

**ORANGE COUNTY EMPLOYEES RETIREMENT SYSTEM  
2223 E. WELLINGTON AVENUE, SUITE 100  
SANTA ANA, CALIFORNIA**

**AUDIT COMMITTEE MEETING  
June 4, 2021  
1:30 P.M.**

**Members of the Committee**

Frank Eley, Chair  
Shari Freidenrich, Vice Chair  
Charles Packard  
Jeremy Vallone

**Pursuant to Executive Order N-29-20, certain provisions of the Brown Act are suspended due to a State of Emergency in response to the COVID-19 pandemic. Consistent with the Executive Order, this meeting will be conducted by video/teleconference only. None of the locations from which the Committee members will participate will be open to the public.**

**Members of the public who wish to observe and/or participate in the meeting may do so via the Zoom app or via telephone. Members of the public who wish to provide comment during the meeting may do so by “raising your hand” in the Zoom app, or if joining by telephone, by pressing \* 9 on your telephone keypad.**

<b>OCERS Zoom Video/Teleconference information</b>	
<p><b>Join Using Zoom App (Video &amp; Audio)</b></p> <p><a href="https://ocers.zoom.us/j/94838357922">https://ocers.zoom.us/j/94838357922</a></p> <p><b>Meeting ID: 948 3835 7922</b> <b>Password: 603224</b></p> <p>Go to <a href="https://www.zoom.us/download">https://www.zoom.us/download</a> to download Zoom app before meeting Go to <a href="https://zoom.us">https://zoom.us</a> to connect online using any browser.</p>	<p><b>Join by Telephone (Audio Only)</b></p> <p>Dial by your location</p> <ul style="list-style-type: none"> <li>+1 669 900 6833 US (San Jose)</li> <li>+1 253 215 8782 US (Tacoma)</li> <li>+1 346 248 7799 US (Houston)</li> <li>+1 929 436 2866 US (New York)</li> <li>+1 301 715 8592 US (Germantown)</li> <li>+1 312 626 6799 US (Chicago)</li> </ul> <p><b>Meeting ID: 948 3835 7922</b> <b>Password: 603224</b></p>
<p>A <a href="#">Zoom Meeting Participant Guide</a> is available on OCERS website <a href="#">Board &amp; Committee meetings page</a></p>	

**AGENDA**

This agenda contains a brief general description of each item to be considered. The Committee may take action on any item included in the agenda; however, except as otherwise provided by law, no action shall be taken on any item not appearing on the agenda. The Committee may consider matters included on the agenda in any order, and not necessarily in the order listed.

**CALL MEETING TO ORDER AND ROLL CALL**

**PUBLIC COMMENT**

At this time, members of the public may comment on (1) matters not included on the agenda, provided that the matter is within the subject matter jurisdiction of the Committee; and (2) any matter appearing

on the Consent Agenda. Members of the public who wish to provide comment at this time may do so by “raising your hand” in the Zoom app, or if joining by telephone, by pressing \* 9 on your telephone keypad. When addressing the Committee, please state your name for the record prior to providing your comments. Speakers will be limited to three (3) minutes.

In addition, public comment on matters listed on this agenda will be taken at the time the item is addressed.

### **CONSENT AGENDA**

#### **C-1 APPROVE AUDIT COMMITTEE MEETING MINUTES**

Audit Committee Meeting Minutes

March 22, 2021

#### **C-2 REQUEST FOR PROPOSAL – FINANCIAL AUDITOR**

**Recommendation:** Staff requests the Audit Committee approve the distribution of a Request for Proposal (RFP) to initiate a search for a financial auditor.

### **ACTION ITEMS**

**NOTE:** Public comment on matters listed in this agenda will be taken at the time the item is addressed, prior to the Committee’s discussion of the item. **Members of the public who wish to provide comment in connection with any matter listed in this agenda may do so by “raising your hand” in the Zoom app, or if joining by telephone, by pressing \*9, at the time the item is called.**

#### **A-1 INDIVIDUAL ACTION ON ANY ITEM TRAILED FROM THE CONSENT AGENDA**

#### **A-2 2020 FINANCIAL STATEMENT AUDIT**

*Presentation by David Bullock and Craig Harner, Macias Gini & O’Connell*

#### **Recommendations:**

1. Approve OCERS’ audited financial statements for the year ended December 31, 2020;
2. Direct staff to finalize OCERS’ 2020 Comprehensive Annual Financial Report;
3. Approve the Governmental Accounting Standards Board (GASB) Statement 67 Actuarial Valuation as of December 31, 2020; and
4. Receive and file Macias, Gini & O’Connell LLP’s (MGO) “OCERS’ Report to the Audit Committee for the Year Ended December 31, 2020” and its “Independent Auditor’s Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*.”

#### **A-3 GASB 68 VALUATION AND AUDIT REPORT**

*Presentation by Brenda Shott, Assistant CEO of Internal Operations*

**Recommendations:**

1. Approve OCERS' audited Schedule of Allocated Pension Amounts by Employer as of and for the Year Ended December 31, 2020; and
2. Approve the Governmental Accounting Standards Board (GASB) Statement 68 Actuarial Valuation as of December 31, 2020 for distribution to employers.

**A-4 CONTINUOUS AUDIT OF FINAL AVERAGE SALARY CALCULATIONS (Q2 2021)**

*Presentation by David Kim, Director of Internal Audit*

**Recommendation:** Receive and file

**CLOSED SESSION**

**E-1 THREAT TO PUBLIC SERVICES OR FACILITIES (GOVERNMENT CODE SECTION 54957)**

Adjourn into Closed Session pursuant to Government Code section 54957 to consult with *Steve Delaney, CEO, Brenda Shott, Asst. CEO; Matthew Eakin, Director of Information Security; Jenny Sadoski, Director of Information Technology; Jon Gossard, Information Security Manager; and Gina M. Ratto, General Counsel*

**Recommendation:** Take appropriate action.

**\*\*\*\*\* END OF CLOSED SESSION AGENDA \*\*\*\*\***

**INFORMATION ITEMS**

**I-1 OPERATIONAL RISK MANAGEMENT ANNUAL REPORT**

*Presentation by Brenda Shott, Assistant CEO of Internal Operations*

**I-2 STATUS UPDATE OF 2021 AUDIT PLAN**

*Written Report*

**I-3 MANAGEMENT ACTION PLAN VERIFICATION**

*Written Report*

**COMMITTEE MEMBER COMMENTS**

**CHIEF EXECUTIVE OFFICER/STAFF COMMENTS**

**COUNSEL COMMENTS**

**ADJOURNMENT**

**NOTICE OF NEXT MEETINGS**

**PERSONNEL COMMITTEE MEETING**

**June 9, 2021  
10:00 A.M.**

**ORANGE COUNTY EMPLOYEES RETIREMENT SYSTEM  
2223 E. WELLINGTON AVENUE, SUITE 100  
SANTA ANA, CA 92701**

**GOVERNANCE COMMITTEE MEETING**

**June 10, 2021  
2:00 P.M.**

**ORANGE COUNTY EMPLOYEES RETIREMENT SYSTEM  
2223 E. WELLINGTON AVENUE, SUITE 100  
SANTA ANA, CA 92701**

**DISABILITY COMMITTEE MEETING**

**June 21, 2021  
8:30 A.M.**

**ORANGE COUNTY EMPLOYEES RETIREMENT SYSTEM  
2223 E. WELLINGTON AVENUE, SUITE 100  
SANTA ANA, CA 92701**

*AVAILABILITY OF AGENDA MATERIALS - Documents and other materials that are non-exempt public records distributed to all or a majority of the members of the OCERS Board or Committee of the Board in connection with a matter subject to discussion or consideration at an open meeting of the Board or Committee of the Board are available at the OCERS' website: <https://www.ocers.org/board-committee-meetings>. If such materials are distributed to members of the Board or Committee of the Board less than 72 hours prior to the meeting, they will be made available on the OCERS' website at the same time as they are distributed to the Board or Committee members. Non-exempt materials distributed during an open meeting of the Board or Committee of the Board will be made available on the OCERS' website as soon as practicable and will be available promptly upon request.*

It is OCERS' intention to comply with the Americans with Disabilities Act ("ADA") in all respects. If, as an attendee or participant at this meeting, you will need any special assistance beyond that normally provided, OCERS will attempt to accommodate your needs in a reasonable manner. Please contact OCERS via email at [adminsupport@ocers.org](mailto:adminsupport@ocers.org) or call 714-558-6200 as soon as possible prior to the meeting to tell us about your needs and to determine if accommodation is feasible. We would appreciate at least 48 hours' notice, if possible. Please also advise us if you plan to attend meetings on a regular basis.

**ORANGE COUNTY EMPLOYEES RETIREMENT SYSTEM  
2223 E. WELLINGTON AVENUE, SUITE 100  
SANTA ANA, CALIFORNIA**

**AUDIT COMMITTEE MEETING  
March 22, 2021  
9:00 a.m.**

**MINUTES**

**OPEN SESSION**

The Chair called the meeting to order at 9:02am.

Attendance was as follows:

Present via Zoom Video conference pursuant to Executive Order N-29-20 issued by Governor Newsom on March 17, 2020:

Frank Eley, Chair; Shari Freidenrich, Vice Chair; Charles Packard; Jeremy Vallone

Also Present via Zoom:

David Kim, Director of Internal Audit; Steve Delaney, Chief Executive Officer; Gina Ratto, General Counsel; Suzanne Jenike, Assistant CEO, External Operations; Brenda Shott, Assistant CEO, Internal Operations; Jenny Sadoski, Director of Information Technology; Mark Adviento, Internal Auditor; Sonal Sharma-Beeson, Recording Secretary; Anthony Beltran, Audio Visual Technician.

**PUBLIC COMMENT**

None.

**C-1 APPROVE AUDIT COMMITTEE MEETING MINUTES**

Audit Committee Meeting Minutes

January 25, 2021

**MOTION** was made by Packard, **seconded** by Freidenrich to approve the minutes.

The motion passed **unanimously**.

**I-1 2020 FINANCIAL STATEMENT AUDIT – ENTRANCE CONFERENCE**

*Presentation by David Bullock and Craig Harner, Macias Gini & O'Connell*

*The Committee recessed into Closed Session at 9:43am.*

*The Committee resumed at 10:47am.*

Audit Committee Meeting  
March 22, 2021

**E-1 THREAT TO PUBLIC SERVICES OR FACILITIES (GOVERNMENT CODE SECTION 54957)**

Adjourn into Closed Session pursuant to Government Code section 54957 to consult with *Steve Delaney, CEO, Brenda Shott, Asst. CEO; Matthew Eakin, Director of Information Security; Jenny Sadoski, Director of Information Technology; Jon Gossard, Information Security Manager; and Gina M. Ratto, General Counsel*

**Recommendation:** Take appropriate action.

The Audit Committee took no reportable action.

*The Committee took a break at 10:47am.*

*The Committee resumed at 11:04am.*

**A-2 AUDIT OF ORANGE COUNTY CEMETERY DISTRICT PAYROLL TRANSMITTALS**

*Presentation by David Kim, Director of Internal Audit and Mark Adviento, Internal Auditor*

**Recommendation:** Receive and file.

**MOTION** was made by Packard, **seconded** by Freidenrich to approve staff recommendation.

The motion passed **unanimously.**

**A-3 AUDIT OF ORANGE COUNTY SHERIFF'S DEPARTMENT PAYROLL TRANSMITTALS**

*Presentation by David Kim, Director of Internal Audit*

**Recommendation:** Receive and file.

**MOTION** was made by Packard, **seconded** by Freidenrich to approve staff recommendation.

The motion passed **unanimously.**

**A-4 CONTINUOUS AUDIT OF FINAL AVERAGE SALARY CALCULATIONS (Q3/Q4 2020)**

*Presentation by David Kim, Director of Internal Audit*

**Recommendation:** Receive and file

**MOTION** was made by Packard, **seconded** by Vallone to approve staff recommendation.

The motion passed **unanimously.**

**A-5 MEMBER SERVICES MANGEMENT QUALITY ASSURANCE REVIEW (Q1/Q2 2020)**

*Presentation by Suzanne Jenike, Assistant CEO of External Operations and Jeff Lamberson, Director of Member Services*

**Recommendation:** Receive and file

Audit Committee Meeting  
March 22, 2021

**MOTION** was made by Packard, **seconded** by Vallone to approve staff recommendation.

The motion passed **unanimously**.

**INFORMATION ITEMS**

**I-2 STATUS UPDATE OF 2021 AUDIT PLAN**

*Written Report*

**I-3 MANAGEMENT ACTION PLAN VERIFICATION**

*Written Report*

**COMMITTEE MEMBER COMMENTS**

**CHIEF EXECUTIVE OFFICER/STAFF COMMENTS**

**COUNSEL COMMENTS**

**ADJOURNMENT**

The Chair adjourned the meeting at 12:31 am.

Submitted by:

Approved by:

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Steve Delaney  
Secretary to the Board

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Frank Eley  
Chair



## Memorandum

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**DATE:** June 4, 2021  
**TO:** Members of the Audit Committee  
**FROM:** Brenda Shott, Assistant CEO, Finance and Internal Operations  
**SUBJECT: REQUEST FOR PROPOSAL – FINANCIAL AUDITOR**

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### Recommendation

Staff requests the Audit Committee approve distribution of a Request for Proposal (RFP) to initiate a search for a financial auditor.

### Background/Discussion

The Audit Committee Charter states that the Audit Committee’s key areas of responsibility includes the oversight of the External Auditors, including conducting the solicitation for the financial auditor, approving the RFPs or other solicitation vehicle, reviewing candidate qualifications and conducting interviews, and recommend one or more finalists to the Board for appointment. In addition, the Board of Retirement Charter and the Procurement and Contracting Policy (Policy) calls for the Board to approve, upon the recommendation of the CEO and the pertinent committee(s), the appointment of Named Service Providers. The policy also calls for a request for proposal to be conducted every six years for Named Service Providers.

Financial auditor is designated as a “Named Service Provider” in the Policy. Under the Policy, all contracts with Named Service Providers are required to be for an initial term of three years, and may be extended by the Board for up to three additional years, for a total maximum term of six years. Prior to the expiration of the final extension of the contract, a competitive search and selection process for the Named Service Provider must be conducted. OCERS last released an RFP for a financial auditor in October 2015. The RFP resulted in the selection by the Board of Macias Gini & O’Connell, LLP (MGO), who had previously served as OCERS financial auditor since July 2010. OCERS entered into a contract with MGO to provide financial auditing services for the plan years ending 2015 through 2019, with an option to extend for the year ended December 31, 2020. MGO will have completed its final contract year for auditing OCERS annual financial statements with the approval of OCERS audited financial statements for the year ended December 31, 2020 at the June 21, 2021 Board meeting.

If the Audit Committee approves distribution of an RFP for a financial auditor, staff is prepared to finalize the attached draft RFP and release at the end of July, with the proposed schedule on the following page:



## Memorandum

Deliverable	Date	Time
Release of RFP	Friday, July 23, 2021	5:00 pm, PT
RFP Questions Deadline	Friday, August 6, 2021	5:00 pm, PT
RFP Answers Posted	Friday, August 20, 2021	5:00 pm, PT
RFP Submission Deadline	Friday, September 3, 2021	5:00 pm, PT
OCERS Review of RFP Submissions	September 2021 (estimated)	
Selection of Finalists	October 2021 (estimated)	
Interviews of Finalists by Audit Committee	To be determined	
Service Award [or recommendation to the Board]	To be determined	

In accordance with the Policy, Staff proposes to review and evaluate all timely proposals that meet the minimum qualifications set forth in the RFP based on the following evaluation criteria:

1. Experience and reputation of the respondent.
2. Quality of the team proposed to provide services to OCERS, including staffing depth, experience, and turnover.
3. Pricing and value.
4. The organization, completeness, and quality of the proposal.
5. Information provided by references.
6. Other factors OCERS determines to be relevant.

Based on staff's evaluation of the proposals, staff will recommend at least two finalists to the Audit Committee. The Audit Committee will interview the finalists and recommend to the Board the finalist to be awarded the contract.

### Submitted by:

Tracy Bowman  
Director of Finance

### Approved by:

Brenda Shott  
Assistant CEO, Finance and Internal Operations

# Financial Auditor Services

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## Request for Proposal

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July 2021

**Orange County Employees Retirement System (OCERS)**  
2223 E Wellington Avenue Suite 100  
Santa Ana, CA 92701 USA  
1-(714)-558-6200  
<http://www.ocers.org>

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## Section 1: Introduction

The Orange County Employees Retirement System (“OCERS”) is requesting proposals from qualified firms interested in providing financial auditor services and performing the annual audit of OCERS financial statements in accordance with accounting principles generally accepted in the United States of America.

Those who wish to be considered must submit their completed proposal by **5:00 p.m., PT, Friday, September 3, 2021**. Specific instructions for proposal submissions are contained in Section 7 of this RFP.

Questions about this RFP must be submitted in writing by **5:00 pm, PT, Friday, August 6, 2021** to Jim Doezie, Contracts, Risk & Performance Administrator, by email at [jdoezie@ocers.org](mailto:jdoezie@ocers.org).

## Section 2: Background

OCERS was established in 1945 under the provisions of the County Employees Retirement Law of 1937, and provides members with retirement, disability, death, and cost-of-living benefits. There are approximately 48,000 members served by OCERS, of which over 19,000 are retirees. OCERS is governed by a nine-member Board of Retirement (“Board”) which has plenary authority and fiduciary responsibility for investment of moneys and administration of the retirement system. OCERS has over ninety employees and the Board appoints a Chief Executive Officer who is responsible for the management of the agency. For additional information about OCERS, please refer to the OCERS website at [ocers.org](http://ocers.org).

## Section 3: Scope of Services

The detailed scope of services for this engagement is outlined in the attached Exhibit “B” (“Scope of Services”). The primary objectives are to provide OCERS with financial auditor services to provide a full range of professional auditing services necessary to complete requirements related to the annual audit of OCERS financial statements in accordance with accounting principles generally accepted in the United States of America, as well as an audit of schedules related to GASB Statement No. 68, *Accounting and Financial Reporting for Pensions – an Amendment of GASB Statement 27*, with the objective of expressing an opinion about whether these schedules are presented fairly, in all material respects, in accordance with accounting principles generally accepted in the United States of America.

The firm selected for this engagement will be expected to meet requirements that include, but are not limited to, the following:

1. The firm must have all necessary permits and licenses to perform the requested services and must be bonded where applicable.
2. Minimum insurance coverage must include the following items, and proof of such insurance must be provided to OCERS prior to the commencement of work, on an annual basis, and upon request:
  - Commercial General Liability: \$2M per occurrence, \$2M aggregate
  - Automobile Liability: \$1M per occurrence, \$2M aggregate
  - Workers Compensation: \$1M per occurrence, \$1M aggregate
  - Umbrella Liability: \$8M per occurrence, \$8M aggregate
  - *Professional Liability*: \$2M per occurrence, \$3M aggregate

OCERS must be listed as an additional insured on the above policies.

3. The firm shall provide all personnel, equipment, tools, materials, vehicles, supervision, and other items and services necessary to perform all services, tasks, and functions as requested in this RFP.
4. The initial term of the contract awarded pursuant to this RFP will be for a **three year** period, with OCERS retaining the option to renew the contract, on an annual basis, for up to an additional three (3) years.
5. All work under the contract awarded shall be performed and all equipment furnished or installed in accordance with applicable safety codes, ordinances, and other regulations, including the regulations of the State of California, Division of Industrial Safety and the provisions of the California Labor Code, the Occupational Safety and Health Act of 1970, the California Occupational Health and Safety Act.
6. Minimum Qualifications  
All respondents are required to sign and return the "Minimum Qualifications Certification," attached as Exhibit "B".

## Section 4: General Conditions

All terms, conditions, requirements, and procedures included in this RFP must be met for a proposal to be qualified. A proposal that fails to meet any material term, condition, requirement, or procedure of this RFP may be disqualified. OCERS reserves the right to waive or permit cure of non-material errors or omissions. OCERS reserves the right to modify, amend, or cancel the terms of this RFP at any time.

OCERS may modify this RFP prior to the date fixed for submission of a proposal by posting, mailing, emailing or faxing an addendum to the respondents known to be interested in submitting a proposal. Failure of a respondent to receive or acknowledge receipt of any addendum shall not relieve the respondent of the responsibility for complying with the terms thereof.

A respondent's proposal shall constitute an irrevocable offer for the 120 days following the deadline for submission of proposals. Reference to a certain number of days in this RFP shall mean business days unless otherwise specified.

All proposals submitted in response to this RFP will become the exclusive property of OCERS. Proposals will not be returned to respondents.

By submitting a proposal, the respondent acknowledges that it has read this RFP, understands it, and agrees to be bound by its requirements unless clearly and specifically noted in the proposal submitted.

## Section 5: Point of Contact

A quiet period will be in effect from the date of issuance of this RFP until announcement of the selection of a firm or firms under this RFP. During the quiet period, respondents are not permitted to communicate with any OCERS staff member or Board Member regarding this RFP except through the Point of Contact named herein.

Respondents violating this quiet period may be disqualified at OCERS' discretion. Respondents having current business with OCERS must limit their communications to the subject of such business.

OCERS' normal business hours of operations are from 08:00 to 17:00 Monday through Friday, except for federal and state holidays.

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**The Point of Contact for all matters relating to this RFP is:**

<b>Name:</b>	Jim Doezie
<b>Title:</b>	Contracts, Risk & Performance Administrator
<b>Address:</b>	OCERS 2223 E Wellington Ave., Suite 100 Santa Ana, CA 92701
<b>Telephone:</b>	(714) 569-4884
<b>Email:</b>	<a href="mailto:jdoezie@ocers.org">jdoezie@ocers.org</a>
<b>OCERS Website:</b>	<a href="http://www.OCERS.org">www.OCERS.org</a>
<b>Status:</b>	See the OCERS website for status of the RFP and announcements. These items can also be found here: <a href="http://www.ocers.org/rfp/requestforproposal.htm">http://www.ocers.org/rfp/requestforproposal.htm</a>

## Section 6: Response to Request for Proposal

Proposals must be submitted to the Point of Contact identified in Section 5 and delivered by the due date and time stated below in the RFP Schedule.

OCERS will accept electronic, paper, or both types of submissions. Proposals may be submitted electronically in Microsoft Word or Adobe Acrobat PDF format to the email address noted in Section 5. Submission may also be made by mailing a USB flash drive with the electronic files, or a paper copy to the mailing address noted in Section 5. If paper copies are submitted, two (2) copies must be submitted.

### RFP Schedule

The following timetable constitutes a tentative schedule for this RFP process. OCERS reserves the right to modify this schedule at any time.

Deliverable	Date	Time
Release of RFP	Friday, July 23, 2021	5:00 pm, PT
RFP Questions Deadline	Friday, August 6, 2021	5:00 pm, PT

<b>RFP Answers Posted</b>	Friday, August 20, 2021	5:00 pm, PT
<b>RFP Submission Deadline</b>	Friday, September 3, 2021	5:00 pm, PT
<b>OCERS Review of RFP Submissions</b>	September 2021 (estimated)	
<b>Selection of Finalists</b>	October 2021 (estimated)	
<b>Interviews of Finalists</b>	To be determined	
<b>Service Award [or recommendation to the Board]</b>	To be determined	

## Section 7: Proposal Requirements

Proposals must include the following information:

1. The "Minimum Qualifications Certification," attached as Exhibit "B."
2. The "Proposal Cover Page and Check List," attached as Exhibit "C."
3. An executive summary that provides the respondent's background, experience, and other qualifications to provide the services included in the Scope of Services (Exhibit "A").
4. A description of the respondent including:
  - a. Brief history, including year the respondent firm was formed.
  - b. Ownership structure.
  - c. Office locations.
  - d. Organization chart.
  - e. Number of employees.
  - f. Annual revenues.
  - g. Scope of services offered.
  - h. Respondent's specialties, strengths, and limitations.
  - i. The average retention rate (years of service) of the firm's other clients
5. The names and qualifications of fully trained and qualified staff that will be assigned to OCERS work, including a detailed profile of each person's background, relevant individual experience, including governmental auditing experiences, and indicate whether each person is licensed to practice as a certified public accountant in California.
6. Provide the firm's policy regarding the rotation of partners on financial statement audits.
7. Indicate how the quality of staff over the term of the agreement will be assured.
8. Provide information about the firm's technical resources and participation in state and national accounting and auditing industry groups.

9. At least three (3) references for which the respondent has provided services similar to those included in the Scope of Services. Please include for each reference the individual point of contact, a summary of the work performed, and the length of time the respondent provided each service.
10. Copies of any pertinent licenses required to deliver respondent's product or service (e.g., business license).
11. A copy of respondent's standard professional services contract.
12. An explanation of the pricing proposal for the scope of work including pricing of fees and costs, billing practices, and payment terms that would apply. The costs associated with the GASB 68 audit work should be included as a separate line item in the fee proposal. OCERS does not place any limits on the approach to pricing and is open to presentation of more than one pricing alternative for the scope of work, or portions of it. The respondent should represent that the pricing offered to OCERS is, and will remain, equivalent to or better than that provided to other public pension fund or government clients, or should provide an explanation as to why this representation cannot be provided. All pricing proposals should be "best and final," although OCERS reserves the right to negotiate on pricing.
13. The proposal should set forth a work plan, including an explanation of the audit methodology to be followed, to perform the services described in the Scope of Services (Exhibit "A"). Proposers will be required to provide the following information on their audit approach:
  - a. Proposed segmentation of the engagement
  - b. Level of staff and number of hours to be assigned to each proposed segment of the engagement
  - c. Type and extent of sampling techniques to be used in the engagement
14. Identification of Anticipated Potential Audit Problems
  - a. The proposal should identify and describe any anticipated potential audit problems, the firm's approach to resolving these problems, and any special assistance that will be requested from OCERS' staff.
15. The proposal should include sample formats for required reports.
16. An explanation of all actual or potential conflicts of interest that the respondent may have in contracting with OCERS.
17. A description of all past, pending, or threatened litigation, including malpractice claims, administrative, state ethics, disciplinary proceedings, and other claims against respondent and/or any of the individuals proposed to provide services to OCERS.
18. Any other information that the respondent deems relevant to OCERS' selection process.

## Section 8: Evaluation Criteria

Responses will be evaluated based upon the following:

1. Experience and reputation of the respondent.
2. Quality of the team proposed to provide services to OCERS, including staffing depth, experience, and turnover.
3. Pricing and value.
4. The organization, completeness, and quality of the proposal.

5. Information provided by references.
6. Other factors OCERS determines to be relevant.

The factors will be considered as a whole, without a specific weighting.

OCERS may require one or more interviews with or personal presentations by finalists to be conducted with staff, Audit Committee, and/or the entire Board of Retirement.

If the information in the proposal is deemed to be insufficient for evaluation, OCERS may request additional information or reject the proposal outright at OCERS' sole discretion. False, incomplete, or unresponsive statements in connection with a proposal may result in rejection of the proposal.

## **Section 9: Non-Discrimination Requirement**

By submitting a proposal, the respondent represents that it and its subsidiaries do not and will not discriminate against any employee or applicant for employment on the basis of race, religion, color, national origin, ethnic group identification, mental disability, physical disability, medical condition, genetic information, marital status, ancestry, sex, gender, sexual orientation, gender identity, gender expression, age, or military and veteran status.

## **Section 10: Notice Regarding the California Public Records Act and the Brown Act**

The information submitted in response to this RFP will be subject to public disclosure pursuant to the California Public Records Act (California Government Code Section 6250, et. seq., the "Act"). The Act provides generally that all records relating to a public agency's business are open to public inspection and copying unless specifically exempted under one of several exemptions set forth in the Act. If a respondent believes any portion of its proposal is exempt from public disclosure or discussion under the Act, the respondent must provide a full explanation and mark such portion "TRADE SECRETS," "CONFIDENTIAL," or "PROPRIETARY," and make it readily separable from the balance of the response. Proposals marked "TRADE SECRETS," "CONFIDENTIAL," or "PROPRIETARY" in their entirety will not be honored, and OCERS will not deny public disclosure of all or any portion of proposals so marked.

By submitting a proposal with material marked "TRADE SECRETS," "CONFIDENTIAL," or "PROPRIETARY," a respondent represents it has a good faith belief that the material is exempt from disclosure under the Act; however, such designations will not necessarily be conclusive, and a respondent may be required to justify in writing why such material should not be disclosed by OCERS under the Act. Fee and pricing proposals are not considered "TRADE SECRET," "CONFIDENTIAL," or "PROPRIETARY".

If OCERS receives a request pursuant to the Act for materials that a respondent has marked “TRADE SECRET,” “CONFIDENTIAL,” or “PROPRIETARY,” and if OCERS agrees that the material requested is not subject to disclosure under the Act, OCERS will either notify the respondent so that it can seek a protective order at its own cost and expense, or OCERS will deny disclosure of those materials. OCERS will not be held liable, however, for inadvertent disclosure of such materials, data, and information or for disclosure of such materials if deemed appropriate in OCERS’ sole discretion. OCERS retains the right to disclose all information provided by a respondent.

If OCERS denies public disclosure of any materials designated as “TRADE SECRETS,” “CONFIDENTIAL,” or “PROPRIETARY”, the respondent agrees to reimburse OCERS for, and to indemnify, defend and hold harmless OCERS, its Boards, officers, fiduciaries, employees, and agents from and against:

1. Any and all claims, damages, losses, liabilities, suits, judgments, fines, penalties, costs, and expenses, including, without limitation, attorneys’ fees, expenses, and court costs of any nature whatsoever (collectively, “Claims”) arising from or relating to OCERS’ non-disclosure of any such designated portions of a proposal; and
2. Any and all Claims arising from or relating to OCERS’ public disclosure of any such designated portions of a proposal if OCERS determines disclosure is required by law, or if disclosure is ordered by a court of competent jurisdiction.

## **Section 11: Contract Negotiations**

OCERS will propose a contract to the successful respondent, which will contain such terms as OCERS, in its sole discretion, may require. In addition, the selected firm will agree that this RFP and the firm’s proposal will be incorporated by reference into any resulting contract.

This RFP is not an offer to contract. Acceptance of a proposal neither commits OCERS to award a contract to any respondent, nor does it limit OCERS’ right to negotiate the terms of a contract in OCERS’ best interest, including the addition of terms not mentioned in this RFP. The final contract must, among other terms and conditions required by OCERS, allow OCERS to terminate the contract a) for OCERS’ convenience, b) if funds are not appropriated for the services to be provided, or c) for default.

By submitting a proposal without comment on the OCERS Services Agreement, respondent will be deemed to have agreed to each term in the OCERS Services Agreement, and to not seek any modifications to it. If respondent objects to any term in the OCERS Services Agreement or wishes to modify or add terms to the OCERS Services Agreement, the proposal must identify each objection and propose language for each modification and additional term sought. A rationale should be included for each objection, modification, or addition.

## **Section 12: Reservations by OCERS**

In addition to the other provisions of this RFP, OCERS reserves the right to:

1. Cancel or modify this RFP, in whole or in part, at any time.

2. Make such investigation as it deems necessary to determine the respondent's ability to furnish the required services, and the respondent agrees to furnish all such information for this purpose as OCERS may request.
3. Reject the proposal of any respondent who is not currently in a position to perform the contract, or who has previously failed to perform similar contracts properly, or in a timely manner, or for any other reason in OCERS' sole discretion.
4. Waive irregularities, to negotiate in any manner necessary to best serve the public interest, and to make a whole award, multiple awards, a partial award, or no award.
5. Award a contract, if at all, to the firm which will provide the best match to the requirements of the RFP and the service needs of OCERS in OCERS' sole discretion, which may not be the proposal offering the lowest fees.
6. Request additional documentation or information from respondents, which may vary by respondent. OCERS may ask questions of any respondent to seek clarification of a proposal or to ensure the respondent understands the scope of the work or other terms of the RFP.
7. Reject any or all proposals submitted in response to this RFP.
8. Choose to not enter into an agreement with any of the respondents to this RFP or negotiate for the services described in this RFP with a party that did not submit a proposal.
9. Determine the extent, without limitation, to which the services of a successful respondent are or are not actually utilized.
10. Defer selection of a bidder to a time of OCERS' choosing.
11. Consider information about a respondent other than, and in addition to, that submitted by the respondent.

**Exhibit A**  
**Scope of Services**

A. General

OCERS is soliciting the services of qualified firms of certified public accountants to audit its financial statements for a three year term commencing with the year ending December 31, 2021 and continuing for the next two years ending December 31, 2022 and December 31, 2023. OCERS shall have the right, at its sole option, to renew the contract, on an annual basis, for up to an additional three (3) years.

OCERS is a cost-sharing multiple-employer, defined benefit pension plan consisting of the following participating employers:

City of San Juan Capistrano  
County of Orange  
Orange County Cemetery District  
Orange County Children & Families Commission  
Orange County Employees Retirement System  
Orange County Fire Authority  
Orange County In-Home Supportive Services Public Authority  
Orange County Local Agency Formation Commission  
Orange County Public Law Library  
Orange County Sanitation District  
Orange County Transportation Authority  
Superior Court of California, County of Orange  
Transportation Corridor Agencies

Orange County Department of Education, UCI Medical Center, Capistrano Beach Sanitary District, Cypress Recreation & Parks District, Orange County Vector Control District and the City of Rancho Santa Margarita are no longer active employers, but retired members and their beneficiaries, as well as deferred members, remain in the System.

Plan retirement benefits are tiered based upon date of OCERS membership. Tier I members who were hired prior to September 21, 1979 use their highest twelve months of earnings to determine their retirement allowance. Tier II members hired on or after September 21, 1979 use their highest thirty-six months of earnings to determine their retirement allowance.

Rate Groups are a collection of members who are or were employed by employers that offer similar pension benefit formula(s). Rate Groups exist for the purpose of risk-pooling. The contribution rates developed by the actuary for each Rate Group should, in the long-term, fairly and accurately reflect the benefit plan offered/promised to members in each group. Rate Groups are determined by employer, bargaining unit and benefit plan. For more information about OCERS Rate Group and the various benefit plans offered please refer to the OCERS Comprehensive Annual Financial Report (Annual Report) at <https://www.ocers.org/financial-reports>.

In addition to the above mentioned defined benefit plan, OCERS serves as trustee for the County of Orange (County) and Orange County Fire Authority (OCFA) postemployment health care plan trusts established under Internal Revenue Code section 401(h) which are reported as other postemployment benefit trust funds in OCERS' financial statements. These funds are commingled with pension trust assets for investment purposes and used exclusively to pay health allowances to eligible retired members of the County and OCFA. The trust funds are financed by employer contributions from the County and the OCFA. The County and OCFA have financial reporting responsibility of the retiree medical plans, including financial statement disclosures and required supplementary information regarding the retiree medical plans funded status and contributions, in accordance with GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other than Pension Plans*.

OCERS also provides investment advisory services to the Orange County Transportation Authority Health Care Plan pursuant to an agreement established in accordance with Internal Revenue Code section 115. Investments in this plan are not commingled with those of the pension plan and 401(h) plan trusts, but rather are invested in separately managed index funds and recorded as a Custodial Fund in OCERS' financial statements under the financial reporting provisions of GASB Statement No. 84, *Fiduciary Activities*.

**B. Scope of Audit**

The selected independent auditor will be required to perform the audit with the objective of expressing an opinion about whether OCERS' financial statements are fairly represented, in all material aspects, in conformity with auditing standards generally accepted in the United States of America and all applicable federal and state laws, regulations and rules. In conjunction with the financial statement audit, the auditor will be required to perform an audit of schedules related to GASB Statement No. 68, *Accounting and Financial Reporting for Pensions – an Amendment of GASB Statement No.27 (GASB 68)*, with the objective of expressing an opinion about whether these schedules are presented fairly, in all material respects, in accordance with accounting principles generally accepted in the United States.

As part of the audit engagement, the auditor will be required to present a report on the fair presentation of the financial statements and separately the GASB 68 schedules to the OCERS' Audit Committee and, if necessary, to the full Board of Retirement. The auditor will also be expected to communicate findings of any significant deficiencies and material weaknesses in internal controls in a written report to the Audit Committee. The minimum number of meetings the auditor will be expected to attend includes two Audit Committee meetings and one Board of Retirement meeting. The auditor may be requested to attend additional meetings if needed.

**C. Auditing Standards to be Followed**

To meet the requirements of this request for proposal, the audit shall be performed in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States and the provisions contained within this request for proposal. The auditor will utilize all applicable components of these standards in auditing, preparing and reporting on the financial statements of OCERS.

**D. Working Paper Retention**

All working papers and reports must be retained at the auditor's expense for a minimum of five (5) years, unless the firm is notified by OCERS of the need to extend the retention period. The auditor will

be required to make working papers available to OCERS upon request. In addition, the firm shall respond to the reasonable inquiries of successor auditors and allow successor auditors to review working papers relating to matters of continuing accounting significance.

E. Irregularities and Illegal Acts

Auditors shall be required to make an immediate, written report of all irregularities and illegal acts or indications of illegal acts of which they become aware to the OCERS' Audit Committee.

F. Special Considerations

OCERS participates in the GFOA's Certificate of Achievement for Excellence in Financial Reporting program. The auditor will review OCERS' Annual Report for compliance with the program. OCERS may also require additional services or advice to ensure new Government Accounting Standards Board (GASB) reporting requirements are properly applied.

G. Staff Availability

OCERS accounting and finance personnel will be available to the audit team. Staff will prepare reports and documents as requested by the audit team on a timely basis. OCERS prepared schedules and reports will include, but are not limited to, the following:

1. Preliminary Trial Balance and Financial Statements
2. Reconciled subsidiary ledgers and accounts
3. Bank Reconciliations
4. Confirmations
5. Analytical review
6. Note Disclosures

H. Work Area

OCERS will provide the audit team with a functional work area with necessary equipment and read-only access to the relevant systems' applications.

I. Report Preparation

The preparation and detail review of the Annual Report will be completed by the finance staff. OCERS intends to engage a graphic design firm to produce the Annual Report which will be printed and digitally published.

**Exhibit B**  
**MINIMUM QUALIFICATIONS CERTIFICATION**

All firms submitting a proposal in response to this RFP are required to sign and return this attachment, along with written evidence of how the respondent meets each qualification.

The undersigned hereby certifies that it fulfills the minimum qualifications outlined below, as well as the requirements contained in the RFP.

Minimum Qualifications include:

1. The firm should have at least five (5) years prior experience in auditing governmental agencies and/or public pension funds.
2. The Engagement Partner must be licensed to practice in the State of California as a certified public accountant, and must demonstrate a strong knowledge of governmental accounting and auditing requirements based on prior experience leading audits of governmental agencies, or large pension or retirement systems with at least \$1 billion in plan net assets.
3. The firm should be licensed to practice in the state of California and be in good standing with the state.

