net pension liability (continued)

Rancho Santa Margarita

Reporting Date for Employer under GASB 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered payroll ¹	Proportionate share of the Net Pension Liability as a percentage of its covered payroll	Plan's Fiduciary Net Position as a percentage of the Total Pension Liability
2014	(0.000%)	\$(4,181)	\$0	N/A	108.66%
2015	0.000%	1,729	0	N/A	96.78%
2016	0.000%	6,660	0	N/A	88.06%
2017	0.000%	9,332	0	N/A	82.95%
2018	(0.000%)	(2,320)	0	N/A	104.91%
2019	0.000%	1,284	0	N/A	97.28%
2020	(0.000%)	(2,214)	0	N/A	104.69%

¹ Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Schedule of proportionate share of the net pension liability (continued)

O.C. Superior Court

Reporting Date for Employer under GASB 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered payroll ¹	Proportionate share of the Net Pension Liability as a percentage of its covered payroll	Plan's Fiduciary Net Position as a percentage of the Total Pension Liability
2014	7.415%	\$392,321,750	\$103,987,082	377.28%	64.40%
2015	7.002%	355,886,410	99,034,265	359.36%	67.15%
2016	6.926%	395,957,480	97,656,241	405.46%	64.73%
2017	6.726%	349,173,850	100,413,439	347.74%	68.69%
2018	6.716%	332,589,831	100,683,255	330.33%	71.95%
2019	6.338%	392,760,910	101,374,099	387.44%	67.06%
2020	6.635%	336,766,149	104,356,239	322.71%	73.18%

¹ Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Schedule of proportionate share of the net pension liability (continued)

O.C. IHSS Public Authority

Reporting Date for Employer under GASB 68 as of June 30	Proportion of the Net Pension Liability	Proportionate share of Net Pension Liability	Covered payroll ¹	Proportionate share of the Net Pension Liability as a percentage of its covered payroll	Plan's Fiduciary Net Position as a percentage of the Total Pension Liability
2014	0.013%	\$706,873	\$701,820	100.72%	73.15%
2015	0.013%	672,066	744,371	90.29%	75.26%
2016	0.016%	895,964	847,123	105.77%	73.52%
2017	0.015%	781,506	970,644	80.51%	79.30%
2018	0.014%	706,343	1,128,903	62.57%	84.20%
2019	0.018%	1,097,009	1,094,048	100.27%	77.97%
2020	0.014%	719,301	1,152,206	62.43%	86.11%

¹ Covered payroll represents payroll on which contributions to the pension plan are based.

Section 2: GASB 68 Information

Schedule of reconciliation of net pension liability

Total for All Employer

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Reconciliation of Net Pension Liability	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Beginning Net Pension Liability	\$6,197,202,089	\$4,952,099,401
• Pension Expense	590,748,219	783,713,497
• Employer Contributions	(653,758,000)	(580,741,000)
• New Net Deferred Inflows/Outflows	(916,494,744)	990,085,765
• Change in Allocation of Prior Deferred Inflows/Outflows	0	0
• New Net Deferred Flows Due to Change in Proportion ¹	0	0
• Recognition of Prior Deferred Inflows/Outflows	(142,015,101)	52,044,426
• Recognition of Prior Deferred Flows Due to Change in Proportion ¹	<u>0</u>	<u>0</u>
• Ending Net Pension Liability	\$5,075,682,463	\$6,197,202,089

¹ Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Schedule of reconciliation of net pension liability (continued)

Orange County

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Reconciliation of Net Pension Liability	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Beginning Net Pension Liability	\$4,918,576,912	\$3,983,695,231
• Pension Expense	455,805,422	606,017,828
• Employer Contributions	(439,861,920)	(418,974,842)
• New Net Deferred Inflows/Outflows	(689,191,062)	714,262,376
• Change in Allocation of Prior Deferred Inflows/Outflows	(528,831)	(1,123,621)
• New Net Deferred Flows Due to Change in Proportion ¹	(4,721,248)	10,927,442
• Recognition of Prior Deferred Inflows/Outflows	(108,625,446)	28,788,536
• Recognition of Prior Deferred Flows Due to Change in Proportion ¹	<u>(7,241,587)</u>	<u>(5,016,038)</u>
• Ending Net Pension Liability	\$4,124,212,240	\$4,918,576,912

¹ Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Schedule of reconciliation of net pension liability (continued)

O.C. Cemetery District

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Reconciliation of Net Pension Liability	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Beginning Net Pension Liability	\$962,119	\$(173,677)
• Pension Expense	127,197	366,717
• Employer Contributions	(179,000)	(164,000)
• New Net Deferred Inflows/Outflows	(1,025,030)	863,874
• Change in Allocation of Prior Deferred Inflows/Outflows	0	0
• New Net Deferred Flows Due to Change in Proportion ¹	0	0
• Recognition of Prior Deferred Inflows/Outflows	(113,405)	69,205
• Recognition of Prior Deferred Flows Due to Change in Proportion ¹	0	0
• Ending Net Pension Liability	\$(228,119)	\$962,119

¹ Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Schedule of reconciliation of net pension liability (continued)

O.C. Law Library

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Reconciliation of Net Pension Liability	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Beginning Net Pension Liability	\$573,252	\$(36,317)
• Pension Expense	(140,173)	72,933
• Employer Contributions	(112,000)	(162,000)
• New Net Deferred Inflows/Outflows	(591,775)	482,211
• Change in Allocation of Prior Deferred Inflows/Outflows	0	0
• New Net Deferred Flows Due to Change in Proportion ¹	0	0
• Recognition of Prior Deferred Inflows/Outflows	(176,327)	(156,083)
• Recognition of Prior Deferred Flows Due to Change in Proportion ¹	<u>372,508</u>	<u>372,508</u>
• Ending Net Pension Liability	\$(74,515)	\$573,252

¹ Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Schedule of reconciliation of net pension liability (continued)

O.C. Vector Control District

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Reconciliation of Net Pension Liability	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Beginning Net Pension Liability	\$2,492,695	\$1,166,920
• Pension Expense	(351,264)	156,577
• Employer Contributions	(877,769)	0
• New Net Deferred Inflows/Outflows	(1,888,900)	1,024,538
• Change in Allocation of Prior Deferred Inflows/Outflows	0	0
• New Net Deferred Flows Due to Change in Proportion ¹	0	0
• Recognition of Prior Deferred Inflows/Outflows	(262)	144,660
• Recognition of Prior Deferred Flows Due to Change in Proportion ¹	<u>0</u>	<u>0</u>
• Ending Net Pension Liability	\$(625,500)	\$2,492,695

¹ Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Schedule of reconciliation of net pension liability (continued)

O.C. Retirement System

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Reconciliation of Net Pension Liability	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Beginning Net Pension Liability	\$28,844,760	\$21,427,080
• Pension Expense	3,470,610	3,654,352
• Employer Contributions	(2,504,000)	(2,187,000)
• New Net Deferred Inflows/Outflows	(4,341,978)	4,187,357
• Change in Allocation of Prior Deferred Inflows/Outflows	254,808	(175,876)
• New Net Deferred Flows Due to Change in Proportion ¹	2,184,621	1,809,248
• Recognition of Prior Deferred Inflows/Outflows	(380,736)	464,938
• Recognition of Prior Deferred Flows Due to Change in Proportion ¹	<u>(703,821)</u>	<u>(335,339)</u>
• Ending Net Pension Liability	\$26,824,264	\$28,844,760

¹ Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Schedule of reconciliation of net pension liability (continued)

O.C. Fire Authority

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Reconciliation of Net Pension Liability	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Beginning Net Pension Liability	\$466,731,526	\$370,674,668
• Pension Expense	67,124,196	82,954,245
• Employer Contributions	(87,981,000)	(90,090,000)
• New Net Deferred Inflows/Outflows	(75,481,209)	99,264,351
• Change in Allocation of Prior Deferred Inflows/Outflows	0	0
• New Net Deferred Flows Due to Change in Proportion ¹	0	0
• Recognition of Prior Deferred Inflows/Outflows	(15,998,056)	3,928,262
• Recognition of Prior Deferred Flows Due to Change in Proportion ¹	<u>0</u>	<u>0</u>
• Ending Net Pension Liability	\$354,395,457	\$466,731,526

¹ Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Schedule of reconciliation of net pension liability (continued)

Cypress Recreation and Parks

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Reconciliation of Net Pension Liability	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Beginning Net Pension Liability	\$408,781	\$718,340
• Pension Expense	4,345	64,831
• Employer Contributions	0	(739,966)
• New Net Deferred Inflows/Outflows	(143,218)	299,064
• Change in Allocation of Prior Deferred Inflows/Outflows	0	0
• New Net Deferred Flows Due to Change in Proportion ¹	0	0
• Recognition of Prior Deferred Inflows/Outflows	(7,493)	66,512
• Recognition of Prior Deferred Flows Due to Change in Proportion ¹	<u>0</u>	<u>0</u>
• Ending Net Pension Liability	\$262,415	\$408,781