**The undersigned hereby certifies that they are an individual authorized to bind the Firm contractually, and said signature authorizes verification of this information.**

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name and Title (please print)

\_\_\_\_\_  
Name of Firm

**Exhibit C**

**PROPOSAL COVER PAGE AND CHECK LIST (TO BE SUBMITTED IN FIRM'S LETTERHEAD)**

Respondent Name:

Respondent Address:

***By submitting this response, the undersigned hereby affirms and represents that they have reviewed the proposal requirements and have submitted a complete and accurate response to the best of their knowledge. By signing below, I hereby affirm that the respondent has reviewed the entire RFP and intends to comply with all requirements.***

Respondent specifically acknowledges the following:

1. Respondent possesses the required technical expertise and has sufficient capacity to provide the services outlined in the RFP.
2. Respondent has no unresolved questions regarding the RFP and believes that there are no ambiguities in the scope of services.
3. The fee schedule submitted in response to the RFP is for the entire scope of services and no extra charges or expenses will be paid by OCERS.
4. Respondent has completely disclosed to OCERS all facts bearing upon any possible interests, direct or indirect, that Respondent believes any member of OCERS, or other officer, agent, or employee of OCERS presently has, or will have, in this contract, or in the performance thereof, or in any portion of the profits thereunder.
5. Materials contained in the proposal and all correspondence and written questions submitted during the RFP process are subject to disclosure pursuant to the California Public Records Act.
6. Respondent is not currently under investigation by any state or federal regulatory agency for any reason.
7. Except as specifically noted in the proposal, respondent agrees to all of the terms and conditions included in OCERS Services Agreement.
8. The signatory below is authorized to bind the respondent contractually.



## Memorandum

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**DATE:** June 4, 2021

**TO:** Audit Committee Members

**FROM:** Brenda Shott, Assistant CEO, Finance and Internal Operations; Tracy Bowman, Director of Finance

**SUBJECT:** 2020 FINANCIAL STATEMENT AUDIT

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### Recommendation

Recommend to the Board of Retirement the following:

1. Approve OCERS' audited financial statements for the year ended December 31, 2020
2. Direct staff to finalize OCERS' 2020 Comprehensive Annual Financial Report (Annual Report)
3. Approve the Governmental Accounting Standards Board (GASB) Statement 67 Actuarial Valuation as of December 31, 2020
4. Receive and file Macias, Gini & O'Connell LLP's (MGO) "OCERS' Report to the Audit Committee for the Year Ended December 31, 2020" and their "Independent Auditor's Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*."

### Background/Discussion

The attached draft of OCERS' 2020 Annual Report, including the audited financial statements and related notes for the year ended December 31, 2020, is considered to be in substantially final form and includes a draft of the unmodified (clean) audit opinion from MGO, OCERS' independent auditors. MGO will issue the signed audit opinion after presenting the draft financial statements to the Audit Committee. The audited financial statements and related notes are included in the Financial Section of OCERS' 2020 Annual Report.

The attached Governmental Accounting Standards Board (GASB) Statement 67 Actuarial Valuation as of December 31, 2020 is used for reporting purposes and is separate and distinct from the funding actuarial valuation. This valuation contains necessary information and schedules that have been incorporated into OCERS' 2020 Annual Report in compliance with GASB Statement No. 67, *Financial Reporting for Pension Plans*.

As part of the normal course of an annual financial statement audit, MGO has issued a draft of their "Report to the Audit Committee" that includes the required communications of the independent auditors, comments and recommendations based on their 2020 audit of OCERS, and the status of prior year comments and recommendations reported to the Audit Committee related to their 2019 audit of OCERS (which there were none). MGO has also issued a draft "Independent Auditor's Report on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements, Performed in Accordance with *Government Auditing Standards*."

MGO will be present at the Audit Committee Meeting on June 4, 2021. They will provide the Committee with a verbal report on their audit. A draft of the 2020 Annual Report in substantially final form will be presented to the Board at its regularly scheduled Board meeting on June 21, 2021. The final signed audit reports and the Annual Report will be distributed to the Board once finalized.



## Memorandum

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California's Government Code Section 7504 requires all state and local retirement agencies, including OCERS, to submit annual financial information to the State Controller within six months of the end of the fiscal year end. The State Controller's Office (SCO) has an automated system to allow retirement systems to provide the prescribed report containing specific financial and plan information to the SCO (this report is referred to as the State Controller's Report). In addition to the State Controller's Report, OCERS is also required to submit the annual audited financial statements and the most current funding actuarial valuation. Once the Board approves the financial statements for the year ended December 31, 2020, staff will file a timely submission of the State Controller's Report and submit OCERS' 2020 Annual Report and the Actuarial Valuation (for funding purposes) as of December 31, 2019 by the deadline of June 30, 2021.

**Submitted by:**

A handwritten signature in black ink, appearing to be "T. Bowman", written over a horizontal line.

Tracy Bowman  
Director of Finance

**Approved by:**

A handwritten signature in black ink, appearing to be "Brenda M. Shott", written over a horizontal line.

Brenda Shott  
Asst. CEO, Finance & Internal Operations

2011



# **2020 Audited Financial Statements**

Presented on June 4, 2021

by

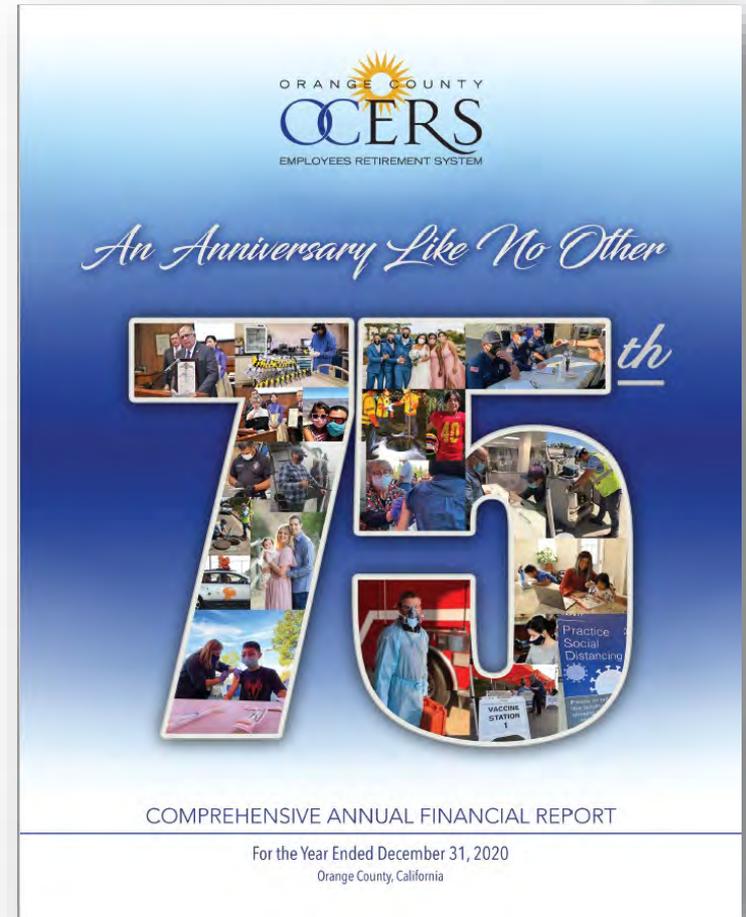
*Brenda Shott and Tracy Bowman*

## Recommend to the Board of Retirement the following:

1. Approve OCERS' audited financial statements for the year ended December 31, 2020
2. Direct staff to finalize OCERS' 2020 Comprehensive Annual Financial Report (Annual Report)
3. Approve the Governmental Accounting Standards Board (GASB) Statement 67 Actuarial Valuation as of December 31, 2020
4. Receive and file Macias, Gini & O'Connell LLP's (MGO) "OCERS' Report to the Audit Committee for the Year Ended December 31, 2020" and their "Independent Auditor's Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with Government Auditing Standards"

# 2020 Annual Report

- **Audit and preparation of the Annual Report was performed and completed 100% remotely for second year in a row**
- Preliminary unaudited financial statements provided to the Board in March
  - No material changes reflected in final audited version included in the Annual Report
- Theme: An Anniversary Like No Other
  - OCERS 75<sup>th</sup> Anniversary
- Adopted GFOA's End the Acronym Policy



# GFOA End the Acronym Policy

- New policy to address the proper referencing of the Comprehensive Annual Financial Report
  - Policy change is the result of new and evolving industry understanding that the acronym, when pronounced aloud, mimics pronunciation of a deeply derogatory term often used in other parts of the world
  - GFOA asked all industry affiliates to stop using the four-letter acronym commonly associated with the Comprehensive Annual Financial Report
  - Recommended using either the full name or a shortened format that does not include the four-letter acronym
    - OCERS is using either full name or “Annual Report”
- GASB approved an Exposure Draft of a proposed statement, *The Annual Comprehensive Financial Report*, to consider renaming the comprehensive annual financial report
  - Final Statement estimated to be considered for approval in October 2021

# Financial Highlights – MD&A

**Table 2: Changes in Fiduciary Net Position**  
 For the Years Ended December 31, 2020 and 2019  
 (Dollars in Thousands)

	12/31/2020	12/31/2019	Increase / (Decrease)	Percentage Change
<b>Additions</b>				
Employer Pension Contributions	\$ 659,807	\$ 653,793	\$ 6,014	0.9%
Employer Health Care Contributions	43,535	56,899	(13,364)	-23.5%
Employee Pension Contributions	279,384	279,373	11	0.0%
Employer OPEB Contributions	613	613	-	0.0%
Net Investment Income/(Loss)	2,220,401	2,235,897	(15,496)	-0.7%
<b>Total Additions</b>	<b>3,203,740</b>	<b>3,226,575</b>	<b>(22,835)</b>	<b>-0.7%</b>
<b>Deductions</b>				
Participant Benefits - Pension	960,846	887,003	73,843	8.3%
Participant Benefits - Health Care	42,323	40,030	2,293	5.7%
Death Benefits	932	650	282	43.4%
Member Withdrawals and Refunds	11,547	13,249	(1,702)	-12.8%
Employer OPEB Payments	1,383	1,318	65	4.9%
Administrative Expenses - Pension	20,428	19,171	1,257	6.6%
Administrative Expenses - Health Care and Employer	66	61	5	8.2%
<b>Total Deductions</b>	<b>1,037,525</b>	<b>961,482</b>	<b>76,043</b>	<b>7.9%</b>
Increase/(Decrease) in Net Position Restricted for Pension, Other Postemployment Benefits and Employer	2,166,215	2,265,093	(98,878)	-4.4%
<b>Net Position Restricted for Pension, Other Postemployment Benefits and Employer</b>				
Beginning of the Year	17,108,384	14,843,291		
<b>End of the Year</b>	<b>\$ 19,274,599</b>	<b>\$ 17,108,384</b>		

- Net position totaled \$19.3 billion, an increase of \$2.2 billion or 12.7% from the prior year
  - Net investment income was approximately \$2.2 billion in 2020 and 2019, with a net return of 11.4% vs. 14.41% in the prior year
  - Employee and employer contributions for pension and health care added \$983.3 million
- Increases offset by member pension benefit payments of \$961 million, an increase of 8.3% or \$73.8 million from the prior year

# Financial Highlights – MD&A (continued)

**Table 3: Membership Data**  
 As of December 31, 2020 and 2019

	12/31/2020	12/31/2019	Increase/ (Decrease)	Percentage Change
Active Members	21,559	22,257	(698)	-3.1%
Retired Members	19,419	18,420	999	5.4%
Deferred Members	6,818	6,520	298	4.6%
<b>Total Membership</b>	<b>47,796</b>	<b>47,197</b>	<b>599</b>	<b>1.3%</b>

- Increases in member pension benefit payments can be attributed to an increase in the number of retirees receiving a benefit
  - Number of retirees increased by 5.4% or 999, for a total of 19,419 payees as of December 31, 2020
  - The average benefit paid to retired members and beneficiaries during 2020 was \$49,480 vs. \$48,154 in 2019, an increase of 2.8%

Note: County of Orange offered eligible employees a voluntary separation and retirement incentive program in the Fall of 2020; over 500 active employees accepted offer to separate or retire and the vacated positions will be eliminated for at least one year

## Financial Highlights – MD&A (continued)

- Annual Report includes information from the December 31, 2019 funding valuation, which is the most currently available information at the time the Annual Report is completed
  - Funding status based on actuarial value of assets (which smooths market gains and losses over five years) was 73.173% versus 75.36% if market gains and losses were recognized immediately
  - In comparison, in the December 31, 2020 funding valuation to be presented at the June Board meeting, the funding status based on actuarial value of assets was 76.51% versus 80.74% if market gains and losses were recognized immediately

# Note 1 – Pension Plan Membership

**OCERS Membership - General Members**  
As of December 31, 2020

Rate Group	Benefit Plan	Tier	Active Vested	Active Non-Vested	Retired Members & Beneficiaries	Deferred Members	Total
1	A	I	-	-	326	1	327
1	B	II	626	2	489	285	1,402
1	U	II-PEPRA	333	569	6	327	1,235
<b>Rate Group 1 Total</b>			<b>959</b>	<b>571</b>	<b>821</b>	<b>613</b>	<b>2,964</b>
2	A	I	-	-	2,773	9	2,782
2	B	II	-	-	1,906	640	2,545
2	I	I	14	-	1,140	-	1,154
2	J	II	7,965	117	6,766	2,310	17,158
2	P	II	167	9	10	90	276
2	S	II	10	6	1	5	22
2	T	II-PEPRA Compliant	1,433	3,850	6	1,454	6,743
2	U	II-PEPRA	79	194	1	61	335
2	W	II-PEPRA Alternative	-	1	-	-	1
<b>Rate Group 2 Total</b>			<b>9,668</b>	<b>4,177</b>	<b>12,602</b>	<b>4,569</b>	<b>31,016</b>
3	A	I	-	-	79	1	80
3	B	II	39	13	63	44	159
3	G	I	-	-	30	-	30
3	H	II	292	-	365	52	709
3	U	II-PEPRA	67	207	2	39	315
<b>Rate Group 3 Total</b>			<b>398</b>	<b>220</b>	<b>539</b>	<b>136</b>	<b>1,293</b>
4	H	II	-	-	1	-	1
<b>Rate Group 4 Total</b>			-	-	<b>1</b>	-	<b>1</b>
5	A	I	1	-	370	3	374
5	B	II	879	17	1,117	515	2,528
5	U	II-PEPRA	30	395	2	132	559
<b>Rate Group 5 Total</b>			<b>910</b>	<b>412</b>	<b>1,489</b>	<b>650</b>	<b>3,461</b>
9	A	I	-	-	4	-	4
9	B	II	-	-	10	12	22
9	N	II	25	1	43	41	110
9	U	II-PEPRA	11	17	1	19	48
<b>Rate Group 9 Total</b>			<b>36</b>	<b>18</b>	<b>58</b>	<b>72</b>	<b>184</b>
10	A	I	-	-	7	-	7
10	B	II	-	-	40	8	48
10	I	I	-	-	16	-	16
10	J	II	105	-	144	89	338
10	N	II	23	19	2	18	62
10	U	II-PEPRA	35	143	2	119	299
<b>Rate Group 10 Total</b>			<b>163</b>	<b>162</b>	<b>211</b>	<b>234</b>	<b>770</b>
11	A	I	-	-	3	-	3
11	B	II	-	-	3	-	3
11	N	II	15	-	6	2	23
11	U	II-PEPRA	2	8	-	1	11
<b>Rate Group 11 Total</b>			<b>17</b>	<b>8</b>	<b>12</b>	<b>3</b>	<b>40</b>
12	A	I	-	-	2	-	2
12	B	II	-	-	3	1	4
12	H	II	12	-	7	2	21
12	U	II-PEPRA	1	1	-	-	2
<b>Rate Group 12 Total</b>			<b>13</b>	<b>1</b>	<b>12</b>	<b>3</b>	<b>29</b>
<b>Total General Members</b>			<b>12,164</b>	<b>5,569</b>	<b>15,745</b>	<b>6,280</b>	<b>39,758</b>

**OCERS Membership - Safety Members**  
As of December 31, 2020

Rate Group	Benefit Plan	Tier	Active Vested	Active Non-Vested	Retired Members & Beneficiaries	Deferred Members	Total
6	C	I	-	-	86	-	86
6	D	II	-	-	45	34	79
6	E	I	-	-	45	-	45
6	F	II	601	4	324	171	1,100
6	V	II-PEPRA	11	63	0	13	87
<b>Rate Group 6 Total</b>			<b>612</b>	<b>67</b>	<b>500</b>	<b>218</b>	<b>1,397</b>
7	C	I	-	-	452	-	452
7	D	II	-	-	271	39	310
7	E	I	-	-	280	-	280
7	F	II	919	-	1,337	94	2,350
7	R	II	370	17	5	35	427
7	V	II-PEPRA	199	510	7	41	757
<b>Rate Group 7 Total</b>			<b>1,488</b>	<b>527</b>	<b>2,352</b>	<b>209</b>	<b>4,576</b>
8	C	I	-	-	27	-	27
8	D	II	-	-	69	4	73
8	E	I	-	-	16	-	16
8	F	II	619	1	707	45	1,372
8	R	II	38	122	1	7	168
8	V	II-PEPRA	81	271	2	55	409
<b>Rate Group 8 Total</b>			<b>738</b>	<b>394</b>	<b>822</b>	<b>111</b>	<b>2,055</b>
<b>Total Safety Members</b>			<b>2,838</b>	<b>988</b>	<b>3,674</b>	<b>538</b>	<b>8,038</b>
<b>Grand Total</b>			<b>15,002</b>	<b>6,557</b>	<b>19,419</b>	<b>6,818</b>	<b>47,796</b>

Page 31 and 32

- GASB 67 Valuation is prepared by Segal for ***reporting purposes only***
  - Information is incorporated into the Notes (Note 8) and Required Supplementary Information sections of the Annual Report
  - Total Pension Liability (TPL) is based on rolling forward the TPL from the 2019 valuation to the December 31, 2020 measurement date
- 2020 Net Pension Liability (NPL) decreased from \$5.1 billion to \$4.2 billion, primarily due to higher than expected returns
  - 2020 NPL is amount used in GASB 68 proportionate share calculation

Questions?

**Please refer to the Financial Reports on the  
OCERS' website**

**(<https://www.ocers.org/financial-reports>)**

**to view the final version of the audited  
financial statements included in the Annual  
Comprehensive Financial Report for the  
Fiscal Year Ended December 31, 2020.**

# Orange County Employees Retirement System (OCERS)

## **Governmental Accounting Standards Board Statement 67 (GASB 67) Actuarial Valuation**

As of December 31, 2020

Draft

This report has been prepared at the request of the Board of Retirement to assist in administering the Fund. 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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April 30, 2021

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 67 Actuarial Valuation as of December 31, 2020. It contains various information that will need to be disclosed in order to comply with GASB Statement 67.

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; 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

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

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

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# Section 1: Actuarial Valuation Summary

## Purpose and basis

This report has been prepared by Segal to present certain disclosure information required by Governmental Accounting Standards Board (GASB) Statement 67 as of December 31, 2020. 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, 2019, provided by OCERS;
- The assets of the Plan as of December 31, 2020, provided by OCERS;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board of Retirement for the December 31, 2020 valuation; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc. adopted by the Board of Retirement for the December 31, 2020 valuation.

## General observations on GASB 67 actuarial valuation

1. It is important to note that Governmental Accounting Standards Board (GASB) rules only define pension liability and expense for financial reporting purposes, and do not apply to contribution amounts for pension funding purposes. Employers and plans should develop and adopt funding policies under current practices.
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 generally determined on 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) on a market value basis.

## Section 1: Actuarial Valuation Summary

### Highlights of the valuation

1. For this report, the reporting dates for the Plan are December 31, 2020 and 2019. The NPLs measured as of December 31, 2020 and 2019 have been determined by rolling forward the TPLs as of December 31, 2019 and 2018, 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.
2. The NPL decreased from \$5,075.7 million as of December 31, 2019 to \$4,213.2 million as of December 31, 2020 primarily as a result a 12.79%<sup>1</sup> return on the market value of assets during 2020 that was higher than the assumed return of 7.00% of approximately \$1,008.0 million. The gain was offset to some extent by an experience loss of \$162.3 million and a loss of \$19.0 million from changes in actuarial assumptions. Changes in these values during the last two calendar years ending December 31, 2020 and December 31, 2019 can be found in *Section 2, Schedule of changes in Net Pension Liability* on page 18.
3. The discount rate used to determine the TPL and NPL as of both December 31, 2020 and 2019 was 7.00% following the same assumption used by the System in the pension funding valuations as of the December 31, 2019 and December 31, 2018. However, as the Board has approved a new set of actuarial assumptions for use in the next pension funding valuation as of December 31, 2020, we have estimated the impact of these assumption changes by (1) revaluing the TPL as of December 31, 2019 (before the roll forward) and (2) using this revalued TPL in rolling forward the results from December 31, 2019 to December 31, 2020. The detailed calculation of the discount rate of 7.00% used in the calculation of the TPL and NPL as of December 31, 2020 can be found in *Section 3, Appendix A*. Various other information that is required to be disclosed can be found throughout *Section 2*.
4. The Plan'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).

The Plan's Fiduciary Net Position of \$18,797,203,000 as of December 31, 2020 is equal to the final market value of assets in the Pension Trust Fund as of December 31, 2020. This differs from the \$18,494,462,000 market value of assets used in our December 31, 2020 funding valuation because (1) our valuation was based on the preliminary market value of assets provided in

<sup>1</sup> 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 \$2,111,687,000 during 2020 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 \$2,173,184,000.

## Section 1: Actuarial Valuation Summary

the unaudited financial statements<sup>2</sup> and (2) the market value of assets in the funding valuation excludes \$160,378,000 in the County Investment Account and \$13,433,000 in O.C. Sanitation District UAAL Deferred Account.

5. On July 30, 2020, the California Supreme Court issued a decision in the case of Alameda County Deputy Sheriffs' Association et al. v. Alameda County Employees' Retirement Association (ACERA) and Board of Retirement of ACERA. That decision has important implications for OCERS and its members. In particular, the decision requires pension systems like OCERS to exclude certain pay items from a legacy member's compensation earnable. It should be noted that neither the December 31, 2020 assets provided by OCERS nor the liabilities we calculated using the membership data provided by OCERS reflect the financial impact of the California Supreme Court decision.
6. It is important to note that this actuarial valuation is based on plan assets as of December 31, 2020. Due to the COVID-19 pandemic, market conditions have changed significantly since the onset of the Public Health Emergency. The plan's funded status does not reflect short-term fluctuations of the market, but rather is based on the market values on the last day of the plan year. Moreover, this actuarial valuation does not include any possible short-term or long-term impacts on mortality of the covered population that may emerge after December 31, 2020. While it is impossible to determine how the pandemic will affect market conditions and other demographic experience of the plan in future valuations, Segal is available to prepare projections of potential outcomes upon request.

<sup>2</sup> The final market value of assets provided in the December 31, 2020 financial statements was higher than the preliminary market value of assets provided in the unaudited financial statements by approximately \$129 million.

## Section 1: Actuarial Valuation Summary

### Summary of key valuation results

Measurement Date		December 31, 2020	December 31, 2019
<b>Disclosure elements for calendar year ending December 31:</b>	• Service cost <sup>1</sup>	\$512,255,298	\$499,255,591
	• Total Pension Liability	23,010,449,650	21,754,263,463
	• Plan's Fiduciary Net Position	18,797,203,000	16,678,581,000
	• Net Pension Liability	4,213,246,650	5,075,682,463
<b>Schedule of contributions for calendar year ending December 31:</b>	• Actuarially determined contributions	\$638,215,000	\$583,057,000
	• Actual contributions <sup>2</sup>	659,807,000	653,793,000
	• Contribution deficiency / (excess) <sup>3</sup>	(21,592,000)	(70,736,000)
<b>Demographic data for calendar year ending December 31:</b>	• Number of retired members and beneficiaries	19,419	18,420
	• Number of inactive vested members	6,818	6,520
	• Number of active members	21,559	22,257
<b>Key assumptions as of December 31:</b>	• Investment rate of return	7.00%	7.00%
	• Inflation rate	2.50%	2.75%
	• Projected salary increases <sup>4</sup>	General: 4.00% to 11.00% and Safety: 4.60% to 15.00%	General: 4.25% to 12.25% and Safety: 4.75% to 17.25%
	• Cost of living adjustments	2.75% of retirement income	2.75% of retirement income

<sup>1</sup> The Service Cost is based on the previous year's valuation, meaning the December 31, 2020 and December 31, 2019 measurement date values are based on the valuations as of December 31, 2019 and December 31, 2018, respectively. Both service costs have been calculated using the assumptions shown in the December 31, 2019 measurement date column, as there had been no changes in the actuarial assumptions between the December 31, 2018 and December 31, 2019 valuations.

<sup>2</sup> Reduced by discount for prepaid contributions and transfer from County Investment Account, if any.

<sup>3</sup> Includes additional contributions made by employers toward the reduction of their UAAL. Details are shown in *Section 2, Schedule of Contributions* on page 19.

<sup>4</sup> For December 31, 2020 and December 31, 2019, includes inflation at 2.50% and 2.75% respectively, 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:

<b>Plan of benefits</b>	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.
<b>Participant data</b>	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.
<b>Assets</b>	This valuation is based on the market value of assets as of the measurement date, as provided by OCERS.
<b>Actuarial assumptions</b>	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.
<b>Models</b>	Segal valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are presented to meet regulatory, legislative and client requirements. Our Actuarial Technology and Systems unit, comprised of both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuary.

## Section 1: Actuarial Valuation Summary

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

The valuation is prepared at the request of the Board to assist OCERS 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 67 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, 2020, pension plan membership consisted of the following:

Retired members or beneficiaries currently receiving benefits	19,419
Inactive vested members entitled to but not yet receiving benefits	6,818
Active members	<u>21,559</u>
<b>Total</b>	<b>47,796</b>

Note: Data as of December 31, 2020 is not used in the measurement of the TPL as of December 31, 2020.

## Section 2: GASB 67 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 67 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 2020 or the second half of fiscal year 2019-2020 (based on the December 31, 2017 valuation) was 37.97%<sup>3</sup> of compensation. The average employer contribution rate for the last six months of calendar year 2020 or the first half of fiscal year 2020-2021 (based on the December 31, 2018 valuation) was 40.02%<sup>2</sup> 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 2020 or the second half of fiscal year 2019-2020 (based on the December 31, 2017 valuation) was 12.63%<sup>4</sup> of compensation. The average member contribution rate for the last six months of calendar year 2020 or the first half of fiscal year 2020-2021 (based on the December 31, 2018 valuation) was 12.47%<sup>4</sup> of compensation.

<sup>3</sup> These employer contribution rates may be higher or lower than the composite rate for 2020 as shown on page 19 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.

<sup>4</sup> 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 67 Information

### Net Pension Liability

Measurement Date	December 31, 2020	December 31, 2019
<b>Components of the Net Pension Liability</b>		
Total Pension Liability	\$23,010,449,650	\$21,754,263,463
Plan's Fiduciary Net Position	(18,797,203,000)	(16,678,581,000)
<b>Net Pension Liability</b>	<b>\$4,213,246,650</b>	<b>\$5,075,682,463</b>
Plan's Fiduciary Net Position as a percentage of the Total Pension Liability	81.69%	76.67%

The Net Pension Liability (NPL) was measured as of December 31, 2020 and 2019. 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, 2019 and 2018, respectively.

*Plan provisions.* The plan provisions used in the measurement of the NPL as of December 31, 2020 and 2019 are the same as those used in the OCERS actuarial valuations as of December 31, 2020 and 2019, respectively.

*Actuarial assumptions.* The TPL as of December 31, 2020 was remeasured by (1) revaluing the TPL as of December 31, 2019 (before the roll forward) to include the following actuarial assumptions that the Retirement Board has adopted for use in the pension funding valuation as of December 31, 2020 and (2) using this revalued TPL in rolling forward the results from December 31, 2019 to December 31, 2020:

<b>Inflation:</b>	2.50%
<b>Salary increases:</b>	General: 4.00% to 11.00% and Safety: 4.60% to 15.00%, vary by service, including inflation
<b>Cost of living adjustments:</b>	2.75% of retirement income
<b>Investment rate of return:</b>	7.00%, net of pension plan investment expense, including inflation
<b>Other assumptions:</b>	See analysis of actuarial experience during the period January 1, 2017 through December 31, 2019

## Section 2: GASB 67 Information

The TPL as of December 31, 2019 was determined by actuarial valuations as of December 31, 2018. 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 funding valuation for OCERS.

<b>Inflation:</b>	2.75%
<b>Salary increases:</b>	General: 4.25% to 12.25% and Safety: 4.75% to 17.25%, vary by service, including inflation
<b>Cost of living adjustments:</b>	2.75% of retirement income
<b>Investment rate of return:</b>	7.00%, net of pension plan investment expense, including inflation
<b>Other assumptions:</b>	See analysis of actuarial experience during the period January 1, 2014 through December 31, 2016

## Section 2: GASB 67 Information

### Determination of discount rate and investment rates of return

The long-term expected rate of return on pension plan investments<sup>5</sup> was determined in 2020 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, 2020 actuarial valuation. This information will change every three years based on the actuarial experience study.

Asset Class	Target Allocation	Long-Term Expected Arithmetic Real Rate of Return
Large Cap Equity	23.10%	5.43%
Small Cap Equity	1.90%	6.21%
International Developed Equity	13.00%	6.67%
Emerging Markets Equity	9.00%	8.58%
Core Bonds	9.00%	1.10%
High Yield Bonds	1.50%	2.91%
TIPS	2.00%	0.65%
Emerging Market Debt	2.00%	3.25%
Corporate Credit	1.00%	0.53%
Long Duration Fixed Income	2.50%	1.44%
Real Estate	3.01%	4.42%
Private Equity	13.00%	9.41%
Value Added Real Estate	3.01%	7.42%
Opportunistic Real Estate	0.98%	10.18%
Energy	2.00%	9.68%
Infrastructure (Core Private)	1.50%	5.08%
Infrastructure (Non-Core Private)	1.50%	8.92%
CTA - Trend Following	2.50%	2.38%
Global Macro	2.50%	2.13%
Private Credit	2.50%	5.47%
Alternative Risk Premia	2.50%	2.50%
<b>Total</b>	<b>100.00%</b>	

<sup>5</sup> Note that the investment return assumption for funding purposes is developed net of both investment and administrative expenses; however, the same investment return assumption is used for financial reporting purposes, where it is considered gross of administrative expenses.

## Section 2: GASB 67 Information

*Discount rate.* The discount rate used to measure the TPL was 7.00% as of December 31, 2020 and 2019. 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, 2020 and 2019.

Draft

## Section 2: GASB 67 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, 2020, 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%)
<b>Net Pension Liability as of December 31, 2020</b>	\$7,460,868,132	\$4,213,246,650	\$1,565,936,725

## Section 2: GASB 67 Information

### Schedule of changes in Net Pension Liability – Last two calendar years

Measurement Date	December 31, 2020	December 31, 2019
<b>Total Pension Liability</b>		
• Service cost	\$512,255,298	\$499,255,591
• Interest	1,535,953,426	1,452,644,872
• Change of benefit terms	0	0
• Differences between expected and actual experience	162,335,537	24,382,911
• Changes of assumptions	18,966,926	0
• Benefit payments, including refunds of member contributions	(973,325,000)	(900,902,000)
• Transfer of members among Rate Groups	0	0
• Other	0	0
<b>Net change in Total Pension Liability</b>	<b>\$1,256,186,187</b>	<b>\$1,075,381,374</b>
<b>Total Pension Liability – beginning</b>	<b>21,754,263,463</b>	<b>20,678,882,089</b>
<b>Total Pension Liability – ending</b>	<b>\$23,010,449,650</b>	<b>\$21,754,263,463</b>
<b>Plan's Fiduciary Net Position</b>		
• Contributions – employer <sup>1</sup>	\$659,807,000	\$653,793,000
• Contributions – member	279,384,000	279,373,000
• Net investment income	2,173,184,000	2,183,808,000
• Benefit payments, including refunds of member contributions	(973,325,000)	(900,902,000)
• Transfer of members among Rate Groups	0	0
• Administrative expense	(20,428,000)	(19,171,000)
• Other	0	0
<b>Net change in Plan's Fiduciary Net Position</b>	<b>\$2,118,622,000</b>	<b>\$2,196,901,000</b>
<b>Plan's Fiduciary Net Position – beginning</b>	<b>\$16,678,581,000</b>	<b>14,481,680,000</b>
<b>Plan's Fiduciary Net Position – ending</b>	<b>\$18,797,203,000</b>	<b>\$16,678,581,000</b>
<b>Net Pension Liability – ending</b>	<b>\$4,213,246,650</b>	<b>\$5,075,682,463</b>
<b>Plan's Fiduciary Net Position as a percentage of the Total Pension Liability</b>	<b>81.69%</b>	<b>76.67%</b>
<b>Covered payroll<sup>2</sup></b>	<b>\$1,909,268,000</b>	<b>\$1,783,054,000</b>
<b>Plan Net Pension Liability as percentage of covered payroll</b>	<b>220.67%</b>	<b>284.66%</b>

<sup>1</sup> Reduced by discount for prepaid contributions and transfer from County Investment Account, if any.

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

## Section 2: GASB 67 Information

### Schedule of contributions – Last ten calendar years

Year Ended December 31	Actuarially Determined Contributions <sup>1,2</sup>	Contributions in Relation to the Actuarially Determined Contributions <sup>1,2</sup>	Contribution Deficiency / (Excess)	Covered Payroll <sup>3</sup>	Contributions as a Percentage of Covered Payroll <sup>1,2</sup>
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 <sup>4</sup>	(1,075,000)	1,494,745,000	28.57%
2014	476,320,000	625,520,000 <sup>6</sup>	(149,200,000)	1,513,206,000	41.34%
2015	502,886,000	571,298,000 <sup>7</sup>	(68,412,000)	1,521,036,000	37.56%
2016	521,447,000	567,196,000 <sup>8</sup>	(45,749,000)	1,602,675,000	35.40%
2017	536,726,000 <sup>9</sup>	572,104,000 <sup>8,10</sup>	(35,378,000)	1,678,322,000	34.09%
2018	556,728,000 <sup>11</sup>	580,905,000 <sup>10,12</sup>	(24,177,000)	1,718,798,000	33.80%
2019	583,057,000	653,793,000 <sup>13</sup>	(70,736,000)	1,783,054,000	36.67%
2020	638,215,000	659,807,000 <sup>14</sup>	(21,592,000)	1,909,268,000	34.56%

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

Calendar Year Ended December 31	Transfers from County Investment Account	Calendar Year Ended December 31	Transfers from County Investment Account
2011	\$11,000,000	2016	\$0
2012	5,500,000	2017	0
2013	5,000,000	2018	0
2014	5,000,000	2019	0
2015	0	2020	5,000,000

<sup>2</sup> Reduced by discount for prepaid contributions.

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

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

<sup>6</sup> 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.

<sup>7</sup> 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.

<sup>8</sup> 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.

<sup>9</sup> \$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.

<sup>10</sup> 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.

<sup>11</sup> \$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.

<sup>12</sup> 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.

<sup>13</sup> 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.

<sup>14</sup> Includes additional contributions of \$21,592,000 made by O.C. Fire Authority towards the reduction of their UAAL.

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

<b>Valuation date:</b>	Actuarially determined contribution rates for the first six months of calendar year 2020 or the second half of fiscal year 2019-2020 are calculated based on the December 31, 2017 valuation. Actuarially determined contribution rates for the last six months of calendar year 2020 or the first half of fiscal year 2020-2021 are calculated based on the December 31, 2018 valuation.
<b>Actuarial cost method:</b>	Entry Age Actuarial Cost Method
<b>Amortization method:</b>	Level percent of payroll for total unfunded actuarial accrued liability
<b>Remaining amortization period:</b>	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.
<b>Asset valuation method:</b>	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.

## Section 2: GASB 67 Information

<b>Actuarial assumptions:</b>		
<b>Valuation Date:</b>	<b>December 31, 2017 valuation</b>	<b>December 31, 2018 Valuation</b>
<b>Investment rate of return:</b>	7.00%, net of pension plan investment expense, including inflation	7.00%, net of pension plan investment expense, including inflation
<b>Inflation rate:</b>	2.75%	2.75%
<b>Real across-the-board salary increase:</b>	0.50%	0.50%
<b>Projected salary increases:</b>	General: 4.25% to 12.25% and Safety: 4.75% to 17.25%, vary by service, including inflation	General: 4.25% to 12.25% and Safety: 4.75% to 17.25%, vary by service, including inflation
<b>Cost of living adjustments:</b>	2.75% of retirement income	2.75% of retirement income
<b>Other assumptions:</b>	Same as those used in the December 31, 2017 funding actuarial valuation	Same as those used in the December 31, 2018 funding actuarial valuation

## Section 3: Appendices

### Appendix A: Projection of Pension Plan's Fiduciary Net Position (\$ in millions) for use in the Calculation of Discount Rate as of December 31, 2020

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)
2020	\$16,679	\$939	\$973	\$20	\$2,173	\$18,797
2021	18,797	1,004	1,054	23	1,313	20,038
2022	20,038	983	1,123	25	1,397	21,270
2023	21,270	971	1,194	26	1,480	22,502
2024	22,502	938	1,264	28	1,563	23,711
2025	23,711	921	1,335	29	1,645	24,912
2026	24,912	923	1,410	31	1,726	26,121
2027	26,121	926	1,485	32	1,808	27,339
2028	27,339	929	1,561	33	1,891	28,564
2029	28,564	932	1,640	35	1,974	29,795
2045	37,237	175	2,793	46	2,515	37,088
2046	37,088	165	2,832	45	2,503	36,878
2047	36,878	156	2,866	45	2,487	36,610
2048	36,610	148	2,894	45	2,467	36,286
2049	36,286	140	2,917	44	2,443	35,907
2094	38,962	61	189	48	2,721	41,507
2095	41,507	63	154	51	2,901	44,265
2096	44,265	65	124	54	3,095	47,246
2097	47,246	67	98	58	3,304	50,462
2098	50,462	70	76	62	3,530	53,924
2133	536,612	657	0 **	657	37,563	574,174
2134	574,174					
2134 Discounted Value:	275 ***					

\* Of all the projected total contributions, only the first year's (i.e., 2020) contribution has been reduced by discount for prepaid contributions and transfers from County Investment Account, if any.

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

\*\*\* \$574,174 million when discounted with interest at the rate of 7.00% per annum has a value of \$275 million as of December 31, 2020. Of this amount, about \$160 million is the balance available in the County Investment Account and \$13 million is the O.C. Sanitation District UAAL Deferred Account as of December 31, 2020.

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, 2020.

## Section 3: Appendices

### Notes:

- (1) Amounts may not total exactly due to rounding.
- (2) Amounts shown in the year beginning January 1, 2020 row are actual amounts, based on the final audited financial statements provided by OCERS.
- (3) Certain years have been omitted from the 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, 2019), 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, 2019. The projected benefit payments reflect the cost of living increase assumptions used in the December 31, 2020 valuation report. The 2020 benefit payments have been increased by the balance of the Medicare Insurance Reserve as of December 31, 2020.
- (7) Column (d): Projected administrative expenses are calculated as approximately 0.12% of the projected beginning Plan's Fiduciary Net Position amount. The 0.12% portion was based on the actual calendar year 2020 administrative expenses (unaudited) as a percentage of the actual beginning Plan's Fiduciary Net Position as of January 1, 2020. 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, 2020 shown earlier in this report, pursuant to paragraph 44 of GASB Statement No. 67.
- (10) This projection is based on a model developed by our Actuarial Technology and Systems unit, comprised of both actuaries and programmers. The model allows the client team, under the supervision of the responsible actuary, control over the entry of future expected contribution income, benefit payments and administrative expenses. The projection of fiduciary net position and the discounting of benefits is part of the model.

## Section 3: Appendices

### Appendix B: Definition of Terms

Definitions of certain terms as they are used in Statement 67. The terms may have different meanings in other contexts.

<b>Actuarial Present Value of Projected Benefit Payments:</b>	Projected benefit payments discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment.
<b>Actuarial Valuation:</b>	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.
<b>Actuarial Valuation Date:</b>	The date as of which an actuarial valuation is performed.
<b>Actuarially Determined Contribution:</b>	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.
<b>Ad Hoc Cost-of-Living Adjustments (Ad Hoc COLAs):</b>	Cost-of-living adjustments that require a decision to grant by the authority responsible for making such decisions.
<b>Ad Hoc Postemployment Benefit Changes:</b>	Postemployment benefit changes that require a decision to grant by the authority responsible for making such decisions.
<b>Automatic Cost-of-Living Adjustments (Automatic COLAs):</b>	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).
<b>Automatic Postemployment Benefit Changes:</b>	Postemployment benefit changes that occur without a requirement for a decision to grant by a responsible authority, including those for which the amounts are determined by reference to a specified experience factor (such as the earnings experience of the pension plan) or to another variable (such as an increase in the consumer price index).
<b>Cost-of-Living Adjustments:</b>	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
<b>Cost-Sharing Multiple-Employer Defined Benefit Pension Plan (Cost-Sharing Pension Plan):</b>	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.
<b>Covered Payroll:</b>	Payroll on which contributions to a pension plan are based.
<b>Defined Benefit Pension Plans:</b>	Pension plans that are used to provide defined benefit pensions.

## Section 3: Appendices

<b>Defined Benefit Pensions:</b>	Pensions for which the income or other benefits that the employee will receive at or after separation from employment are defined by the benefit terms. The pensions may be stated as a specified dollar amount or as an amount that is calculated based on one or more factors such as age, years of service, and compensation. (A pension that does not meet the criteria of a defined contribution pension is classified as a defined benefit pension for purposes of Statement 67.)
<b>Defined Contribution Pension Plans:</b>	Pension plans that are used to provide defined contribution pensions.
<b>Defined Contribution Pensions:</b>	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.
<b>Discount Rate:</b>	<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"> <li>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.</li> <li>2. The actuarial present value of projected benefit payments not included in (1), calculated using the municipal bond rate.</li> </ol>
<b>Entry Age Actuarial Cost Method:</b>	A method under which the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age(s). The portion of this actuarial present value allocated to a valuation year is called the normal cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is called the actuarial accrued liability.
<b>Inactive Employees:</b>	Terminated individuals that have accumulated benefits but are not yet receiving them, and retirees or their beneficiaries currently receiving benefits.
<b>Multiple-Employer Defined Benefit Pension Plan:</b>	A defined benefit pension plan that is used to provide pensions to the employees of more than one employer.
<b>Net Pension Liability (NPL):</b>	The liability of employers and nonemployer contributing entities to employees for benefits provided through a defined benefit pension plan.

## Section 3: Appendices

<b>Other Postemployment Benefits:</b>	All postemployment benefits other than retirement income (such as death benefits, life insurance, disability, and long-term care) that are provided separately from a pension plan, as well as postemployment healthcare benefits, regardless of the manner in which they are provided. Other postemployment benefits do not include termination benefits.
<b>Pension Plans:</b>	Arrangements through which pensions are determined, assets dedicated for pensions are accumulated and managed and benefits are paid as they come due.
<b>Pensions:</b>	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.
<b>Plan Members:</b>	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).
<b>Postemployment</b>	The period after employment.
<b>Postemployment Benefit Changes:</b>	Adjustments to the pension of an inactive employee.
<b>Postemployment Healthcare Benefits:</b>	Medical, dental, vision, and other health-related benefits paid subsequent to the termination of employment.
<b>Projected Benefit Payments:</b>	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.
<b>Public Employee Retirement System:</b>	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.
<b>Real Rate of Return:</b>	The rate of return on an investment after adjustment to eliminate inflation.
<b>Service Costs:</b>	The portions of the actuarial present value of projected benefit payments that are attributed to valuation years.
<b>Single-Employer Defined Benefit Pension Plan (Single-Employer Pension Plan):</b>	A defined benefit pension plan that is used to provide pensions to employees of only one employer.
<b>Termination Benefits:</b>	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.
<b>Total Pension Liability (TPL):</b>	The portion of the actuarial present value of projected benefit payments that is attributed to past periods of employee service in conformity with the requirements of Statement 67.

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**Orange County Employees  
Retirement System**

**December 31, 2020  
Audit Results**

Presented By  
**David Bullock, CPA**  
Engagement Partner



A new breed  
of professional  
services firm

## OCERS Overview

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Certified  
Public  
Accountants

### **Deliverables/Report Products:**

- **Independent Auditor's Report – Comprehensive Annual Financial Report**
- **Independent Auditor's Report on Internal Control over Financial Reporting and on Compliance and Other Matters (required under *Government Auditing Standards*)**
- **Independent Auditor's Report on the Schedule of Allocated Pension Amounts by Employer**
- **Report to the Audit Committee (Required Communications)**

**OCERS**  
**Audit Results**



Certified  
Public  
Accountants

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**Basic Financial Statements:**

- **Framework**
  - U.S. Generally Accepted Accounting Principles (GASB)
  - U.S. Generally Accepted Auditing Standards (AICPA)
  - Government Auditing Standards (GAO)
  
- **Unmodified Opinion on Financial Statements**
  
- **Unmodified Opinion on Schedule of Allocated Pension Amounts by Employer**

**OCERS**  
**Audit Results**



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Accountants

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**Required Communications:**

- **Qualitative Aspects of Significant Accounting Practices**
  - Significant Accounting Policies
  - Significant Accounting Estimates
  - Financial Statement Disclosures
- **Identified or Suspected Fraud**
- **Significant Difficulties Encountered during the Audit**
- **Uncorrected and Corrected Misstatements**
- **Disagreements with Management**
- **Representations Requested from Management**
- **Management's Consultations with Other Accountants**
- **Other Significant Matters, Findings, or Issues**

OCERS

## Recent Developments in Accounting and Financial Reporting

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### Implementation of GASB Statement No. 84, *Fiduciary Activities*:

- OCERS implemented for the year ended December 31, 2019.
  
- County of Orange to implement for year ended June 30, 2021
  - The County will include OCERS in its financial reporting entity due to the financial burden criterion established in GASB 84. The County will report OCERS as pension trust fund in their financial statements, however:
    - This does **not** change OCERS' legal and fiscal independence of the County of Orange.

**Questions?  
Let's Talk.**



**Independent Auditor's Report on Internal Control Over  
Financial Reporting and on Compliance and Other Matters  
Based on an Audit of Financial Statements Performed  
In Accordance With *Government Auditing Standards***

To the Board of Retirement of the  
Orange County Employees Retirement System  
Santa Ana, California

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the Orange County Employees Retirement System (the System) as of and for the year ended December 31, 2020, and the related notes to the financial statements, which collectively comprise the System's basic financial statements, and have issued our report thereon dated June \_\_, 2021. Our report contained an emphasis-of-matter paragraph that describes the net pension liability of participating employers as of December 31, 2020.

**Internal Control over Financial Reporting**

In planning and performing our audit of the financial statements, we considered the System's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the System's internal control. Accordingly, we do not express an opinion on the effectiveness of the System's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

**Compliance and Other Matters**

As part of obtaining reasonable assurance about whether the System’s financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the financial statements. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

**Purpose of this Report**

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity’s internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity’s internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Irvine, California  
June \_\_, 2021

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## Memorandum

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**DATE:** June 4, 2021

**TO:** Audit Committee Members

**FROM:** Brenda Shott, Assistant CEO, Finance and Internal Operations; Tracy Bowman, Director of Finance

**SUBJECT:** **GASB 68 VALUATION AND AUDIT REPORT**

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### Recommendation

Recommend to the Board of Retirement the following:

1. Approve OCERS' audited Schedule of Allocated Pension Amounts by Employer as of and for the Year Ended December 31, 2020.
2. Approve the Governmental Accounting Standards Board (GASB) Statement 68 Actuarial Valuation as of December 31, 2020 for distribution to employers.

### Background/Discussion

GASB Statement No. 68, *Accounting and Financial Reporting for Pensions – an Amendment of GASB Statement No. 27*, requires employers to record their proportionate share of the total pension liability less the plan's fiduciary net position (i.e., net pension liability) on the face of their financial statements. A proportionate share of the total pension expense and collective deferred inflows of resources and deferred outflows of resources of the pension trust fund at OCERS is shown on the face of each employer's financial statements.

#### Net Pension Liability vs. Unfunded Actuarial Accrued Liability

The Governmental Accounting Standards Board (GASB) Statement 68 Actuarial Valuation Based on December 31, 2020 Measurement Date for Employer Reporting as of June 30, 2021 is used for financial reporting purposes and was prepared by Segal Consulting ([Attachment 1](#)). This report is *separate and distinct from the funding actuarial valuation*. The net pension liability (NPL) shown in Exhibit 2 of the GASB 68 valuation as of December 31, 2020 is \$4.2 billion compared to the unfunded actuarial accrued liability (UAAL) of \$5.4 billion in the funding actuarial valuation as of December 31, 2020. The differences between the NPL and the UAAL are a direct result of the different liability and asset values used in measuring these amounts as detailed in the attached letter from Segal Consulting which includes a reconciliation of the Plan's December 31, 2020 NPL and UAAL ([Attachment 2](#)). The primary differences can be attributed to NPL being calculated using the Plan's current market value of assets, including the proceeds available in the County Investment Account and the Orange County Sanitation District UAAL Deferred Account; the UAAL is calculated by adjusting the market value of assets for asset smoothing per OCERS Actuarial Funding Policy and excludes the County Investment Account reserves and the Orange County Sanitation District UAAL Deferred Account. Differences are also created by timing differences of when actuarial gains and losses are recognized in the liability calculation for financial reporting purposes compared to funding valuation purposes.



## Memorandum

### Schedule of Allocated Pension Amounts by Employer

The Schedule of Allocated Pension Amounts by Employer as of and for the Year Ended December 31, 2020 and related notes were audited by OCERS' independent auditor, Macias Gini & O'Connell LLP (MGO) ([Attachment 3](#)). The proportionate share allocation is based on rate groups. All rate groups, with the exception of rate groups 1 and 2, have only one active employer, so all of the NPL for those rate groups is allocated to that employer. For rate groups 1 and 2, the NPL is allocated based on the actual employer contributions within the rate group and excludes employers with inactive membership. If an employer participates in several rate groups, the employer's total proportionate share of the NPL is the sum of its allocated NPL from each rate group.

The audit report and GASB 68 valuation, once approved by the Audit Committee and Board of Retirement, will be made available to participating employers with the following disclaimer:

*To complete its financial statements, each participating employer will need to record its own proportionate share of collective pension amounts for all benefits provided through OCERS' cost-sharing multiple-employer defined benefit pension plan. OCERS has provided a schedule of pension amounts by employer, prepared by independent actuary Segal Consulting, in accordance with the methodology set forth in GASB 68, based on data maintained and provided by OCERS. This schedule has been audited by independent auditor, MGO. Please note that OCERS is not responsible for employers' compliance with the requirements of GASB 68. Employers are solely responsible for accurately presenting their financial statements within the requirements of GASB 68.*

#### Submitted by:

Tracy Bowman  
Director of Finance

#### Approved by:

Brenda Shott  
Asst. CEO, Finance & Internal Operations

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# **GASB 68 Valuation and Audit Report**

Presented on June 4, 2021

by

*Brenda Shott and Tracy Bowman*



## Recommendation

- Recommend to the Board of Retirement the following:
  1. Approve OCERS' audited Schedule of Allocated Pension Amounts by Employer as of and for the Year Ended December 31, 2020
  2. Approve the Governmental Accounting Standards Board (GASB) Statement 68 Actuarial Valuation as of December 31, 2020 for distribution to employers



## Overview

- This information is needed by Employers for their annual financial reporting.
- **Reports are prepared for GASB reporting purposes only - there are no actionable decisions to be made on content.**
- This item is brought before you because the Audit Committee Charter requires approval of all audit reports.



## Audit Report on GASB 68 Schedules

- Using the NPL calculated for GASB 67, Segal prepares the Schedule of Allocated Pension Amounts by Employer (included in Appendix B of the full GASB 68 valuation - Section 3)
- MGO audits this schedule which includes amounts and information required for GASB 68 reporting for each employer
- MGO has issued a “clean opinion” on the 2020 schedule and related notes which will allow our Employers’ auditors to rely on MGO’s work, avoiding multiple audits of OCERS’ information.





# Conclusion

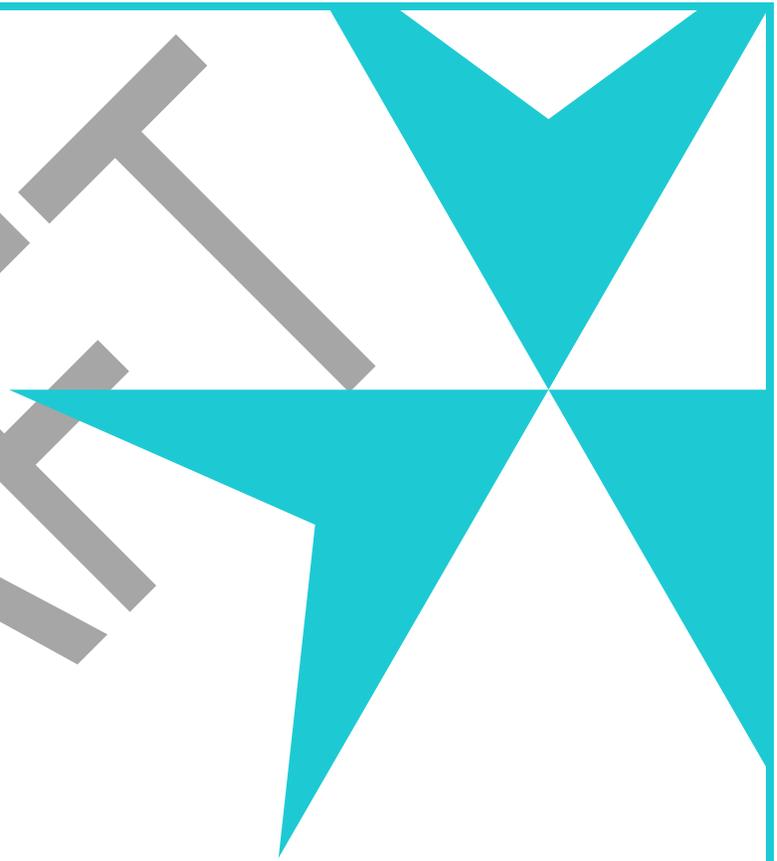
Questions?

## Orange County Employees Retirement System (OCERS)

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

Actuarial Valuation Based on December 31, 2020  
Measurement Date for Employer Reporting  
as of June 30, 2021

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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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**Segal**



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May 26, 2021

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, 2020 measurement date for employer reporting as of June 30, 2021. It contains various information that will need to be disclosed in order for 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 the sponsors of the Orange County Employees Retirement System (OCERS) in preparing their financial report for their liabilities associated with the Orange County Employees Retirement System (OCERS) pension plan. 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 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

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

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

JY/

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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, 2021. The results used in preparing this GASB 68 report are comparable to those used in preparing the GASB Statement 67 report for the plan based on a reporting date and a measurement date as of December 31, 2020. 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, 2019, provided by OCERS;
- The assets of the Plan as of December 31, 2020, provided by OCERS;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board of Retirement for the December 31, 2020 valuation; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc. adopted by the Board of Retirement for the December 31, 2020 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 should develop and adopt funding policies under current practices.
2. When measuring pension liability, GASB uses the same actuarial cost method (Entry Age method) and the same type of discount rate (expected return on assets) as OCERS uses for funding. This means that the Total Pension Liability (TPL) measure for financial reporting shown in this report is generally determined on 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) on a market value basis.

## Section 1: Actuarial Valuation Summary

### Highlights of the valuation

1. For this report, the reporting dates for the employers are June 30, 2021 and 2020. The NPLs measured as of December 31, 2020 and 2019 have been determined by rolling forward the TPLs as of December 31, 2019 and 2018, 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.
2. The NPL decreased from \$5,075.7 million as of December 31, 2019 to \$4,213.2 million as of December 31, 2020 primarily as a result a 12.79%<sup>1</sup> return on the market value of assets during 2020 that was higher than the assumed return of 7.00% of approximately \$1,008.0 million. The gain was offset to some extent by an experience loss of \$162.3 million and a loss of \$19.0 million from changes in actuarial assumptions. Changes in these values during the last two calendar years ending December 31, 2020 and December 31, 2019 can be found in *Section 2, Schedule of changes in Net Pension Liability* on page 19.
3. There was a decrease in the total employer pension expense from \$590.7 million calculated last year to \$255.9 million calculated this year. The primary cause of the decrease was due to an investment gain of \$1.0 billion with \$201.6 million being recognized in this year's expense. There was also a reduction in the expense by about \$170.2 million due to the full recognition of the investment losses during calendar year 2015 in developing last year's expense.
4. The discount rate used to determine the TPL and NPL as of both December 31, 2020 and 2019 was 7.00% following the same assumption used by the System in the pension funding valuations as of December 31, 2019 and December 31, 2018. However, as the Board has approved a new set of actuarial assumptions for use in the next pension funding valuation as of December 31, 2020, we have estimated the impact of these assumption changes by (1) revaluing the TPL as of December 31, 2019 (before the roll forward) and (2) using this revalued TPL in rolling forward the results from December 31, 2019 to December 31, 2020. The detailed calculation of the discount rate of 7.00% used in the calculation of the TPL and NPL as of December 31, 2020 can be found in *Section 3, Appendix A*. Various other information that is required to be disclosed can be found throughout *Section 2*.
5. The 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).

<sup>1</sup> 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 \$2,111,687,000 during 2020 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 \$2,173,184,000.

## Section 1: Actuarial Valuation Summary

The Plan's Fiduciary Net Position of \$18,797,203,000 as of December 31, 2020 is equal to the final market value of assets in the Pension Trust Fund as of December 31, 2020. This differs from the \$18,494,462,000 market value of assets used in our December 31, 2020 funding valuation because (1) our valuation was based on the preliminary market value of assets provided in the unaudited financial statements<sup>1</sup> and (2) the market value of assets in the funding valuation excludes \$160,378,000 in the County Investment Account and \$13,433,000 in O.C. Sanitation District UAAL Deferred Account.

6. 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.
7. Results shown in this report exclude any employer contributions made after the measurement date of December 31, 2020. Employers should consult with their auditors to determine the deferred outflow that should be created for these contributions.
8. 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 #1<sup>2</sup> 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*.

9. On July 30, 2020, the California Supreme Court issued a decision in the case of Alameda County Deputy Sheriffs' Association et al. v. Alameda County Employees' Retirement Association (ACERA) and Board of Retirement of ACERA. That decision has important implications for OCERS and its members. In particular, the decision requires pension systems like OCERS to exclude certain pay items from a legacy member's compensation earnable. It should be noted that neither the December 31, 2020 assets provided by OCERS nor the liabilities we calculated using the membership data provided by OCERS reflect the financial impact of the California Supreme Court decision.

<sup>1</sup> The final market value of assets provided in the December 31, 2020 financial statements was higher than the preliminary market value of assets provided in the unaudited financial statements by approximately \$129 million.

<sup>2</sup> 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

10. It is important to note that this actuarial valuation is based on plan assets as of December 31, 2020. Due to the COVID-19 pandemic, market conditions have changed significantly since the onset of the Public Health Emergency. The plan's funded status does not reflect short-term fluctuations of the market, but rather is based on the market values on the last day of the plan year. Moreover, this actuarial valuation does not include any possible short-term or long-term impacts on mortality of the covered population that may emerge after December 31, 2020. While it is impossible to determine how the pandemic will affect market conditions and other demographic experience of the plan in future valuations, Segal is available to prepare projections of potential outcomes upon request.

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## Section 1: Actuarial Valuation Summary

### Summary of key valuation results

Reporting Date for Employer under GASB 68 <sup>1</sup>		June 30, 2021	June 30, 2020
Measurement Date for Employer under GASB 68		December 31, 2020	December 31, 2019
<b>Disclosure elements for calendar year ending December 31:</b>	• Service cost <sup>2</sup>	\$512,255,298	\$499,255,591
	• Total Pension Liability	23,010,449,650	21,754,263,463
	• Plan's Fiduciary Net Position	18,797,203,000	16,678,581,000
	• Net Pension Liability	4,213,246,650	5,075,682,463
	• Pension expense	255,861,827	590,748,219
<b>Schedule of contributions for calendar year ending December 31:</b>	• Actuarially determined contributions <sup>3</sup>	\$638,215,000	\$583,057,000
	• Actual contributions <sup>3</sup>	659,807,000	653,793,000
	• Contribution deficiency / (excess) <sup>4</sup>	(21,592,000)	(70,736,000)
<b>Demographic data for calendar year ending December 31:</b>	• Number of retired members and beneficiaries	19,419	18,420
	• Number of inactive vested members	6,818	6,520
	• Number of active members	21,559	22,257
<b>Key assumptions as of December 31:</b>	• Investment rate of return	7.00%	7.00%
	• Inflation rate	2.50%	2.75%
	• Projected salary increases <sup>5</sup>	General: 4.00% to 11.00% and Safety: 4.60% to 15.00%	General: 4.25% to 12.25% and Safety: 4.75% to 17.25%
	• Cost of living adjustments	2.75% of retirement income	2.75% of retirement income

<sup>1</sup> The reporting date and measurement date for the plan are December 31, 2020 and December 31, 2019.

<sup>2</sup> The service cost is based on the previous year's valuation, meaning the December 31, 2020 and December 31, 2019 measurement date values are based on the valuations as of December 31, 2019 and December 31, 2018, respectively. Both service costs have been calculated using the assumptions shown in the December 31, 2019 measurement date column, as there had been no changes in the actuarial assumptions between the December 31, 2018 and December 31, 2019 valuations.

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

<sup>4</sup> Includes additional contributions made by employers toward the reduction of their UAAL. Details are shown in *Section 2, Schedule of Contributions* on page 20.

<sup>5</sup> For measurement dates December 31, 2020 and December 31, 2019, includes inflation at 2.50% and 2.75% respectively, 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:

<b>Plan of Benefits</b>	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.
<b>Participant Data</b>	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.
<b>Assets</b>	This valuation is based on the market value of assets as of the measurement date, as provided by OCERS.
<b>Actuarial Assumptions</b>	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.
<b>Models</b>	Segal valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are presented to meet regulatory, legislative and client requirements. Our Actuarial Technology and Systems unit, comprised of both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuary.

## Section 1: Actuarial Valuation Summary

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

The valuation is prepared at the request of the 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, 2020, pension plan membership consisted of the following:

Retired members or beneficiaries currently receiving benefits	19,419
Inactive vested members entitled to but not yet receiving benefits	6,818
Active members	21,559
<b>Total</b>	<b>47,796</b>

Note: Data as of December 31, 2020 is not used in the measurement of the TPL as of December 31, 2020.

## 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 2020 or the second half of fiscal year 2019-2020 (based on the December 31, 2017 valuation) was 37.97%<sup>1</sup> of compensation. The average employer contribution rate for the last six months of calendar year 2020 or the first half of fiscal year 2020-2021 (based on the December 31, 2018 valuation) was 40.02%<sup>1</sup> 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 2020 or the second half of fiscal year 2019-2020 (based on the December 31, 2017 valuation) was 12.63%<sup>2</sup> of compensation. The average member contribution rate for the last six months of calendar year 2020 or the first half of fiscal year 2020-2021 (based on the December 31, 2018 valuation) was 12.47%<sup>2</sup> of compensation.

<sup>1</sup> These employer contribution rates may be higher or lower than the composite rate for 2020 as shown in the valuation 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.

<sup>2</sup> 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, 2021	June 30, 2020
Measurement Date for Employer under GASB 68	December 31, 2020	December 31, 2019
<b>Components of the Net Pension Liability</b>		
Total Pension Liability	\$23,010,449,650	\$21,754,263,463
Plan's Fiduciary Net Position	(18,797,203,000)	(16,678,581,000)
<b>Net Pension Liability</b>	<b>\$4,213,246,650</b>	<b>\$5,075,682,463</b>
Plan's Fiduciary Net Position as a percentage of the Total Pension Liability	81.69%	76.67%

The Net Pension Liability (NPL) was measured as of December 31, 2020 and 2019. 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, 2019 and 2018, respectively.

*Plan provisions.* The plan provisions used in the measurement of the NPL as of December 31, 2020 and 2019 are the same as those used in the OCERS actuarial valuations as of December 31, 2020 and 2019, respectively.

*Actuarial assumptions.* The TPL as of December 31, 2020 was remeasured by (1) revaluing the TPL as of December 31, 2019 (before the roll forward) to include the following actuarial assumptions that the Retirement Board has adopted for use in the pension funding valuation as of December 31, 2020 and (2) using this revalued TPL in rolling forward the results from December 31, 2019 to December 31, 2020:

<b>Inflation:</b>	2.50%
<b>Salary increases:</b>	General: 4.00% to 11.00% and Safety: 4.60% to 15.00%, vary by service, including inflation
<b>Cost of living adjustments:</b>	2.75% of retirement income
<b>Investment rate of return:</b>	7.00%, net of pension plan investment expense, including inflation
<b>Other assumptions:</b>	See analysis of actuarial experience during the period January 1, 2017 through December 31, 2019

## Section 2: GASB 68 Information

The TPL as of December 31, 2019 was determined by actuarial valuations as of December 31, 2018. 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 funding valuation for OCERS.

<b>Inflation:</b>	2.75%
<b>Salary increases:</b>	General: 4.25% to 12.25% and Safety: 4.75% to 17.25%, vary by service, including inflation
<b>Cost of living adjustments:</b>	2.75% of retirement income
<b>Investment rate of return:</b>	7.00%, net of pension plan investment expense, including inflation
<b>Other assumptions:</b>	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 investments<sup>1</sup> was determined in 2020 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, 2020 actuarial valuation. This information will change every three years based on the actuarial experience study.

Asset Class	Target Allocation	Long-Term Expected Arithmetic Real Rate of Return
Large Cap Equity	23.10%	5.43%
Small Cap Equity	1.90%	6.21%
International Developed Equity	13.00%	6.67%
Emerging Markets Equity	9.00%	8.58%
Core Bonds	9.00%	1.10%
High Yield Bonds	1.50%	2.91%
TIPS	2.00%	0.65%
Emerging Market Debt	2.00%	3.25%
Corporate Credit	1.00%	0.53%
Long Duration Fixed Income	2.50%	1.44%
Real Estate	3.01%	4.42%
Private Equity	13.00%	9.41%
Value Added Real Estate	3.01%	7.42%
Opportunistic Real Estate	0.98%	10.18%
Energy	2.00%	9.68%
Infrastructure (Core Private)	1.50%	5.08%
Infrastructure (Non-Core Private)	1.50%	8.92%
CTA - Trend Following	2.50%	2.38%
Global Macro	2.50%	2.13%
Private Credit	2.50%	5.47%
Alternative Risk Premia	2.50%	2.50%
<b>Total</b>	<b>100.00%</b>	

<sup>1</sup> Note that the investment return assumption for funding purposes is developed net of both investment and administrative expenses; however, the same investment return assumption is used for financial reporting purposes, where it is considered gross of administrative expenses.

## Section 2: GASB 68 Information

*Discount rate.* The discount rate used to measure the TPL was 7.00% as of December 31, 2020 and 2019. 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, 2020 and 2019.

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## 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, 2020, 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	\$5,967,353,655	\$3,547,545,979	\$1,575,031,351
O.C. Cemetery District	1,621,494	(145,195)	(1,585,318)
O.C. Law Library	706,984	(949,226)	(2,299,292)
O.C. Vector Control District	2,252,210	(1,681,965)	(4,888,921)
O.C. Retirement System	40,232,657	24,954,057	12,499,653
O.C. Fire Authority	498,882,290	181,121,638	(77,902,060)
Cypress Recreation and Parks	1,528,495	185,117	(909,942)
Department of Education	4,354,261	2,661,390	1,281,440
Transportation Corridor Agency	3,824,171	(3,881,366)	(10,162,561)
City of San Juan Capistrano	32,433,157	20,116,465	10,076,471
O.C. Sanitation District	45,329,114	(68,643,380)	(161,548,454)
O.C. Transportation Authority	336,233,423	186,024,390	63,580,976
U.C.I.	39,863,273	25,337,145	13,496,121
O.C. Children and Families Comm.	83,263	(612,417)	(1,179,503)
Local Agency Formation Comm.	2,012,326	1,248,133	625,198
Rancho Santa Margarita	3,780	(2,733)	(8,042)
O.C. Superior Court	483,138,839	299,663,880	150,103,631
O.C. IHSS Public Authority	<u>1,014,740</u>	<u>304,738</u>	<u>(274,023)</u>
<b>Total for all Employers</b>	<b>\$7,460,868,132</b>	<b>\$4,213,246,650</b>	<b>\$1,565,936,725</b>

## Section 2: GASB 68 Information

### Schedule of changes in Net Pension Liability — Last two calendar years

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68	June 30, 2021 December 31, 2020	June 30, 2020 December 31, 2019
<b>Total Pension Liability</b>		
• Service cost	\$512,255,298	\$499,255,591
• Interest	1,535,953,426	1,452,644,872
• Change of benefit terms	0	0
• Differences between expected and actual experience	162,335,537	24,382,911
• Changes of assumptions	18,966,926	0
• Benefit payments, including refunds of member contributions	(973,325,000)	(900,902,000)
• Transfer of members among Rate Groups	0	0
• Other	0	0
<b>Net change in Total Pension Liability</b>	<b>\$1,256,186,187</b>	<b>\$1,075,381,374</b>
<b>Total Pension Liability – beginning</b>	<b><u>21,754,263,463</u></b>	<b><u>20,678,882,089</u></b>
<b>Total Pension Liability – ending</b>	<b><u>\$23,010,449,650</u></b>	<b><u>\$21,754,263,463</u></b>
<b>Plan's Fiduciary Net Position</b>		
• Contributions – employer <sup>1</sup>	\$659,807,000	\$653,793,000
• Contributions – member	279,384,000	279,373,000
• Net investment income	2,173,184,000	2,183,808,000
• Benefit payments, including refunds of member contributions	(973,325,000)	(900,902,000)
• Transfer of members among Rate Groups	0	0
• Administrative expense	(20,428,000)	(19,171,000)
• Other	0	0
<b>Net change in Plan's Fiduciary Net Position</b>	<b>\$2,118,622,000</b>	<b>\$2,196,901,000</b>
<b>Plan's Fiduciary Net Position – beginning</b>	<b><u>\$16,678,581,000</u></b>	<b><u>14,481,680,000</u></b>
<b>Plan's Fiduciary Net Position – ending</b>	<b><u>\$18,797,203,000</u></b>	<b><u>\$16,678,581,000</u></b>
<b>Net Pension Liability – ending</b>	<b><u>\$4,213,246,650</u></b>	<b><u>\$5,075,682,463</u></b>
<b>Plan's Fiduciary Net Position as a percentage of the Total Pension Liability</b>	<b>81.69%</b>	<b>76.67%</b>
<b>Covered payroll<sup>2</sup></b>	<b>\$1,909,268,000</b>	<b>\$1,783,054,000</b>
<b>Plan Net Pension Liability as percentage of covered payroll</b>	<b>220.67%</b>	<b>284.66%</b>

<sup>1</sup> Reduced by discount for prepaid contributions and transfer from County Investment Account, if any.

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

## Section 2: GASB 68 Information

### Schedule of contributions – Last ten calendar years

Year Ended December 31	Actuarially Determined Contributions <sup>1,2</sup>	Contributions in Relation to the Actuarially Determined Contributions <sup>1,2</sup>	Contribution Deficiency / (Excess)	Covered Payroll <sup>3</sup>	Contributions as a Percentage of Covered Payroll <sup>1,2</sup>
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 <sup>4</sup>	(1,075,000)	1,494,745,000	28.57%
2014	476,320,000	625,520,000 <sup>5</sup>	(149,200,000)	1,513,206,000	41.34%
2015	502,886,000	571,298,000 <sup>6</sup>	(68,412,000)	1,521,036,000	37.56%
2016	521,447,000	567,196,000 <sup>7</sup>	(45,749,000)	1,602,675,000	35.40%
2017	536,726,000 <sup>8</sup>	572,104,000 <sup>7,9</sup>	(35,378,000)	1,678,322,000	34.09%
2018	556,728,000 <sup>10</sup>	580,905,000 <sup>9,11</sup>	(24,177,000)	1,718,798,000	33.80%
2019	583,057,000	653,793,000 <sup>12</sup>	(70,736,000)	1,783,054,000	36.67%
2020	638,215,000	659,807,000 <sup>13</sup>	(21,592,000)	1,909,268,000	34.56%

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

Calendar Year Ended December 31	Transfers from County Investment Account	Calendar Year Ended December 31	Transfers from County Investment Account
2011	\$11,000,000	2016	\$0
2012	5,500,000	2017	0
2013	5,000,000	2018	0
2014	5,000,000	2019	0
2015	0	2020	5,000,000

<sup>2</sup> Reduced by discount for prepaid contributions.

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

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

<sup>5</sup> 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.

<sup>6</sup> 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.

<sup>7</sup> 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.

<sup>8</sup> \$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.

<sup>9</sup> 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.

<sup>10</sup> \$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.

<sup>11</sup> 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.

<sup>12</sup> 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.

<sup>13</sup> Includes additional contributions of \$21,592,000 made by O.C. Fire Authority towards the reduction of their UAAL.

## Section 2: GASB 68 Information

### Notes to Schedule:

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

<b>Valuation date:</b>	Actuarially determined contribution rates for the first six months of calendar year 2020 or the second half of fiscal year 2019-2020 are calculated based on the December 31, 2017 valuation. Actuarially determined contribution rates for the last six months of calendar year 2020 or the first half of fiscal year 2020-2021 are calculated based on the December 31, 2018 valuation.
<b>Actuarial cost method:</b>	Entry Age Actuarial Cost Method
<b>Amortization method:</b>	Level percent of payroll for total unfunded actuarial accrued liability
<b>Remaining amortization period:</b>	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.
<b>Asset valuation method:</b>	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.

## Section 2: GASB 68 Information

Actuarial assumptions		
Valuation Date	December 31, 2017 valuation	December 31, 2018 Valuation
<b>Investment rate of return:</b>	7.00%, net of pension plan investment expense, including inflation	7.00%, net of pension plan investment expense, including inflation
<b>Inflation rate:</b>	2.75%	2.75%
<b>Real across-the-board salary increase:</b>	0.50%	0.50%
<b>Projected salary increases:</b>	General: 4.25% to 12.25% and Safety: 4.75% to 17.25%, vary by service, including inflation	General: 4.25% to 12.25% and Safety: 4.75% to 17.25%, vary by service, including inflation
<b>Cost of living adjustments:</b>	2.75% of retirement income	2.75% of retirement income
<b>Other assumptions:</b>	Same as those used in the December 31, 2017 funding actuarial valuation	Same as those used in the December 31, 2018 funding actuarial valuation

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## Section 2: GASB 68 Information

### 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, 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>
<b>Total for all Employers</b>	<b>\$13,420,000</b>	<b>100.000%</b>	<b>\$301,018,000</b>	<b>100.000%</b>	<b>\$8,056,000</b>	<b>100.000%</b>

Note: Results may not total due to rounding.

## Section 2: GASB 68 Information

### 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	0	0.000%	0	0.000%	0	0.000%
<b>Total for all Employers</b>	<b>\$0</b>	<b>100.000%</b>	<b>\$26,415,000</b>	<b>100.000%</b>	<b>\$1,248,000</b>	<b>100.000%</b>

Note: Results may not total due to rounding.

## Section 2: GASB 68 Information

### 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	0	0.000%	0	0.000%	0	0.000%
<b>Total for all Employers</b>	<b>\$8,578,000</b>	<b>100.000%</b>	<b>\$187,000</b>	<b>100.000%</b>	<b>\$118,000</b>	<b>100.000%</b>

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	0	0.000%	0	0.000%	0	0.000%
<b>Total for all Employers</b>	<b>\$30,025,000</b>	<b>100.000%</b>	<b>\$151,060,000</b>	<b>100.000%</b>	<b>\$61,888,000</b>	<b>100.000%</b>

Note: Results may not total due to rounding.

## Section 2: GASB 68 Information

### 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 <sup>1</sup>	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	188,000	0.031%
<b>Total for all Employers</b>	<b>\$602,013,000</b>	<b>100.000%</b>

Note: Results may not total due to rounding.

<sup>1</sup> 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 <sup>1</sup>	(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 <sup>1</sup>	262,415	0.333%	0	0.000%	0	0.000%
Department of Education <sup>1</sup>	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. <sup>1</sup>	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%
<b>Total for all Employers</b>	<b>\$78,737,465</b>	<b>100.000%</b>	<b>\$3,131,737,003</b>	<b>100.000%</b>	<b>\$(49,446,617)</b>	<b>100.000%</b>

Note: Results may not total due to rounding.

<sup>1</sup> 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%
<b>Total for all Employers</b>	<b>\$(2,214)</b>	<b>100.000%</b>	<b>\$224,284,548</b>	<b>100.000%</b>	<b>\$(1,753,164)</b>	<b>100.000%</b>

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	0	0.000%	0	0.000%	0	0.000%
<b>Total for all Employers</b>	<b>\$32,453,715</b>	<b>100.000%</b>	<b>\$(228,119)</b>	<b>100.000%</b>	<b>\$(74,515)</b>	<b>100.000%</b>

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%
<b>Total for all Employers</b>	<b>\$235,494,376</b>	<b>100.000%</b>	<b>\$1,102,538,243</b>	<b>100.000%</b>	<b>\$321,941,742</b>	<b>100.000%</b>

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 <sup>1</sup>	(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 <sup>1</sup>	262,415	0.005%
Department of Education <sup>1</sup>	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. <sup>1</sup>	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	719,301	0.014%
<b>Total for all Employers</b>	<b>\$5,075,682,463</b>	<b>100.000%</b>

Note: Results may not total due to rounding.