¹ Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Schedule of reconciliation of net pension liability (continued)

Department of Education

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Reconciliation of Net Pension Liability	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Beginning Net Pension Liability	\$3,517,372	\$2,530,324
• Pension Expense	271,328	279,359
• Employer Contributions	(267,432)	(301,464)
• New Net Deferred Inflows/Outflows	(322,141)	887,524
• Change in Allocation of Prior Deferred Inflows/Outflows	0	0
• New Net Deferred Flows Due to Change in Proportion ¹	0	0
• Recognition of Prior Deferred Inflows/Outflows	(99,788)	121,629
• Recognition of Prior Deferred Flows Due to Change in Proportion ¹	<u>0</u>	<u>0</u>
• Ending Net Pension Liability	\$3,099,339	\$3,517,372

¹ Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Schedule of reconciliation of net pension liability (continued)

Transportation Corridor Agency

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Reconciliation of Net Pension Liability	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Beginning Net Pension Liability	\$13,253,632	\$10,242,769
• Pension Expense	1,376,160	1,941,952
• Employer Contributions	(14,010,000)	(1,571,000)
• New Net Deferred Inflows/Outflows	(2,189,888)	2,343,320
• Change in Allocation of Prior Deferred Inflows/Outflows	0	0
• New Net Deferred Flows Due to Change in Proportion ¹	0	0
• Recognition of Prior Deferred Inflows/Outflows	(183,068)	296,591
• Recognition of Prior Deferred Flows Due to Change in Proportion ¹	<u>0</u>	<u>0</u>
• Ending Net Pension Liability	\$(1,753,164)	\$13,253,632

¹ Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Schedule of reconciliation of net pension liability (continued)

City of San Juan Capistrano

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Reconciliation of Net Pension Liability	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Beginning Net Pension Liability	\$32,142,058	\$26,138,852
• Pension Expense	1,964,282	3,187,038
• Employer Contributions	(2,339,000)	(2,332,000)
• New Net Deferred Inflows/Outflows	(4,239,630)	4,666,022
• Change in Allocation of Prior Deferred Inflows/Outflows	(104,402)	6,197
• New Net Deferred Flows Due to Change in Proportion ¹	(960,348)	(118,729)
• Recognition of Prior Deferred Inflows/Outflows	(371,762)	518,087
• Recognition of Prior Deferred Flows Due to Change in Proportion ¹	<u>100,772</u>	<u>76,591</u>
• Ending Net Pension Liability	\$26,191,970	\$32,142,058

¹ Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Schedule of reconciliation of net pension liability (continued)

O.C. Sanitation District

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Reconciliation of Net Pension Liability	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Beginning Net Pension Liability	\$29,029,145	\$(39,571,102)
• Pension Expense	10,382,092	15,260,948
• Employer Contributions	(45,721,000)	(7,429,000)
• New Net Deferred Inflows/Outflows	(36,295,241)	55,302,382
• Change in Allocation of Prior Deferred Inflows/Outflows	0	0
• New Net Deferred Flows Due to Change in Proportion ¹	0	0
• Recognition of Prior Deferred Inflows/Outflows	(6,469,105)	5,838,425
• Recognition of Prior Deferred Flows Due to Change in Proportion ¹	<u>(372,508)</u>	<u>(372,508)</u>
• Ending Net Pension Liability	\$(49,446,617)	\$29,029,145

¹ Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Schedule of reconciliation of net pension liability (continued)

O.C. Transportation Authority

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Reconciliation of Net Pension Liability	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Beginning Net Pension Liability	\$269,788,642	\$212,117,162
• Pension Expense	26,336,223	35,099,842
• Employer Contributions	(25,278,000)	(23,660,000)
• New Net Deferred Inflows/Outflows	(42,364,252)	42,351,694
• Change in Allocation of Prior Deferred Inflows/Outflows	0	0
• New Net Deferred Flows Due to Change in Proportion ¹	0	0
• Recognition of Prior Deferred Inflows/Outflows	(4,198,065)	3,879,944
• Recognition of Prior Deferred Flows Due to Change in Proportion ¹	<u>0</u>	<u>0</u>
• Ending Net Pension Liability	\$224,284,548	\$269,788,642

¹ Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Schedule of reconciliation of net pension liability (continued)

U.C.I.

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Reconciliation of Net Pension Liability	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Beginning Net Pension Liability	\$34,808,679	\$27,644,960
• Pension Expense	2,168,623	1,840,555
• Employer Contributions	(2,788,839)	(2,875,057)
• New Net Deferred Inflows/Outflows	(3,397,899)	6,501,528
• Change in Allocation of Prior Deferred Inflows/Outflows	0	0
• New Net Deferred Flows Due to Change in Proportion ¹	0	0
• Recognition of Prior Deferred Inflows/Outflows	(576,825)	1,696,693
• Recognition of Prior Deferred Flows Due to Change in Proportion ¹	<u>0</u>	<u>0</u>
• Ending Net Pension Liability	\$30,213,739	\$34,808,679

¹ Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Schedule of reconciliation of net pension liability (continued)

O.C. Children and Families Comm.

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Reconciliation of Net Pension Liability	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Beginning Net Pension Liability	\$630,610	\$962,204
• Pension Expense	(595,594)	(285,793)
• Employer Contributions	(101,000)	(177,000)
• New Net Deferred Inflows/Outflows	104,643	91,545
• Change in Allocation of Prior Deferred Inflows/Outflows	(123,879)	40,279
• New Net Deferred Flows Due to Change in Proportion ¹	(920,725)	(299,989)
• Recognition of Prior Deferred Inflows/Outflows	9,176	10,165
• Recognition of Prior Deferred Flows Due to Change in Proportion ¹	<u>350,297</u>	<u>289,199</u>
• Ending Net Pension Liability	\$(646,472)	\$630,610

¹ Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Schedule of reconciliation of net pension liability (continued)

Local Agency Formation Comm.

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Reconciliation of Net Pension Liability	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Beginning Net Pension Liability	\$1,582,703	\$1,268,133
• Pension Expense	186,841	193,144
• Employer Contributions	(133,000)	(115,000)
• New Net Deferred Inflows/Outflows	(241,125)	229,759
• Change in Allocation of Prior Deferred Inflows/Outflows	15,850	(1,390)
• New Net Deferred Flows Due to Change in Proportion ¹	130,765	11,461
• Recognition of Prior Deferred Inflows/Outflows	(21,143)	25,511
• Recognition of Prior Deferred Flows Due to Change in Proportion ¹	<u>(31,249)</u>	<u>(28,915)</u>
• Ending Net Pension Liability	\$1,489,642	\$1,582,703

¹ Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Schedule of reconciliation of net pension liability (continued)

Rancho Santa Margarita

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Reconciliation of Net Pension Liability	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Beginning Net Pension Liability	\$1,284	\$(2,320)
• Pension Expense	(95)	1,276
• Employer Contributions	0	0
• New Net Deferred Inflows/Outflows	(2,891)	2,994
• Change in Allocation of Prior Deferred Inflows/Outflows	0	0
• New Net Deferred Flows Due to Change in Proportion ¹	0	0
• Recognition of Prior Deferred Inflows/Outflows	(512)	(666)
• Recognition of Prior Deferred Flows Due to Change in Proportion ¹	<u>0</u>	<u>0</u>
• Ending Net Pension Liability	\$(2,214)	\$1,284

¹ Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Schedule of reconciliation of net pension liability (continued)

O.C. Superior Court

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Reconciliation of Net Pension Liability	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Beginning Net Pension Liability	\$392,760,910	\$332,589,831
• Pension Expense	22,407,347	32,611,773
• Employer Contributions	(31,424,000)	(29,779,000)
• New Net Deferred Inflows/Outflows	(54,511,512)	57,016,602
• Change in Allocation of Prior Deferred Inflows/Outflows	478,992	1,254,017
• New Net Deferred Flows Due to Change in Proportion ¹	4,270,636	(12,318,058)
• Recognition of Prior Deferred Inflows/Outflows	(4,779,965)	6,330,773
• Recognition of Prior Deferred Flows Due to Change in Proportion ¹	<u>7,563,741</u>	<u>5,054,972</u>
• Ending Net Pension Liability	\$336,766,149	\$392,760,910

¹ Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Schedule of reconciliation of net pension liability (continued)

O.C. IHSS Public Authority

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Reconciliation of Net Pension Liability	June 30, 2020 December 31, 2019	June 30, 2019 December 31, 2018
• Beginning Net Pension Liability	\$1,097,009	\$706,343
• Pension Expense	210,679	295,920
• Employer Contributions	(180,040)	(183,671)
• New Net Deferred Inflows/Outflows	(371,636)	308,624
• Change in Allocation of Prior Deferred Inflows/Outflows	7,462	394
• New Net Deferred Flows Due to Change in Proportion ¹	16,299	(11,375)
• Recognition of Prior Deferred Inflows/Outflows	(22,319)	21,244
• Recognition of Prior Deferred Flows Due to Change in Proportion ¹	<u>(38,153)</u>	<u>(40,470)</u>
• Ending Net Pension Liability	\$719,301	\$1,097,009