<sup>1</sup> 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

1. 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.)
  
- 2a. 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 applied 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.
  - Calculate ratio of employer's contributions to the total contributions for the Rate Group. For this purpose, the employer contributions exclude the following amounts:

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(i) Rate Group #1 (Department of Education):	\$267,000
(ii) Rate Group #1 (U.C.I.):	\$2,789,000
(iii) Rate Group #1 (O.C. Vector Control District):	\$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 reduce the NPL for the three employers as of December 31, 2019.
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:	\$5,558,363
Rate Group #2:	92,443,896
Rate Group #6:	9,607,620
Rate Group #7:	<u>42,806,121</u>
<b>Total:</b>	<b>\$150,416,000</b>

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.

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, 2020 to December 31, 2020

	Rate Group #1	Rate Group #1 Percentage	Rate Group #2	Rate Group #2 Percentage	Rate Group #3	Rate Group #3 Percentage
Orange County	\$12,491,000	98.696%	\$303,401,000	88.268%	\$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%	2,899,000	0.843%	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%	2,337,000	0.680%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	8,481,000	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%	132,000	0.038%	0	0.000%
Local Agency Formation Comm.	0	0.000%	145,000	0.042%	0	0.000%
Rancho Santa Margarita	0	0.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	34,813,000	10.128%	0	0.000%
O.C. IHSS Public Authority	165,000	1.304%	0	0.000%	0	0.000%
<b>Total for all Employers</b>	<b>\$12,656,000</b>	<b>100.000%</b>	<b>\$343,727,000</b>	<b>100.000%</b>	<b>\$8,481,000</b>	<b>100.000%</b>

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, 2020 to December 31, 2020

	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%	865,000	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%	28,893,000	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	0	0.000%	0	0.000%	0	0.000%
<b>Total for all Employers</b>	<b>\$0</b>	<b>100.000%</b>	<b>\$28,893,000</b>	<b>100.000%</b>	<b>\$865,000</b>	<b>100.000%</b>

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, 2020 to December 31, 2020

	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%	207,000	100.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	135,000	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	9,130,000	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	0	0.000%	0	0.000%	0	0.000%
<b>Total for all Employers</b>	<b>\$9,130,000</b>	<b>100.000%</b>	<b>\$207,000</b>	<b>100.000%</b>	<b>\$135,000</b>	<b>100.000%</b>

Note: Results may not total due to rounding.

## Section 2: GASB 68 Information

### Actual Contributions (Excluding Employer Paid Member Contributions and Not Reduced for Discount Due to Prepaid Contributions) by Employer and Rate Group January 1, 2020 to December 31, 2020

	Rate Group #6	Rate Group #6 Percentage	Rate Group #7	Rate Group #7 Percentage	Rate Group #8	Rate Group #8 Percentage
Orange County	\$31,178,000	100.000%	\$160,831,000	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%	68,457,000	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	0	0.000%	0	0.000%	0	0.000%
<b>Total for all Employers</b>	<b>\$31,178,000</b>	<b>100.000%</b>	<b>\$160,831,000</b>	<b>100.000%</b>	<b>\$68,457,000</b>	<b>100.000%</b>

Note: Results may not total due to rounding.

## Section 2: GASB 68 Information

### Actual Contributions (Excluding Employer Paid Member Contributions and Not Reduced for Discount Due to Prepaid Contributions) by Employer and Rate Group January 1, 2020 to December 31, 2020

	Total Contributions <sup>1</sup>	Total Percentage
Orange County	\$507,901,000	76.427%
O.C. Cemetery District	207,000	0.031%
O.C. Law Library	135,000	0.020%
O.C. Vector Control District	0	0.000%
O.C. Retirement System	2,899,000	0.436%
O.C. Fire Authority	77,587,000	11.675%
Cypress Recreation and Parks	0	0.000%
Department of Education	0	0.000%
Transportation Corridor Agency	865,000	0.130%
City of San Juan Capistrano	2,337,000	0.352%
O.C. Sanitation District	8,481,000	1.276%
O.C. Transportation Authority	28,893,000	4.348%
U.C.I.	0	0.000%
O.C. Children and Families Comm.	132,000	0.020%
Local Agency Formation Comm.	145,000	0.022%
Rancho Santa Margarita	0	0.000%
O.C. Superior Court	34,813,000	5.239%
O.C. IHSS Public Authority	165,000	0.025%
<b>Total for all Employers</b>	<b>\$664,560,000</b>	<b>100.000%</b>

Note: Results may not total due to rounding.

<sup>1</sup> Excludes combined additional contributions of \$21,592,000 made by O.C. Fire Authority towards the reduction of their UAALs, combined contributions of \$3,354,000 made by Department of Education and U.C.I. and combined employer pick-up contributions of \$32,000.

## Section 2: GASB 68 Information

### Allocation of December 31, 2020 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	\$19,115,737	41.626%	\$2,515,885,249	87.929%	\$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 <sup>1</sup>	(1,681,965)	(3.663%)	0	0.000%	0	0.000%
O.C. Retirement System	0	0.000%	24,954,057	0.872%	0	0.000%
O.C. Fire Authority	0	0.000%	0	0.000%	0	0.000%
Cypress Recreation and Parks <sup>1</sup>	185,117	0.403%	0	0.000%	0	0.000%
Department of Education <sup>1</sup>	2,661,390	5.795%	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%	20,116,465	0.703%	0	0.000%
O.C. Sanitation District	0	0.000%	0	0.000%	(68,643,380)	100.000%
O.C. Transportation Authority	0	0.000%	0	0.000%	0	0.000%
U.C.I. <sup>1</sup>	25,337,145	55.174%	0	0.000%	0	0.000%
O.C. Children and Families Comm.	0	0.000%	(612,417)	(0.021%)	0	0.000%
Local Agency Formation Comm.	0	0.000%	1,248,133	0.044%	0	0.000%
Rancho Santa Margarita	0	0.000%	0	0.000%	0	0.000%
O.C. Superior Court	0	0.000%	299,663,880	10.473%	0	0.000%
O.C. IHSS Public Authority	304,738	0.664%	0	0.000%	0	0.000%
<b>Total for all Employers</b>	<b>\$45,922,162</b>	<b>100.000%</b>	<b>\$2,861,255,367</b>	<b>100.000%</b>	<b>\$(68,643,380)</b>	<b>100.000%</b>

Note: Results may not total due to rounding.

<sup>1</sup> 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, 2019 to December 31, 2020 for the actual contributions, benefit payments and return on their VVAs during 2020. Those VVAs are then marked to the Plan's Fiduciary Net Position as of December 31, 2020. The TPLs for these employers are obtained from internal valuation results (first by revaluing the TPL as of December 31, 2019 to include the actuarial assumptions adopted by the Board for use in the pension funding valuation as of December 31, 2020 and then rolling forward those results from December 31, 2019 to December 31, 2020).

## Section 2: GASB 68 Information

### Allocation of December 31, 2020 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%	(3,881,366)	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%	186,024,390	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	(2,733)	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%
<b>Total for all Employers</b>	<b>\$(2,733)</b>	<b>100.000%</b>	<b>\$186,024,390</b>	<b>100.000%</b>	<b>\$(3,881,366)</b>	<b>100.000%</b>

Note: Results may not total due to rounding.

## Section 2: GASB 68 Information

### Allocation of December 31, 2020 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%	(145,195)	100.000%	0	0.000%
O.C. Law Library	0	0.000%	0	0.000%	(949,226)	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	19,602,561	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%
<b>Total for all Employers</b>	<b>\$19,602,561</b>	<b>100.000%</b>	<b>\$(145,195)</b>	<b>100.000%</b>	<b>\$(949,226)</b>	<b>100.000%</b>

Note: Results may not total due to rounding.

## Section 2: GASB 68 Information

### Allocation of December 31, 2020 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	\$156,749,960	100.000%	\$855,795,033	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%	161,519,077	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%
<b>Total for all Employers</b>	<b>\$156,749,960</b>	<b>100.000%</b>	<b>\$855,795,033</b>	<b>100.000%</b>	<b>\$161,519,077</b>	<b>100.000%</b>

Note: Results may not total due to rounding.

## Section 2: GASB 68 Information

### Allocation of December 31, 2020 Net Pension Liability

	Total NPL	Total Percentage
Orange County	\$3,547,545,979	84.200%
O.C. Cemetery District	(145,195)	(0.003%)
O.C. Law Library	(949,226)	(0.023%)
O.C. Vector Control District <sup>1</sup>	(1,681,965)	(0.040%)
O.C. Retirement System	24,954,057	0.592%
O.C. Fire Authority	181,121,638	4.299%
Cypress Recreation and Parks <sup>1</sup>	185,117	0.004%
Department of Education <sup>1</sup>	2,661,390	0.063%
Transportation Corridor Agency	(3,881,366)	(0.092%)
City of San Juan Capistrano	20,116,465	0.477%
O.C. Sanitation District	(68,643,380)	(1.629%)
O.C. Transportation Authority	186,024,390	4.415%
U.C.I. <sup>1</sup>	25,337,145	0.601%
O.C. Children and Families Comm.	(612,417)	(0.015%)
Local Agency Formation Comm.	1,248,133	0.030%
Rancho Santa Margarita	(2,733)	0.000%
O.C. Superior Court	299,663,880	7.112%
O.C. IHSS Public Authority	304,738	0.007%
<b>Total for all Employers</b>	<b>\$4,213,246,650</b>	<b>100.000%</b>

Note: Results may not total due to rounding.

<sup>1</sup> 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, 2019 to December 31, 2020 for the actual contributions, benefit payments and return on their VVAs during 2020. Those VVAs are then marked to the Plan's Fiduciary Net Position as of December 31, 2020. The TPLs for these employers are obtained from internal valuation results (first by revaluing the TPL as of December 31, 2019 to include the actuarial assumptions adopted by the Board for use in the pension funding valuation as of December 31, 2020 and then rolling forward those results from December 31, 2019 to December 31, 2020).

## Section 2: GASB 68 Information

### Notes regarding determination of proportionate share as of December 31, 2020 measurement date

1. Based on the January 1, 2020 through December 31, 2020 employer contributions as provided by OCERS. These contributions have been adjusted to include transfers made from the County Investment Account and to exclude employer paid member contributions and they have not been reduced for discount due to prepaid contributions.
- 2a. 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 applied during 2020. 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 increased by from \$12,057,000 to \$13,433,000 at the end of the year. 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.
  - Calculate ratio of employer's contributions to the total contributions for the Rate Group. For this purpose, the employer contributions exclude the following amounts:
 

(i) Rate Group #1 (Department of Education):	\$286,000
(ii) Rate Group #1 (U.C.I.):	\$3,068,000
  - 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) and (ii) above are adjusted with interest to December 31, 2020 and are used to reduce the NPL for the three employers as of December 31, 2020.

## Section 2: GASB 68 Information

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: \$3,953,868

Rate Group #2: 95,734,572

Rate Group #6: 9,868,945

Rate Group #7: 50,820,615

**Total: \$160,378,000**

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 \$1,782,458 as of December 31, 2019 as shown on Exhibit A1 and is equal to \$1,748,649 as of December 31, 2020 when adjusted with interest for the entire year and UAAL contribution offset starting from January 1, 2020 to December 31, 2020. We would continue to maintain the outstanding balance of the additional UAAL contributions for use in determining the NPL for this employer.

## Section 2: GASB 68 Information

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.

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. 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

## Section 2: GASB 68 Information

### 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
• Service cost	\$512,255,298	\$499,255,591
• Interest on the Total Pension Liability	1,535,953,426	1,452,644,872
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
• Current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	27,940,714	4,160,905
• Expensed portion of current-period changes of assumptions or other inputs	3,264,531	0
• Member contributions <sup>1</sup>	(279,416,000)	(279,408,000)
• Projected earnings on plan investments	(1,165,140,244)	(1,012,912,065)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(201,608,751)	(234,179,185)
• Administrative expense	20,428,000	19,171,000
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	428,190,705	613,106,124
• Recognition of beginning of year deferred inflows of resources as pension expense	(626,005,852)	(471,091,023)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
<b>Pension Expense</b>	<b>\$255,861,827</b>	<b>\$590,748,219</b>

<sup>1</sup> Member contributions include employer paid member contributions, if any.

## Section 2: GASB 68 Information

### 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
• Service cost	\$371,346,735	\$366,249,523
• Interest on the Total Pension Liability	1,139,902,216	1,076,190,936
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	2,220,532	(971,449)
• Current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	18,249,861	(2,795,814)
• Expensed portion of current-period changes of assumptions or other inputs	7,156,061	0
• Member contributions <sup>1</sup>	(210,961,842)	(213,046,536)
• Projected earnings on plan investments	(840,642,533)	(730,206,990)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(145,873,766)	(168,900,852)
• Administrative expense	15,077,479	13,419,571
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	310,426,008	449,703,448
• Recognition of beginning of year deferred inflows of resources as pension expense	(452,374,213)	(341,078,002)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	5,628,662	7,241,587
<b>Pension Expense</b>	<b>\$220,155,200</b>	<b>\$455,805,422</b>

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
• Service cost	\$355,759	\$351,892
• Interest on the Total Pension Liability	820,243	730,794
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
• Current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	94,716	(83,319)
• Expensed portion of current-period changes of assumptions or other inputs	29,012	0
• Member contributions <sup>1</sup>	(168,000)	(153,000)
• Projected earnings on plan investments	(785,319)	(684,372)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(133,716)	(155,024)
• Administrative expense	7,961	6,821
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	297,806	415,056
• Recognition of beginning of year deferred inflows of resources as pension expense	(478,922)	(301,651)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
<b>Pension Expense</b>	<b>\$39,540</b>	<b>\$127,197</b>

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
• Service cost	\$311,289	\$303,555
• Interest on the Total Pension Liability	777,650	757,369
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
• Current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	(53,515)	8,931
• Expensed portion of current-period changes of assumptions or other inputs	14,948	0
• Member contributions <sup>1</sup>	(164,000)	(159,000)
• Projected earnings on plan investments	(792,873)	(701,619)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(132,015)	(158,795)
• Administrative expense	6,373	5,567
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	273,670	862,354
• Recognition of beginning of year deferred inflows of resources as pension expense	(525,707)	(686,027)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	(414,500)	(372,508)
<b>Pension Expense</b>	<b>\$(698,680)</b>	<b>\$(140,173)</b>

<sup>1</sup> 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	June 30, 2021 December 31, 2020	June 30, 2020 December 31, 2019
<b>Components of Pension Expense</b>		
• Service cost	\$0	\$0
• Interest on the Total Pension Liability	1,873,171	1,838,973
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
• Current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	57,350	(63,304)
• Expensed portion of current-period changes of assumptions or other inputs	19,465	0
• Member contributions <sup>1</sup>	0	0
• Projected earnings on plan investments	(1,893,631)	(1,749,918)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(296,460)	(395,310)
• Administrative expense	0	18,033
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	699,624	1,062,703
• Recognition of beginning of year deferred inflows of resources as pension expense	(1,521,054)	(1,062,441)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
<b>Pension Expense</b>	<b>\$(1,061,535)</b>	<b>\$(351,264)</b>

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
• Service cost	\$2,248,238	\$2,204,272
• Interest on the Total Pension Liability	7,376,867	6,886,777
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	96,804	449,510
• Current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	111,162	(10,876)
• Expensed portion of current-period changes of assumptions or other inputs	282,596	0
• Member contributions <sup>1</sup>	(1,466,419)	(1,499,664)
• Projected earnings on plan investments	(5,410,502)	(4,653,533)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(925,785)	(1,072,280)
• Administrative expense	94,104	81,847
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	1,963,543	2,728,584
• Recognition of beginning of year deferred inflows of resources as pension expense	(2,964,238)	(2,347,848)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>1,010,362</u>	<u>703,821</u>
<b>Pension Expense</b>	<b>\$2,416,732</b>	<b>\$3,470,610</b>

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
• Service cost	\$65,552,468	\$58,846,217
• Interest on the Total Pension Liability	154,018,603	143,191,634
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
• Current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	4,854,232	4,913,957
• Expensed portion of current-period changes of assumptions or other inputs	(10,312,352)	0
• Member contributions <sup>1</sup>	(28,291,000)	(25,523,000)
• Projected earnings on plan investments	(126,504,684)	(107,793,739)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(22,320,190)	(24,840,760)
• Administrative expense	2,735,425	2,331,831
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	44,055,157	60,681,021
• Recognition of beginning of year deferred inflows of resources as pension expense	(66,197,374)	(44,682,965)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
<b>Pension Expense</b>	<b>\$17,590,285</b>	<b>\$67,124,196</b>

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
• Service cost	\$0	\$0
• Interest on the Total Pension Liability	316,509	308,444
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
• Current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	22,924	20,711
• Expensed portion of current-period changes of assumptions or other inputs	(2,566)	0
• Member contributions <sup>1</sup>	0	0
• Projected earnings on plan investments	(288,817)	(271,334)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(44,653)	(60,969)
• Administrative expense	0	0
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	828,662	807,951
• Recognition of beginning of year deferred inflows of resources as pension expense	(861,427)	(800,458)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
<b>Pension Expense</b>	<b>\$(29,368)</b>	<b>\$4,345</b>

<sup>1</sup> 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	June 30, 2021 December 31, 2020	June 30, 2020 December 31, 2019
<b>Components of Pension Expense</b>		
• Service cost	\$0	\$0
• Interest on the Total Pension Liability	833,351	846,896
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
• Current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	36,028	44,534
• Expensed portion of current-period changes of assumptions or other inputs	(21,159)	0
• Member contributions <sup>1</sup>	0	0
• Projected earnings on plan investments	(611,476)	(590,740)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(93,270)	(134,644)
• Administrative expense	6,223	5,494
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	348,521	596,709
• Recognition of beginning of year deferred inflows of resources as pension expense	(585,617)	(496,921)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
<b>Pension Expense</b>	<b>\$(87,399)</b>	<b>\$271,328</b>

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
• Service cost	\$1,680,188	\$1,628,951
• Interest on the Total Pension Liability	3,628,098	3,487,510
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
• Current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	96,200	111,634
• Expensed portion of current-period changes of assumptions or other inputs	36,170	0
• Member contributions <sup>1</sup>	(748,000)	(748,000)
• Projected earnings on plan investments	(3,648,043)	(2,907,084)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(603,159)	(683,108)
• Administrative expense	34,279	303,189
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	1,069,955	1,317,753
• Recognition of beginning of year deferred inflows of resources as pension expense	(1,589,325)	(1,134,685)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
<b>Pension Expense</b>	<b>\$(43,637)</b>	<b>\$1,376,160</b>

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
• Service cost	\$1,812,394	\$2,152,313
• Interest on the Total Pension Liability	5,946,788	6,724,443
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	(781,253)	(197,603)
• Current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	89,612	(10,620)
• Expensed portion of current-period changes of assumptions or other inputs	227,812	0
• Member contributions <sup>1</sup>	(1,182,139)	(1,464,314)
• Projected earnings on plan investments	(4,361,622)	(4,543,841)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(746,312)	(1,047,004)
• Administrative expense	75,861	79,918
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	1,582,891	2,664,267
• Recognition of beginning of year deferred inflows of resources as pension expense	(2,389,591)	(2,292,505)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	(518,208)	(100,772)
<b>Pension Expense</b>	<b>\$(243,767)</b>	<b>\$1,964,282</b>

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
• Service cost	\$17,388,689	\$17,019,396
• Interest on the Total Pension Liability	53,187,470	49,777,766
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
• Current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	2,527,848	1,527,660
• Expensed portion of current-period changes of assumptions or other inputs	2,035,121	0
• Member contributions <sup>1</sup>	(8,329,000)	(7,999,000)
• Projected earnings on plan investments	(54,967,224)	(46,959,052)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(9,041,738)	(10,929,917)
• Administrative expense	358,146	1,103,626
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	19,316,348	25,093,591
• Recognition of beginning of year deferred inflows of resources as pension expense	(25,653,746)	(18,624,486)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>414,500</u>	<u>372,508</u>
<b>Pension Expense</b>	<b>\$(2,763,586)</b>	<b>\$10,382,092</b>

<sup>1</sup> 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	June 30, 2021 December 31, 2020	June 30, 2020 December 31, 2019
<b>Components of Pension Expense</b>		
• Service cost	\$24,228,350	\$22,489,191
• Interest on the Total Pension Liability	70,938,807	67,523,163
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
• Current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	361,484	434,162
• Expensed portion of current-period changes of assumptions or other inputs	589,638	0
• Member contributions <sup>1</sup>	(10,329,000)	(9,822,000)
• Projected earnings on plan investments	(54,696,206)	(48,088,883)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(9,421,035)	(11,118,571)
• Administrative expense	826,046	721,096
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	21,034,188	29,054,915
• Recognition of beginning of year deferred inflows of resources as pension expense	(31,437,967)	(24,856,850)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
<b>Pension Expense</b>	<b>\$12,094,305</b>	<b>\$26,336,223</b>

<sup>1</sup> 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	June 30, 2021 December 31, 2020	June 30, 2020 December 31, 2019
<b>Components of Pension Expense</b>		
• Service cost	\$0	\$0
• Interest on the Total Pension Liability	7,153,449	7,314,482
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
• Current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	179,363	217,420
• Expensed portion of current-period changes of assumptions or other inputs	(189,697)	0
• Member contributions <sup>1</sup>	0	0
• Projected earnings on plan investments	(5,069,213)	(4,883,758)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(779,876)	(1,113,640)
• Administrative expense	66,734	57,294
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	2,523,897	3,586,875
• Recognition of beginning of year deferred inflows of resources as pension expense	(3,532,556)	(3,010,050)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
<b>Pension Expense</b>	<b>\$352,101</b>	<b>\$2,168,623</b>

<sup>1</sup> 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	June 30, 2021 December 31, 2020	June 30, 2020 December 31, 2019
<b>Components of Pension Expense</b>		
• Service cost	\$(55,177)	\$(53,122)
• Interest on the Total Pension Liability	(181,041)	(165,973)
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	29,890	(189,450)
• Current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	(2,728)	262
• Expensed portion of current-period changes of assumptions or other inputs	(6,935)	0
• Member contributions <sup>1</sup>	35,989	36,142
• Projected earnings on plan investments	132,783	112,151
• Expensed portion of current-period differences between actual and projected earnings on plan investments	22,720	25,842
• Administrative expense	(2,309)	(1,973)
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	(48,189)	(65,760)
• Recognition of beginning of year deferred inflows of resources as pension expense	72,748	56,584
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	(495,651)	(350,297)
<b>Pension Expense</b>	<b>\$(497,900)</b>	<b>\$(595,594)</b>

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
• Service cost	\$112,450	\$122,410
• Interest on the Total Pension Liability	368,970	382,446
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	(23,468)	26,906
• Current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	5,560	(604)
• Expensed portion of current-period changes of assumptions or other inputs	14,135	0
• Member contributions <sup>1</sup>	(73,346)	(83,281)
• Projected earnings on plan investments	(270,618)	(258,426)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(46,305)	(59,547)
• Administrative expense	4,707	4,545
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	98,211	151,527
• Recognition of beginning of year deferred inflows of resources as pension expense	(148,263)	(130,384)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>29,626</u>	<u>31,249</u>
<b>Pension Expense</b>	<b>\$71,659</b>	<b>\$186,841</b>

<sup>1</sup> 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	June 30, 2021 December 31, 2020	June 30, 2020 December 31, 2019
<b>Components of Pension Expense</b>		
• 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
• Current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	134	133
• Expensed portion of current-period changes of assumptions or other inputs	(184)	0
• Member contributions <sup>1</sup>	0	0
• Projected earnings on plan investments	(3,320)	(3,076)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(26)	(884)
• Administrative expense	0	0
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	2,337	3,874
• Recognition of beginning of year deferred inflows of resources as pension expense	(4,101)	(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>
<b>Pension Expense</b>	<b>\$(1,940)</b>	<b>\$(95)</b>

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
• Service cost	\$26,998,252	\$27,673,610
• Interest on the Total Pension Liability	88,586,015	86,460,274
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	(1,537,061)	878,732
• Current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	1,334,903	(136,545)
• Expensed portion of current-period changes of assumptions or other inputs	3,393,587	0
• Member contributions <sup>1</sup>	(17,609,678)	(18,827,583)
• Projected earnings on plan investments	(64,972,680)	(58,422,939)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(11,117,400)	(13,461,975)
• Administrative expense	1,130,057	1,027,549
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	23,579,451	34,256,104
• Recognition of beginning of year deferred inflows of resources as pension expense	(35,596,413)	(29,476,139)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	(5,693,830)	(7,563,741)
<b>Pension Expense</b>	<b>\$8,495,203</b>	<b>\$22,407,347</b>

<sup>1</sup> 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	June 30, 2021 December 31, 2020	June 30, 2020 December 31, 2019
<b>Components of Pension Expense</b>		
• Service cost	\$275,663	\$267,383
• Interest on the Total Pension Liability	403,040	385,718
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	(5,444)	3,354
• Current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	(24,420)	(17,417)
• Expensed portion of current-period changes of assumptions or other inputs	(1,121)	0
• Member contributions <sup>1</sup>	(129,565)	(118,764)
• Projected earnings on plan investments	(354,266)	(304,912)
• Expensed portion of current-period differences between actual and projected earnings on plan investments	(55,765)	(71,747)
• Administrative expense	6,914	6,592
• Other	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	138,625	185,152
• Recognition of beginning of year deferred inflows of resources as pension expense	(218,086)	(162,833)
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	<u>39,039</u>	<u>38,153</u>
<b>Pension Expense</b>	<b>\$74,614</b>	<b>\$210,679</b>

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$29,842,680	\$28,080,600
• Changes of assumptions or other inputs	447,613,509	419,380,310
• Difference between projected and actual earnings on pension plan investments	544,111,478	816,168,467
• Difference between expected and actual experience in the Total Pension Liability	<u>185,878,956</u>	<u>55,757,456</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$1,207,446,623</b>	<b>\$1,319,386,833</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$29,842,680	\$28,080,600
• Changes of assumptions or other inputs	155,261,175	8,813,853
• Difference between projected and actual earnings on pension plan investments	1,710,902,886	1,383,375,142
• Difference between expected and actual experience in the Total Pension Liability	<u>169,219,589</u>	<u>298,374,305</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$2,065,226,330</b>	<b>\$1,718,643,900</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GASB 68 Year Ended June 30:</b>		
2021	N/A	\$(197,815,147)
2022	\$(277,027,099)	(106,623,593)
2023	(21,858,500)	148,545,006
2024	(417,345,225)	(246,941,719)
2025	(166,825,121)	3,578,386
2026	25,276,238	0
2027	0	0
Thereafter	0	0

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$22,213,247	\$18,170,596
• Changes of assumptions or other inputs	350,580,446	322,870,826
• Difference between projected and actual earnings on pension plan investments	392,622,732	587,160,184
• Difference between expected and actual experience in the Total Pension Liability	<u>106,688,286</u>	<u>13,982,779</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$872,104,711</b>	<b>\$942,184,385</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$3,780,248	\$4,789,699
• Changes of assumptions or other inputs	102,623,510	6,642,961
• Difference between projected and actual earnings on pension plan investments	1,237,325,625	997,095,584
• Difference between expected and actual experience in the Total Pension Liability	<u>116,822,611</u>	<u>206,914,979</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$1,460,551,994</b>	<b>\$1,215,443,223</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GASB 68 Year Ended June 30:</b>		
2021	N/A	\$(135,857,568)
2022	\$(187,706,942)	(67,712,535)
2023	8,279,692	116,022,910
2024	(336,443,054)	(182,471,793)
2025	(112,476,870)	(3,239,852)
2026	39,568,470	0
2027	0	0
Thereafter	0	0

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$0	\$0
• Changes of assumptions or other inputs	302,773	244,428
• Difference between projected and actual earnings on pension plan investments	371,071	556,607
• Difference between expected and actual experience in the Total Pension Liability	<u>528,105</u>	<u>103,588</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$1,201,949</b>	<b>\$904,623</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$0	\$0
• Changes of assumptions or other inputs	0	5,895
• Difference between projected and actual earnings on pension plan investments	1,132,625	911,694
• Difference between expected and actual experience in the Total Pension Liability	<u>423,161</u>	<u>582,255</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$1,555,786</b>	<b>\$1,499,844</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GASB 68 Year Ended June 30:</b>		
2021	N/A	\$(181,116)
2022	\$(155,369)	(145,381)
2023	8,260	18,248
2024	(225,303)	(215,315)
2025	(81,645)	(71,657)
2026	100,220	0
2027	0	0
Thereafter	0	0

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$0	\$9,214
• Changes of assumptions or other inputs	215,323	214,778
• Difference between projected and actual earnings on pension plan investments	386,769	580,153
• Difference between expected and actual experience in the Total Pension Liability	<u>34,476</u>	<u>43,407</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$636,568</b>	<b>\$847,552</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$25,423	\$449,137
• Changes of assumptions or other inputs	0	30,514
• Difference between projected and actual earnings on pension plan investments	1,139,777	921,702
• Difference between expected and actual experience in the Total Pension Liability	<u>481,376</u>	<u>409,176</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$1,646,576</b>	<b>\$1,810,529</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GASB 68 Year Ended June 30:</b>		
2021	N/A	\$(666,537)
2022	\$(315,774)	(145,192)
2023	(126,251)	44,331
2024	(373,844)	(203,262)
2025	(162,898)	7,683
2026	(31,241)	0
2027	0	0
Thereafter	0	0

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$0	\$0
• Changes of assumptions or other inputs	384,382	435,411
• Difference between projected and actual earnings on pension plan investments	994,611	1,491,917
• Difference between expected and actual experience in the Total Pension Liability	<u>388,960</u>	<u>170,770</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$1,767,953</b>	<b>\$2,098,098</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$0	\$0
• Changes of assumptions or other inputs	0	0
• Difference between projected and actual earnings on pension plan investments	2,740,586	2,404,780
• Difference between expected and actual experience in the Total Pension Liability	<u>840,768</u>	<u>1,511,789</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$3,581,354</b>	<b>\$3,916,569</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GASB 68 Year Ended June 30:</b>		
2021	N/A	\$(821,430)
2022	\$(568,755)	(349,110)
2023	(177,724)	41,921
2024	(855,054)	(635,409)
2025	(274,087)	(54,443)
2026	62,219	0
2027	0	0
Thereafter	0	0

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$3,305,581	\$3,962,866
• Changes of assumptions or other inputs	2,731,424	2,018,023
• Difference between projected and actual earnings on pension plan investments	2,561,775	3,773,899
• Difference between expected and actual experience in the Total Pension Liability	<u>534,689</u>	<u>0</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$9,133,469</b>	<b>\$9,754,788</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$105,794	\$218,343
• Changes of assumptions or other inputs	0	62,731
• Difference between projected and actual earnings on pension plan investments	7,932,122	6,362,377
• Difference between expected and actual experience in the Total Pension Liability	<u>645,269</u>	<u>1,273,114</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$8,683,185</b>	<b>\$7,916,565</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GASB 68 Year Ended June 30:</b>		
2021	N/A	\$27,575
2022	\$27,575	246,502
2023	246,502	1,558,040
2024	1,558,040	(371,122)
2025	(371,122)	377,228
2026	(1,010,711)	0
2027	0	0
Thereafter	0	0

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$0	\$0
• Changes of assumptions or other inputs	20,847,354	29,267,911
• Difference between projected and actual earnings on pension plan investments	56,903,410	85,355,117
• Difference between expected and actual experience in the Total Pension Liability	<u>42,647,259</u>	<u>24,478,887</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$120,398,023</b>	<b>\$139,101,915</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$0	\$0
• Changes of assumptions or other inputs	51,604,825	130,986
• Difference between projected and actual earnings on pension plan investments	184,283,215	144,282,784
• Difference between expected and actual experience in the Total Pension Liability	<u>22,151,617</u>	<u>38,937,675</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$258,039,657</b>	<b>\$183,351,445</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GASB 68 Year Ended June 30:</b>		
2021	N/A	\$(22,142,217)
2022	\$(42,479,079)	(14,700,769)
2023	(16,842,534)	10,935,776
2024	(50,346,635)	(22,568,325)
2025	(23,552,306)	4,226,005
2026	(4,421,080)	0
2027	0	0
Thereafter	0	0

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$0	\$0
• Changes of assumptions or other inputs	46,968	70,336
• Difference between projected and actual earnings on pension plan investments	141,322	211,982
• Difference between expected and actual experience in the Total Pension Liability	<u>1,628,200</u>	<u>2,252,572</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$1,816,490</b>	<b>\$2,534,890</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$0	\$0
• Changes of assumptions or other inputs	12,345	0
• Difference between projected and actual earnings on pension plan investments	1,161,975	1,844,790
• Difference between expected and actual experience in the Total Pension Liability	<u>0</u>	<u>0</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$1,174,320</b>	<b>\$1,844,790</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GASB 68 Year Ended June 30:</b>		
2021	N/A	\$(32,765)
2022	\$(57,059)	(32,764)
2023	743,400	767,695
2024	(54,174)	(29,879)
2025	(6,482)	17,813
2026	16,485	0
2027	0	0
Thereafter	0	0

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$0	\$0
• Changes of assumptions or other inputs	118,721	177,787
• Difference between projected and actual earnings on pension plan investments	360,014	540,022
• Difference between expected and actual experience in the Total Pension Liability	<u>444,465</u>	<u>380,618</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$923,200</b>	<b>\$1,098,427</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$0	\$0
• Changes of assumptions or other inputs	101,775	10,085
• Difference between projected and actual earnings on pension plan investments	917,172	858,174
• Difference between expected and actual experience in the Total Pension Liability	<u>417,291</u>	<u>678,741</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$1,436,238</b>	<b>\$1,547,000</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GASB 68 Year Ended June 30:</b>		
2021	N/A	\$(237,096)
2022	\$(245,262)	(166,861)
2023	(100,781)	(22,380)
2024	(138,938)	(60,537)
2025	(40,100)	38,301
2026	12,043	0
2027	0	0
Thereafter	0	0

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$0	\$0
• Changes of assumptions or other inputs	761,881	880,388
• Difference between projected and actual earnings on pension plan investments	1,248,052	1,872,077
• Difference between expected and actual experience in the Total Pension Liability	<u>924,761</u>	<u>615,484</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$2,934,694</b>	<b>\$3,367,949</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$0	\$0
• Changes of assumptions or other inputs	0	28,116
• Difference between projected and actual earnings on pension plan investments	4,929,682	3,760,486
• Difference between expected and actual experience in the Total Pension Liability	<u>622,420</u>	<u>940,190</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$5,552,102</b>	<b>\$4,728,792</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GASB 68 Year Ended June 30:</b>		
2021	N/A	\$(519,370)
2022	\$(858,073)	(387,284)
2023	(421,479)	49,310
2024	(1,070,295)	(599,506)
2025	(374,781)	96,007
2026	107,220	0
2027	0	0
Thereafter	0	0

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$560,255	\$887,243
• Changes of assumptions or other inputs	2,201,910	1,970,455
• Difference between projected and actual earnings on pension plan investments	2,065,149	3,684,941
• Difference between expected and actual experience in the Total Pension Liability	<u>431,035</u>	<u>0</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$5,258,349</b>	<b>\$6,542,639</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$4,888,341	\$1,975,710
• Changes of assumptions or other inputs	0	61,252
• Difference between projected and actual earnings on pension plan investments	6,394,402	6,212,405
• Difference between expected and actual experience in the Total Pension Liability	<u>520,178</u>	<u>1,243,105</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$11,802,921</b>	<b>\$9,492,472</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GASB 68 Year Ended June 30:</b>		
2021	N/A	\$(1,477,829)
2022	\$(1,477,829)	(718,794)
2023	(718,794)	771,469
2024	771,469	(1,345,609)
2025	(1,345,609)	(179,070)
2026	(3,773,809)	0
2027	0	0
Thereafter	0	0

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$25,423	\$449,137
• Changes of assumptions or other inputs	18,009,943	12,311,067
• Difference between projected and actual earnings on pension plan investments	26,281,119	39,421,678
• Difference between expected and actual experience in the Total Pension Liability	<u>19,679,712</u>	<u>9,606,499</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$63,996,197</b>	<b>\$61,788,381</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$0	\$9,214
• Changes of assumptions or other inputs	0	372,978
• Difference between projected and actual earnings on pension plan investments	78,515,498	64,842,567
• Difference between expected and actual experience in the Total Pension Liability	<u>2,630,086</u>	<u>5,416,832</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$81,145,584</b>	<b>\$70,641,591</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GASB 68 Year Ended June 30:</b>		
2021	N/A	\$(5,922,898)
2022	\$(7,334,143)	(2,855,374)
2023	2,995,140	7,473,909
2024	(13,341,404)	(8,862,635)
2025	(3,164,982)	1,313,788
2026	3,696,002	0
2027	0	0
Thereafter	0	0

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$0	\$0
• Changes of assumptions or other inputs	17,474,376	21,920,909
• Difference between projected and actual earnings on pension plan investments	26,217,519	39,326,279
• Difference between expected and actual experience in the Total Pension Liability	<u>3,427,122</u>	<u>2,331,117</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$47,119,017</b>	<b>\$63,578,305</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$0	\$0
• Changes of assumptions or other inputs	0	595,454
• Difference between projected and actual earnings on pension plan investments	80,855,942	66,279,519
• Difference between expected and actual experience in the Total Pension Liability	<u>14,033,597</u>	<u>21,768,391</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$94,889,539</b>	<b>\$88,643,364</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GASB 68 Year Ended June 30:</b>		
2021	N/A	\$(10,403,779)
2022	\$(15,757,308)	(7,287,395)
2023	(3,707,875)	4,762,038
2024	(20,979,218)	(12,509,305)
2025	(8,096,533)	373,382
2026	770,412	0
2027	0	0
Thereafter	0	0

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$0	\$0
• Changes of assumptions or other inputs	951,705	1,425,191
• Difference between projected and actual earnings on pension plan investments	2,966,035	4,449,052
• Difference between expected and actual experience in the Total Pension Liability	<u>2,085,835</u>	<u>1,790,493</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$6,003,575</b>	<b>\$7,664,736</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$0	\$0
• Changes of assumptions or other inputs	912,444	79,608
• Difference between projected and actual earnings on pension plan investments	7,628,033	7,119,985
• Difference between expected and actual experience in the Total Pension Liability	<u>1,590,593</u>	<u>2,432,087</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$10,131,070</b>	<b>\$9,631,680</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GASB 68 Year Ended June 30:</b>		
2021	N/A	\$(1,008,659)
2022	\$(1,526,539)	(736,329)
2023	(405,286)	384,924
2024	(1,584,071)	(793,861)
2025	(603,227)	186,981
2026	(8,372)	0
2027	0	0
Thereafter	0	0

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$143,769	\$0
• Changes of assumptions or other inputs	(67,034)	(48,635)
• Difference between projected and actual earnings on pension plan investments	(62,871)	(90,952)
• Difference between expected and actual experience in the Total Pension Liability	(13,122)	0
<b>• Total Deferred Outflows of Resources</b>	<b>\$742</b>	<b>\$(139,587)</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$1,156,467	\$1,652,118
• Changes of assumptions or other inputs	0	(1,512)
• Difference between projected and actual earnings on pension plan investments	(194,668)	(153,335)
• Difference between expected and actual experience in the Total Pension Liability	(15,836)	(30,682)
<b>• Total Deferred Inflows of Resources</b>	<b>\$945,963</b>	<b>\$1,466,589</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GASB 68 Year Ended June 30:</b>		
2021	N/A	\$(471,966)
2022	\$(471,966)	(411,273)
2023	(411,273)	(342,312)
2024	(342,312)	(217,925)
2025	(217,925)	(162,700)
2026	498,255	0
2027	0	0
Thereafter	0	0

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$159,107	\$246,158
• Changes of assumptions or other inputs	136,618	112,068
• Difference between projected and actual earnings on pension plan investments	128,133	209,577
• Difference between expected and actual experience in the Total Pension Liability	<u>26,744</u>	<u>0</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$450,602</b>	<b>\$567,803</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$132,905	\$77,447
• Changes of assumptions or other inputs	0	3,484
• Difference between projected and actual earnings on pension plan investments	396,743	353,324
• Difference between expected and actual experience in the Total Pension Liability	<u>32,275</u>	<u>70,700</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$561,923</b>	<b>\$504,955</b>

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

<b>Reporting Date for Employer under GASB 68 Year Ended June 30:</b>		
2021	N/A	\$(24,951)
2022	\$(24,951)	39,056
2023	39,056	61,377
2024	61,377	(35,256)
2025	(35,256)	22,622
2026	(151,547)	0
2027	0	0
Thereafter	0	0

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$0	\$0
• Changes of assumptions or other inputs	321	480
• Difference between projected and actual earnings on pension plan investments	1,174	3,008
• Difference between expected and actual experience in the Total Pension Liability	<u>1,544</u>	<u>1,242</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$3,039</b>	<b>\$4,730</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$0	\$0
• Changes of assumptions or other inputs	886	29
• Difference between projected and actual earnings on pension plan investments	3,756	5,535
• Difference between expected and actual experience in the Total Pension Liability	<u>3,198</u>	<u>5,388</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$7,840</b>	<b>\$10,952</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GASB 68 Year Ended June 30:</b>		
2021	N/A	\$(1,764)
2022	\$(2,848)	(2,772)
2023	(1,235)	(1,159)
2024	(718)	(642)
2025	40	115
2026	(40)	0
2027	0	0
Thereafter	0	0

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$3,391,904	\$4,270,636
• Changes of assumptions or other inputs	32,800,644	25,335,345
• Difference between projected and actual earnings on pension plan investments	30,763,392	47,379,540
• Difference between expected and actual experience in the Total Pension Liability	<u>6,420,885</u>	<u>0</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$73,376,825</b>	<b>\$76,985,521</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$19,720,574	\$18,899,874
• Changes of assumptions or other inputs	0	787,559
• Difference between projected and actual earnings on pension plan investments	95,253,873	79,876,681
• Difference between expected and actual experience in the Total Pension Liability	<u>7,748,797</u>	<u>15,983,355</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$122,723,244</b>	<b>\$115,547,469</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GASB 68 Year Ended June 30:</b>		
2021	N/A	\$(18,032,264)
2022	\$(18,032,264)	(11,227,431)
2023	(11,227,431)	5,992,846
2024	5,992,846	(15,933,378)
2025	(15,933,378)	638,279
2026	(10,146,192)	0
2027	0	0
Thereafter	0	0

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
<b>Deferred Outflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$43,394	\$84,750
• Changes of assumptions or other inputs	115,754	173,542
• Difference between projected and actual earnings on pension plan investments	162,072	243,386
• Difference between expected and actual experience in the Total Pension Liability	<u>0</u>	<u>0</u>
<b>• Total Deferred Outflows of Resources</b>	<b>\$321,220</b>	<b>\$501,678</b>
<b>Deferred Inflows of Resources</b>		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$32,928	\$9,058
• Changes of assumptions or other inputs	5,390	3,713
• Difference between projected and actual earnings on pension plan investments	486,528	396,090
• Difference between expected and actual experience in the Total Pension Liability	<u>272,188</u>	<u>237,210</u>
<b>• Total Deferred Inflows of Resources</b>	<b>\$797,034</b>	<b>\$646,071</b>
<b>Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:</b>		
<b>Reporting Date for Employer under GASB 68 Year Ended June 30:</b>		
2021	N/A	\$(40,513)
2022	\$(40,513)	(29,887)
2023	(29,887)	26,063
2024	26,063	(87,960)
2025	(87,960)	(12,096)
2026	(12,096)	0
2027	0	0
Thereafter	0	0

<sup>1</sup> 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, 2020. 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., 2020) is recognized over the average of the expected remaining service lives of all employees that are provided with pensions through OCERS which is 5.81 years determined as of December 31, 2019 (the beginning of the measurement period ended December 31, 2020). 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, 2020 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 <sup>1</sup>	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%
2021	100.000%	4,213,246,650	1,909,268,347	220.67%	81.69%

<sup>1</sup> 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 <sup>1</sup>	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%
2021	84.200%	3,547,545,979	1,403,384,933	252.78%	79.31%

<sup>1</sup> 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 <sup>1</sup>	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%
2021	(0.003%)	(145,195)	1,730,433	(8.39%)	101.16%

<sup>1</sup> 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 <sup>1</sup>	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%
2021	(0.023%)	(949,226)	1,109,082	(85.59%)	108.09%

<sup>1</sup> 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 <sup>1</sup>	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%
2021	(0.040%)	(1,681,965)	0	N/A	106.03%

<sup>1</sup> 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 <sup>1</sup>	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%
2021	0.592%	24,954,057	9,414,503	265.06%	76.95%

<sup>1</sup> 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 <sup>1</sup>	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%
2021	4.299%	181,121,638	190,254,989	95.20%	91.96%

<sup>1</sup> 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 <sup>1</sup>	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%
2021	0.004%	185,117	0	N/A	96.03%

<sup>1</sup> 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 <sup>1</sup>	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%
2021	0.063%	2,661,390	0	N/A	77.81%

<sup>1</sup> 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 <sup>1</sup>	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%
2021	(0.092%)	(3,881,366)	7,257,523	(53.48%)	107.11%

<sup>1</sup> 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 <sup>1</sup>	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%
2021	0.477%	20,116,465	6,701,987	300.16%	76.95%

<sup>1</sup> 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 <sup>1</sup>	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%
2021	(1.629%)	(68,643,380)	73,290,519	(93.66%)	108.50%

<sup>1</sup> 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 <sup>1</sup>	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%
2021	4.415%	186,024,390	102,499,571	181.49%	82.52%

<sup>1</sup> 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 <sup>1</sup>	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%
2021	0.601%	25,337,145	0	N/A	75.38%

<sup>1</sup> 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 <sup>1</sup>	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%
2021	(0.015%)	(612,417)	1,167,468	(52.46%)	112.42%

<sup>1</sup> 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 <sup>1</sup>	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%
2021	0.030%	1,248,133	463,507	269.28%	76.95%

<sup>1</sup> 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 <sup>1</sup>	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%
2021	(0.000%)	(2,733)	0	N/A	105.92%

<sup>1</sup> 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 <sup>1</sup>	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%
2021	7.112%	299,663,880	110,862,286	270.30%	76.95%

<sup>1</sup> 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 <sup>1</sup>	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%
2021	0.007%	304,738	1,131,545	26.93%	93.94%

<sup>1</sup> 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 Employers

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68 Reconciliation of Net Pension Liability	June 30, 2021 December 31, 2020	June 30, 2020 December 31, 2019
• Beginning Net Pension Liability	\$5,075,682,463	\$6,197,202,089
• Pension Expense	255,861,827	590,748,219
• Employer Contributions	(659,775,000)	(653,758,000)
• New Net Deferred Inflows/Outflows	(656,337,787)	(916,494,744)
• Change in Allocation of Prior Deferred Inflows/Outflows	0	0
• New Net Deferred Flows Due to Change in Proportion <sup>1</sup>	0	0
• Recognition of Prior Deferred Inflows/Outflows	197,815,147	(142,015,101)
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>1</sup>	<u>0</u>	<u>0</u>
<b>Ending Net Pension Liability</b>	<b>\$4,213,246,650</b>	<b>\$5,075,682,463</b>

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
• Beginning Net Pension Liability	\$4,124,212,240	\$4,918,576,912
• Pension Expense	220,155,200	455,805,422
• Employer Contributions	(481,633,016)	(439,861,920)
• New Net Deferred Inflows/Outflows	(461,292,587)	(689,191,062)
• Change in Allocation of Prior Deferred Inflows/Outflows	(896,165)	(528,831)
• New Net Deferred Flows Due to Change in Proportion <sup>1</sup>	10,680,764	(4,721,248)
• Recognition of Prior Deferred Inflows/Outflows	141,948,205	(108,625,446)
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>1</sup>	<u>(5,628,662)</u>	<u>(7,241,587)</u>
<b>Ending Net Pension Liability</b>	<b>\$3,547,545,979</b>	<b>\$4,124,212,240</b>

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
• Beginning Net Pension Liability	\$(228,119)	\$962,119
• Pension Expense	39,540	127,197
• Employer Contributions	(198,000)	(179,000)
• New Net Deferred Inflows/Outflows	60,268	(1,025,030)
• Change in Allocation of Prior Deferred Inflows/Outflows	0	0
• New Net Deferred Flows Due to Change in Proportion <sup>1</sup>	0	0
• Recognition of Prior Deferred Inflows/Outflows	181,116	(113,405)
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>1</sup>	<u>0</u>	<u>0</u>
<b>Ending Net Pension Liability</b>	<b>\$(145,195)</b>	<b>\$(228,119)</b>

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
• Beginning Net Pension Liability	\$(74,515)	\$573,252
• Pension Expense	(698,680)	(140,173)
• Employer Contributions	(129,000)	(112,000)
• New Net Deferred Inflows/Outflows	(713,568)	(591,775)
• Change in Allocation of Prior Deferred Inflows/Outflows	0	0
• New Net Deferred Flows Due to Change in Proportion <sup>1</sup>	0	0
• Recognition of Prior Deferred Inflows/Outflows	252,037	(176,327)
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>1</sup>	<u>414,500</u>	<u>372,508</u>
<b>Ending Net Pension Liability</b>	<b>\$(949,226)</b>	<b>\$(74,515)</b>

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
• Beginning Net Pension Liability	\$(625,500)	\$2,492,695
• Pension Expense	(1,061,535)	(351,264)
• Employer Contributions	0	(877,769)
• New Net Deferred Inflows/Outflows	(816,360)	(1,888,900)
• Change in Allocation of Prior Deferred Inflows/Outflows	0	0
• New Net Deferred Flows Due to Change in Proportion <sup>1</sup>	0	0
• Recognition of Prior Deferred Inflows/Outflows	821,430	(262)
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>1</sup>	<u>0</u>	<u>0</u>
<b>Ending Net Pension Liability</b>	<b>\$(1,681,965)</b>	<b>\$(625,500)</b>

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
• Beginning Net Pension Liability	\$26,824,264	\$28,844,760
• Pension Expense	2,416,732	3,470,610
• Employer Contributions	(2,899,000)	(2,504,000)
• New Net Deferred Inflows/Outflows	(1,809,163)	(4,341,978)
• Change in Allocation of Prior Deferred Inflows/Outflows	(34,735)	254,808
• New Net Deferred Flows Due to Change in Proportion <sup>1</sup>	465,626	2,184,621
• Recognition of Prior Deferred Inflows/Outflows	1,000,695	(380,736)
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>1</sup>	<u>(1,010,362)</u>	<u>(703,821)</u>
<b>Ending Net Pension Liability</b>	<b>\$24,954,057</b>	<b>\$26,824,264</b>

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
• Beginning Net Pension Liability	\$354,395,457	\$466,731,526
• Pension Expense	17,590,285	67,124,196
• Employer Contributions	(97,472,000)	(87,981,000)
• New Net Deferred Inflows/Outflows	(115,534,321)	(75,481,209)
• Change in Allocation of Prior Deferred Inflows/Outflows	0	0
• New Net Deferred Flows Due to Change in Proportion <sup>1</sup>	0	0
• Recognition of Prior Deferred Inflows/Outflows	22,142,217	(15,998,056)
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>1</sup>	0	0
<b>Ending Net Pension Liability</b>	<b>\$181,121,638</b>	<b>\$354,395,457</b>

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
• Beginning Net Pension Liability	\$262,415	\$408,781
• Pension Expense	(29,368)	4,345
• Employer Contributions	0	0
• New Net Deferred Inflows/Outflows	(80,695)	(143,218)
• Change in Allocation of Prior Deferred Inflows/Outflows	0	0
• New Net Deferred Flows Due to Change in Proportion <sup>1</sup>	0	0
• Recognition of Prior Deferred Inflows/Outflows	32,765	(7,493)
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>1</sup>	0	0
<b>Ending Net Pension Liability</b>	<b>\$185,117</b>	<b>\$262,415</b>

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
• Beginning Net Pension Liability	\$3,099,339	\$3,517,372
• Pension Expense	(87,399)	271,328
• Employer Contributions	(286,085)	(267,432)
• New Net Deferred Inflows/Outflows	(301,561)	(322,141)
• Change in Allocation of Prior Deferred Inflows/Outflows	0	0
• New Net Deferred Flows Due to Change in Proportion <sup>1</sup>	0	0
• Recognition of Prior Deferred Inflows/Outflows	237,096	(99,788)
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>1</sup>	<u>0</u>	<u>0</u>
<b>Ending Net Pension Liability</b>	<b>\$2,661,390</b>	<b>\$3,099,339</b>

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
• Beginning Net Pension Liability	\$(1,753,164)	\$13,253,632
• Pension Expense	(43,637)	1,376,160
• Employer Contributions	(828,000)	(14,010,000)
• New Net Deferred Inflows/Outflows	(1,775,935)	(2,189,888)
• Change in Allocation of Prior Deferred Inflows/Outflows	0	0
• New Net Deferred Flows Due to Change in Proportion <sup>1</sup>	0	0
• Recognition of Prior Deferred Inflows/Outflows	519,370	(183,068)
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>1</sup>	<u>0</u>	<u>0</u>
<b>Ending Net Pension Liability</b>	<b>\$(3,881,366)</b>	<b>\$(1,753,164)</b>

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
• Beginning Net Pension Liability	\$26,191,970	\$32,142,058
• Pension Expense	(243,767)	1,964,282
• Employer Contributions	(2,237,000)	(2,339,000)
• New Net Deferred Inflows/Outflows	(1,458,439)	(4,239,630)
• Change in Allocation of Prior Deferred Inflows/Outflows	296,620	(104,402)
• New Net Deferred Flows Due to Change in Proportion <sup>1</sup>	(3,757,827)	(960,348)
• Recognition of Prior Deferred Inflows/Outflows	806,700	(371,762)
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>1</sup>	<u>518,208</u>	<u>100,772</u>
<b>Ending Net Pension Liability</b>	<b>\$20,116,465</b>	<b>\$26,191,970</b>

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
• Beginning Net Pension Liability	\$(49,446,617)	\$29,029,145
• Pension Expense	(2,763,586)	10,382,092
• Employer Contributions	(8,137,000)	(45,721,000)
• New Net Deferred Inflows/Outflows	(14,219,075)	(36,295,241)
• Change in Allocation of Prior Deferred Inflows/Outflows	0	0
• New Net Deferred Flows Due to Change in Proportion <sup>1</sup>	0	0
• Recognition of Prior Deferred Inflows/Outflows	6,337,398	(6,469,105)
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>1</sup>	<u>(414,500)</u>	<u>(372,508)</u>
<b>Ending Net Pension Liability</b>	<b>\$(68,643,380)</b>	<b>\$(49,446,617)</b>

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
• Beginning Net Pension Liability	\$224,284,548	\$269,788,642
• Pension Expense	12,094,305	26,336,223
• Employer Contributions	(27,649,000)	(25,278,000)
• New Net Deferred Inflows/Outflows	(33,109,242)	(42,364,252)
• Change in Allocation of Prior Deferred Inflows/Outflows	0	0
• New Net Deferred Flows Due to Change in Proportion <sup>1</sup>	0	0
• Recognition of Prior Deferred Inflows/Outflows	10,403,779	(4,198,065)
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>1</sup>	0	0
<b>Ending Net Pension Liability</b>	<b>\$186,024,390</b>	<b>\$224,284,548</b>

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
• Beginning Net Pension Liability	\$30,213,739	\$34,808,679
• Pension Expense	352,101	2,168,623
• Employer Contributions	(3,068,144)	(2,788,839)
• New Net Deferred Inflows/Outflows	(3,169,210)	(3,397,899)
• Change in Allocation of Prior Deferred Inflows/Outflows	0	0
• New Net Deferred Flows Due to Change in Proportion <sup>1</sup>	0	0
• Recognition of Prior Deferred Inflows/Outflows	1,008,659	(576,825)
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>1</sup>	<u>0</u>	<u>0</u>
<b>Ending Net Pension Liability</b>	<b>\$25,337,145</b>	<b>\$30,213,739</b>

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
• Beginning Net Pension Liability	\$(646,472)	\$630,610
• Pension Expense	(497,900)	(595,594)
• Employer Contributions	(129,000)	(101,000)
• New Net Deferred Inflows/Outflows	44,400	104,643
• Change in Allocation of Prior Deferred Inflows/Outflows	1,694	(123,879)
• New Net Deferred Flows Due to Change in Proportion <sup>1</sup>	143,769	(920,725)
• Recognition of Prior Deferred Inflows/Outflows	(24,559)	9,176
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>1</sup>	<u>495,651</u>	<u>350,297</u>
<b>Ending Net Pension Liability</b>	<b>\$(612,417)</b>	<b>\$(646,472)</b>

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
• Beginning Net Pension Liability	\$1,489,642	\$1,582,703
• Pension Expense	71,659	186,841
• Employer Contributions	(139,000)	(133,000)
• New Net Deferred Inflows/Outflows	(90,489)	(241,125)
• Change in Allocation of Prior Deferred Inflows/Outflows	8,778	15,850
• New Net Deferred Flows Due to Change in Proportion <sup>1</sup>	(112,883)	130,765
• Recognition of Prior Deferred Inflows/Outflows	50,052	(21,143)
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>1</sup>	<u>(29,626)</u>	<u>(31,249)</u>
<b>Ending Net Pension Liability</b>	<b>\$1,248,133</b>	<b>\$1,489,642</b>

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
• Beginning Net Pension Liability	\$(2,214)	\$1,284
• Pension Expense	(1,940)	(95)
• Employer Contributions	0	0
• New Net Deferred Inflows/Outflows	(343)	(2,891)
• Change in Allocation of Prior Deferred Inflows/Outflows	0	0
• New Net Deferred Flows Due to Change in Proportion <sup>1</sup>	0	0
• Recognition of Prior Deferred Inflows/Outflows	1,764	(512)
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>1</sup>	0	0
<b>Ending Net Pension Liability</b>	<b>\$(2,733)</b>	<b>\$(2,214)</b>

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
• Beginning Net Pension Liability	\$336,766,149	\$392,760,910
• Pension Expense	8,495,203	22,407,347
• Employer Contributions	(34,813,000)	(31,424,000)
• New Net Deferred Inflows/Outflows	(21,725,558)	(54,511,512)
• Change in Allocation of Prior Deferred Inflows/Outflows	623,556	478,992
• New Net Deferred Flows Due to Change in Proportion <sup>1</sup>	(7,393,262)	4,270,636
• Recognition of Prior Deferred Inflows/Outflows	12,016,962	(4,779,965)
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>1</sup>	<u>5,693,830</u>	<u>7,563,741</u>
<b>Ending Net Pension Liability</b>	<b>\$299,663,880</b>	<b>\$336,766,149</b>

<sup>1</sup> 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, 2021 December 31, 2020	June 30, 2020 December 31, 2019
• Beginning Net Pension Liability	\$719,301	\$1,097,009
• Pension Expense	74,614	210,679
• Employer Contributions	(157,755)	(180,040)
• New Net Deferred Inflows/Outflows	(345,909)	(371,636)
• Change in Allocation of Prior Deferred Inflows/Outflows	252	7,462
• New Net Deferred Flows Due to Change in Proportion <sup>1</sup>	(26,187)	16,299
• Recognition of Prior Deferred Inflows/Outflows	79,461	(22,319)
• Recognition of Prior Deferred Flows Due to Change in Proportion <sup>1</sup>	<u>(39,039)</u>	<u>(38,153)</u>
<b>Ending Net Pension Liability</b>	<b>\$304,738</b>	<b>\$719,301</b>

<sup>1</sup> 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:							
			2020	2021	2022	2023	2024	2025	2026	Thereafter
2015	\$(327,402,088)	6.18	\$(52,977,684)	\$(9,535,984)	\$0	\$0	\$0	\$0	\$0	\$0
2016	(205,462,673)	6.06	(33,904,732)	(33,904,732)	(2,034,281)	0	0	0	0	0
2017	(323,565,741)	5.94	(54,472,347)	(54,472,347)	(51,204,006)	0	0	0	0	0
2018	(66,963,603)	6.01	(11,142,029)	(11,142,029)	(11,142,029)	(11,142,029)	(11,142,029)	0	0	0
2019	(118,124,401)	5.91	(19,987,206)	(19,987,206)	(19,987,206)	(19,987,206)	(18,188,371)	0	0	0
2020	24,382,911	5.86	4,160,905	4,160,905	4,160,905	4,160,905	4,160,905	3,578,386	0	0
2021	162,335,537	5.81	N/A	<u>27,940,714</u>	<u>27,940,714</u>	<u>27,940,714</u>	<u>27,940,714</u>	<u>27,940,714</u>	<u>22,631,967</u>	<u>0</u>
<b>Net increase (decrease) in pension expense</b>			<b>\$(168,323,093)</b>	<b>\$(96,940,679)</b>	<b>\$(52,265,903)</b>	<b>\$972,384</b>	<b>\$13,801,819</b>	<b>\$31,519,100</b>	<b>\$22,631,967</b>	<b>\$0</b>

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, 2019 (the beginning of the measurement period ending December 31, 2020) is 5.81 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	Effects of Assumption Changes	Recognition Period (Years)	Reporting Date for Employer under GASB 68 Year Ended June 30:							
			2020	2021	2022	2023	2024	2025	2026	Thereafter
2015	\$(127,729,220)	6.18	\$(20,668,159)	\$(3,720,266)	\$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	137,636,784	137,636,784	137,636,784	1,376,371	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
2021	18,966,926	5.81	N/A	3,264,531	3,264,531	3,264,531	3,264,531	3,264,531	2,644,271	0
<b>Net increase (decrease) in pension expense</b>			<b>\$116,968,625</b>	<b>\$137,181,049</b>	<b>\$140,901,315</b>	<b>\$140,901,315</b>	<b>\$4,640,902</b>	<b>\$3,264,531</b>	<b>\$2,644,271</b>	<b>\$0</b>

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, 2019 (the beginning of the measurement period ending December 31, 2020) is 5.81 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 Projected and Actual Earnings	Recognition Period (Years)	Reporting Date for Employer under GASB 68 Year Ended June 30:							
			2020	2021	2022	2023	2024	2025	2026	Thereafter
2016	\$851,007,781	5.00	\$170,201,561	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2017	(213,982,570)	5.00	42,796,514	(42,796,514)	0	0	0	0	0	0
2018	(1,009,651,572)	5.00	(201,930,314)	(201,930,314)	(201,930,316)	0	0	0	0	0
2019	1,360,278,701	5.00	272,055,741	272,055,741	272,055,741	272,055,737	0	0	0	0
2020	(1,170,895,935)	5.00	(234,179,185)	(234,179,185)	(234,179,185)	(234,179,185)	(234,179,195)	0	0	0
2021	(1,008,043,756)	5.00	N/A	(201,608,751)	(201,608,751)	(201,608,751)	(201,608,751)	(201,608,752)	0	0
<b>Net increase (decrease) in pension expense</b>			<b>\$(36,648,711)</b>	<b>\$(408,459,023)</b>	<b>\$(365,662,511)</b>	<b>\$(163,732,199)</b>	<b>\$(435,787,946)</b>	<b>\$(201,608,752)</b>	<b>\$0</b>	<b>\$0</b>

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	Total Differences	Reporting Date for Employer under GASB 68 Year Ended June 30:							
		2020	2021	2022	2023	2024	2025	2026	Thereafter
2015	\$(165,086,234)	\$(73,645,843)	\$(13,256,250)	\$0	\$0	\$0	\$0	\$0	\$0
2016	\$645,545,108	136,296,829	(33,904,732)	(2,034,281)	0	0	0	0	0
2017	(537,548,311)	(97,268,861)	(97,268,861)	(51,204,006)	0	0	0	0	0
2018	(249,418,100)	(75,435,559)	(75,435,559)	(75,435,561)	126,494,755	1,264,942	0	0	0
2019	1,242,154,300	252,068,535	252,068,535	252,068,535	252,068,531	(18,188,371)	0	0	0
2020	(1,146,513,024)	(230,018,280)	(230,018,280)	(230,018,280)	(230,018,280)	(230,018,290)	3,578,386	0	0
2021	(826,741,293)	N/A	(170,403,506)	(170,403,506)	(170,403,506)	(170,403,506)	(170,403,507)	25,276,238	0
<b>Net increase (decrease) in pension expense</b>		<b>\$(88,003,179)</b>	<b>\$(368,218,653)</b>	<b>\$(277,027,099)</b>	<b>\$(21,858,500)</b>	<b>\$(417,345,225)</b>	<b>\$(166,825,121)</b>	<b>\$25,276,238</b>	<b>\$0</b>

## 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, 2020. 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, 2020 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.

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## 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, 2020

	Total Change to be Recognized	Recognition Period (Years)	2021	2022	2023	2024	2025	2026	Thereafter
Orange County	\$12,901,296	5.81	\$2,220,532	\$2,220,532	\$2,220,532	\$2,220,532	\$2,220,532	\$1,798,636	\$0
O.C. Cemetery District	0	5.81	0	0	0	0	0	0	0
O.C. Law Library	0	5.81	0	0	0	0	0	0	0
O.C. Vector Control District	0	5.81	0	0	0	0	0	0	0
O.C. Retirement System	562,430	5.81	96,804	96,804	96,804	96,804	96,804	78,410	0
O.C. Fire Authority	0	5.81	0	0	0	0	0	0	0
Cypress Recreation and Parks	0	5.81	0	0	0	0	0	0	0
Department of Education	0	5.81	0	0	0	0	0	0	0
Transportation Corridor Agency	0	5.81	0	0	0	0	0	0	0
City of San Juan Capistrano	(4,539,080)	5.81	(781,253)	(781,253)	(781,253)	(781,253)	(781,253)	(632,815)	0
O.C. Sanitation District	0	5.81	0	0	0	0	0	0	0
O.C. Transportation Authority	0	5.81	0	0	0	0	0	0	0
U.C.I.	0	5.81	0	0	0	0	0	0	0
O.C. Children and Families Comm.	173,659	5.81	29,890	29,890	29,890	29,890	29,890	24,209	0
Local Agency Formation Comm.	(136,351)	5.81	(23,468)	(23,468)	(23,468)	(23,468)	(23,468)	(19,011)	0
Rancho Santa Margarita	0	5.81	0	0	0	0	0	0	0
O.C. Superior Court	(8,930,323)	5.81	(1,537,061)	(1,537,061)	(1,537,061)	(1,537,061)	(1,537,061)	(1,245,018)	0
O.C. IHSS Public Authority	(31,631)	5.81	(5,444)	(5,444)	(5,444)	(5,444)	(5,444)	(4,411)	0
<b>Total for all Employers</b>	<b>\$0</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

## 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>
<b>Total for all Employers</b>	<b>\$0</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

## 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	(13,692)	5.91	(2,317)	(2,317)	(2,317)	(2,317)	(2,317)	(2,107)	0
<b>Total for all Employers</b>	<b>\$0</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

## 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>	<u>111</u>
<b>Total for all Employers</b>	<b>\$0</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

## 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	48,111	5.94	8,099	8,099	8,099	8,099	8,099	7,616	0
<b>Total for all Employers</b>	<b>\$0</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

## 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>
<b>Total for all Employers</b>	<b>\$0</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

## 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	18,616	6.18	3,012	3,012	3,012	3,012	3,012	3,012	544
<b>Total for all Employers</b>	<b>\$0</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

# Section 3: Actuarial Assumptions and Methods and Appendices

## Actuarial assumptions and methods

For December 31, 2020 Measurement Date and Employer Reporting as of June 30, 2021

<b>Rationale for Assumptions:</b>	The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in the January 1, 2017 through December 31, 2019 Actuarial Experience Study dated August 6, 2020 and PowerPoint presentation dated August 17, 2020. Unless otherwise noted, all actuarial assumptions and methods shown below apply to members for all tiers. These assumptions were adopted by the Board.
<b><u>Economic Assumptions</u></b>	
<b>Net Investment Return:</b>	7.00%; net of investment expenses.
<b>Member Contribution Crediting Rate:</b>	5.00%, compounded semi-annually.
<b>Consumer Price Index:</b>	Increase of 2.50% per year, retiree COLA increases of 2.75% per year
<b>Payroll Growth:</b>	Inflation of 2.50% per year plus “across the board” real salary increases of 0.50% per year.
<b>Increase in Section 7522.10 Compensation Limit:</b>	Increase of 2.50% per year from the valuation date.

## Section 3: Actuarial Assumptions and Methods and Appendices

### Salary Increases:

- The annual rate of compensation increase includes: inflation at 2.50%, plus “across the board” salary increases of 0.50% per year, plus the following merit and promotion increases:

Years of Service	Rate (%)	
	General	Safety
Less than 1	8.00	12.00
1 - 2	7.25	10.00
2 - 3	6.25	8.50
3 - 4	5.25	7.50
4 - 5	4.25	6.50
5 - 6	3.50	5.50
6 - 7	2.75	5.00
7 - 8	2.50	4.00
8 - 9	1.70	3.00
9 - 10	1.70	2.50
10 - 11	1.60	1.85
11 - 12	1.60	1.85
12 - 13	1.50	1.85
13 - 14	1.50	1.85
14 - 15	1.25	1.85
15 - 16	1.25	1.60
16 - 17	1.00	1.60
17 - 18	1.00	1.60
18 - 19	1.00	1.60
19 - 20	1.00	1.60
20 & Over	1.00	1.60

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*

- **General Members:** Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 5%, projected generationally with the two-dimensional mortality improvement scale MP-2019
- **Safety Members:** Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019

##### *Disabled*

- **General Members:** Pub-2010 Non-Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females) with rates decreased by 5%, projected generationally with the two-dimensional mortality improvement scale MP-2019
- **Safety Members:** Pub-2010 Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019

##### *All Beneficiaries*

- Pub-2010 General Contingent Survivor Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 5%, projected generationally with the two-dimensional mortality improvement scale MP-2019

The Pub-2010 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.

#### Pre-Retirement Mortality Rates:

- **General Members:** Pub-2010 General Employee Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019
- **Safety Members:** Pub-2010 Safety Employee Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019

## Section 3: Actuarial Assumptions and Methods and Appendices

Age	Rate (%) <sup>1</sup>			
	General		Safety	
	Male	Female	Male	Female
25	0.02	0.01	0.03	0.02
30	0.03	0.01	0.04	0.02
35	0.04	0.02	0.04	0.03
40	0.06	0.03	0.05	0.04
45	0.09	0.05	0.07	0.06
50	0.13	0.08	0.10	0.08
55	0.19	0.11	0.15	0.11
60	0.28	0.17	0.23	0.14
65	0.41	0.27	0.35	0.20
70	0.61	0.44	0.66	0.39

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.

<sup>1</sup> Generational projections beyond the base year (2010) are not reflected in the above mortality rates.

### Mortality Rates for Member Contributions:

- **General Members:** Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 5%, projected 30 years (from 2010) with the two-dimensional mortality improvement scale MP 2019, weighted 40% male and 60% female
- **Safety Members:** Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected 30 years (from 2010) with the two-dimensional mortality improvement scale MP-2019, weighted 80% male and 20% female

## Section 3: Actuarial Assumptions and Methods and Appendices

### Disability Incidence:

Age	Rate (%)			
	General All Other	General OCTA	Safety Law & Fire	Safety Probation
20	0.00	0.00	0.00	0.00
25	0.00	0.00	0.01	0.03
30	0.01	0.03	0.07	0.08
35	0.03	0.20	0.19	0.10
40	0.08	0.39	0.31	0.13
45	0.14	0.48	0.44	0.21
50	0.20	0.53	1.10	0.28
55	0.27	0.70	2.70	0.42
60	0.33	1.22	5.00	0.20

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

80% of General OCTA disabilities are assumed to be service connected disabilities. The other 20% are assumed to be non-service connected.

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

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

## Section 3: Actuarial Assumptions and Methods and Appendices

### Termination:

Years of Service	Rate (%)			
	General All Other	General OCTA	Safety Law & Fire	Safety Probation
Less than 1	11.00	17.00	4.25	14.00
1 – 2	7.25	11.50	2.75	13.00
2 – 3	6.50	9.00	2.25	11.00
3 – 4	5.50	8.50	1.75	5.00
4 – 5	5.00	8.00	1.50	4.00
5 – 6	4.50	7.00	1.25	3.25
6 – 7	4.00	4.25	1.00	2.75
7 – 8	3.50	4.00	0.95	2.75
8 – 9	3.25	3.25	0.90	2.50
9 – 10	3.00	3.00	0.85	1.75
10 – 11	2.50	2.75	0.80	1.50
11 – 12	2.00	2.50	0.75	1.50
12 – 13	2.00	2.50	0.70	1.25
13 – 14	2.00	2.25	0.65	1.00
14 – 15	1.50	2.25	0.60	0.75
15 – 16	1.40	2.25	0.55	0.75
16 – 17	1.30	2.00	0.50	0.75
17 – 18	1.20	1.80	0.45	0.75
18 – 19	1.10	1.60	0.40	0.50
19 – 20	1.00	1.40	0.30	0.25
20 & Over	0.75	1.20	0.15	0.15

### Election for Withdrawal of Contributions (%)

Years of Service	Rate (%)			
	General All Other	General OCTA	Safety Law & Fire	Safety Probation
Less than 5	30.00	40.00	20.00	25.00
5 – 9	25.00	30.00	20.00	25.00
10 – 14	25.00	25.00	10.00	25.00
15 & Over	17.50	15.00	10.00	15.00

## Section 3: Actuarial Assumptions and Methods and Appendices

### Retirement Rates:

Age	Rate (%) <sup>1</sup>			
	General Enhanced		General Non-Enhanced <sup>2</sup>	
	Less than 30 Years of Service	Greater than 30 Years of Service	Less than 30 Years of Service	Greater than 30 Years of Service
49	0.00	30.00	0.00	25.00
50	2.00	4.00	3.00	3.00
51	2.00	4.00	3.00	3.00
52	2.50	5.00	2.00	2.00
53	2.50	5.00	3.50	3.50
54	7.00	14.00	2.75	2.75
55	12.00	30.00	3.25	3.25
56	9.00	19.00	3.50	3.50
57	9.00	18.00	5.00	5.00
58	9.00	18.00	5.50	5.50
59	10.00	20.00	6.50	6.50
60	11.00	20.00	9.00	13.50
61	11.00	20.00	9.00	13.50
62	13.00	20.00	9.00	18.00
63	13.00	22.00	9.50	19.00
64	16.00	24.00	10.00	20.00
65	24.00	28.00	22.00	26.40
66	24.00	30.00	25.00	30.00
67	24.00	30.00	25.00	30.00
68	22.00	27.50	30.00	27.50
69	22.00	27.50	30.00	27.50
70	25.00	27.50	20.00	27.50
71	25.00	27.50	20.00	27.50
72	25.00	27.50	20.00	27.50
73	20.00	27.50	20.00	27.50
74	20.00	27.50	20.00	27.50
75	100.00	100.00	100.00	100.00

<sup>1</sup> The retirement rates only apply to members that are eligible to retire at the age shown.

<sup>2</sup> These assumptions are also used for the CalPEPRA 1.62% @ 65 formula (Plan T and Plan W).

## Section 3: Actuarial Assumptions and Methods and Appendices

### Retirement Rates (continued):

Age	Rate (%) <sup>1</sup>					
	Safety Law (31664.1)		Safety Fire (31664.1)		Safety Probation (31664.1)	
	Less than 30 Years of Service	Greater than 30 Years of Service	Less than 30 Years of Service	Greater than 30 Years of Service	Less than 30 Years of Service	Greater than 30 Years of Service
45	1.00	16.00	2.00	10.00	3.00	5.00
46	1.00	16.00	2.00	10.00	3.00	5.00
47	1.00	16.00	2.00	10.00	3.00	5.00
48	1.00	16.00	2.00	10.00	3.00	5.00
49	11.00	16.00	2.00	10.00	3.00	5.00
50	16.00	16.00	4.00	10.00	9.00	12.00
51	16.00	16.00	4.00	10.00	7.00	10.00
52	17.00	16.00	4.00	10.00	5.00	9.00
53	19.00	30.00	9.00	20.00	7.00	9.00
54	24.00	30.00	12.00	25.00	7.00	12.00
55	24.00	30.00	12.00	25.00	12.00	30.00
56	22.00	30.00	12.00	25.00	18.00	30.00
57	22.00	30.00	18.00	25.00	25.00	30.00
58	22.00	40.00	18.00	30.00	25.00	30.00
59	22.00	40.00	18.00	30.00	18.00	30.00
60	30.00	40.00	18.00	30.00	20.00	40.00
61	30.00	40.00	18.00	30.00	20.00	40.00
62	30.00	40.00	18.00	35.00	20.00	40.00
63	30.00	40.00	18.00	35.00	20.00	40.00
64	30.00	40.00	18.00	35.00	20.00	40.00
65	100.00	100.00	100.00	100.00	100.00	100.00

<sup>1</sup> The retirement rates only apply to members that are eligible to retire at the age shown.