¹ Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Schedule of recognition of changes in total Net Pension Liability

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

Reporting Date for Employer Under GASB 68 Year Ended June 30	Differences between Expected and Actual Experience	Recognition Period (Years)	Reporting Date for Employer under GASB 68 Year Ended June 30:							
			2015	2016	2017	2018	2019	2020	2021	2022
2015	\$(327,402,088)	6.18	\$(52,977,684)	\$(52,977,684)	\$(52,977,684)	\$(52,977,684)	\$(52,977,684)	\$(52,977,684)	\$(9,535,984)	\$0
2016	(205,462,673)	6.06	N/A	(33,904,732)	(33,904,732)	(33,904,732)	(33,904,732)	(33,904,732)	(33,904,732)	(2,034,281)
2017	(323,565,741)	5.94	N/A	N/A	(54,472,347)	(54,472,347)	(54,472,347)	(54,472,347)	(54,472,347)	(51,204,006)
2018	(66,963,603)	6.01	N/A	N/A	N/A	(11,142,029)	(11,142,029)	(11,142,029)	(11,142,029)	(11,142,029)
2019	(118,124,401)	5.91	N/A	N/A	N/A	N/A	(19,987,206)	(19,987,206)	(19,987,206)	(19,987,206)
2020	24,382,911	5.86	0	0	0	0	0	4,160,905	4,160,905	4,160,905
Net increase (decrease) in pension expense			\$(52,977,684)	\$(86,882,416)	\$(141,354,763)	\$(152,496,792)	\$(172,483,998)	\$(168,323,093)	\$(124,881,393)	\$(80,206,617)

Reporting Date for Employer Under GASB 68 Year Ended June 30	Differences between Expected and Actual Experience	Recognition Period (Years)	Reporting Date for Employer under GASB 68 Year Ended June 30:							
			2023	2024	2025	2026	2027	2028	2029	2030
2015	\$(327,402,088)	6.18	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2016	(205,462,673)	6.06	0	0	0	0	0	0	0	0
2017	(323,565,741)	5.94	0	0	0	0	0	0	0	0
2018	(66,963,603)	6.01	(11,142,029)	(11,142,029)	0	0	0	0	0	0
2019	(118,124,401)	5.91	(19,987,206)	(18,188,371)	0	0	0	0	0	0
2020	24,382,911	5.86	4,160,905	4,160,905	3,578,386	0	0	0	0	0
Net increase (decrease) in pension expense			\$(26,968,330)	\$(14,138,895)	\$3,578,386	\$0	\$0	\$0	\$0	\$0

As described in the Schedule of Deferred Outflows of Resources and Deferred Inflows of Resources, for the current period, the average of the expected remaining service lives of all employees that are provided with pensions through OCERS (active and inactive employees) determined as of December 31, 2018 (the beginning of the measurement period ending December 31, 2019) is 5.86 years.

Section 2: GASB 68 Information

Schedule of recognition of changes in total Net Pension Liability (continued)

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

Reporting Date for Employer Under GASB 68 Year Ended June 30	Differences between Expected and Actual Experience	Recognition Period (Years)	Reporting Date for Employer under GASB 68 Year Ended June 30:							
			2015	2016	2017	2018	2019	2020	2021	2022
2015	\$(127,729,220)	6.18	\$(20,668,159)	\$(20,668,159)	\$(20,668,159)	\$(20,668,159)	\$(20,668,159)	\$(20,668,159)	\$(3,720,266)	\$0
2016	0	6.06	N/A	0	0	0	0	0	0	0
2017	0	5.94	N/A	N/A	0	0	0	0	0	0
2018	827,197,075	6.01	N/A	N/A	N/A	137,636,784	137,636,784	137,636,784	137,636,784	137,636,784
2019	0	5.91	N/A	N/A	N/A	N/A	0	0	0	0
2020	0	5.86	N/A	N/A	N/A	N/A	N/A	0	0	0
Net increase (decrease) in pension expense			\$(20,668,159)	\$(20,668,159)	\$(20,668,159)	\$116,968,625	\$116,968,625	\$116,968,625	\$133,916,518	\$137,636,784

Reporting Date for Employer Under GASB 68 Year Ended June 30	Differences between Expected and Actual Experience	Recognition Period (Years)	Reporting Date for Employer under GASB 68 Year Ended June 30:							
			2023	2024	2025	2026	2027	2028	2029	2030
2015	\$(127,729,220)	6.18	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2016	0	6.06	0	0	0	0	0	0	0	0
2017	0	5.94	0	0	0	0	0	0	0	0
2018	827,197,075	6.01	137,636,784	1,376,371	0	0	0	0	0	0
2019	0	5.91	0	0	0	0	0	0	0	0
2020	0	5.86	0	0	0	0	0	0	0	0
Net increase (decrease) in pension expense			\$137,636,784	\$1,376,371	\$0	\$0	\$0	\$0	\$0	\$0

As described in the Schedule of Deferred Outflows of Resources and Deferred Inflows of Resources, for the current period, the average of the expected remaining service lives of all employees that are provided with pensions through OCERS (active and inactive employees) determined as of December 31, 2018 (the beginning of the measurement period ending December 31, 2019) is 5.86 years.

Section 2: GASB 68 Information

Schedule of recognition of changes in total Net Pension Liability (continued)

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

Reporting Date for Employer Under GASB 68 Year Ended June 30	Differences between Expected and Actual Experience	Recognition Period (Years)	Reporting Date for Employer under GASB 68 Year Ended June 30:							
			2015	2016	2017	2018	2019	2020	2021	2022
2015	\$290,045,074	6.18	\$58,009,015	\$58,009,015	\$58,009,015	\$58,009,015	\$58,009,014	\$0	\$0	\$0
2016	851,007,781	6.06	N/A	170,201,555	170,201,555	170,201,555	170,201,555	170,201,561	0	0
2017	(213,982,570)	5.94	N/A	N/A	(42,796,514)	(42,796,514)	(42,796,514)	(42,796,514)	(42,796,514)	0
2018	(1,009,651,572)	6.01	N/A	N/A	N/A	(201,930,314)	(201,930,314)	(201,930,314)	(201,930,314)	(201,930,316)
2019	1,360,278,701	5.91	N/A	N/A	N/A	N/A	272,055,741	272,055,741	272,055,741	272,055,741
2020	(1,170,895,935)	5.86	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>(234,179,185)</u>	<u>(234,179,185)</u>	<u>(234,179,185)</u>
Net increase (decrease) in pension expense			\$58,009,015	\$228,210,570	\$185,414,056	\$(16,516,258)	\$255,539,482	\$(36,648,711)	\$(206,850,272)	\$(164,053,760)

Reporting Date for Employer Under GASB 68 Year Ended June 30	Differences between Expected and Actual Experience	Recognition Period (Years)	Reporting Date for Employer under GASB 68 Year Ended June 30:							
			2023	2024	2025	2026	2027	2028	2029	2030
2015	\$290,045,074	6.18	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2016	851,007,781	6.06	0	0	0	0	0	0	0	0
2017	(213,982,570)	5.94	0	0	0	0	0	0	0	0
2018	(1,009,651,572)	6.01	0	0	0	0	0	0	0	0
2019	1,360,278,701	5.91	272,055,737	0	0	0	0	0	0	0
2020	(1,170,895,935)	5.86	<u>(234,179,185)</u>	<u>(234,179,195)</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			\$37,876,552	\$(234,179,195)	\$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 GASB 68.