## Section 3: Actuarial Assumptions and Methods and Appendices

### Retirement Rates (continued):

Age	Rate (%) <sup>1</sup>		
	General SJC (31676.12)	Safety Law (31664.2)	Safety Probation (31664.1)
50	4.00	11.50	8.00
51	4.00	12.00	9.00
52	4.00	12.70	10.00
53	4.00	17.90	12.00
54	4.00	18.80	14.00
55	4.00	35.00	23.00
56	5.00	25.00	22.00
57	6.00	25.00	25.00
58	7.00	25.00	25.00
59	9.00	30.00	35.00
60	10.00	40.00	40.00
61	12.00	40.00	40.00
62	13.00	40.00	40.00
63	13.00	40.00	40.00
64	19.00	40.00	40.00
65	20.00	100.00	100.00
66	25.00	100.00	100.00
67	25.00	100.00	100.00
68	25.00	100.00	100.00
69	25.00	100.00	100.00
70	45.00	100.00	100.00
71	45.00	100.00	100.00
72	45.00	100.00	100.00
73	45.00	100.00	100.00
74	45.00	100.00	100.00
75	100.00	100.00	100.00

<sup>1</sup> The retirement rates only apply to members that are eligible to retire at the age shown.

## Section 3: Actuarial Assumptions and Methods and Appendices

### Retirement Rates (continued):

Age	Rate (%) <sup>1</sup>			
	CalPEPRA 2.5% @ 67 General Formula	CalPEPRA 2.7% @ 57 Safety Formula Probation	CalPEPRA 2.7% @ 57 Safety Formula Law	CalPEPRA 2.7% @ 57 Safety Formula Fire
50	0.00	3.00	11.00	6.00
51	0.00	3.00	11.50	6.50
52	6.00	3.50	12.00	8.00
53	2.00	3.50	16.00	10.00
54	2.00	6.00	17.00	11.50
55	2.50	12.00	29.00	20.00
56	3.50	12.00	19.00	19.00
57	5.50	15.00	19.00	21.00
58	7.50	25.00	23.00	24.00
59	7.50	25.00	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	20.00	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

<sup>1</sup> The retirement rates only apply to members that are eligible to retire at the age shown.

## Section 3: Actuarial Assumptions and Methods and Appendices

<b>Retirement Age and Benefit for Deferred Vested Members:</b>	<p>General Retirement Age: 59          Safety Retirement Age: 54</p> <p>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 20% of future Safety deferred vested members are assumed to continue to work for a reciprocal employer. For reciprocals, 4.00% and 4.60% compensation increases are assumed per annum for General and Safety, respectively.</p>
<b>Liability Calculation for Current Deferred Vested Members:</b>	<p>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.</p>
<b>Future Benefit Accruals:</b>	<p>1.0 year of service per year of employment. There is no assumption to anticipate conversion of unused sick leave at retirement.</p>
<b>Unknown Data for Members:</b>	<p>Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male.</p>
<b>Form of Payment:</b>	<p>All active and inactive members are assumed to elect the unmodified option at retirement.</p>
<b>Percent Married:</b>	<p>For all active and inactive members, 75% of male members and 55% of female members are assumed to be married at pre-retirement death or retirement.</p>
<b>Age and Gender of Spouse:</b>	<p>For all active and inactive members, male members are assumed to have a female spouse who is 3 years younger than the member and female members are assumed to have a male spouse who is 2 years older than the member.</p>

## Section 3: Actuarial Assumptions and Methods and Appendices

<p><b>Cashout Assumptions:</b></p>	<p>Additional compensation amounts are expected to be received during a member's final average earnings period. The percentages used in this valuation are:</p> <table border="1"> <thead> <tr> <th rowspan="2">Years of Service</th> <th colspan="2">Rate (%)</th> </tr> <tr> <th>Final One Year Salary</th> <th>Final Three Year Salary</th> </tr> </thead> <tbody> <tr> <td>General Non-CalPEPRA</td> <td>3.00%</td> <td>2.90%</td> </tr> <tr> <td>Safety Probation Non-CalPEPRA</td> <td>3.80%</td> <td>3.40%</td> </tr> <tr> <td>Safety Law Non-CalPEPRA</td> <td>N/A</td> <td>6.90%</td> </tr> <tr> <td>Safety Fire Non-CalPEPRA</td> <td>N/A</td> <td>1.50%</td> </tr> <tr> <td>General CalPEPRA</td> <td>N/A</td> <td>N/A</td> </tr> <tr> <td>Safety Probation CalPEPRA</td> <td>N/A</td> <td>N/A</td> </tr> <tr> <td>Safety Law CalPEPRA</td> <td>N/A</td> <td>N/A</td> </tr> <tr> <td>Safety Fire CalPEPRA</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> <p>The additional terminal pay assumptions are the same for service and disability retirements.</p>	Years of Service	Rate (%)		Final One Year Salary	Final Three Year Salary	General Non-CalPEPRA	3.00%	2.90%	Safety Probation Non-CalPEPRA	3.80%	3.40%	Safety Law Non-CalPEPRA	N/A	6.90%	Safety Fire Non-CalPEPRA	N/A	1.50%	General CalPEPRA	N/A	N/A	Safety Probation CalPEPRA	N/A	N/A	Safety Law CalPEPRA	N/A	N/A	Safety Fire CalPEPRA	N/A	N/A
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Safety Law CalPEPRA	N/A	N/A																												
Safety Fire CalPEPRA	N/A	N/A																												
<p><b>Actuarial Funding Policy</b></p>																														
<p><b>Actuarial Cost Method:</b></p>	<p>Entry Age Actuarial Cost Method. Entry Age is the age on the valuation date minus the lesser of years of employment or years of benefit service. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are based on costs allocated as a level percentage of compensation. The normal cost rate is calculated assuming their Entry Age is the date they entered service with OCERS.</p> <p>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.</p>																													
<p><b>Expected Remaining Service Lives:</b></p>	<p>The average of the expected service lives of all employees is determined by:</p> <ul style="list-style-type: none"> <li>• Calculating each active employee's expected remaining service life as the present value of \$1 per year of future service at zero percent interest.</li> <li>• Setting the remaining service life to zero for each nonactive or retired member.</li> <li>• Dividing the sum of the above amounts by the total number of active employee, nonactive and retired members.</li> </ul>																													
<p><b>Changed Actuarial Assumptions and Methods:</b></p>	<p>A refinement to the Entry Age actuarial cost method was made. Before the refinement, Entry Age was calculated as the age of the member as of the valuation date minus years of employment, including non-OCERS reciprocal employers. After the refinement, only years of employment with OCERS employers are used.</p> <p>Based on the Actuarial Experience Study, the following assumptions were changed.</p> <p>Previously, these assumptions and methods were as follows:</p>																													

## Section 3: Actuarial Assumptions and Methods and Appendices

<b>Prior Actuarial Assumptions (continued):</b>																																																																					
<i>Consumer Price Index:</i>	<ul style="list-style-type: none"> <li>Increase of 2.75% per year, retiree COLA increases due to CPI subject to a 3.0% maximum change per year.</li> </ul>																																																																				
<i>Payroll Growth:</i>	<ul style="list-style-type: none"> <li>Inflation of 2.75% per year plus “across the board” real salary increases of 0.50% per year.</li> </ul>																																																																				
<i>Increase in Section 7522.10 Compensation Limit:</i>	<ul style="list-style-type: none"> <li>Increase of 2.75% per year from the valuation date.</li> </ul>																																																																				
<i>Salary Increases:</i>	<ul style="list-style-type: none"> <li>The annual rate of compensation increase includes: inflation at 2.75%, plus “across the board” salary increases of 0.50% per year, plus the following merit and promotion increases:</li> </ul> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th rowspan="2">Years of Service</th> <th colspan="2">Rate (%)</th> </tr> <tr> <th>General</th> <th>Safety</th> </tr> </thead> <tbody> <tr><td>Less than 1</td><td>9.00</td><td>14.00</td></tr> <tr><td>1 - 2</td><td>7.25</td><td>10.00</td></tr> <tr><td>2 - 3</td><td>6.00</td><td>7.75</td></tr> <tr><td>3 - 4</td><td>5.00</td><td>6.00</td></tr> <tr><td>4 - 5</td><td>4.00</td><td>5.50</td></tr> <tr><td>5 - 6</td><td>3.50</td><td>4.50</td></tr> <tr><td>6 - 7</td><td>2.50</td><td>3.75</td></tr> <tr><td>7 - 8</td><td>2.25</td><td>3.25</td></tr> <tr><td>8 - 9</td><td>1.75</td><td>2.50</td></tr> <tr><td>9 - 10</td><td>1.50</td><td>2.25</td></tr> <tr><td>10 - 11</td><td>1.50</td><td>1.75</td></tr> <tr><td>11 - 12</td><td>1.50</td><td>1.75</td></tr> <tr><td>12 - 13</td><td>1.50</td><td>1.75</td></tr> <tr><td>13 - 14</td><td>1.50</td><td>1.75</td></tr> <tr><td>14 - 15</td><td>1.50</td><td>1.75</td></tr> <tr><td>15 - 16</td><td>1.50</td><td>1.75</td></tr> <tr><td>16 - 17</td><td>1.00</td><td>1.50</td></tr> <tr><td>17 - 18</td><td>1.00</td><td>1.50</td></tr> <tr><td>18 - 19</td><td>1.00</td><td>1.50</td></tr> <tr><td>19 - 20</td><td>1.00</td><td>1.50</td></tr> <tr><td>20 &amp; Over</td><td>1.00</td><td>1.50</td></tr> </tbody> </table> <p>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.</p>	Years of Service	Rate (%)		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
Years of Service	Rate (%)																																																																				
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## Section 3: Actuarial Assumptions and Methods and Appendices

### Prior Actuarial Assumptions (continued):

#### Post-Retirement Mortality Rates:

##### Healthy

- **General Members and All Beneficiaries:** Headcount-Weighted RP-2014 Healthy Annuitant Mortality Tables, projected generationally with the two-dimensional MP-2016 projection scale, with no setback for males and females.
- **Safety Members:** Headcount-Weighted RP-2014 Healthy Annuitant Mortality Tables, projected generationally with the two-dimensional MP-2016 projection scale, setback four years for males and females.

##### Disabled

- **General Members:** Headcount-Weighted RP-2014 Healthy Annuitant Mortality Tables, projected generationally with the two-dimensional MP-2016 projection scale, set forward five years for males and females.
- **Safety Members:** Headcount-Weighted RP-2014 Healthy Annuitant Mortality Tables, projected generationally with the two-dimensional MP-2016 projection scale, with no setback for males and females.

The RP-2014 mortality tables and adjustments as shown above reasonably reflect the mortality experience as of the measurement date. These mortality tables were adjusted to future years using the generational projection to reflect future mortality improvement between the measurement date and those years.

#### Pre-Retirement Mortality Rates:

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

Age	Rate (%) <sup>1</sup>			
	General		Safety	
	Male	Female	Male	Female
25	0.05	0.02	0.05	0.02
30	0.05	0.02	0.05	0.02
35	0.05	0.03	0.05	0.03
40	0.06	0.04	0.06	0.04
45	0.10	0.07	0.10	0.07
50	0.17	0.11	0.17	0.11
55	0.27	0.17	0.27	0.17
60	0.45	0.24	0.45	0.24
65	0.78	0.36	0.78	0.36

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.

<sup>1</sup> Generational projections beyond the base year (2014) are not reflected in the above mortality rates.

## Section 3: Actuarial Assumptions and Methods and Appendices

### Prior Actuarial Assumptions (continued):

#### Mortality Rates for Member Contributions:

- **General Members:** Headcount-Weighted RP-2014 Healthy Annuitant Mortality Tables, projected 20 years with the two-dimensional mortality improvement Scale MP-2016, with no setback for males and females, weighted 40% male and 60% female.
- **Safety Members:** Headcount-Weighted RP-2014 Healthy Annuitant Mortality Tables, projected 20 years with the two-dimensional mortality improvement Scale MP-2016, setback four years for males and females, weighted 80% male and 20% female.

#### Disability Incidence:

Age	Rate (%)			
	General All Other	General OCTA	Safety Law & Fire	Safety Probation
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

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

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

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

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

## Section 3: Actuarial Assumptions and Methods and Appendices

### Prior Actuarial Assumptions (continued):

#### Termination:

Years of Service	Rate (%)			
	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

#### Election for Withdrawal of Contributions (%)

Years of Service	Rate (%)			
	General All Other	General OCTA	Safety Law & Fire	Safety Probation
Less than 5	35.00	40.00	20.00	25.00
5 – 9	30.00	35.00	20.00	25.00
10 – 14	25.00	30.00	20.00	25.00
15 & Over	20.00	20.00	20.00	25.00

## Section 3: Actuarial Assumptions and Methods and Appendices

### Prior Actuarial Assumptions (continued):

#### Retirement Rates:

Age	Rate (%) <sup>1</sup>			
	General Enhanced	General Non-Enhanced <sup>2</sup>	General SJC (31676.12)	Safety Law (31664.1) <sup>3</sup>
48	0.00	0.00	0.00	0.00
49	30.00	25.00	0.00	12.00
50	2.50	2.00	3.00	18.00
51	2.00	2.00	3.00	18.00
52	2.50	2.00	3.00	17.00
53	2.50	2.75	3.00	17.00
54	5.50	2.75	3.00	22.00
55	15.00	3.25	4.00	22.00
56	10.00	3.50	5.00	20.00
57	10.00	5.50	6.00	20.00
58	11.00	5.50	7.00	20.00
59	11.00	6.50	9.00	26.00
60	12.00	9.25	11.00	35.00
61	12.00	12.00	13.00	35.00
62	14.00	16.00	15.00	40.00
63	16.00	16.00	15.00	40.00
64	16.00	18.00	20.00	40.00
65	22.00	22.00	20.00	100.00
66	22.00	28.00	24.00	100.00
67	23.00	24.00	24.00	100.00
68	23.00	24.00	24.00	100.00
69	23.00	20.00	24.00	100.00
70	25.00	20.00	50.00	100.00
71	25.00	25.00	50.00	100.00
72	25.00	25.00	50.00	100.00
73	25.00	25.00	50.00	100.00
74	25.00	25.00	50.00	100.00
75	100.00	100.00	100.00	100.00

<sup>1</sup> The retirement rates only apply to members that are eligible to retire at the age shown.

<sup>2</sup> These assumptions are also used for the CalPEPRA 1.62% @ 65 formula (Plan T and Plan W).

<sup>3</sup> Retirement rate is 100% after a member accrues a benefit of 100% of final average earnings.

## Section 3: Actuarial Assumptions and Methods and Appendices

### Prior Actuarial Assumptions (continued):

#### Retirement Rates (continued):

Age	Rate (%) <sup>1</sup>			
	Safety Law (31664.2) <sup>2</sup>	Safety Fire (31664.1)	Safety Fire (31664.2)	Safety Probation <sup>2</sup>
48	0.00	0.00	0.00	0.00
49	0.00	2.00	0.00	0.00
50	11.50	5.00	8.00	3.25
51	12.00	7.00	10.00	3.25
52	12.70	9.50	11.00	4.25
53	17.90	10.50	12.00	4.25
54	18.80	15.00	14.00	7.00
55	30.70	18.00	24.00	12.00
56	20.00	20.00	23.00	12.00
57	20.00	21.00	27.00	18.00
58	25.00	28.00	27.00	18.00
59	30.00	28.00	36.00	18.00
60	40.00	30.00	40.00	20.00
61	40.00	30.00	40.00	20.00
62	40.00	35.00	40.00	25.00
63	40.00	35.00	40.00	40.00
64	40.00	35.00	40.00	40.00
65	100.00	100.00	100.00	100.00
66	100.00	100.00	100.00	100.00
67	100.00	100.00	100.00	100.00
68	100.00	100.00	100.00	100.00
69	100.00	100.00	100.00	100.00
70	100.00	100.00	100.00	100.00
71	100.00	100.00	100.00	100.00
72	100.00	100.00	100.00	100.00
73	100.00	100.00	100.00	100.00
74	100.00	100.00	100.00	100.00
75	100.00	100.00	100.00	100.00

<sup>1</sup> The retirement rates only apply to members that are eligible to retire at the age shown.

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

## Section 3: Actuarial Assumptions and Methods and Appendices

### Prior Actuarial Assumptions (continued):

Retirement Rates (continued):

Age	Rate (%) <sup>1</sup>			
	CalPEPRA 2.5% @ 67 General Formula	CalPEPRA 2.7% @ 57 Safety Formula Probation <sup>2</sup>	CalPEPRA 2.7% @ 57 Safety Formula Law <sup>2</sup>	CalPEPRA 2.7% @ 57 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

<sup>1</sup> The retirement rates only apply to members that are eligible to retire at the age shown.

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

## Section 3: Actuarial Assumptions and Methods and Appendices

### Prior Actuarial Assumptions (continued):

#### *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.

#### *Cashout Assumptions:*

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

Years of Service	Rate (%)	
	Final One Year Salary	Final Three Year Salary
General Non-CalPEPRA	3.00%	2.80%
Safety Probation Non-CalPEPRA	3.80%	3.40%
Safety Law Non-CalPEPRA	5.20%	4.60%
Safety Fire Non-CalPEPRA	2.00%	1.70%
General CalPEPRA	N/A	N/A
Safety Probation CalPEPRA	N/A	N/A
Safety Law CalPEPRA	N/A	N/A
Safety Fire CalPEPRA	N/A	N/A

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

## Section 3: Actuarial Assumptions and Methods and Appendices

### Appendix A: Projection of Pension Plan's Fiduciary Net Position (\$ in millions) for use in the Calculation of Discount Rate as of December 31, 2020

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)
2020	\$16,679	\$939	\$973	\$20	\$2,173	\$18,797
2021	18,797	1,004	1,054	23	1,313	20,038
2022	20,038	983	1,123	25	1,397	21,270
2023	21,270	971	1,194	26	1,480	22,502
2024	22,502	938	1,264	28	1,563	23,711
2025	23,711	921	1,335	29	1,645	24,912
2026	24,912	923	1,410	31	1,726	26,121
2027	26,121	926	1,485	32	1,808	27,339
2028	27,339	929	1,561	33	1,891	28,564
2029	28,564	932	1,640	35	1,974	29,795
2045	37,237	175	2,793	46	2,515	37,088
2046	37,088	165	2,832	45	2,503	36,878
2047	36,878	156	2,866	45	2,487	36,610
2048	36,610	148	2,894	45	2,467	36,286
2049	36,286	140	2,917	44	2,443	35,907
2094	38,962	61	189	48	2,721	41,507
2095	41,507	63	154	51	2,901	44,265
2096	44,265	65	124	54	3,095	47,246
2097	47,246	67	98	58	3,304	50,462
2098	50,462	70	76	62	3,530	53,924
2133	536,612	657	0 **	657	37,563	574,174
2134	574,174					
2134 Discounted Value:	275 ***					

\* Of all the projected total contributions, only the first year's (i.e., 2020) contribution has been reduced by discount for prepaid contributions and transfers from County Investment Account, if any.

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

\*\*\* \$574,174 million when discounted with interest at the rate of 7.00% per annum has a value of \$275 million as of December 31, 2020. Of this amount, about \$160 million is the balance available in the County Investment Account and \$13 million is the O.C. Sanitation District UAAL Deferred Account as of December 31, 2020.

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, 2020.

Notes:

- (1) Amounts may not total exactly due to rounding.
- (2) Amounts shown in the year beginning January 1, 2020 row are actual amounts, based on the final audited financial statements provided by OCERS.
- (3) Certain years have been omitted from the 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, 2019), 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, 2019. The projected benefit payments reflect the cost of living increase assumptions used in the December 31, 2020 valuation report. The 2020 benefit payments have been increased by the balance of the Medicare Insurance Reserve as of December 31, 2020.
- (7) Column (d): Projected administrative expenses are calculated as approximately 0.12% of the projected beginning Plan's Fiduciary Net Position amount. The 0.12% portion was based on the actual calendar year 2020 administrative expenses (unaudited) as a percentage of the actual beginning Plan's Fiduciary Net Position as of January 1, 2020. 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, 2020 shown earlier in this report, pursuant to paragraph 44 of GASB Statement No. 67.
- (10) This projection is based on a model developed by our Actuarial Technology and Systems unit, comprised of both actuaries and programmers. The model allows the client team, under the supervision of the responsible actuary, control over the entry of future expected contribution income, benefit payments and administrative expenses. The projection of fiduciary net position and the discounting of benefits is part of the model.

## Section 3: Actuarial Assumptions and Methods and Appendices

### Appendix B: Schedule of Pension Amounts by Employer as of December 31, 2020

	Orange County	O.C. Cemetery District	O.C. Law Library	O.C. Vector Control District	O.C. Retirement System
<b>Deferred Outflows of Resources</b>					
• Differences Between Expected and Actual Experience	\$106,688,286	\$528,105	\$34,476	\$388,960	\$534,689
• Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	392,622,732	371,071	386,769	994,611	2,561,775
• Changes of Assumptions	350,580,446	302,773	215,323	384,382	2,731,424
• Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>22,213,247</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>3,305,581</u>
• <b>Total Deferred Outflows of Resources</b>	<b>\$872,104,711</b>	<b>\$1,201,949</b>	<b>\$636,568</b>	<b>\$1,767,953</b>	<b>\$9,133,469</b>
<b>Deferred Inflows of Resources</b>					
• Differences Between Expected and Actual Experience	\$116,822,611	\$423,161	\$481,376	\$840,768	\$645,269
• Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	1,237,325,625	1,132,625	1,139,777	2,740,586	7,932,122
• Changes of Assumptions	102,623,510	0	0	0	0
• Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>3,780,248</u>	<u>0</u>	<u>25,423</u>	<u>0</u>	<u>105,794</u>
• <b>Total Deferred Inflows of Resources</b>	<b>\$1,460,551,994</b>	<b>\$1,555,786</b>	<b>\$1,646,576</b>	<b>\$3,581,354</b>	<b>\$8,683,185</b>
<b>Net Pension Liability as of December 31, 2019</b>	\$4,124,212,240	\$(228,119)	\$(74,515)	\$(625,500)	\$26,824,264
<b>Net Pension Liability as of December 31, 2020</b>	\$3,547,545,979	\$(145,195)	\$(949,226)	\$(1,681,965)	\$24,954,057
<b>Pension Expense Excluding That Attributable to Employer-Paid Member Contributions</b>					
• Proportionate Share of Allocable Plan Pension Expense	\$212,306,006	\$39,540	\$(284,180)	\$(1,061,535)	\$1,309,566
• Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>7,849,194</u>	<u>0</u>	<u>(414,500)</u>	<u>0</u>	<u>1,107,166</u>
• <b>Total Employer Pension Expense Excluding That Attributable to Employer-Paid Member Contributions</b>	<b>\$220,155,200</b>	<b>\$39,540</b>	<b>\$(698,680)</b>	<b>\$(1,061,535)</b>	<b>\$2,416,732</b>

## Section 3: Actuarial Assumptions and Methods and Appendices

	O.C. Fire Authority	Cypress Recreation and Parks	Department of Education	Transportation Corridor Agency	City of San Juan Capistrano
<b>Deferred Outflows of Resources</b>					
• Differences Between Expected and Actual Experience	\$42,647,259	\$1,628,200	\$444,465	\$924,761	\$431,035
• Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	56,903,410	141,322	360,014	1,248,052	2,065,149
• Changes of Assumptions	20,847,354	46,968	118,721	761,881	2,201,910
• Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	0	0	0	0	560,255
• <b>Total Deferred Outflows of Resources</b>	<b>\$120,398,023</b>	<b>\$1,816,490</b>	<b>\$923,200</b>	<b>\$2,934,694</b>	<b>\$5,258,349</b>
<b>Deferred Inflows of Resources</b>					
• Differences Between Expected and Actual Experience	\$22,151,617	\$0	\$417,291	\$622,420	\$520,178
• Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	184,283,215	1,161,975	917,172	4,929,682	6,394,402
• Changes of Assumptions	51,604,825	12,345	101,775	0	0
• Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	0	0	0	0	4,888,341
• <b>Total Deferred Inflows of Resources</b>	<b>\$258,039,657</b>	<b>\$1,174,320</b>	<b>\$1,436,238</b>	<b>\$5,552,102</b>	<b>\$11,802,921</b>
<b>Net Pension Liability as of December 31, 2019</b>	<b>\$354,395,457</b>	<b>\$262,415</b>	<b>\$3,099,339</b>	<b>\$(1,753,164)</b>	<b>\$26,191,970</b>
<b>Net Pension Liability as of December 31, 2020</b>	<b>\$181,121,638</b>	<b>\$185,117</b>	<b>\$2,661,390</b>	<b>\$(3,881,366)</b>	<b>\$20,116,465</b>
<b>Pension Expense Excluding That Attributable to Employer-Paid Member Contributions</b>					
• Proportionate Share of Allocable Plan Pension Expense	\$17,590,285	\$(29,368)	\$(87,399)	\$(43,637)	\$1,055,694
• Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	0	0	0	0	(1,299,461)
• <b>Total Employer Pension Expense Excluding That Attributable to Employer-Paid Member Contributions</b>	<b>\$17,590,285</b>	<b>\$(29,368)</b>	<b>\$(87,399)</b>	<b>\$(43,637)</b>	<b>\$(243,767)</b>

## Section 3: Actuarial Assumptions and Methods and Appendices

	O.C. Sanitation District	O.C. Transportation Authority	U.C.I.	O.C. Children and Families Comm.	Local Agency Formation Comm.
<b>Deferred Outflows of Resources</b>					
• Differences Between Expected and Actual Experience	\$19,679,712	\$3,427,122	\$2,085,835	\$(13,122)	\$26,744
• Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	26,281,119	26,217,519	2,966,035	(62,871)	128,133
• Changes of Assumptions	18,009,943	17,474,376	951,705	(67,034)	136,618
• Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>25,423</u>	<u>0</u>	<u>0</u>	<u>143,769</u>	<u>159,107</u>
• <b>Total Deferred Outflows of Resources</b>	<b>\$63,996,197</b>	<b>\$47,119,017</b>	<b>\$6,003,575</b>	<b>\$742</b>	<b>\$450,602</b>
<b>Deferred Inflows of Resources</b>					
• Differences Between Expected and Actual Experience	\$2,630,086	\$14,033,597	\$1,590,593	\$(15,836)	\$32,275
• Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	78,515,498	80,855,942	7,628,033	(194,668)	396,743
• Changes of Assumptions	0	0	912,444	0	0
• Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>0</u>	<u>0</u>	<u>0</u>	<u>1,156,467</u>	<u>132,905</u>
• <b>Total Deferred Inflows of Resources</b>	<b>\$81,145,584</b>	<b>\$94,889,539</b>	<b>\$10,131,070</b>	<b>\$945,963</b>	<b>\$561,923</b>
<b>Net Pension Liability as of December 31, 2019</b>	<b>\$(49,446,617)</b>	<b>\$224,284,548</b>	<b>\$30,213,739</b>	<b>\$(646,472)</b>	<b>\$1,489,642</b>
<b>Net Pension Liability as of December 31, 2020</b>	<b>\$(68,643,380)</b>	<b>\$186,024,390</b>	<b>\$25,337,145</b>	<b>\$(612,417)</b>	<b>\$1,248,133</b>
<b>Pension Expense Excluding That Attributable to Employer-Paid Member Contributions</b>					
• Proportionate Share of Allocable Plan Pension Expense	\$(3,178,086)	\$12,094,305	\$352,101	\$(32,139)	\$65,501
• Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>414,500</u>	<u>0</u>	<u>0</u>	<u>(465,761)</u>	<u>6,158</u>
• <b>Total Employer Pension Expense Excluding That Attributable to Employer-Paid Member Contributions</b>	<b>\$(2,763,586)</b>	<b>\$12,094,305</b>	<b>\$352,101</b>	<b>\$(497,900)</b>	<b>\$71,659</b>

## Section 3: Actuarial Assumptions and Methods and Appendices

	Rancho Santa Margarita	O.C. Superior Court	O.C. IHSS Public Authority	Total for all Employers
<b>Deferred Outflows of Resources</b>				
• Differences Between Expected and Actual Experience	\$1,544	\$6,420,885	\$0	\$185,878,956
• Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	1,174	30,763,392	162,072	544,111,478
• Changes of Assumptions	321	32,800,644	115,754	447,613,509
• Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>0</u>	<u>3,391,904</u>	<u>43,394</u>	<u>29,842,680</u>
• <b>Total Deferred Outflows of Resources</b>	<b>\$3,039</b>	<b>\$73,376,825</b>	<b>\$321,220</b>	<b>\$1,207,446,623</b>
<b>Deferred Inflows of Resources</b>				
• Differences Between Expected and Actual Experience	\$3,198	\$7,748,797	\$272,188	\$169,219,589
• Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	3,756	95,253,873	486,528	1,710,902,886
• Changes of Assumptions	886	0	5,390	155,261,175
• Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>0</u>	<u>19,720,574</u>	<u>32,928</u>	<u>29,842,680</u>
• <b>Total Deferred Inflows of Resources</b>	<b>\$7,840</b>	<b>\$122,723,244</b>	<b>\$797,034</b>	<b>\$2,065,226,330</b>
<b>Net Pension Liability as of December 31, 2019</b>	<b>\$(2,214)</b>	<b>\$336,766,149</b>	<b>\$719,301</b>	<b>\$5,075,682,463</b>
<b>Net Pension Liability as of December 31, 2020</b>	<b>\$(2,733)</b>	<b>\$299,663,880</b>	<b>\$304,738</b>	<b>\$4,213,246,650</b>
<b>Pension Expense Excluding That Attributable to Employer-Paid Member Contributions</b>				
• Proportionate Share of Allocable Plan Pension Expense	\$(1,940)	\$15,726,094	\$41,019	\$255,861,827
• Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	<u>0</u>	<u>(7,230,891)</u>	<u>33,595</u>	<u>0</u>
• <b>Total Employer Pension Expense Excluding That Attributable to Employer-Paid Member Contributions</b>	<b>\$(1,940)</b>	<b>\$8,495,203</b>	<b>\$74,614</b>	<b>\$255,861,827</b>

## 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., 2020) 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, 2019 (the beginning of the measurement period ending December 31, 2020) and is 5.81 years.
- 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 \$590.7 million calculated last year to \$255.9 million calculated this year. The primary cause of the decrease was due to an investment gain of \$1.0 billion with \$201.6 million being recognized in this year's expense. There was also a reduction in the expense by about \$170.2 million due to the full recognition of the investment losses during calendar year 2015 in developing last 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.

<b>Actuarial Present Value of Projected Benefit Payments:</b>	Projected benefit payments discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment.
<b>Actuarial Valuation:</b>	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.
<b>Actuarial Valuation Date:</b>	The date as of which an actuarial valuation is performed.
<b>Actuarially Determined Contribution:</b>	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.
<b>Ad Hoc Cost-of-Living Adjustments (Ad Hoc COLAs):</b>	Cost-of-living adjustments that require a decision to grant by the authority responsible for making such decisions.
<b>Ad Hoc Postemployment Benefit Changes:</b>	Postemployment benefit changes that require a decision to grant by the authority responsible for making such decisions.
<b>Automatic Cost-of-Living Adjustments (Automatic COLAs):</b>	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).
<b>Automatic Postemployment Benefit Changes:</b>	Postemployment benefit changes that occur without a requirement for a decision to grant by a responsible authority, including those for which the amounts are determined by reference to a specified experience factor (such as the earnings experience of the pension plan) or to another variable (such as an increase in the consumer price index).
<b>Collective Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions:</b>	Deferred outflows of resources and deferred inflows of resources related to pensions arising from certain changes in the collective Net Pension Liability.
<b>Collective Pension Expense:</b>	Pension expense arising from certain changes in the collective Net Pension Liability.
<b>Cost-of-Living Adjustments:</b>	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.

## Section 3: Actuarial Assumptions and Methods and Appendices

<b>Cost-Sharing Multiple-Employer Defined Benefit Pension Plan (Cost-Sharing Pension Plan):</b>	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.
<b>Covered Payroll:</b>	Payroll on which contributions to a pension plan are based.
<b>Defined Benefit Pension Plans:</b>	Pension plans that are used to provide defined benefit pensions.
<b>Defined Benefit Pensions:</b>	Pensions for which the income or other benefits that the employee will receive at or after separation from employment are defined by the benefit terms. The pensions may be stated as a specified dollar amount or as an amount that is calculated based on one or more factors such as age, years of service, and compensation. (A pension that does not meet the criteria of a defined contribution pension is classified as a defined benefit pension for purposes of Statement 67.)
<b>Defined Contribution Pension Plans:</b>	Pension plans that are used to provide defined contribution pensions.
<b>Defined Contribution Pensions:</b>	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.
<b>Discount Rate:</b>	<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"> <li>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.</li> <li>2. The actuarial present value of projected benefit payments not included in (1), calculated using the municipal bond rate.</li> </ol>
<b>Entry Age Actuarial Cost Method:</b>	A method under which the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age(s). The portion of this actuarial present value allocated to a valuation year is called the normal cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is called the actuarial accrued liability.

## Section 3: Actuarial Assumptions and Methods and Appendices

<b>Inactive Employees:</b>	Terminated individuals that have accumulated benefits but are not yet receiving them, and retirees or their beneficiaries currently receiving benefits.
<b>Measurement Period:</b>	The period between the prior and the current measurement dates.
<b>Multiple-Employer Defined Benefit Pension Plan:</b>	A defined benefit pension plan that is used to provide pensions to the employees of more than one employer.
<b>Net Pension Liability (NPL):</b>	The liability of employers and nonemployer contributing entities to employees for benefits provided through a defined benefit pension plan.
<b>Other Postemployment Benefits:</b>	All postemployment benefits other than retirement income (such as death benefits, life insurance, disability, and long-term care) that are provided separately from a pension plan, as well as postemployment healthcare benefits, regardless of the manner in which they are provided. Other postemployment benefits do not include termination benefits.
<b>Pension Plans:</b>	Arrangements through which pensions are determined, assets dedicated for pensions are accumulated and managed and benefits are paid as they come due.
<b>Pensions:</b>	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.
<b>Plan Members:</b>	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).
<b>Postemployment</b>	The period after employment.
<b>Postemployment Benefit Changes:</b>	Adjustments to the pension of an inactive employee.
<b>Postemployment Healthcare Benefits:</b>	Medical, dental, vision, and other health-related benefits paid subsequent to the termination of employment.
<b>Projected Benefit Payments:</b>	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.
<b>Public Employee Retirement System:</b>	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.
<b>Real Rate of Return:</b>	The rate of return on an investment after adjustment to eliminate inflation.
<b>Service Costs:</b>	The portions of the actuarial present value of projected benefit payments that are attributed to valuation years.
<b>Single-Employer Defined Benefit Pension Plan (Single-Employer Pension Plan):</b>	A defined benefit pension plan that is used to provide pensions to employees of only one employer.

## Section 3: Actuarial Assumptions and Methods and Appendices

<b>Termination Benefits:</b>	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.
<b>Total Pension Liability (TPL):</b>	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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DRAFT



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**Via Email**

May 27, 2021

Mr. Steve Delaney  
Chief Executive Officer  
Orange County Employees Retirement System  
2223 Wellington Avenue  
Santa Ana, CA 92701-3101

**Re: Orange County Employees Retirement System (OCERS)  
Reconciliation of the Plan's December 31, 2020 Net Pension Liability (NPL) and  
Unfunded Actuarial Accrued Liability (UAAL)**

Dear Steve:

We have been requested by OCERS to reconcile, for each Rate Group, the December 31, 2020 Net Pension Liability (NPL) and the Unfunded Actuarial Accrued Liability (UAAL) as shown in the December 31, 2020 Governmental Accounting Standards Board (GASB) Statement 67 addendum letter and funding valuation report, respectively. (The breakdown of the NPL as disclosed in the GASB 67 addendum letter also appears in our GASB 68 financial report.)

The reconciliation is provided in Attachment A of this letter. The difference between the NPL and the UAAL is a direct result of the different liability and asset values we used in those developments.

**Liability**

The Total Pension Liability (TPL) shown in the GASB 67 addendum letter was measured based on the December 31, 2019 demographic data by: (i) rolling forward the liability from December 31, 2019<sup>1</sup> to December 31, 2020 and (ii) assuming that the actuarial experience of the System would match with that anticipated by the demographic assumptions. On the other hand, the Actuarial Accrued Liability (AAL) shown in the funding valuation report was measured based on the December 31, 2020 demographic data.

The differences between the TPL and the AAL were primarily due to: (a) actuarial gains/losses on the liability items as documented in Section 4, Exhibit VI of the December 31, 2020 funding valuation report for each Rate Group and (b) differences between the rolled forward liabilities and the actual liabilities.

<sup>1</sup> As the Board has adopted a new set of actuarial assumptions for use in the pension funding valuation as of December 31, 2020, we have included the impact of these assumption changes by revaluing the TPL as of December 31, 2019 prior to the rollforward.

Mr. Steve Delaney  
May 27, 2021  
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## Assets

The Plan Fiduciary Net Position shown in the GASB 67 report as of December 31, 2020 (that we subsequently used for our GASB 67 addendum letter) was based on the plan's Market Value of Assets (MVA) including the proceeds available in the County Investment Account and O.C. Sanitation District (OCSD) UAAL Deferred Account. On the other hand, the funding valuation report used the preliminary unaudited MVA provided by OCERS on April 2, 2021<sup>2</sup> and the Valuation Value of Assets (VVA) after adjusting the MVA for asset smoothing and excluding the non-valuation reserve.

The differences between the Plan Fiduciary Net Position and the VVA were primarily due to adjustment of deferred investment gain.

The NPL and UAAL were calculated by taking the TPL and the AAL and subtracting the Plan Fiduciary Net Position and the VVA, respectively.

The undersigned is a member of the American Academy of Actuaries and meets the Qualification Standard of the American Academy of Actuaries to render the actuarial opinion contained herein.

Please let us know if you have any questions or comments.

Sincerely,

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

JY/  
Enclosures

cc: Tracy Bowman  
Brenda Shott

<sup>2</sup> An updated financial statement was provided by OCERS on April 21, 2021 in which the market value of assets was higher by approximately \$129 million.

Attachment A

## All Rate Groups (Results are as of December 31, 2020)

<b>(A) Liability Reconciliation</b>	<b>Rate Group #1</b>	<b>Rate Group #2</b>	<b>Rate Group #3</b>	<b>Rate Group #4</b>
(1) Total Pension Liability Included in the development of the GASB 67 Addendum Letter	\$533,314,805	\$12,835,378,957	\$807,532,021	\$46,150
(2) (Gain)/Loss from (Lower)/Higher than Expected Salary Increases <sup>3</sup>	336,000	(17,707,000)	(20,776,000)	0
(3) Loss from Higher than Expected COLA Increases in 2020 <sup>1</sup>	501,000	19,180,000	973,000	0
(4) Gain from Lower than Expected COLA Increases in 2021 <sup>1</sup>	(3,298,000)	(86,145,000)	(5,718,000)	0
(5) Other Experience (Gain)/Loss <sup>1</sup>	(128,000)	89,039,000	7,016,000	2,000
(6) Other (Gain)/Loss from Rolled Forward Liabilities to Actual Liabilities	<u>(6,805)</u>	<u>(17,895,957)</u>	<u>(2,083,021)</u>	<u>(2,150)</u>
<b>(7) Actuarial Accrued Liability Included in the Funding Valuation Report (sum of items (1) through (6))</b>	<b>\$530,719,000</b>	<b>\$12,821,850,000</b>	<b>\$786,944,000</b>	<b>\$46,000</b>
<b>(B) Asset Reconciliation</b>				
(1) Market Value of Assets Excluding County Investment Account and OCSD UAAL Deferred Account	\$483,438,775	\$9,878,389,018	\$862,742,401	\$48,883
(2) County Investment Account and OCSD UAAL Deferred Account	<u>3,953,868</u>	<u>95,734,572</u>	<u>13,433,000</u>	<u>0</u>
(3) Plan's Fiduciary Net Position Included in the development of the GASB 67 Addendum Letter (1) + (2)	\$487,392,643	\$9,974,123,590	\$876,175,401	\$48,883
(4) Adjustment for Deferred Investment Return, Non-Valuation Reserve, and using Preliminary Unaudited Financial Statement	(28,509,775)	(582,557,018)	(50,878,401)	(2,883)
<b>(5) Valuation of Assets Included in the Funding Valuation Report (1) + (4)</b>	<b>\$454,929,000</b>	<b>\$9,295,832,000</b>	<b>\$811,864,000</b>	<b>\$46,000</b>
<b>Net Pension Liability Shown in the GASB 67 Addendum Letter (A1) - (B3)</b>	<b>\$45,922,162</b>	<b>\$2,861,255,367</b>	<b>\$(68,643,380)</b>	<b>\$(2,733)</b>
<b>Unfunded Actuarial Accrued Liability Shown in the Funding Valuation Report (A7) - (B5)</b>	<b>\$75,790,000</b>	<b>\$3,526,018,000</b>	<b>\$(24,920,000)</b>	<b>\$0</b>

<sup>3</sup> These actuarial gain/loss items can be found in Section 4, Exhibit VI of our December 31, 2020 funding valuation report.

Attachment A (continued)

## All Rate Groups (Results are as of December 31, 2020)

<b>(A) Liability Reconciliation</b>	Rate Group #5	Rate Group #9	Rate Group #10	Rate Group #11
(1) Total Pension Liability Included in the development of the GASB 67 Addendum Letter	\$1,064,279,628	\$54,596,226	\$281,808,606	\$12,517,564
(2) (Gain)/Loss from (Lower)/Higher than Expected Salary Increases <sup>1</sup>	(16,295,000)	(650,000)	(282,000)	29,000
(3) Loss from Higher than Expected COLA Increases in 2020 <sup>1</sup>	1,412,000	55,000	318,000	109,000
(4) Gain from Lower than Expected COLA Increases in 2021 <sup>1</sup>	(7,110,000)	(364,000)	(1,960,000)	(58,000)
(5) Other Experience (Gain)/Loss <sup>1</sup>	500,000	70,000	1,774,000	(51,000)
(6) Other (Gain)/Loss from Rolled Forward Liabilities to Actual Liabilities	<u>(915,628)</u>	<u>(11,226)</u>	<u>(686,606)</u>	<u>11,436</u>
<b>(7) Actuarial Accrued Liability Included in the Funding Valuation Report (sum of items (1) through (6))</b>	<b>\$1,041,871,000</b>	<b>\$53,696,000</b>	<b>\$280,972,000</b>	<b>\$12,558,000</b>
<b>(B) Asset Reconciliation</b>				
(1) Market Value of Assets Excluding County Investment Account and OCSD UAAL Deferred Account	\$878,255,238	\$58,477,592	\$262,206,045	\$12,662,759
(2) County Investment Account and OCSD UAAL Deferred Account	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
(3) Plan's Fiduciary Net Position Included in the development of the GASB 67 Addendum Letter (1) + (2)	\$878,255,238	\$58,477,592	\$262,206,045	\$12,662,759
(4) Adjustment for Deferred Investment Return, Non-Valuation Reserve, and using Preliminary Unaudited Financial Statement	(51,793,238)	(3,448,592)	(15,463,045)	(746,759)
<b>(5) Valuation of Assets Included in the Funding Valuation Report (1) + (4)</b>	<b>\$826,462,000</b>	<b>\$55,029,000</b>	<b>\$246,743,000</b>	<b>\$11,916,000</b>
<b>Net Pension Liability Shown in the GASB 67 Addendum Letter (A1) - (B3)</b>	<b>\$186,024,390</b>	<b>\$(3,881,366)</b>	<b>\$19,602,561</b>	<b>\$(145,195)</b>
<b>Unfunded Actuarial Accrued Liability Shown in the Funding Valuation Report (A7) - (B5)</b>	<b>\$215,409,000</b>	<b>\$(1,333,000)</b>	<b>\$34,229,000</b>	<b>\$642,000</b>

<sup>1</sup> These actuarial gain/loss items can be found in Section 4, Exhibit VI of our December 31, 2020 funding valuation report.

Attachment A (continued)

## All Rate Groups (Results are as of December 31, 2020)

<b>(A) Liability Reconciliation</b>	Rate Group #12	Rate Group #6	Rate Group #7	Rate Group #8	Total
(1) Total Pension Liability Included in the development of the GASB 67 Addendum Letter	\$11,734,787	\$957,733,190	\$4,481,879,226	\$1,969,628,490	\$23,010,449,650
(2) (Gain)/Loss from (Lower)/Higher than Expected Salary Increases <sup>1</sup>	(201,000)	(8,618,000)	14,880,000	(13,007,000)	(62,291,000)
(3) Loss from Higher than Expected COLA Increases in 2020 <sup>1</sup>	11,000	2,697,000	6,337,000	2,451,000	34,044,000
(4) Gain from Lower than Expected COLA Increases in 2021 <sup>1</sup>	(74,000)	(5,547,000)	(33,575,000)	(14,039,000)	(157,888,000)
(5) Other Experience (Gain)/Loss <sup>1</sup>	(89,000)	5,198,000	5,642,000	(214,000)	108,759,000
(6) Other (Gain)/Loss from Rolled Forward Liabilities to Actual Liabilities	<u>47,213</u>	<u>233,810</u>	<u>(4,872,226)</u>	<u>(1,917,490)</u>	<u>(28,098,650)</u>
<b>(7) Actuarial Accrued Liability Included in the Funding Valuation Report (sum of items (1) through (6))</b>	<b>\$11,429,000</b>	<b>\$951,697,000</b>	<b>\$4,470,291,000</b>	<b>\$1,942,902,000</b>	<b>\$22,904,975,000</b>
<b>(B) Asset Reconciliation</b>					
(1) Market Value of Assets Excluding County Investment Account and OCSD UAAL Deferred Account	\$12,684,013	\$791,114,285	\$3,575,263,578	\$1,808,109,413	\$18,623,392,000
(2) County Investment Account and OCSD UAAL Deferred Account	<u>0</u>	<u>9,868,945</u>	<u>50,820,615</u>	<u>0</u>	<u>173,811,000</u>
(3) Plan's Fiduciary Net Position Included in the development of the GASB 67 Addendum Letter (1) + (2)	\$12,684,013	\$800,983,230	\$3,626,084,193	\$1,808,109,413	\$18,797,203,000
(4) Adjustment for Deferred Investment Return, Non-Valuation Reserve, and using Preliminary Unaudited Financial Statement	(748,013)	(46,654,285)	(210,843,578)	(106,629,413)	(1,098,275,000)
<b>(5) Valuation of Assets Included in the Funding Valuation Report (1) + (4)</b>	<b>\$11,936,000</b>	<b>\$744,460,000</b>	<b>\$3,364,420,000</b>	<b>\$1,701,480,000</b>	<b>\$17,525,117,000</b>
<b>Net Pension Liability Shown in the GASB 67 Addendum Letter (A1) - (B3)</b>	<b>\$(949,226)</b>	<b>\$156,749,960</b>	<b>\$855,795,033</b>	<b>\$161,519,077</b>	<b>\$4,213,246,650</b>
<b>Unfunded Actuarial Accrued Liability Shown in the Funding Valuation Report (A7) - (B5)</b>	<b>\$(507,000)</b>	<b>\$207,237,000</b>	<b>\$1,105,871,000</b>	<b>\$241,422,000</b>	<b>\$5,379,858,000</b>

<sup>1</sup> These actuarial gain/loss items can be found in Section 4, Exhibit VI of our December 31, 2020 funding valuation report.

**ORANGE COUNTY EMPLOYEES  
RETIREMENT SYSTEM  
Cost-Sharing Multiple-Employer Defined Benefit Pension Plan  
Schedule of Allocated Pension Amounts by Employer  
As of and for the Year Ended December 31, 2020**

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## **Independent Auditor's Report**

To the Board of Retirement of the  
Orange County Employees Retirement System  
Santa Ana, California

We have audited the employer allocations and the total for all employers of the rows titled total deferred outflows of resources, total deferred inflows of resources, net pension liability, and total pension expense excluding employer-paid member contributions (specified row totals) included in the accompanying Schedule of Allocated Pension Amounts by Employer (Schedule) of the Orange County Employees Retirement System (System) Cost-Sharing Multiple-Employer Defined Benefit Pension Plan as of and for the year ended December 31, 2020, and the related notes to the Schedule of Allocated Pension Amounts by Employer.

### ***Management's Responsibility for the Financial Statements***

Management is responsible for the preparation and fair presentation of the Schedule in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of the Schedule that is free from material misstatement, whether due to fraud or error.

### ***Auditor's Responsibility***

Our responsibility is to express opinions on the employer allocations and the specified row totals in the Schedule based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the Schedule is free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the Schedule. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the Schedule, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the Schedule in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the Schedule.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

***Opinions***

In our opinion, the Schedule referred to above presents fairly, in all material respects, the employer allocations, and the total deferred outflows of resources, total deferred inflows of resources, net pension liability, and total pension expense excluding employer-paid member contributions for the total of all employers participating in the Orange County Employees Retirement System Cost-Sharing Multiple-Employer Defined Benefit Pension Plan as of and for the year ended December 31, 2020, in accordance with accounting principles generally accepted in the United States of America.

***Other Matter***

We have audited, in accordance with auditing standards generally accepted in the United States of America, the System's financial statements as of and for the year ended December 31, 2020, and our report thereon dated June \_\_, 2021, expressed an unmodified opinion on those financial statements.

***Restriction on Use***

Our report is intended solely for the information and use of the System's management, the Board of Retirement, the Orange County Employees Retirement System Cost-Sharing Multiple-Employer Defined Benefit Pension Plan employers and their auditors and is not intended to be and should not be used by anyone other than these specified parties.

Irvine, California  
June \_\_, 2021

DRAFT

**Orange County Employees Retirement System**  
**Cost-Sharing Multiple-Employer Defined Benefit Pension Plan**  
**Schedule of Allocated Pension Amounts by Employer**  
**As of and for the Year Ended December 31, 2020**

<b>Deferred Outflows of Resources</b>	<b>Orange County</b>	<b>O.C. Cemetery District</b>	<b>O.C. Public Law Library</b>	<b>O.C. Mosquito and Vector Control District</b>	<b>O.C. Employees Retirement System</b>
Differences Between Expected and Actual Experience	\$ 106,688,286	\$ 528,105	\$ 34,476	\$ 388,960	\$ 534,689
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	-	-	-	-	-
Changes of Assumptions	350,580,446	302,773	215,323	384,382	2,731,424
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	22,213,247	-	-	-	3,305,581
<b>Total Deferred Outflows of Resources</b>	<b>\$ 479,481,979</b>	<b>\$ 830,878</b>	<b>\$ 249,799</b>	<b>\$ 773,342</b>	<b>\$ 6,571,694</b>
<b>Deferred Inflows of Resources</b>					
Differences Between Expected and Actual Experience	\$ 116,822,611	\$ 423,161	\$ 481,376	\$ 840,768	\$ 645,269
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	844,702,893	761,554	753,008	1,745,975	5,370,347
Changes of Assumptions	102,623,510	-	-	-	-
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	3,780,248	-	25,423	-	105,794
<b>Total Deferred Inflows of Resources</b>	<b>\$ 1,067,929,262</b>	<b>\$ 1,184,715</b>	<b>\$ 1,259,807</b>	<b>\$ 2,586,743</b>	<b>\$ 6,121,410</b>
<b>Net Pension Liability/(Asset) as of December 31, 2020</b>	<b>\$ 3,547,545,979</b>	<b>\$ (145,195)</b>	<b>\$ (949,226)</b>	<b>\$ (1,681,965)</b>	<b>\$ 24,954,057</b>
<b>Pension Expense Excluding That Attributable to Employer-Paid Member Contributions</b>					
Proportionate Share of Allocable Plan Pension Expense/(Income)	\$ 212,306,006	\$ 39,540	\$ (284,180)	\$ (1,061,535)	\$ 1,309,566
Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	7,849,194	-	(414,500)	-	1,107,166
<b>Total Employer Pension Expense/(Income) Excluding That Attributable to Employer-Paid Member Contributions</b>	<b>\$ 220,155,200</b>	<b>\$ 39,540</b>	<b>\$ (698,680)</b>	<b>\$ (1,061,535)</b>	<b>\$ 2,416,732</b>

(Continued)

The accompanying notes are an integral part of these schedules.

**Orange County Employees Retirement System**  
**Cost-Sharing Multiple-Employer Defined Benefit Pension Plan**  
**Schedule of Allocated Pension Amounts by Employer**  
**As of and for the Year Ended December 31, 2020**

	O.C. Fire Authority	Cypress Recreation & Parks District	O.C. Department of Education	Transportation Corridor Agencies	City of San Juan Capistrano
<b>Deferred Outflows of Resources</b>					
Differences Between Expected and Actual Experience	\$ 42,647,259	\$ 1,628,200	\$ 444,465	\$ 924,761	\$ 431,035
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	-	-	-	-	-
Changes of Assumptions	20,847,354	46,968	118,721	761,881	2,201,910
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	-	-	-	560,255
<b>Total Deferred Outflows of Resources</b>	<b>\$ 63,494,613</b>	<b>\$ 1,675,168</b>	<b>\$ 563,186</b>	<b>\$ 1,686,642</b>	<b>\$ 3,193,200</b>
<b>Deferred Inflows of Resources</b>					
Differences Between Expected and Actual Experience	\$ 22,151,617	\$ -	\$ 417,291	\$ 622,420	\$ 520,178
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	127,379,805	1,020,653	557,158	3,681,630	4,329,253
Changes of Assumptions	51,604,825	12,345	101,775	-	-
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	-	-	-	4,888,341
<b>Total Deferred Inflows of Resources</b>	<b>\$ 201,136,247</b>	<b>\$ 1,032,998</b>	<b>\$ 1,076,224</b>	<b>\$ 4,304,050</b>	<b>\$ 9,737,772</b>
<b>Net Pension Liability/(Asset) as of December 31, 2020</b>	<b>\$ 181,121,638</b>	<b>\$ 185,117</b>	<b>\$ 2,661,390</b>	<b>\$ (3,881,366)</b>	<b>\$ 20,116,465</b>
<b>Pension Expense Excluding That Attributable to Employer-Paid Member Contributions</b>					
Proportionate Share of Allocable Plan Pension Expense/(Income)	\$ 17,590,285	\$ (29,368)	\$ (87,399)	\$ (43,637)	\$ 1,055,694
Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	-	-	-	(1,299,461)
<b>Total Employer Pension Expense/(Income) Excluding That Attributable to Employer-Paid Member Contributions</b>	<b>\$ 17,590,285</b>	<b>\$ (29,368)</b>	<b>\$ (87,399)</b>	<b>\$ (43,637)</b>	<b>\$ (243,767)</b>

(Continued)

The accompanying notes are an integral part of these schedules.

**Orange County Employees Retirement System**  
**Cost-Sharing Multiple-Employer Defined Benefit Pension Plan**  
**Schedule of Allocated Pension Amounts by Employer**  
**As of and for the Year Ended December 31, 2020**

	<b>O.C. Sanitation District</b>	<b>O.C. Transportation Authority</b>	<b>U.C.I. Medical Center and Campus</b>	<b>Children and Families Commission of O.C.</b>	<b>O.C. Local Agency Formation Commission</b>
<b>Deferred Outflows of Resources</b>					
Differences Between Expected and Actual Experience	\$ 19,679,712	\$ 3,427,122	\$ 2,085,835	\$ (13,122)	\$ 26,744
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	-	-	-	131,797	-
Changes of Assumptions	18,009,943	17,474,376	951,705	(67,034)	136,618
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	25,423	-	-	143,769	159,107
<b>Total Deferred Outflows of Resources</b>	<b>\$ 37,715,078</b>	<b>\$ 20,901,498</b>	<b>\$ 3,037,540</b>	<b>\$ 195,410</b>	<b>\$ 322,469</b>
<b>Deferred Inflows of Resources</b>					
Differences Between Expected and Actual Experience	\$ 2,630,086	\$ 14,033,597	\$ 1,590,593	\$ (15,836)	\$ 32,275
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	52,234,379	54,638,423	4,661,998	-	268,610
Changes of Assumptions	-	-	912,444	-	-
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	-	-	1,156,467	132,905
<b>Total Deferred Inflows of Resources</b>	<b>\$ 54,864,465</b>	<b>\$ 68,672,020</b>	<b>\$ 7,165,035</b>	<b>\$ 1,140,631</b>	<b>\$ 433,790</b>
<b>Net Pension Liability/(Asset) as of December 31, 2020</b>	<b>\$ (68,643,380)</b>	<b>\$ 186,024,390</b>	<b>\$ 25,337,145</b>	<b>\$ (612,417)</b>	<b>\$ 1,248,133</b>
<b>Pension Expense Excluding That Attributable to Employer-Paid Member Contributions</b>					
Proportionate Share of Allocable Plan Pension Expense/(Income)	\$ (3,178,086)	\$ 12,094,305	\$ 352,101	\$ (32,139)	\$ 65,501
Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	414,500	-	-	(465,761)	6,158
<b>Total Employer Pension Expense/(Income) Excluding That Attributable to Employer-Paid Member Contributions</b>	<b>\$ (2,763,586)</b>	<b>\$ 12,094,305</b>	<b>\$ 352,101</b>	<b>\$ (497,900)</b>	<b>\$ 71,659</b>

(Continued)

The accompanying notes are an integral part of these schedules.

**Orange County Employees Retirement System**  
**Cost-Sharing Multiple-Employer Defined Benefit Pension Plan**  
**Schedule of Allocated Pension Amounts by Employer**  
**As of and for the Year Ended December 31, 2020**

	City of Rancho Santa Margarita	O.C. Superior Court of California	O.C. IHSS Public Authority	Total for all Employers
<b>Deferred Outflows of Resources</b>				
Differences Between Expected and Actual Experience	\$ 1,544	\$ 6,420,885	\$ -	\$ 185,878,956
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	-	-	-	131,797
Changes of Assumptions	321	32,800,644	115,754	447,613,509
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	3,391,904	43,394	29,842,680
<b>Total Deferred Outflows of Resources</b>	<b><u>\$ 1,865</u></b>	<b><u>\$ 42,613,433</u></b>	<b><u>\$ 159,148</u></b>	<b><u>\$ 663,466,942</u></b>
<b>Deferred Inflows of Resources</b>				
Differences Between Expected and Actual Experience	\$ 3,198	\$ 7,748,797	\$ 272,188	\$ 169,219,589
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	2,582	64,490,481	324,456	1,166,923,205
Changes of Assumptions	886	-	5,390	155,261,175
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	19,720,574	32,928	29,842,680
<b>Total Deferred Inflows of Resources</b>	<b><u>\$ 6,666</u></b>	<b><u>\$ 91,959,852</u></b>	<b><u>\$ 634,962</u></b>	<b><u>\$ 1,521,246,649</u></b>
<b>Net Pension Liability/(Asset) as of December 31, 2020</b>	<b><u>\$ (2,733)</u></b>	<b><u>\$ 299,663,880</u></b>	<b><u>\$ 304,738</u></b>	<b><u>\$ 4,213,246,650</u></b>
<b>Pension Expense Excluding That Attributable to Employer-Paid Member Contributions</b>				
Proportionate Share of Allocable Plan Pension Expense/(Income)	\$ (1,940)	\$ 15,726,094	\$ 41,019	\$ 255,861,827
Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	-	(7,230,891)	33,595	-
<b>Total Employer Pension Expense/(Income) Excluding That Attributable to Employer-Paid Member Contributions</b>	<b><u>\$ (1,940)</u></b>	<b><u>\$ 8,495,203</u></b>	<b><u>\$ 74,614</u></b>	<b><u>\$ 255,861,827</u></b>

The accompanying notes are an integral part of these schedules.

**Orange County Employees Retirement System**  
**Cost-Sharing Multiple-Employer Defined Benefit Pension Plan**  
 Notes to the Schedule of Allocated Pension Amounts by Employer  
 As of and for the Year Ended December 31, 2020

**NOTE 1 – PLAN DESCRIPTION**

The Orange County Employees Retirement System (OCERS or System) administers a cost-sharing multiple-employer defined benefit pension plan (the Plan) for the County of Orange, Orange County Superior Court of California, City of San Juan Capistrano, and ten special districts: Orange County Cemetery District, Children and Families Commission of Orange County, Orange County Employees Retirement System, Orange County Fire Authority, Orange County In-Home Supportive Services Public Authority, Orange County Local Agency Formation Commission, Orange County Public Law Library, Orange County Sanitation District, Orange County Transportation Authority and the Transportation Corridor Agencies. The Orange County Department of Education, University of California, Irvine Medical Center and Campus, Capistrano Beach Sanitation District, Cypress Recreation & Parks District, Orange County Mosquito and Vector Control District and City of Rancho Santa Margarita are no longer active employers, but retired members and their beneficiaries, as well as deferred members, remain in the System. Capistrano Beach is not presented in the accompanying schedule as this employer is no longer in existence and OCERS does not have the ability to collect any unfunded liabilities from this inactive employer. OCERS is legally and fiscally independent of the County of Orange.

OCERS provides retirement, disability and death benefits to general and safety members. Safety membership includes those members serving in active law enforcement, fire suppression and as probation officers. General membership applies to all other occupations. Plan retirement benefits are tiered based upon the date of OCERS membership. Additional information regarding the pensions plan's benefit structure is included in the Summary of Plan Description that is available on the web at: <https://www.ocers.org/summary-plan-description>.

**NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

**Basis of Presentation and Basis of Accounting**

Employers participating in the Plan are required to report pension information in their financial statements in accordance with Governmental Accounting Standards Board (GASB) Statement No. 68, *Accounting and Financial Reporting for Pensions – an Amendment of GASB Statement No. 27*. The Schedule of Allocated Pension Amounts by Employer (the Schedule) along with OCERS' audited financial statements, the GASB Statement 67 Actuarial Valuation as of December 31, 2020 and the GASB Statement 68 Actuarial Valuation Based on the December 31, 2020 Measurement Date for Employer Reporting as of June 30, 2021, prepared by OCERS' third-party actuary, provide the required information for financial reporting related to the Plan that employers may use in their financial statements.

The accompanying Schedule was prepared by OCERS' third-party actuary and was derived from information provided by OCERS in accordance with accounting principles generally accepted in the United States of America (GAAP) as applicable to governmental organizations.

**Orange County Employees Retirement System**  
**Cost-Sharing Multiple-Employer Defined Benefit Pension Plan**  
 Notes to the Schedule of Allocated Pension Amounts by Employer  
 As of and for the Year Ended December 31, 2020

**NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)**

**Basis of Presentation and Basis of Accounting (Continued)**

Legally or statutorily required employer contributions for the year ended December 31, 2020, less any amounts of those legally or statutorily required contributions that are paid by the employees (referred to as reverse pick-ups), are used as the basis for determining each employer's proportion of total contributions. For the year ended December 31, 2020, employer paid member contributions of \$32,000 under Government Code Section 31581.1 which OCERS reports as employer contributions as these payments do not become part of the accumulated employee contributions, have been excluded in determining each employer's proportion of total contributions. Contributions made by the employer on behalf of employees under Government Code Section 31581.2 are classified as employee contributions and are not included in the proportionate share calculation for the year ended December 31, 2020.

Employer contributions have not been reduced for discount due to prepaid contributions. Contributions for each employer are assigned to its respective participating Rate Group. Rate Groups are a collection of members who are or were employed by employers that offer similar pension benefit formula(s). Rate Groups exist for the purpose of risk-pooling and the contribution rates developed by the actuary should, in the long-term, fairly and accurately reflect the benefits offered/promised to members in each group. Rate Groups can contain one or more employers and employers may be included in one or more Rate Groups. If an employer participates in several Rate Groups, the employer's total proportionate share of the Net Pension Liability (NPL) and related allocated pension amounts is the sum of its NPL and allocated pension amounts from each Rate Group.

The following Rate Groups have only one active employer, so all of the NPL for that Rate Group is allocated to the corresponding employer:

<b>Rate Group</b>	<b>Employer</b>
<b>3</b>	Orange County Sanitation District
<b>4</b>	City of Rancho Santa Margarita
<b>5</b>	Orange County Transportation Authority
<b>6</b>	County of Orange (Probation)
<b>7</b>	County of Orange (Law Enforcement)
<b>8</b>	Orange County Fire Authority (Safety)
<b>9</b>	Transportation Corridor Agencies
<b>10</b>	Orange County Fire Authority (General)
<b>11</b>	Orange County Cemetery District
<b>12</b>	Orange County Public Law Library

The total Plan contributions are determined through OCERS' annual actuarial valuation process. The actuarially determined rate is the estimated amount necessary to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. California Government Code Title 3, Division 4, Parts 3 and 3.9, Articles 6 and 6.8 define the methodology used to calculate member basic contribution rates for General members and Safety members. The employer is required to contribute the difference between the actuarially determined rate and the contribution rate of employees. Legally or statutorily required employer contributions were determined by multiplying the employers' contribution rate by the employers' payrolls for the fiscal year.

**Orange County Employees Retirement System**  
**Cost-Sharing Multiple-Employer Defined Benefit Pension Plan**  
Notes to the Schedule of Allocated Pension Amounts by Employer  
As of and for the Year Ended December 31, 2020

**NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)**

**Basis of Presentation and Basis of Accounting (Continued)**

The NPL is the Total Pension Liability (TPL) minus the Plan Fiduciary Net Position (plan assets). The TPL for each Rate Group is obtained from valuation results. The Fiduciary Net Position for each Rate Group is estimated by adjusting the valuation value of assets for each membership class by the ratio of the total Plan Fiduciary Net Position (excluding the balance of the County of Orange (County) Investment Account) to total OCERS' valuation value of assets. The County Investment Account is then allocated among the four County Rate Groups using the proportion of the County's most recent contributions that were derived from the proceeds of the Pension Obligation Bonds for each of the four County Rate Groups. The Orange County Sanitation District (OCSD) Unfunded Actuarial Accrued Liability (UAAL) Deferred Account balance of \$13,433,000 was allocated entirely to Rate Group 3 as of December 31, 2020. The NPL is then allocated to the respective employers based on the legally or statutorily required employer contributions within each Rate Group.

In developing the pension expense amounts, the NPL proportionate share percentage is used to calculate the employer's pension expense components (service cost, interest, change in benefit terms, differences between expected and actual experience, changes in assumptions and benefit payments, including refunds of employee contributions), with the exception of the Orange County Mosquito and Vector Control District (Vector Control), Cypress Recreation & Parks District (CRPD), University of California, Irvine Medical Center and Campus (UCI) and the Orange County Department of Education (OCDE) which were adjusted to reflect the appropriate amount of service costs based on their current inactive membership.

The employer contributions used to determine the NPL proportionate share percentage for Rate Group 1 excludes UCI, and OCDE employer contributions of \$3,068,000 and \$286,000, respectively. These employer contributions were intended to reduce the NPL of the specific employer, not the respective Rate Group as a whole. The percentages of contributions by employer do not equal the percentages used to allocate the NPL by employer because the NPL for the County has been reduced to reflect the portion of the County Investment Account, as described above. The amounts of the County Investment Account that have been allocated to those Rate Groups are as follows:

Rate Group	2020
1	\$ 3,953,868
2	95,734,572
6	9,868,945
7	50,820,615
<b>Total</b>	<b>\$ 160,378,000</b>

**Orange County Employees Retirement System**  
**Cost-Sharing Multiple-Employer Defined Benefit Pension Plan**  
 Notes to the Schedule of Allocated Pension Amounts by Employer  
 As of and for the Year Ended December 31, 2020

**NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)**

**Basis of Presentation and Basis of Accounting (Continued)**

In addition, the NPL for Rate Group 1 was adjusted by the NPL for Vector Control, OCDE, UCI and CRPD prior to allocating the net NPL to the other employers in Rate Group 1. The NPL for these four employers were calculated separately as follows:

The Vector Control is no longer an active employer, but retired members and their beneficiaries, as well as deferred members, remain in the Plan. For this employer, the allocated net pension liability is based on the most recent estimate of the withdrawal liability and adjusted to reflect the Plan Fiduciary Net Position as of December 31, 2020.

The participation in the Plan for the OCDE and UCI is closed to new members. The funding obligation for these employers' UAAL is no longer pro-rata based on its payroll as there are no active members. Instead, the employer's UAAL is determined based on its specific actuarial accrued liability and a share of assets allocated to the employer. The employer's contributions for its UAAL are to be paid at level, fixed-dollar amounts over a period not to exceed twenty years. The employer will also be liable, or receive a credit, for any change in its funding obligation determined annually thereafter as a result of actuarial experience or changes in actuarial assumptions.

On October 19, 2015, the Board of Retirement approved the amortization schedule for payment of the OCDE UAAL and UCI UAAL of \$3,238,000 and \$27,586,000, respectively. These balances were calculated based on the December 31, 2014 actuarial valuation assuming fixed-dollar payments over twenty years beginning on July 1, 2016. As per the Declining Payroll Policy, the UAAL balances were updated as of the December 31, 2019 actuarial valuation to reflect actuarial gains or losses and other events that will be captured in a new twenty-year closed amortization layer. The amortization schedules for the new UAAL layers for the OCDE and UCI, after being adjusted for interest to December 31, 2020, can be found on OCERS' website as discussed in Note 4 – Additional Financial and Actuarial Information.

CRPD and Capistrano Beach Sanitary District (CBSD) are no longer active employers. CRPD has twenty-two retired members and beneficiaries, as well as five deferred members, and CBSD has three retired members remaining in the Plan. At the time these employers left the System, OCERS did not have an express policy addressing how the UAAL would be funded for inactive employers. On October 15, 2018, OCERS entered into a withdrawing employer and continuing contribution agreement with the City of Cypress and received payment of the UAAL associated with CRPD members, including interest through October 14, 2018, for a total of \$740,000. As of December 31, 2020, and every three years thereafter, CRPD's UAAL obligation will be recalculated and in the event there is any new UAAL obligation, CRPD will have three years following the effective date of the recalculation to satisfy the obligation in full, including accrued interest. As of December 31, 2020, the allocated net pension liability is based on the most recent estimate of the withdrawal liability and adjusted to reflect the Plan Fiduciary Net Position as of December 31, 2020. CBSD is no longer in existence and OCERS does not have the ability to collect any UAAL from this inactive employer under OCERS' Declining Employer Payroll Policy; unpaid liabilities from this employer are deemed immaterial.

**Orange County Employees Retirement System**  
**Cost-Sharing Multiple-Employer Defined Benefit Pension Plan**  
Notes to the Schedule of Allocated Pension Amounts by Employer  
As of and for the Year Ended December 31, 2020

**NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)****Use of Estimates in the Preparation of Financial Schedules**

The preparation of the Schedule in conformity with GAAP requires management to make significant estimates and assumptions that affect the reported amounts during the reporting period. Actual results could differ from those estimates.

The components of the NPL related to OCERS' plan at December 31, 2020, are as follows (dollars in thousands):

	<b>2020</b>
Total pension liability	\$ 23,010,450
Less: Plan fiduciary net position	(18,797,203)
Net pension liability	<u>\$ 4,213,247</u>

For the measurement period ended December 31, 2020 (the measurement date), total pension liability was determined by rolling forward the December 31, 2019 (the valuation date) total pension liability. The actuarial assumptions used were based on the results of an experience study for the period from January 1, 2017 through December 31, 2019.

**NOTE 3 -- ACTUARIAL METHODS AND ASSUMPTIONS****Actuarial Methods and Assumptions Used to Determine Total Pension Liability**

The December 31, 2020 total pension liability was based on the following actuarial methods and assumptions:

Actuarial Experience Study	Three-Year Period Ending December 31, 2019
Actuarial Cost Method	Entry Age in accordance with the requirements of GASB Statement No. 68
Actuarial Assumptions	
Investment Rate of Return	7.00%. net of pension plan investment expenses, including inflation
Inflation Rate	2.50%
Projected Salary Increases	General: 4.00% to 11.00% and Safety: 4.60% to 15.00% Vary by service, including inflation
Cost of Living Adjustments	2.75% of retirement income

**Orange County Employees Retirement System**  
**Cost-Sharing Multiple-Employer Defined Benefit Pension Plan**  
Notes to the Schedule of Allocated Pension Amounts by Employer  
As of and for the Year Ended December 31, 2020

**NOTE 3 – ACTUARIAL METHODS AND ASSUMPTIONS (CONTINUED)**

**Actuarial Methods and Assumptions Used to Determine Total Pension Liability (Continued)**

**Mortality Assumptions**

The mortality assumptions used in the TPL at December 31, 2020, were based on the results of the actuarial experience study for the period January 1, 2017 through December 31, 2019, using the Public Retirement Plans Mortality tables (Pub-2010) published by the Society of Actuaries. Within the Pub-2010 family of mortality tables, OCERS has adopted both the General and Safety Amount-Weighted Above-Median Mortality Tables (adjusted for OCERS experience), projected generationally with the two-dimensional mortality improvement scale MP-2019, and adjusted separately for healthy and disabled for both general and safety members.

**Discount Rate**

The discount rate used to measure the TPL as of December 31, 2020 was 7.00%. In determining the discount rate, OCERS took into account the projection of cash flows and 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 total pension liability as of December 31, 2020.

According to Paragraph 30 of Statement 68, the long-term expected rate of return should be determined net of pension plan investment expense but without reduction for pension plan administrative expense.

The 7.00% investment return assumption used in the actuarial valuation for funding is net of administrative expenses. Administrative expenses are assumed to be 12 basis points. The investment return assumption remained the same for reporting purposes due to the immaterial impact administrative expenses has on the overall assumed rate of return.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and 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 rate of return by the target asset allocation percentage and by adding expected inflation and deducting expected investment expenses and a risk margin. Additional information on the target allocation and projected arithmetic real rate of return for each major asset class is available in the OCERS' Comprehensive Annual Financial Report for the year ended December 31, 2020.

**Orange County Employees Retirement System**  
**Cost-Sharing Multiple-Employer Defined Benefit Pension Plan**  
Notes to the Schedule of Allocated Pension Amounts by Employer  
As of and for the Year Ended December 31, 2020

**NOTE 3 – ACTUARIAL METHODS AND ASSUMPTIONS (CONTINUED)**

**Actuarial Methods and Assumptions Used to Determine Total Pension Liability (Continued)**

**Amortization of Deferred Outflows and Deferred Inflows of Resources**

The net difference between projected and actual investment earnings on pension plan investments in the Schedule represents the unamortized balance relating to the current measurement period and the prior measurement periods on a net basis. The net difference between projected and actual investment earnings on pension plan investments is amortized over a five-year period on a straight-line basis beginning with the year in which they occur. One-fifth was recognized in pension expense during the measurement period, and the remaining net difference between projected and actual investment earnings on pension plan investments at the measurement date is to be amortized over the remaining period.

Deferred outflows of resources and deferred inflows of resources related to the differences between expected and actual experience, changes of assumptions, and changes in proportion and differences between employer contributions and proportionate share of contributions are recognized over the average of the expected remaining service lives of all employees that are provided with pensions through the Plan determined as of December 31, 2019 (the beginning of the measurement period ending December 31, 2020) which is 5.81 years. Prior measurement period differences between expected and actual experience, changes of assumptions, and changes in proportion and differences between employer contributions and proportionate share of contributions continue to be recognized based on the expected remaining service lives of all employees calculated as of the beginning of those measurement periods.

The Schedule of Allocated Pension Amounts by Employer does not reflect contributions made to OCERS subsequent to the measurement date as defined in GASB Statement No. 68 paragraph 57. Appropriate treatment of such amounts is the responsibility of the employers.

**NOTE 4 – ADDITIONAL FINANCIAL AND ACTUARIAL INFORMATION**

Additional financial and actuarial information required for GASB Statement No. 68 disclosures is presented in OCERS' Comprehensive Annual Financial Report as of and for the year ended December 31, 2020, the OCERS' GASB Statement No. 67 Actuarial Valuation as of December 31, 2020, the OCERS' GASB Statement No. 68 Actuarial Valuation Based on the December 31, 2020, Measurement Date for Employer Reporting as of June 30, 2021, and the Unfunded Actuarial Liability and Associated Amortization Schedules as of the December 31, 2019 valuation for the Orange County Department Education and University of California, Irvine Medical Center and Campus, which can be found on OCERS' website at [www.ocers.org](http://www.ocers.org).



## Memorandum

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**DATE:** June 4, 2021  
**TO:** Members of the Audit Committee  
**FROM:** D. Kim, Director of Internal Audit  
**SUBJECT:** CONTINUOUS AUDIT OF FINAL AVERAGE SALARY CALCULATIONS (Q2 2021)

---

### Recommendation

Receive and file.

### Background/Discussion

Internal Audit's 2021 audit plan included a process of auditing Final Average Salary (FAS) calculations. Internal Audit completed a review of FAS calculations for new benefit payments setup during the 2<sup>nd</sup> quarter of 2021. There were two observations directed towards OCERS Member Services management.

Of the 60 FAS calculations reviewed from the 2<sup>nd</sup> quarter, Internal Audit noted four exceptions (6.7%) that required members' monthly FAS to be revised, leading to minor corrections of benefit payments.

Internal Audit also noted that certain elements of FAS supporting documentation for two members that required updates, but had no financial impact. The documentation was updated or uploaded to the pension administration system by Member Services in response to the audit.

The full audit report is attached.

Submitted by:

DK - Approved

David Kim  
Director of Internal Audit



**Continuous Audit of Final Average Salary  
Calculations (Q2 2021)**

**Report Date: June 4, 2021**

**Internal Audit Department**

**David Kim, Director of Internal Audit**

**Mark Adviento, Internal Auditor**

**OCERS Internal Audit**  
**Continuous Audit of Final Average Salary Calculations**  
**June 4, 2021**

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### **Audit Objective and Scope**

The objective of this audit was to provide an independent review of Final Average Salary (FAS) calculations used in new benefit payments setup by OCERS' Member Services, on a continuous basis.

In response to Internal Audit's 2020 Audits of FAS Calculations, Member Services reorganized the Retirement Program Specialist Team and modified the FAS calculation process including an updated retirement transaction excel spreadsheet as part of the Management Action Plan. The action plan was implemented for the processing of the April 1, 2021 payroll. A total of 182 new service and disability retirement benefits were processed under the revised procedures. Internal Audit reviewed the FAS calculations for 60 of these benefits.