Section 2: GASB 68 Information

Schedule of recognition of changes in total Net Pension Liability (continued)

Total Increase (Decrease) in Pension Expense

Reporting Date for Employer Under GASB 68 Year Ended June 30	Differences between Expected and Actual Experience	Reporting Date for Employer under GASB 68 Year Ended June 30:							
		2015	2016	2017	2018	2019	2020	2021	2022
		2015	\$(165,086,234)	\$(15,636,828)	\$(15,636,828)	\$(15,636,828)	\$(15,636,828)	\$(15,636,829)	\$(73,645,843)
2016	645,545,108	N/A	136,296,823	136,296,823	136,296,823	136,296,823	136,296,829	(33,904,732)	(2,034,281)
2017	(537,548,311)	N/A	N/A	(97,268,861)	(97,268,861)	(97,268,861)	(97,268,861)	(97,268,861)	(51,204,006)
2018	(249,418,100)	N/A	N/A	N/A	(75,435,559)	(75,435,559)	(75,435,559)	(75,435,559)	(75,435,561)
2019	1,242,154,300	N/A	N/A	N/A	N/A	252,068,535	252,068,535	252,068,535	252,068,535
2020	(1,146,513,024)	N/A	N/A	N/A	N/A	N/A	(230,018,280)	(230,018,280)	(230,018,280)
Net increase (decrease) in pension expense		\$(15,636,828)	\$120,659,995	\$23,391,134	\$(52,044,425)	\$200,024,109	\$(88,003,179)	\$(197,815,147)	\$(106,623,593)

Reporting Date for Employer under GASB 68 Year Ended June 30	Differences between Expected and Actual Experience	Reporting Date for Employer under GASB 68 Year Ended June 30:							
		2023	2024	2025	2026	2027	2028	2029	2030
		2015	\$(165,086,234)	\$0	\$0	\$0	\$0	\$0	\$0
2016	645,545,108	0	0	0	0	0	0	0	0
2017	(537,548,311)	0	0	0	0	0	0	0	0
2018	(249,418,100)	126,494,755	1,264,942	0	0	0	0	0	0
2019	1,242,154,300	252,068,531	(18,188,371)	0	0	0	0	0	0
2020	(1,146,513,024)	(230,018,280)	(230,018,280)	3,578,386	0	0	0	0	0
Net increase (decrease) in pension expense		\$148,545,006	\$(246,941,719)	\$3,578,386	\$0	\$0	\$0	\$0	\$0

Section 2: GASB 68 Information

Allocation of changes in total Net Pension Liability

In addition to the amounts shown in the Schedule of Recognition of Changes in Total Net Pension Liability, there are changes in each employer's proportionate share of the total Net Pension Liability (NPL) during the measurement period ending on December 31, 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. The difference between the actual employer contributions and the proportionate share of the employer contributions during the measurement period ending on December 31, 2019 is recognized over the same periods. These amounts are shown on the following table, with the corresponding amounts for the measurement periods ending on December 31 beginning in 2014 shown on the following pages. While these amounts are different for each employer, they sum to zero over the entire OCERS.

Section 2: GASB 68 Information

Allocation of changes in total Net Pension Liability (continued)

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer Contributions for the Year Ended December 31, 2019

	Total Change to be Recognized	Recognition Period (Years)	2020	2021	2022	2023	2024	2025	Thereafter
Orange County	\$(5,692,697)	5.86	\$(971,449)	\$(971,449)	\$(971,449)	\$(971,449)	\$(971,449)	\$(835,452)	\$0
O.C. Cemetery District	0	5.86	0	0	0	0	0	0	0
O.C. Law Library	0	5.86	0	0	0	0	0	0	0
O.C. Vector Control District	0	5.86	0	0	0	0	0	0	0
O.C. Retirement System	2,634,131	5.86	449,510	449,510	449,510	449,510	449,510	386,581	0
O.C. Fire Authority	0	5.86	0	0	0	0	0	0	0
Cypress Recreation and Parks	0	5.86	0	0	0	0	0	0	0
Department of Education	0	5.86	0	0	0	0	0	0	0
Transportation Corridor Agency	0	5.86	0	0	0	0	0	0	0
City of San Juan Capistrano	(1,157,951)	5.86	(197,603)	(197,603)	(197,603)	(197,603)	(197,603)	(169,936)	0
O.C. Sanitation District	0	5.86	0	0	0	0	0	0	0
O.C. Transportation Authority	0	5.86	0	0	0	0	0	0	0
U.C.I.	0	5.86	0	0	0	0	0	0	0
O.C. Children and Families Comm.	(1,110,175)	5.86	(189,450)	(189,450)	(189,450)	(189,450)	(189,450)	(162,925)	0
Local Agency Formation Comm.	157,671	5.86	26,906	26,906	26,906	26,906	26,906	23,141	0
Rancho Santa Margarita	0	5.86	0	0	0	0	0	0	0
O.C. Superior Court	5,149,368	5.86	878,732	878,732	878,732	878,732	878,732	755,708	0
O.C. IHSS Public Authority	<u>19,653</u>	5.86	<u>3,354</u>	<u>3,354</u>	<u>3,354</u>	<u>3,354</u>	<u>3,354</u>	<u>2,883</u>	<u>0</u>
Total for all Employers	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0

Section 2: GASB 68 Information

Allocation of changes in total Net Pension Liability (continued)

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer Contributions for the Year Ended December 31, 2018

	Total Change to be Recognized	Recognition Period (Years)	2019	2020	2021	2022	2023	2024	Thereafter
Orange County	\$13,152,991	5.91	\$2,225,549	\$2,225,549	\$2,225,549	\$2,225,549	\$2,225,549	\$2,025,246	\$0
O.C. Cemetery District	0	5.91	0	0	0	0	0	0	0
O.C. Law Library	0	5.91	0	0	0	0	0	0	0
O.C. Vector Control District	0	5.91	0	0	0	0	0	0	0
O.C. Retirement System	2,177,730	5.91	368,482	368,482	368,482	368,482	368,482	335,320	0
O.C. Fire Authority	0	5.91	0	0	0	0	0	0	0
Cypress Recreation and Parks	0	5.91	0	0	0	0	0	0	0
Department of Education	0	5.91	0	0	0	0	0	0	0
Transportation Corridor Agency	0	5.91	0	0	0	0	0	0	0
City of San Juan Capistrano	(142,910)	5.91	(24,181)	(24,181)	(24,181)	(24,181)	(24,181)	(22,005)	0
O.C. Sanitation District	0	5.91	0	0	0	0	0	0	0
O.C. Transportation Authority	0	5.91	0	0	0	0	0	0	0
U.C.I.	0	5.91	0	0	0	0	0	0	0
O.C. Children and Families Comm.	(361,087)	5.91	(61,098)	(61,098)	(61,098)	(61,098)	(61,098)	(55,597)	0
Local Agency Formation Comm.	13,795	5.91	2,334	2,334	2,334	2,334	2,334	2,125	0
Rancho Santa Margarita	0	5.91	0	0	0	0	0	0	0
O.C. Superior Court	(14,826,827)	5.91	(2,508,769)	(2,508,769)	(2,508,769)	(2,508,769)	(2,508,769)	(2,282,982)	0
O.C. IHSS Public Authority	<u>(13,692)</u>	5.91	<u>(2,317)</u>	<u>(2,317)</u>	<u>(2,317)</u>	<u>(2,317)</u>	<u>(2,317)</u>	<u>(2,107)</u>	0
Total for all Employers	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0

Section 2: GASB 68 Information

Allocation of changes in total Net Pension Liability (continued)

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer Contributions for the Year Ended December 31, 2017

	Total Change to be Recognized	Recognition Period (Years)	2018	2019	2020	2021	2022	2023	Thereafter
Orange County	\$8,107,013	6.01	\$1,348,921	\$1,348,921	\$1,348,921	\$1,348,921	\$1,348,921	\$1,348,921	\$13,487
O.C. Cemetery District	0	6.01	0	0	0	0	0	0	0
O.C. Law Library	0	6.01	0	0	0	0	0	0	0
O.C. Vector Control District	0	6.01	0	0	0	0	0	0	0
O.C. Retirement System	49,770	6.01	8,281	8,281	8,281	8,281	8,281	8,281	84
O.C. Fire Authority	0	6.01	0	0	0	0	0	0	0
Cypress Recreation and Parks	0	6.01	0	0	0	0	0	0	0
Department of Education	0	6.01	0	0	0	0	0	0	0
Transportation Corridor Agency	0	6.01	0	0	0	0	0	0	0
City of San Juan Capistrano	1,675,195	6.01	278,735	278,735	278,735	278,735	278,735	278,735	2,785
O.C. Sanitation District	0	6.01	0	0	0	0	0	0	0
O.C. Transportation Authority	0	6.01	0	0	0	0	0	0	0
U.C.I.	0	6.01	0	0	0	0	0	0	0
O.C. Children and Families Comm.	(445,507)	6.01	(74,128)	(74,128)	(74,128)	(74,128)	(74,128)	(74,128)	(739)
Local Agency Formation Comm.	(51,088)	6.01	(8,500)	(8,500)	(8,500)	(8,500)	(8,500)	(8,500)	(88)
Rancho Santa Margarita	0	6.01	0	0	0	0	0	0	0
O.C. Superior Court	(9,400,312)	6.01	(1,564,112)	(1,564,112)	(1,564,112)	(1,564,112)	(1,564,112)	(1,564,112)	(15,640)
O.C. IHSS Public Authority	<u>64,929</u>	6.01	<u>10,803</u>	<u>10,803</u>	<u>10,803</u>	<u>10,803</u>	<u>10,803</u>	<u>10,803</u>	111
Total for all Employers	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0

Section 2: GASB 68 Information

Allocation of changes in total Net Pension Liability (continued)

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer Contributions for the Year Ended December 31, 2016

	Total Change to be Recognized	Recognition Period (Years)	2017	2018	2019	2020	2021	2022	Thereafter
Orange County	\$14,453,662	5.94	\$2,433,278	\$2,433,278	\$2,433,278	\$2,433,278	\$2,433,278	\$2,287,272	\$0
O.C. Cemetery District	0	5.94	0	0	0	0	0	0	0
O.C. Law Library	0	5.94	0	0	0	0	0	0	0
O.C. Vector Control District	0	5.94	0	0	0	0	0	0	0
O.C. Retirement System	(668,539)	5.94	(112,549)	(112,549)	(112,549)	(112,549)	(112,549)	(105,794)	0
O.C. Fire Authority	0	5.94	0	0	0	0	0	0	0
Department of Education	0	5.94	0	0	0	0	0	0	0
Transportation Corridor Agency	0	5.94	0	0	0	0	0	0	0
City of San Juan Capistrano	(1,754,991)	5.94	(295,453)	(295,453)	(295,453)	(295,453)	(295,453)	(277,726)	0
O.C. Sanitation District	0	5.94	0	0	0	0	0	0	0
O.C. Transportation Authority	0	5.94	0	0	0	0	0	0	0
U.C.I.	0	5.94	0	0	0	0	0	0	0
O.C. Children and Families Comm.	(598,916)	5.94	(100,828)	(100,828)	(100,828)	(100,828)	(100,828)	(94,776)	0
Local Agency Formation Comm.	306,180	5.94	51,545	51,545	51,545	51,545	51,545	48,455	0
Rancho Santa Margarita	0	5.94	0	0	0	0	0	0	0
O.C. Superior Court	(11,785,507)	5.94	(1,984,092)	(1,984,092)	(1,984,092)	(1,984,092)	(1,984,092)	(1,865,047)	0
O.C. IHSS Public Authority	<u>48,111</u>	5.94	<u>8,099</u>	<u>8,099</u>	<u>8,099</u>	<u>8,099</u>	<u>8,099</u>	<u>7,616</u>	<u>0</u>
Total for all Employers	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0

Section 2: GASB 68 Information

Allocation of changes in total Net Pension Liability (continued)

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer Contributions for the Year Ended December 31, 2015

	Total Change to be Recognized	Recognition Period (Years)	2016	2017	2018	2019	2020	2021	Thereafter
Orange County	\$2,736,401	6.06	\$451,552	\$451,552	\$451,552	\$451,552	\$451,552	\$451,552	\$27,089
O.C. Cemetery District	0	6.06	0	0	0	0	0	0	0
O.C. Law Library	(2,567,707)	6.06	(423,714)	(423,714)	(423,714)	(423,714)	(423,714)	(423,714)	(25,423)
O.C. Vector Control District	0	6.06	0	0	0	0	0	0	0
O.C. Retirement System	1,607,456	6.06	265,257	265,257	265,257	265,257	265,257	265,257	15,914
O.C. Fire Authority	0	6.06	0	0	0	0	0	0	0
Department of Education	0	6.06	0	0	0	0	0	0	0
Transportation Corridor Agency	0	6.06	0	0	0	0	0	0	0
City of San Juan Capistrano	(1,987,430)	6.06	(327,959)	(327,959)	(327,959)	(327,959)	(327,959)	(327,959)	(19,676)
O.C. Sanitation District	2,567,707	6.06	423,714	423,714	423,714	423,714	423,714	423,714	25,423
O.C. Transportation Authority	0	6.06	0	0	0	0	0	0	0
U.C.I.	0	6.06	0	0	0	0	0	0	0
O.C. Children and Families Comm.	(366,436)	6.06	(60,468)	(60,468)	(60,468)	(60,468)	(60,468)	(60,468)	(3,628)
Local Agency Formation Comm.	(296,484)	6.06	(48,925)	(48,925)	(48,925)	(48,925)	(48,925)	(48,925)	(2,934)
Rancho Santa Margarita	0	6.06	0	0	0	0	0	0	0
O.C. Superior Court	(1,805,959)	6.06	(298,013)	(298,013)	(298,013)	(298,013)	(298,013)	(298,013)	(17,881)
O.C. IHSS Public Authority	<u>112,452</u>	6.06	<u>18,556</u>	<u>18,556</u>	<u>18,556</u>	<u>18,556</u>	<u>18,556</u>	<u>18,556</u>	<u>1,116</u>
Total for all Employers	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0

Section 2: GASB 68 Information

Allocation of changes in total Net Pension Liability (continued)

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer Contributions for the Year Ended December 31, 2014

	Total Change to be Recognized	Recognition Period (Years)	2015	2016	2017	2018	2019	2020	Thereafter
Orange County	\$4,834,533	6.18	\$782,287	\$782,287	\$782,287	\$782,287	\$782,287	\$782,287	\$140,811
O.C. Cemetery District	0	6.18	0	0	0	0	0	0	0
O.C. Law Library	316,450	6.18	51,206	51,206	51,206	51,206	51,206	51,206	9,214
O.C. Vector Control District	0	6.18	0	0	0	0	0	0	0
O.C. Retirement System	1,077,481	6.18	174,350	174,350	174,350	174,350	174,350	174,350	31,381
O.C. Fire Authority	0	6.18	0	0	0	0	0	0	0
Department of Education	0	6.18	0	0	0	0	0	0	0
Transportation Corridor Agency	0	6.18	0	0	0	0	0	0	0
City of San Juan Capistrano	1,656,769	6.18	268,086	268,086	268,086	268,086	268,086	268,086	48,253
O.C. Sanitation District	(316,450)	6.18	(51,206)	(51,206)	(51,206)	(51,206)	(51,206)	(51,206)	(9,214)
O.C. Transportation Authority	0	6.18	0	0	0	0	0	0	0
U.C.I.	0	6.18	0	0	0	0	0	0	0
O.C. Children and Families Comm.	(332,329)	6.18	(53,775)	(53,775)	(53,775)	(53,775)	(53,775)	(53,775)	(9,679)
Local Agency Formation Comm.	215,036	6.18	34,795	34,795	34,795	34,795	34,795	34,795	6,266
Rancho Santa Margarita	0	6.18	0	0	0	0	0	0	0
O.C. Superior Court	(7,470,106)	6.18	(1,208,755)	(1,208,755)	(1,208,755)	(1,208,755)	(1,208,755)	(1,208,755)	(217,576)
O.C. IHSS Public Authority	<u>18,616</u>	6.18	<u>3,012</u>	<u>3,012</u>	<u>3,012</u>	<u>3,012</u>	<u>3,012</u>	<u>3,012</u>	<u>544</u>
Total for all Employers	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0

Section 3: Actuarial Assumptions and Methods and Appendices

Actuarial assumptions and methods

For December 31, 2019 Measurement Date and Employer Reporting as of June 30, 2020

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 January 1, 2014 through December 31, 2016 Actuarial Experience Study dated August 14, 2017 and PowerPoint presentation dated October 16, 2017. 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.
Member Contribution Crediting Rate:	5.00%, compounded semi-annually.
Consumer Price Index:	Increase of 2.75% per year, retiree COLA increases due to CPI subject to a 3.0% maximum change per year.
Payroll Growth:	Inflation of 2.75% per year plus “across the board” real salary increases of 0.50% per year.
Increase in Section 7522.10 Compensation Limit:	Increase of 2.75% per year from the valuation date.

Section 3: Actuarial Assumptions and Methods and Appendices

Salary increases:

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

Annual Rate of Compensation Increase Rate (%)

Years of Service	General	Safety
Less than 1	9.00	14.00
1 – 2	7.25	10.00
2 – 3	6.00	7.75
3 – 4	5.00	6.00
4 – 5	4.00	5.50
5 – 6	3.50	4.50
6 – 7	2.50	3.75
7 – 8	2.25	3.25
8 – 9	1.75	2.50
9 – 10	1.50	2.25
10 – 11	1.50	1.75
11 – 12	1.50	1.75
12 – 13	1.50	1.75
13 – 14	1.50	1.75
14 – 15	1.50	1.75
15 – 16	1.50	1.75
16 – 17	1.00	1.50
17 – 18	1.00	1.50
18 – 19	1.00	1.50
19 – 20	1.00	1.50
20 & Over	1.00	1.50

In addition to the individual salary increase assumptions, we have applied an average of two hours of additional salary annually for leap-year salary adjustment.

Section 3: Actuarial Assumptions and Methods and Appendices

Demographic assumptions

Post — retirement mortality rates

Healthy

- **For General Members and All Beneficiaries:** Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table, projected generationally with the two-dimensional MP-2016 projection scale.
- **For Safety Members:** Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table, projected generationally with the two-dimensional MP-2016 projection scale, setback four years.

Disabled

- **For General Members:** Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table, projected generationally with the two-dimensional MP-2016 projection scale, set forward five years,
- **For Safety Members:** Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table, projected generationally with the two-dimensional MP-2016 projection scale.

The RP-2014 mortality tables and adjustments as shown above reflect the mortality experience as of the measurement date. The generational projection is a provision for future mortality improvement.

Mortality rates — member contribution rates

- **For General Members:** Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table (separate tables for males and females), projected 20 years with the two-dimensional mortality improvement scale MP-2016, weighted 40% male and 60% female.
- **For Safety Members:** Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table (separate tables for males and females), projected 20 years with the two-dimensional mortality improvement scale MP-2016, setback four years, weighted 80% male and 20% female.

Section 3: Actuarial Assumptions and Methods and Appendices

Mortality rates — optional forms of benefits

- **For General Service Retirees:** Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table (separate tables for males and females), projected 20 years with the two-dimensional mortality improvement scale MP-2016, weighted 40% male and 60% female.
- **For Safety Service Retirees:** Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table (separate tables for males and females), projected 20 years with the two-dimensional mortality improvement scale MP-2016, setback four years, weighted 80% male and 20% female.
- **For General Disabled Retirees:** Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table (separate tables for males and females), projected 20 years with the two-dimensional mortality improvement scale MP-2016, set forward five years, weighted 40% male and 60% female.
- **For Safety Disabled Retirees:** Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table (separate tables for males and females), projected 20 years with the two-dimensional mortality improvement scale MP-2016, weighted 80% male and 20% female.
- **For General Beneficiaries:** Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table (separate tables for males and females), projected 20 years with the two-dimensional mortality improvement scale MP-2016, weighted 60% male and 40% female.
- **For Safety Beneficiaries:** Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table (separate tables for males and females), projected 20 years with the two-dimensional mortality improvement scale MP-2016, weighted 20% male and 80% female.

Pre-retirement mortality rates

- **For General and Safety Members:** Headcount-Weighted RP-2014 Employee Mortality Table times 80%, projected generationally with the two-dimensional MP-2016 projection scale.

Section 3: Actuarial Assumptions and Methods and Appendices

Termination rates before retirement

Mortality (General and Safety) *Rate (%)*

Age	Male	Female
25	0.05	0.02
30	0.05	0.02
35	0.05	0.03
40	0.06	0.04
45	0.10	0.07
50	0.17	0.11
55	0.27	0.17
60	0.45	0.24
65	0.78	0.36
70	1.27	0.59

Note that generational projections beyond the base year (2014) are not reflected in the above mortality rates.

All General pre-retirement deaths are assumed to be non-service connected. For Safety, 90% of pre-retirement deaths are assumed to be non-service connected. The other 10% are assumed to be service connected.

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Disability Rate (%)

Age	General All Other ¹	General OCTA ²	Safety — Law & Fire ³	Safety — Probation ⁴
20	0.00	0.00	0.00	0.00
25	0.00	0.00	0.01	0.03
30	0.01	0.03	0.04	0.08
35	0.03	0.20	0.14	0.10
40	0.08	0.36	0.23	0.13
45	0.13	0.43	0.40	0.21
50	0.18	0.48	1.10	0.28
55	0.23	0.65	2.40	0.42
60	0.31	1.26	4.80	0.20

¹ 60% of General All Other disabilities are assumed to be service connected disabilities. The other 40% are assumed to be non-service connected.

² 65% of General OCTA disabilities are assumed to be service connected disabilities. The other 35% are assumed to be non-service connected.

³ 100% of Safety Law Enforcement and Fire disabilities are assumed to be service connected disabilities.

⁴ 75% of Safety Probation disabilities are assumed to be service connected disabilities. The other 25% are assumed to be non-service connected.

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Termination Rate (%)

Years of Service	General All Other	General OCTA	Safety — Law & Fire	Safety — Probation
Less than 1	11.00	17.50	4.50	14.00
1 – 2	7.50	11.00	2.50	13.00
2 – 3	6.50	9.00	2.00	10.00
3 – 4	5.00	8.50	1.50	5.00
4 – 5	4.50	7.50	1.25	4.00
5 – 6	4.25	7.00	1.00	3.50
6 – 7	3.75	4.50	0.95	2.75
7 – 8	3.25	4.00	0.90	2.00
8 – 9	3.00	3.50	0.85	2.00
9 – 10	2.75	3.00	0.80	1.75
10 – 11	2.50	3.00	0.75	1.75
11 – 12	2.00	3.00	0.65	1.50
12 – 13	2.00	3.00	0.60	1.25
13 – 14	1.75	2.50	0.55	1.00
14 – 15	1.50	2.50	0.50	0.75
15 – 16	1.40	2.50	0.45	0.75
16 – 17	1.30	2.00	0.40	0.75
17 – 18	1.20	1.80	0.35	0.25
18 – 19	1.10	1.60	0.30	0.25
19 – 20	1.00	1.40	0.25	0.25
20 & Over	0.90	1.20	0.20	0.25

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Election for Withdrawal of Contributions

Rate (%)

Age	General All Other	General OCTA	Safety — Law & Fire	Safety — Probation
0 – 4	35.0	40.0	20.0	25.0
5 – 9	30.0	35.0	20.0	25.0
10 – 14	25.0	30.0	20.0	25.0
15 & Over	20.0	20.0	20.0	25.0

Section 3: Actuarial Assumptions and Methods and Appendices

Retirement Rates

Rate (%)

Age	General — Enhanced	General — Non-Enhanced ¹	General — SJC (31676.12)	Safety — Law (31664.1) ²	Safety — Law (31664.2) ²	Safety — Fire (31664.1)	Safety — Fire (31664.2)	Safety — Probation ²
48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
49	30.00	25.00	0.00	12.00	0.00	2.00	0.00	0.00
50	2.50	2.00	3.00	18.00	11.50	5.00	8.00	3.25
51	2.00	2.00	3.00	18.00	12.00	7.00	10.00	3.25
52	2.50	2.00	3.00	17.00	12.70	9.50	11.00	4.25
53	2.50	2.75	3.00	17.00	17.90	10.50	12.00	4.25
54	5.50	2.75	3.00	22.00	18.80	15.00	14.00	7.00
55	15.00	3.25	4.00	22.00	30.70	18.00	24.00	12.00
56	10.00	3.50	5.00	20.00	20.00	20.00	23.00	12.00
57	10.00	5.50	6.00	20.00	20.00	21.00	27.00	18.00
58	11.00	5.50	7.00	20.00	25.00	28.00	27.00	18.00
59	11.00	6.50	9.00	26.00	30.00	28.00	36.00	18.00
60	12.00	9.25	11.00	35.00	40.00	30.00	40.00	20.00
61	12.00	12.00	13.00	35.00	40.00	30.00	40.00	20.00
62	14.00	16.00	15.00	40.00	40.00	35.00	40.00	25.00
63	16.00	16.00	15.00	40.00	40.00	35.00	40.00	40.00
64	16.00	18.00	20.00	40.00	40.00	35.00	40.00	40.00
65	22.00	22.00	20.00	100.00	100.00	100.00	100.00	100.00
66	22.00	28.00	24.00	100.00	100.00	100.00	100.00	100.00
67	23.00	24.00	24.00	100.00	100.00	100.00	100.00	100.00
68	23.00	24.00	24.00	100.00	100.00	100.00	100.00	100.00
69	23.00	20.00	24.00	100.00	100.00	100.00	100.00	100.00
70	25.00	20.00	50.00	100.00	100.00	100.00	100.00	100.00
71	25.00	25.00	50.00	100.00	100.00	100.00	100.00	100.00
72	25.00	25.00	50.00	100.00	100.00	100.00	100.00	100.00
73	25.00	25.00	50.00	100.00	100.00	100.00	100.00	100.00
74	25.00	25.00	50.00	100.00	100.00	100.00	100.00	100.00
75	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

¹ These assumptions are also used for the CalPEPRA 1.62% @ 65 formula (Plan T and Plan W).

² Retirement rate is 100% after a member accrues a benefit of 100% of final average earnings.

Section 3: Actuarial Assumptions and Methods and Appendices

Retirement Rates

Rate (%)

Age	CalPEPRA 2.5% @ 67 General Formula	CalPEPRA Safety Formula — Probation ¹	CalPEPRA Safety Formula — Law ¹	CalPEPRA Safety Formula — Fire
50	0.00	2.50	11.00	6.00
51	0.00	2.50	11.50	7.00
52	4.00	3.00	12.00	9.00
53	1.50	3.00	16.00	10.00
54	1.50	5.50	17.00	11.50
55	2.50	10.00	28.00	21.00
56	3.50	10.00	18.00	20.00
57	5.50	15.00	17.50	22.00
58	7.50	20.00	22.00	25.00
59	7.50	20.00	26.00	30.00
60	7.50	40.00	40.00	40.00
61	7.50	40.00	40.00	40.00
62	14.00	40.00	40.00	40.00
63	14.00	40.00	40.00	40.00
64	14.00	40.00	40.00	40.00
65	18.00	100.00	100.00	100.00
66	22.00	100.00	100.00	100.00
67	23.00	100.00	100.00	100.00
68	23.00	100.00	100.00	100.00
69	23.00	100.00	100.00	100.00
70	25.00	100.00	100.00	100.00
71	25.00	100.00	100.00	100.00
72	25.00	100.00	100.00	100.00
73	25.00	100.00	100.00	100.00
74	25.00	100.00	100.00	100.00
75	100.00	100.00	100.00	100.00

¹ Retirement rate is 100% after a member accrues a benefit of 100% of final average earnings.

Section 3: Actuarial Assumptions and Methods and Appendices

Retirement Age and Benefit for Deferred Vested Members:

General Retirement Age: 59
Safety Retirement Age: 53

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.

15% of future General and 25% of future Safety deferred vested members are assumed to continue to work for a reciprocal employer. For reciprocals, 4.25% and 4.75% compensation increases are assumed per annum for General and Safety, respectively.

Liability Calculation for Current Deferred Vested Members:

Liability for a current deferred vested member is calculated based on salary (adjusted with the additional cashout assumptions for non-CalPEPRA members), service, and eligibility for reciprocal benefit as provided by the Retirement System. For those members without salary information that have 3 or more years of service, we used an average salary. For those members without salary information that have less than 3 years of service or for those members without service information, we assumed a refund of account balance.

Future Benefit Accruals:

1.0 year of service per year of employment. There is no assumption to anticipate conversion of unused sick leave at retirement.

Unknown Data for Members:

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

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

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 3 years older than the member.

Section 3: Actuarial Assumptions and Methods and Appendices

Terminal Pay Assumptions:

Non-CalPEPRA Formulas

Additional compensation amounts are expected to be received during a member's final average earnings period. The percentages used in this valuation are:

	<u>Final One Year Salary</u>	<u>Final Three Year Salary</u>
General Members	3.00%	2.80%
Safety - Probation	3.80%	3.40%
Safety - Law	5.20%	4.60%
Safety - Fire	2.00%	1.70%

The terminal pay assumptions are the same for service and disability retirements.

CalPEPRA Formulas

None

Actuarial Methods

Actuarial Cost Method:

Entry Age Actuarial Cost Method. Entry Age is the current age minus Vesting Credit. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are based on costs allocated as a level percentage of compensation, as if the current benefit formula for each individual has always been in effect (i.e., "replacement life within a tier").

Please note that for Probation members who have prior benefit service in another General OCERS plan, the normal cost rate for the current plan is calculated assuming their Entry Age is the date they entered service with their current plan.

Expected Remaining Service Lives:

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

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

Changes in Actuarial Assumptions and Methods:

None.

Section 3: Actuarial Assumptions and Methods and Appendices

Appendix A: Projection of Plan's Fiduciary Net Position for Use in the Calculation of Discount Rate as of December 31, 2019 (\$ in millions)

Year Beginning January 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)
2019	\$14,482	\$933	\$901	\$19	\$2,184	\$16,679
2020	16,679	976	971	22	1,167	17,829
2021	17,829	972	1,031	24	1,245	18,992
2022	18,992	969	1,094	25	1,324	20,167
2023	20,167	974	1,159	27	1,404	21,359
2024	21,359	958	1,227	28	1,485	22,547
2025	22,547	964	1,296	30	1,566	23,752
2026	23,752	972	1,368	31	1,648	24,972
2027	24,972	979	1,441	33	1,731	26,208
2028	26,208	987	1,516	35	1,815	27,460
2044	37,085	191	2,721	49	2,507	37,014
2045	37,014	181	2,773	49	2,500	36,873
2046	36,873	170	2,820	49	2,488	36,663
2047	36,663	160	2,862	49	2,472	36,384
2048	36,384	153	2,894	48	2,451	36,045
2093	23,410	48	252	31	1,631	24,805
2094	24,805	48	209	33	1,730	26,342
2095	26,342	49	171	35	1,839	28,023
2096	28,023	49	138	37	1,957	29,855
2097	29,855	50	110	40	2,086	31,843
2133	337,557	447	0 **	447	23,629	361,186
2134	361,186					
2134 Discounted Value:	161 ***					

* Of all the projected total contributions, only the first year's (i.e., 2019) contribution has been reduced by discount for prepaid contributions and transfers from County Investment Account, if any.

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

*** \$361,186 million when discounted with interest at the rate of 7.00% per annum has a value of \$161 million as of December 31, 2019. Of this amount, about \$150 million is the balance available in the County Investment Account and \$12 million is the O.C. Sanitation District UAAL Deferred Account as of December 31, 2019.

Note: We have not utilized the balance in the County Investment Account to reduce the projected total contributions in column (b) even though those amounts have been used to reduce the NPL for the County as of December 31, 2019.

Section 3: Actuarial Assumptions and Methods and Appendices

Notes:

- (1) Amounts may not total exactly due to rounding.
- (2) Amounts shown in the year beginning January 1, 2019 row are actual amounts, based on the financial statements provided by OCERS.
- (3) Years 2029-2043, 2049-2092, and 2098-2132 have been omitted from this table.
- (4) Column (a): Except for the "discounted value" shown for 2134, all of the projected beginning Plan's Fiduciary Net Position amounts shown have not been adjusted for the time value of money.
- (5) Column (b): Projected total contributions include member and employer normal cost rates applied to closed group projected payroll (based on covered active members as of December 31, 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 December 31, 2018. The projected benefit payments reflect the cost of living increase assumptions used in the December 31, 2019 valuation report. The 2019 benefit payments have been increased by the balance of the Medicare Insurance Reserve as of December 31, 2019.
- (7) Column (d): Projected administrative expenses are calculated as approximately 0.13% of the projected beginning Plan's Fiduciary Net Position amount. The 0.13% portion was based on the actual calendar year 2019 administrative expenses (unaudited) as a percentage of the actual beginning Plan's Fiduciary Net Position as of January 1, 2019. Administrative expenses are assumed to occur halfway through the year, on average.
- (8) Column (e): Projected investment earnings are based on the assumed investment rate of return of 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 December 31, 2019 shown earlier in this report, pursuant to paragraph 44 of GASB Statement No. 67.

Section 3: Actuarial Assumptions and Methods and Appendices

Appendix B: Schedule of Pension Amounts by Employer as of December 31, 2019

Deferred Outflows of Resources	Orange County	O.C. Cemetery District	O.C. Law Library	O.C. Vector Control District	O.C. Retirement System
• Differences Between Expected and Actual Experience	\$13,982,779	\$103,588	\$43,407	\$170,770	\$0
• Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	587,160,184	556,607	580,153	1,491,917	3,773,899
• Changes of Assumptions	322,870,826	244,428	214,778	435,411	2,018,023
• Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>18,170,596</u>	<u>0</u>	<u>9,214</u>	<u>0</u>	<u>3,962,866</u>
• Total Deferred Outflows of Resources	\$942,184,385	\$904,623	\$847,552	\$2,098,098	\$9,754,788
Deferred Inflows of Resources					
• Differences Between Expected and Actual Experience	\$206,914,979	\$582,255	\$409,176	\$1,511,789	\$1,273,114
• Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	997,095,584	911,694	921,702	2,404,780	6,362,377
• Changes of Assumptions	6,642,961	5,895	30,514	0	62,731
• Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>4,789,699</u>	<u>0</u>	<u>449,137</u>	<u>0</u>	<u>218,343</u>
• Total Deferred Inflows of Resources	\$1,215,443,223	\$1,499,844	\$1,810,529	\$3,916,569	\$7,916,565
Net Pension Liability as of December 31, 2018	\$4,918,576,912	\$962,119	\$573,252	\$2,492,695	\$28,844,760
Net Pension Liability as of December 31, 2019	\$4,124,212,240	\$(228,119)	\$(74,515)	\$(625,500)	\$26,824,264
Pension Expense Excluding That Attributable to Employer-Paid Member Contributions					
• Proportionate Share of Allocable Plan Pension Expense	\$449,535,284	\$127,197	\$232,335	\$(351,264)	\$2,317,279
• Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>6,270,138</u>	<u>0</u>	<u>(372,508)</u>	<u>0</u>	<u>1,153,331</u>
• Total Employer Pension Expense Excluding That Attributable to Employer-Paid Member Contributions	\$455,805,422	\$127,197	\$(140,173)	\$(351,264)	\$3,470,610

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Deferred Outflows of Resources	O.C. Fire Authority	Cypress Recreation and Parks	Department of Education	Transportation Corridor Agency	City of San Juan Capistrano
• Differences Between Expected and Actual Experience	\$24,478,887	\$2,252,572	\$380,618	\$615,484	\$0
• Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	85,355,117	211,982	540,022	1,872,077	3,684,941
• Changes of Assumptions	29,267,911	70,336	177,787	880,388	1,970,455
• Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>887,243</u>
• Total Deferred Outflows of Resources	\$139,101,915	\$2,534,890	\$1,098,427	\$3,367,949	\$6,542,639
Deferred Inflows of Resources					
• Differences Between Expected and Actual Experience	\$38,937,675	\$0	\$678,741	\$940,190	\$1,243,105
• Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	144,282,784	1,844,790	858,174	3,760,486	6,212,405
• Changes of Assumptions	130,986	0	10,085	28,116	61,252
• Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1,975,710</u>
• Total Deferred Inflows of Resources	\$183,351,445	\$1,844,790	\$1,547,000	\$4,728,792	\$9,492,472
Net Pension Liability as of December 31, 2018	\$466,731,526	\$408,781	\$3,517,372	\$13,253,632	\$32,142,058
Net Pension Liability as of December 31, 2019	\$354,395,457	\$262,415	\$3,099,339	\$(1,753,164)	\$26,191,970
• Pension Expense Excluding That Attributable to Employer-Paid Member Contributions					
• Proportionate Share of Allocable Plan Pension Expense	\$67,124,196	\$4,345	\$271,328	\$1,376,160	\$2,262,657
• Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>(298,375)</u>
• Total Employer Pension Expense Excluding That Attributable to Employer-Paid Member Contributions	\$67,124,196	\$4,345	\$271,328	\$1,376,160	\$1,964,282

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Deferred Outflows of Resources	O.C. Sanitation District	O.C. Transportation Authority	U.C.I.	O.C. Children and Families Comm.	Local Agency Formation Comm.
• Differences Between Expected and Actual Experience	\$9,606,499	\$2,331,117	\$1,790,493	\$0	\$0
• Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	39,421,678	39,326,279	4,449,052	(90,952)	209,577
• Changes of Assumptions	12,311,067	21,920,909	1,425,191	(48,635)	112,068
• Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>449,137</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>246,158</u>
• Total Deferred Outflows of Resources	\$61,788,381	\$63,578,305	\$7,664,736	\$(139,587)	\$567,803
Deferred Inflows of Resources					
• Differences Between Expected and Actual Experience	\$5,416,832	\$21,768,391	\$2,432,087	\$(30,682)	\$70,700
• Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	64,842,567	66,279,519	7,119,985	(153,335)	353,324
• Changes of Assumptions	372,978	595,454	79,608	(1,512)	3,484
• Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>9,214</u>	<u>0</u>	<u>0</u>	<u>1,652,118</u>	<u>77,447</u>
• Total Deferred Inflows of Resources	\$70,641,591	\$88,643,364	\$9,631,680	\$1,466,589	\$504,955
Net Pension Liability as of December 31, 2018	\$29,029,145	\$269,788,642	\$34,808,679	\$630,610	\$1,582,703
Net Pension Liability as of December 31, 2019	\$(49,446,617)	\$224,284,548	\$30,213,739	\$(646,472)	\$1,489,642
• Pension Expense Excluding That Attributable to Employer-Paid Member Contributions					
• Proportionate Share of Allocable Plan Pension Expense	\$10,009,584	\$26,336,223	\$2,168,623	\$(55,847)	\$128,686
• Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>372,508</u>	<u>0</u>	<u>0</u>	<u>(539,747)</u>	<u>58,155</u>
• Total Employer Pension Expense Excluding That Attributable to Employer-Paid Member Contributions	\$10,382,092	\$26,336,223	\$2,168,623	\$(595,594)	\$186,841

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Deferred Outflows of Resources	Rancho Santa Margarita	O.C. Superior Court	O.C. IHSS Public Authority	Total for all Employers
• Differences Between Expected and Actual Experience	\$1,242	\$0	\$0	\$55,757,456
• Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	3,008	47,379,540	243,386	816,168,467
• Changes of Assumptions	480	25,335,345	173,542	419,380,310
• Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>0</u>	<u>4,270,636</u>	<u>84,750</u>	<u>28,080,600</u>
• Total Deferred Outflows of Resources	\$4,730	\$76,985,521	\$501,678	\$1,319,386,833
Deferred Inflows of Resources				
• Differences Between Expected and Actual Experience	\$5,388	\$15,983,355	\$237,210	\$298,374,305
• Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	5,535	79,876,681	396,090	1,383,375,142
• Changes of Assumptions	29	787,559	3,713	8,813,853
• Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>0</u>	<u>18,899,874</u>	<u>9,058</u>	<u>28,080,600</u>
• Total Deferred Inflows of Resources	\$10,952	\$115,547,469	\$646,071	\$1,718,643,900
Net Pension Liability as of December 31, 2018	\$1,284	\$392,760,910	\$1,097,009	\$6,197,202,089
Net Pension Liability as of December 31, 2019	\$(2,214)	\$336,766,149	\$719,301	\$5,075,682,463
Pension Expense Excluding That Attributable to Employer-Paid Member Contributions				
• Proportionate Share of Allocable Plan Pension Expense	\$(95)	\$29,092,356	\$169,172	\$590,748,219
• Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>0</u>	<u>(6,685,009)</u>	<u>41,507</u>	<u>0</u>
• Total Employer Pension Expense Excluding That Attributable to Employer-Paid Member Contributions	\$(95)	\$22,407,347	\$210,679	\$590,748,219

Section 3: Actuarial Assumptions and Methods and Appendices

Notes:

Amounts shown in this Appendix were allocated by employer based on the Employer Allocation Percentage calculated in the Schedule of Determination of Proportionate Share in this report.

In determining the pension expense:

- Any differences between projected and actual investment earnings on pension plan investments are recognized over a period of five years beginning with the year in which they occur.
- Current-period (i.e., 2019) differences between expected and actual experience and changes of assumptions are recognized over the average of the expected remaining service lives of all employees that are provided with pensions through OCERS determined as of December 31, 2018 (the beginning of the measurement period ending December 31, 2019) and is 5.86
- Prior-period differences between expected and actual experience and changes of assumptions 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 remaining service lives of all employees was determined by:

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

There was a decrease in the total employer pension expense from \$783.7 million calculated last year to \$590.7 million calculated this year. The primary cause of the decrease was due to an investment gain of \$1.2 billion with \$234.2 million being recognized in this year's expense.

Note: Results may not total due to rounding.

Section 3: Actuarial Assumptions and Methods and Appendices

Appendix C: Definition of Terms

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.
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.

Section 3: Actuarial Assumptions and Methods and Appendices

Cost-of-Living Adjustments	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
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 of members that are provided with pensions through the pension plan.
Defined Benefit Pension Plans	Pension plans that are used to provide defined benefit pensions.
Defined Benefit Pensions	Pensions for which the income or other benefits that the employee will receive at or after separation from employment are defined by the benefit terms. The pensions may be stated as a specified dollar amount or as an amount that is calculated based on one or more factors such as age, years of service, and compensation. (A pension that does not meet the criteria of a defined contribution pension is classified as a defined benefit pension for purposes of Statement 68.)
Defined Contribution Pension Plans	Pension plans that are used to provide defined contribution pensions.
Defined Contribution Pensions	Pensions having terms that (1) provide an individual account for each employee; (2) define the contributions that an employer is required to make (or the credits that it is required to provide) to an active employee's account for periods in which that employee renders service; and (3) provide that the pensions an employee will receive will depend only on the contributions (or credits) to the employee's account, actual earnings on investments of those contributions (or credits), and the effects of forfeitures of contributions (or credits) made for other employees, as well as pension plan administrative costs, that are allocated to the employee's account.
Discount Rate	<p>The single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the total of the following:</p> <ol style="list-style-type: none"> 1. The actuarial present value of benefit payments projected to be made in future periods in which (a) the amount of the pension Plan's Fiduciary Net Position is projected (under the requirements of Statement 67) to be greater than the benefit payments that are projected to be made in that period and (b) pension plan assets up to that point are expected to be invested using a strategy to achieve the long-term expected rate of return, calculated using the long-term expected rate of return on pension plan investments. 2. The actuarial present value of projected benefit payments not included in (1), calculated using the municipal bond rate.
Entry Age Actuarial Cost Method	A method under which the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age(s). The portion of this actuarial present value allocated to a valuation year is called the <i>normal cost</i> . The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is called the <i>actuarial accrued liability</i> .

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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.
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.
Projected Benefit Payments	All benefits estimated to be payable through the pension plan to current active and inactive employees as a result of their past service and their expected future service.
Public Employee Retirement System	A special-purpose government that administers one or more pension plans; also may administer other types of employee benefit plans, including postemployment healthcare plans and deferred compensation plans.
Real Rate of Return	The rate of return on an investment after adjustment to eliminate inflation.
Service Costs	The portions of the actuarial present value of projected benefit payments that are attributed to valuation years.
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 68.

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