The audit was conducted in conformance with the International Standards for the Professional Practice of Internal Auditing issued by the International Internal Audit Standards Board.

### **Conclusion / Executive Summary**

<b>Opinion: <i>Opportunities for Improvement</i></b>
--

During our review, Internal Audit noted opportunities exist to improve Member Services' quality control review over FAS calculations.

We noted a 6.7% error rate (four errors) out of the 60 FAS calculations sampled from Q2 2021. Three of the four errors resulted in changes of \$7 or less in the monthly benefit payment. Separately, we also found two instances in which the members' FAS supporting documentation required updates in the pension administration system, there was no financial impact.

Internal Audit also noted four instances in which we, along with Member Services, are consulting Legal on the interpretation of the supporting documentation for FAS calculations. The four instances of further interpretations have not been categorized as an observation at this time while we continue to discuss the matter with Legal. However, Internal Audit will continue to monitor the outcome of the interpretation and will report the results to the Audit Committee.

Management has agreed to our findings. See below for additional detail and Management's responses.

## Background

To finalize each retiree's FAS, Member Services uses a template Excel spreadsheet. In the spreadsheet, Member Services inputs a preliminary FAS number calculated by the pension administration system after reviewing it, and also inputs other manually calculated pensionable pay amounts not captured or calculated by the pension administration system. To calculate these amounts, the Retirement Program Specialist (RPS) must reference a variety of external data sources provided by employers, such as hourly rate history, timesheet data, and relevant Employer MOUs.

In March of 2021, as part of its Management Action Plan, Member Services made a number of modifications to their FAS calculation procedures and team organization that were presented to the Audit Committee at the March 22, 2021 Audit Committee meeting. The modifications included:

- Reorganization of the Retirement Program Specialist (RPS) Team
- Development of the OCERS Retirement Transaction Tool
- Development of detailed written procedures for the entire Retirement Transaction Process
- Retrained the RPS teams on the newly developed Retirement Transaction Tool
- Development of a fully focused Quality Assurance Review Team and Reporting process
- Random Sampling of Retirement Transactions by Member Services Management Team

Notably, one of the more impactful modifications to the process involved having three separate Member Services' team members performing the FAS calculation independently. This modification helps prevent 'following on' type errors in which the team member relies heavily upon the calculation performed by the team member earlier in the process.

Internal Audit independently selected a sample of FAS benefit calculations from the April and May 2021 benefit payroll months processed under the new enhanced procedures, and performed the following:

- Recalculated and traced the preliminary FAS used in the spreadsheet back to the preliminary FAS number calculated by the pension administration system.
- Reviewed Member Service's manual calculations of other pensionable pay item amounts (typically pensionable paid time off, or PTO) manually added to the preliminary FAS and the documentation used by Member Services to support their calculations.

Below is a summary of IA's error rate noted in the current audit, plus error rates noted in prior 2020 audits:

Quarter	Benefit Applications	Tested by Internal Audit (IA)	IA Error Count	IA Error Rate
Q1/2020	149	82	6	5.8%
Q2/2020	514	56	2	
Q3/2020	108	10	1	8.0%
Q4/2020	466	65	5	
<b>Applications Processed Under the Revised FAS Calculation Procedure</b>				
Q2/2021	182	60	4	6.7%

### Important Observations

1. **Internal Audit noted a 6.7% error rate (four errors) out of the 60 FAS calculations sampled from the 2<sup>nd</sup> quarter of 2021.** An oversight when reviewing FAS calculations can lead to errors in the monthly benefit paid to OCERS members.
  - a. Three of the four errors resulted in changes of \$7 or less in the monthly benefit payment. The three errors occurred in the manual portion of the FAS calculation process, comparable to the type of errors Internal Audit had identified in prior FAS Calculation audits.
  - b. The fourth error was due to the configuration in V3 which excluded pensionable pay items for the part-time portion of the measuring period in specific situations. Member Services' quality control steps did not detect these errors, which resulted in incorrect monthly benefits paid to an OCERS member.

In response to the observation, Member Services performed a root cause analysis on the errors and provided refresher training to the Member Services team members involved with the reviews. Additionally, in response to item b above, Member Services is working with the V3 vendor, ViTech, to address the configuration item as well as identify and correct other possible members' accounts that were impacted by this configuration item. Member Services provided staff training on how to identify members with this potential issue to ensure additional members are not impacted until the system logic is corrected.

2. **The FAS supporting documentation for two members needed to be updated in the pension administration system (no FAS impact).** Member Services' quality control steps did not detect this oversight. FAS benefit calculations in the pension administration system would not have a proper audit trail if documentation is only of a preliminary status, or is missing. In response to the observation, Member Services Management team is providing feedback to our team and the specific team members

who did not upload the complete documentation to the V3 system. We will continue to reiterate the requirement of maintaining the fully completed documentation in the members' files in V3 and will have the supervisor team monitor compliance.

**Copies to:**

S. Delaney  
S. Jenike  
M. Murphy  
G. Ratto  
B. Shott

J. Lamberson  
A. Bercaru  
Audit Committee Members

Observation Details	Management Action Plan (MAP) /MAP Responsible Party / Completion Date
<b>Important Observations</b>	
<p><b>1. Internal Audit noted a 6.7% error rate (four errors) out of the 60 FAS calculations sampled from the 2<sup>nd</sup> quarter of 2021.</b></p> <ul style="list-style-type: none"> <li>• Three of the four errors resulted in changes of \$7 or less in the monthly benefit payment. The three errors occurred in the manual portion of the FAS benefit calculation. The nature of the three errors were comparable to the errors noted in the prior FAS Calculation audits.</li> <li>• For the fourth error, V3 was configured to exclude the pensionable pay items in which the member was on part-time status. This V3 configuration applied to a rare, specific scenario in which the member's three-year FAS measuring period includes part-time employment pay periods but ends with full-time employment status in the final pay period. Member Services personnel had also been previously directed to exclude pensionable pay items from part time pay periods as part of their salary history review for the member with the above employment scenario.</li> </ul> <p><b>Further detail in the FAS Error Summary table below.</b></p> <p><b>Risk:</b> An oversight when reviewing FAS calculations can lead to errors in the monthly benefit paid to OCERS members.</p>	<p><b>Management Action Plan:</b> Member Services Management team takes all errors very seriously. As discussed before, we reorganized our team and implemented a full Quality Assurance process to review all payroll transactions and perform recalculations on any member's account where we found an error. We are reviewing the root cause of all errors and we are providing ongoing training on the errors found each month. We are providing direct feedback to the specific team members who processed the original calculations where errors occurred. We are also reporting up to senior management weekly on the results of our efforts.</p> <p>As to the fourth error, we are working with ViTech, our V3 pension administration system vendor to develop a solution to this issue. We are also working with our team to review any accounts with similar employment history to ensure this error does not occur in the future until we can have the systematic issue fixed in V3. Upon our initial review of all member retirements that have been processed since the implementation of V3 (2016 forward), it is believed to impact approximately 11 members, but the investigation is ongoing. We will provide an update on the final number of members affected at the time of the June Audit Committee Meeting.</p> <p>Member Services is also providing training to the team on how to identify members with this potential issue to ensure additional members are not impacted in the future until the fix in V3 is made.</p> <p>Appendix – Challenges of Complicated FAS Calculations</p> <p><b>Management Action Plan Responsible Party: Jeff Lamberson, Director of Member Services</b></p> <p><b>Completion Dates:</b></p> <ul style="list-style-type: none"> <li>• <b>Retraining of team members – Complete</b></li> </ul>

Observation Details	Management Action Plan (MAP) /MAP Responsible Party / Completion Date
	<ul style="list-style-type: none"> <li>• ViTech Change Request Submission – Complete</li> </ul>
<p><b>2. The FAS supporting documentation for two members needed to be updated in the pension administration system (no FAS impact).</b></p> <p>The final FAS supporting documentation was missing the Peer Reviewer signoff for one of the members while the other member’s final FAS calculation spreadsheet did not reflect the calculated FAS from the reciprocal worksheet.</p> <p><b>Risk:</b> FAS benefit calculations in the pension administration system would not have a proper audit trail if supporting documentation is not accurately updated or finalized.</p>	<p><b>Management Action Plan:</b> Member Services Management team is providing feedback to our team and the 2 specific team members who did not upload the fully completed supporting documentation to the V3 system. We will continue to reiterate the importance of maintaining the fully completed documentation in the members’ files in V3 and will have the supervisor team monitor compliance.</p> <p><b>Management Action Plan Responsible Party:</b> Jeff Lamberson, Director of Member Services</p> <p><b>Completion Date:</b> Complete</p>

## Internal Audit - FAS Error Summary (Q2 2021)

Sample	Nature of FAS Error	Monthly FAS Error	Monthly Benefit Payment Error	Months With Error
1	<u>Pensionable Training Pay Error - Manual</u> Member Services used incorrect hourly pay rates when manually calculating pensionable training pay includable in the FAS calculation.	Original monthly FAS of \$9,583.65 understated by \$1.63.	Original monthly benefit of \$3,819.83 <b>underpaid by \$0.65</b> . The Member was underpaid a total of \$1.30.	2 months
2	<u>Pensionable Training Pay Error - Manual</u> Member Services did not select the correct hourly pay rate when manually calculating pensionable training pay includable in the FAS calculation.	Original monthly FAS of \$15,057.81 understated by \$14.30.	Original monthly benefit of \$5,781.77 <b>underpaid by \$5.49</b> . The Member was underpaid a total of \$5.49.	1 month
3	<u>Retroactive Pay - Manual</u> Member Services incorrectly included retroactive pay as part of the FAS calculation for a part-time member.	Original monthly FAS of \$6,623.95 overstated by \$52.06.	Original monthly benefit of \$874.34 <b>overpaid by \$6.87</b> . The Member was overpaid a total of \$6.87 <sup>1</sup> .	1 month
4	<u>V3 Configuration Error</u> V3 was configured to exclude the pensionable pay items for the part-time portion of the measuring period for the rare instances in which the member's FAS measuring period had part-time pay periods and concluded with full-time pay periods, which upon reconsideration is now considered to be an error at the conclusion of the audit.	Original monthly FAS of \$9,470.32 understated by \$197.17.	Original monthly benefit of \$8,374.97 <b>underpaid by \$174.37</b> . The Member will receive a lump payment of \$457.23.	2 months

<sup>1</sup> Per OCERS Board Overpaid and Underpaid Plan Benefits Policy, OCERS will **not collect** this overpaid amount as it is under the policy's \$100 threshold for overpaid benefits.

**Categories of Observations (Control Exceptions):**

**Priority Observations:**

These are observation(s) that represent critical exceptions to the audit objective(s) and/or business goals. Such conditions may involve either actual or potential large dollar errors or be of such a nature as to compromise OCERS' reputation or integrity. Management is expected to address Priority Observations brought to its attention immediately.

**Important Observations:**

These items are important to the process owner and they do impact the control environment and/or could be observations for improving the efficiency and/or effectiveness of OCERS' operations. Management is expected to address within six to twelve months.

**Management's Responsibility for Internal Control**

Management has primary responsibility for establishing and maintaining the internal control system. All levels of management must be involved in assessing and strengthening internal controls. Control systems shall be continuously evaluated by Management and weaknesses, when detected, must be promptly corrected. The criteria for evaluating an entity's internal control structure are the Committee of Sponsoring Organizations of the Treadway Commission (COSO) Internal Control – Integrated Framework. Our Internal Control Audit enhances and complements, but does not substitute for department management's continuing emphasis on control activities and self-assessment of control risks.

**Internal Control Limitations**

Because of inherent limitations in any system of internal control, errors or irregularities may nevertheless occur and not be detected. Specific examples of limitations include, but are not limited to, resource constraints, unintentional errors, management override, circumvention by collusion, and poor judgment. Also, projection of any evaluation of the system to future periods is subject to the risk that procedures may become inadequate because of changes in conditions or the degree of compliance with the procedures may deteriorate. Accordingly, our audit would not necessarily disclose all weaknesses in the department's operating procedures, accounting practices, and compliance with OCERS' policies.

**Audit Report Opinions:**

**Satisfactory:**

No issues or a limited number of “Important Observations” (typically no more than two Important Observations).

**Opportunities for Improvement:**

Multiple issues classified as “Important Observations” (typically two or more Important Observations) with no more than one “Priority Observations”.

**Inadequate:**

Usually rendered when multiple issues are classified as “Priority” ” (typically one or more Priority Observations), together with one or more other issues classified as “Important Observations”. The Priority Observations identified have a major effect on processes, plan sponsors/members, financials, and/or regulatory requirements.

2011

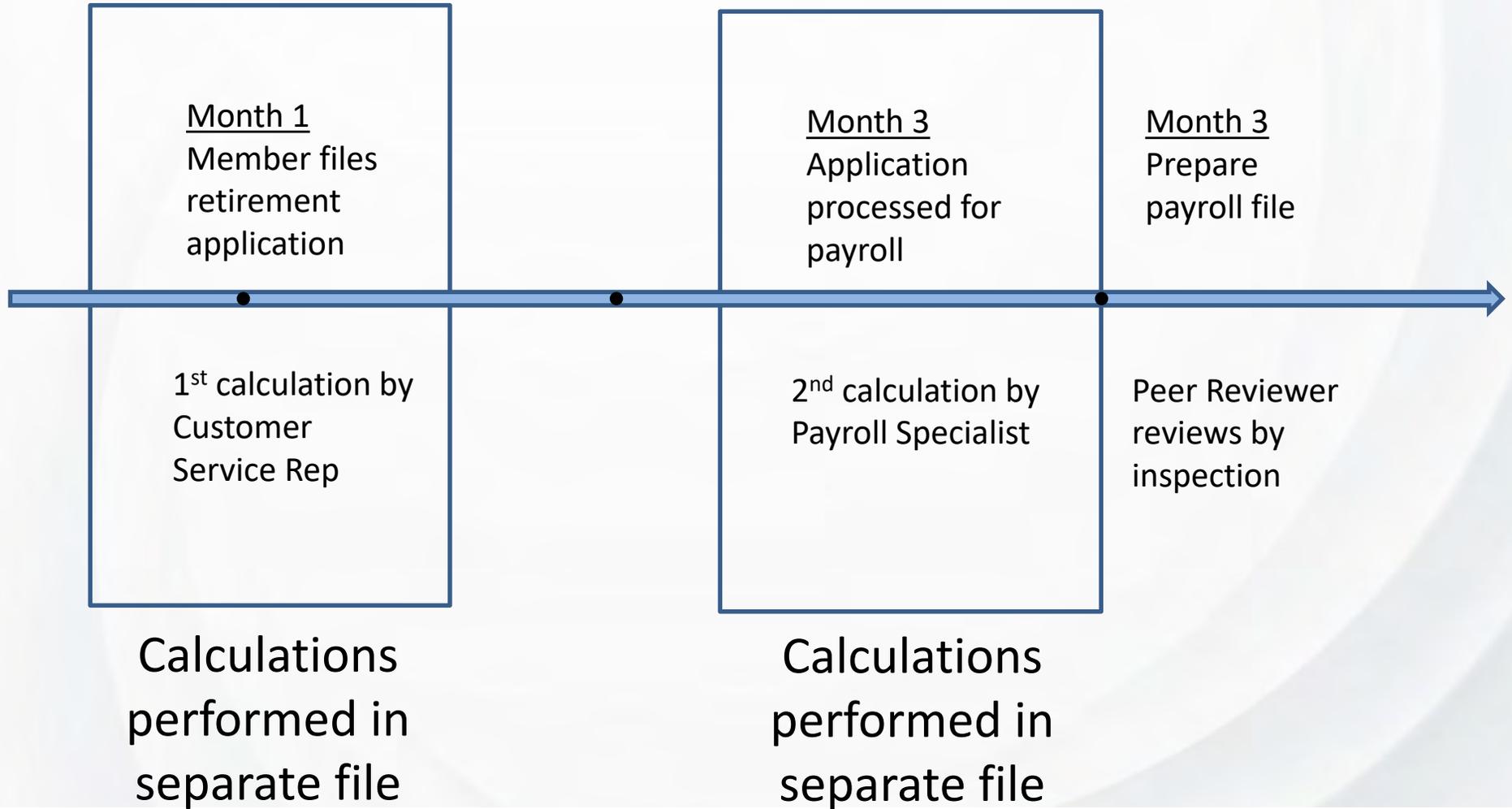


# **Challenges of Complicated FAS Calculations**

Presented to the Audit Committee June 4, 2021

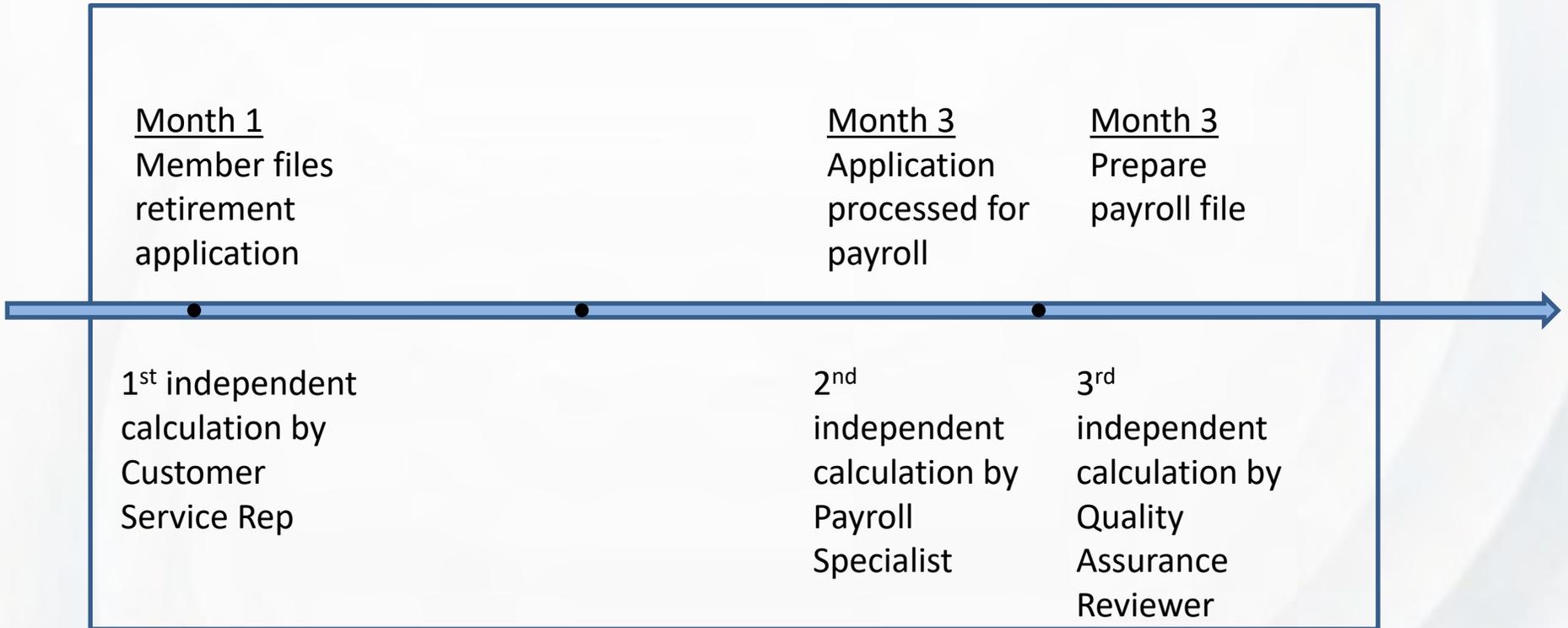


# Previous Process





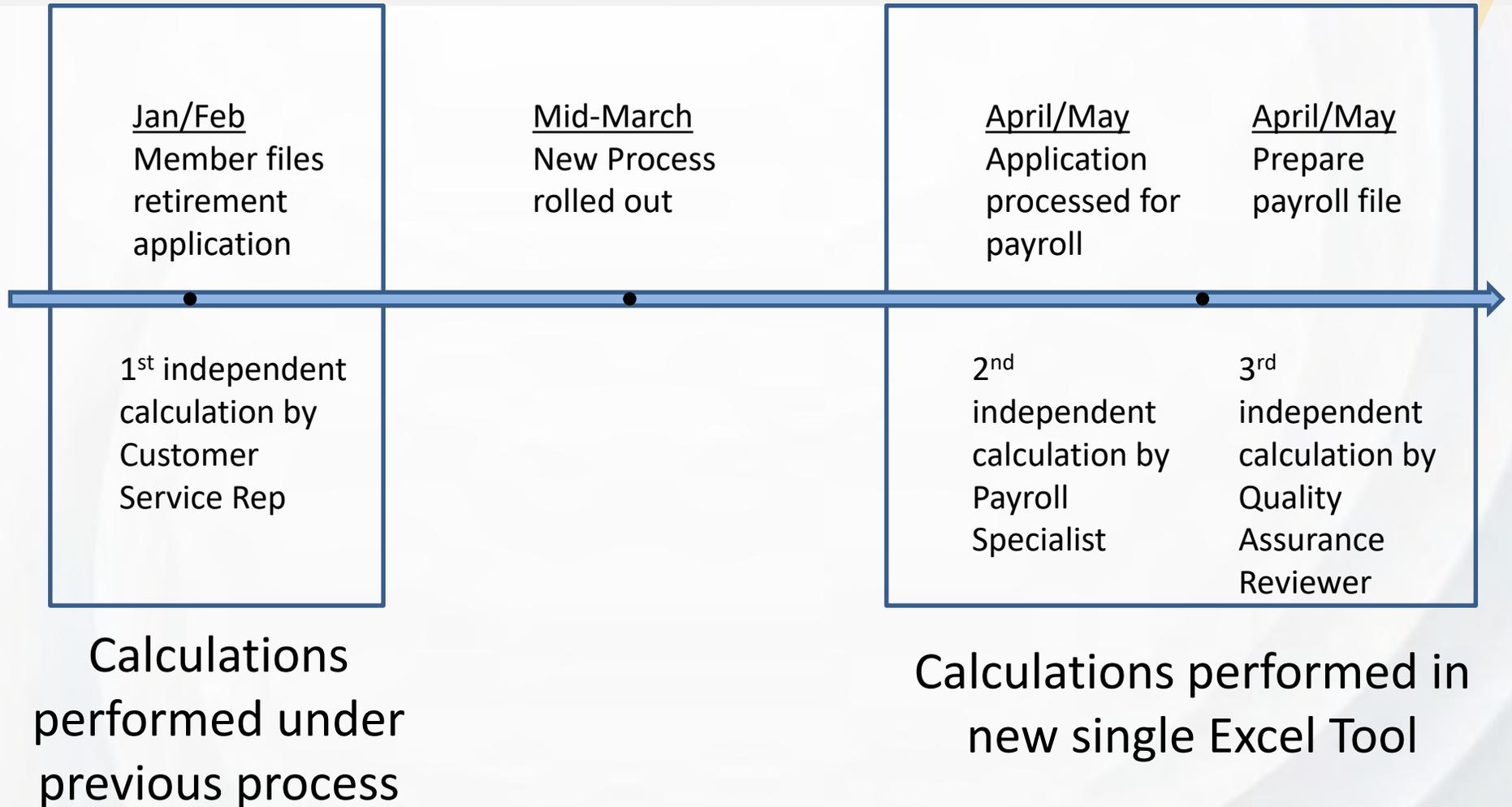
# New Process



All Calculations performed in new single Excel Tool



# Partial Roll Out - April/May



Refer to appendix for further detail



# MANUAL CALCULATIONS

- Some form of manual calculation is required for the majority (90-95%) of benefit inceptions for Legacy members as well as PEPRA members.
  - Payoffs of Vacation and Sick Leave and Holiday to the extent
    - (i) was **earned** (pro-rated on a monthly basis);
    - (ii) was not taken as time off; and
    - (iii) was permitted to be cashed -out (prorated on a monthly basis) under the applicable MOU\* **regardless of when actually paid or cashed out\*\***. [Emphasis added]
- \* Memorandum of Understanding  
\*\* Compensation Earnable/Pensionable Compensation policy





# AOCDS MOU EARNABLE VACATION COMP

Employees with 10+ years of employment earn 6.16 hours of vacation per pay period (4 weeks a year = 160 hours) capped at 360 hours

- C. Commencing with the pay period following that in which a full-time employee completes ten (10) years of continuous full-time County service (20800 hours), an employee in a full-time regular or limited-term position shall earn .077 hours of vacation for each hour of pay during his or her regularly scheduled workweek (approximately four [4] weeks per year). Commencing with the pay period in which a part-time employee completes 20800 hours of continuous County service, a part-time employee in a regular or limited term position shall earn .077 hours of vacation for each hour of pay during his or her regularly scheduled workweek.
  
- D. The maximum allowable vacation credit an employee may accrue at any one (1) time for a full-time employee shall be three hundred sixty (360) hours and a prorated amount equal to nine (9) weeks of vacation for part-time employees. An employee who has accrued the maximum allowable vacation credit will not accrue additional credit until the employee's vacation credit drops below the maximum allowed.



# AOCDS MOU CASHABLE

Employees can cash out up to 120 hours of vacation per year, assuming all annual leave hours are exhausted. If annual leave hours remains, maximum cash out is 90 hours.

## E. Vacation Cash Out Where Employee Has No Annual Leave Balances

During each fiscal year, an employee who does not have annual leave balances may request to be paid for accrued vacation in either one increment or two (2) separate increments. An employee who, through a cash out of annual leave, depletes all annual leave, shall be permitted to cash out vacation leave in the same fiscal year as the year annual leave is depleted up to no more than an aggregate total of 120 hours of vacation and annual leave in the fiscal year. In all other cases in which an employee does not have annual leave balances, the employee may be paid for no more than ninety (90) hours under the following circumstances:

1. If an employee has 270 or less accrued hours of vacation, the employee shall be permitted to cash out up to ninety (90) hours of vacation leave for the fiscal year. Payment shall be made upon request unless the Agency/Department determines it is not economically feasible.
2. If at any time during a fiscal year an employee has more than 270 hours of accrued vacation hours, the employee shall be permitted to cash out up to ninety (90) hours of the allowed annual cash out of vacation leave for the year upon request. Payment shall be made upon request unless the County has taken action pursuant to Government Code § 3504.5(b). Unless the County takes further formal action within ninety (90) days pursuant to Government Code § 3504.5(b), employees shall be permitted to resume cash outs upon request.



## WHAT DOES THAT MEAN?

1. OCERS Team has to verify which MOU(s) cover the member's 3 year measuring period.
2. We have to verify that the employee earned vacation time. If they are at 360 hours in their bank, they stop accruing.
3. We have to determine if the employee has any remaining annual leave hours.
4. We then verify that the employee had vacation hours to cash out.
5. If all of the above are true, the member gets credit for a maximum of 90 or 120 hours of vacation.



# SANITATION DISTRICT MOU

## 13.9. Investment Incentive Salary (IIS)

- 13.9.1. An additional amount of 4% of base salary will be paid to employees hired or promoted into the Group on or before October 16, 2003 in a lump-sum amount each pay period. This provision continues to make employees whole as a result of the Ventura decision. The above percentages will not be counted toward base salary for the purpose of salary surveys.
- 13.9.2. In addition, employees hired or promoted into the Group on or before October 16, 2003 will be paid \$1250 annually or \$48.08 per pay period in IIS to further encourage savings and investment for retirement.
- 13.9.3. IIS amounts are applied to annual, retirement, and termination leave payouts for eligible employees.



# SANITATION DISTRICT NOTES

## IISP & IISF NOTES

IIS= Investment Incentive Salary (prior 2003)

IISP = under MOU's can be 4% or 5% Mgmt & Exec's

IISF = \$1250 lump sum added for Sup's/Mgrs. Can only be 1 time during each measuring period, sometimes broken down every pay period as a single dollar amount (\$48.08)

Add IISP (4 or 5%) to all premium items ie. sick, vacation, H-comp, retro

To test 4% (IISP) take 4% time earnable (base pay)

4% or 5% Base pay IISP

\$48.08 times 26 pay periods = IISF \$1250 a year

Could be listed as one lump pay item \$1250 or 48.08 throughout every pay period

A similar manual process is undertaken when determining holiday pay.

1. Did the holiday land on the member's regularly scheduled day off?
2. Did the holiday pay get paid or credited as comp leave hours?
3. Did the member work the holiday?
  - a. How much pay did they receive?
  - b. Was it a major or minor holiday?



# HOLIDAY EXAMPLES

## Compensation for Holidays Falling on Schedule Days Off

When a holiday falls on a full-time employee's regularly scheduled day off the employee shall receive eight (8) hours of compensatory time. **Exception:** IUOE (CP rep unit) has the following options in their MOU: 1. Employee may request to change their schedule and take another day off in the same pay period (CANNOT change workweek designation for this so employee may incur OT/SOT); 2. Employee may request to go on an eight-hour day schedule for the workweek in which the holiday falls (CANNOT change workweek designation for this so employee may incur OT/SOT); 3. Employee may bank eight (8) hours of non-cashable compensatory time.



# HOLIDAY EXAMPLES

## Compensation for Work on Holidays

An employee who is required to work on Columbus Day, Veteran's Day, Day after Thanksgiving, Martin Luther King, Jr.'s Birthday, Lincoln's Birthday or Washington's Birthday (MINOR HOLIDAYS) and who meets the eligibility requirements contained herein shall receive his or her regular pay for each hour worked. **Exception:** AOCDS (PO and SP rep unit) are not subject to this provision.

An employee who is required to work on Christmas Day, New Year's Day, Memorial Day, Independence Day, Labor Day or Thanksgiving Day (MAJOR HOLIDAYS) shall receive pay computed at one and one-half (1 1/2) times the employee's basic hourly rate for the number of hours actually worked. **Exceptions:** Administrative Management and Law Enforcement Management (MU, MA, MB, ML rep units) can only receive up to a maximum of eight (8) hours computed at one and one-half times employee's basic hourly rate. AOCDS (PO and SP rep unit) are not subject to this provision.





## What is the point?

1. OCERS retirements are complicated and vary by employer and bargaining unit.
2. In order to automate and remove the manual calculations, we will have to work with employers to see if they can provide the missing data that is currently entered manually.



# Appendix



## 2<sup>nd</sup> Quarter Detail

- The old FAS calculation process used two separate excel workbooks. And then a peer review.
  - The 1<sup>st</sup> at the time of the initial Customer Service meeting with the member when they filed their retirement application.
  - The 2<sup>nd</sup> approximately two months later when their account was processed to be put on payroll.
    - As an example, if a member filed their retirement application in January, they would have a Customer Service meeting with a specialist who would provide an initial estimate and ask the member to locate and provide copies of various timesheets, pay stubs and documents to support any Holiday Compensation or special pay items found within their measuring period (12 months or 36 consecutive months depending on tier)
    - Two months later when the member account is set to be added to payroll, the second calculation is performed in a separate workbook. This calculation was then reviewed to confirm the amounts and process was performed properly but the reviewer did not validate the data used.
    - This calculation would then initiate a payment to the member on April 1<sup>st</sup>.



## 2<sup>nd</sup> Quarter Detail Cont.

- In March we discussed that we developed a new excel tool and had rolled it out to our team.
- The new tool has 3 separate calculations in one excel workbook as part of the process.
  - The 1<sup>st</sup> calculation was performed at the time of the initial Customer Service meeting with the member when they filed their retirement application.
  - The 2<sup>nd</sup> approximately two months later when their account was processed to be put on Payroll.
  - The 3<sup>rd</sup> and final calculation is performed by our separate QA team prior to adding the member to Payroll.
  - All of these calculations in the new tool compare off of the other to help find differences and point them out to the user.
- Using the logic in the sample on the previous slide, if we began using the tool in March for April 1 payroll, the Customer Service portion of the calculation would have been performed in January before the existence of the new excel tool. In order to work around this for April and May payrolls, we worked to perform additional testing in QA to ensure all calculations were performed accurately.
- Our findings in this audit report do not show the full implementation of our new excel tool, however the findings do show that the tool did stop errors that were simple human key stroke or bad formula errors from happening. Unfortunately, the process is still susceptible to misinterpretation of the MOU's and the amounts that should be credited for the various manual pay items. We are working to develop solutions to solve this issue. The following slides will provide examples of these issues.



## Memorandum

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**DATE:** June 4, 2021  
**TO:** Members of the Audit Committee  
**FROM:** Brenda Shott, Assistant CEO, Internal Operations  
**SUBJECT:** OPERATIONAL RISK MANAGEMENT ANNUAL REPORT

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### Written Report

#### Background/Discussion

OCERS considers risk management an essential component of strategic, operational, financial and reputational management. Ensuring that OCERS is aware of and prepared for risks facing the organization is the primary objective of the Operational Risk Management program. This annual report provides information on the activities of the Operational Risk Committee and the status of the Operational Risk Management Program

#### A. **Operational Risk Management – Committee Charter**

The Operational Risk Committee Charter, approved by OCERS Chief Executive Officer, governs the duties and responsibilities of the Operational Risk Committee Charter (Attachment 1). The Operational Risk Committee is comprised of OCERS staff as designated by the CEO. The current Committee make up includes the CEO, two Assistant CEOs, General Counsel, Director of Internal Audit, Director of Information Security, Information Security Manager, and the Contracts, Risk and Performance Administrator. Below are the guidelines for the Committee included in the Charter:

1. Oversee OCERS' operational risk management policies and procedures.
2. Set OCERS' overall operational risk management objectives, risk tolerance, risk targets and standards.
3. Identify, assess, manage and mitigate operational risks on an agency wide basis.
4. Report on operational risk management to the Audit Committee of the Board of Retirement at least annually.
5. Ensure approved operational risk management policies and procedures are being followed.
6. Review operational risk management reports and provide direction on areas of focus.

#### B. **Annual Reporting**

Pursuant to item #4 above and Section 5 of the Board's Operational Risk Policy (Attachment 2), the Operational Risk Committee is submitting this annual report to the Audit Committee for review.

#### C. **Report Summary**

Specifics about the risks identified, mitigating factors and current risk score contain highly sensitive information that could have adverse security implications if published. As such, this report contains a high-level overview of the information. The following items summarize the current activities and status of the Operational Risk Management program:

1. The Operational Risk Committee Charter was adopted September, 2018
2. An in-house tool was developed to record, track and report the OCERS' Operational Risks



## Memorandum

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3. All departments have been evaluated for Operational Risks. A total of 63 risks have been identified and recorded
4. Additional risks were recorded in 2020 related to the current remote work status of the OCERS Team Members
5. Department Directors and their teams give each risk identified in their area of responsibility a total of three scores: Initial Score (based on conditions at the time the risk is identified), Current Score (based on current situation after considering existing mitigating factors and operational conditions) and Target Score (based on mitigating factors planned for the future and expected operational conditions). Each score is comprised of two components: Likelihood of risk occurring and the impact the risk would have should it occur. Both the likelihood and impact are given a numeric value between 1 and 5. The two scores are multiplied together to get the risk score for each of three scenarios.
6. The Contracts, Risk and Performance Administrator met with each Department to review the risks identified. During the review meetings, each risk was reviewed to determine if any changes to mitigating factors had occurred, new risks identified were evaluated (if any) and each risk score was reassessed and updated if appropriate.
7. The Operational Risk Committee met quarterly to review the results of the department meetings. The Committee has evaluated all of the risks identified in the program and deemed the scores assigned appropriate.
8. The initial risk score of the entire organization was 8.97 on a scale of 1 to 25
9. After current mitigating factors were considered, the overall Current Risk Score is 5.66 (Low).
10. The overall Target Risk Score is 3.84 (Low)
11. Page three (3) of this report includes a visual representation of the current and prior year scores.

Submitted by:

A rectangular stamp with the OCERS logo on the left and the text "OCERS B.M.S. - Approved" in a bold, sans-serif font on the right.

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Brenda Shott  
Assistant CEO, Internal Operations



# Memorandum

## All Departments – Risk Management Scorecard

### 2020 Scores



### 2019 Scores





## Staff Committee Charter

# Operational Risk Committee Charter

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### Introduction

1. The Operational Risk Committee (“Committee”) is charged with developing, implementing and administering procedures and practices to assess measure and manage operational risks. The Committee will carry out its duties with the care, skill, prudence, and diligence under the circumstances that a prudent person acting in a like capacity and familiar with these matters would use.
2. The Committee’s core objectives are to:
  - a. Develop a more risk-intelligent organization;
  - b. Establish operational risk management program standards;
  - c. Independently assess and challenge existing department level controls and processes to ensure program compliance;
3. The Committee shall be comprised of OCERS staff as designated by the CEO; and
4. The CEO will designate the Committee Chair.

### Definition

**Operational Risk:** The risk of loss resulting from inadequate or failed internal processes, people, or systems or from external events. An operational risk management process should help prevent or detect in advance an operational risk event, and help OCERS effectively meet regulatory and on-going operational obligations.

### Duties and Responsibilities

5. Oversee OCERS’ operational risk management policies and procedures.
6. Set OCERS’ overall operational risk management objectives, risk tolerance, risk targets and standards.
7. Identify, assess, manage and mitigate operational risks on an entity wide basis.
8. Develop and implement reporting of operational risk management to the Audit Committee of the Board of Retirement at least annually.
9. Ensure approved operational risk management policies and procedures are being followed.
10. Review operational risk management reports and provide direction on areas of focus.

### Meetings

11. The Committee will meet once a quarter and otherwise on an as needed basis as determined by the Committee Chair in consultation with the CEO.



## Staff Committee Charter

# Operational Risk Committee Charter

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## Review and Amendment of Charter

12. The Committee will review this Charter at least once every three (3) years and recommend any amendments to the CEO for approval as necessary to ensure that the Charter remains relevant and appropriate.

## Charter History

13. This Charter was adopted by the CEO on September 24, 2018. The Operational Risk Committee was first convened on March 2, 2018.



## OCERS Board Policy Operational Risk Policy

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### Background

1. The Board considers risk management an essential component of strategic, operational, financial and reputational management.

### Policy Objectives

2. To help achieve long-term sustainability by ensuring that OCERS is aware of and prepared for risks facing the organization.

### Policy Guidelines

3. OCERS embeds risk management in all business practices to keep it relevant, effective and efficient.
4. Management is responsible for identifying, assessing, and responding to risks and timely communication of the results of these processes, with accountability addressed in annual performance evaluations.
5. At least annually, management will report to the Audit Committee regarding operational risk management and the related responsibilities, strategies, risks identified and actions for addressing material risks facing OCERS.

### Policy Review

6. The Board shall review this policy at least every 3 years to ensure that it remains relevant and appropriate.

### Policy History

7. This policy was adopted by the Board of Retirement on November 16, 2015.
8. This policy was revised by the Board of Retirement on February 19, 2019

### Secretary's Certificate

I, the undersigned, the duly appointed Secretary of the Orange County Employees Retirement System, hereby certify the adoption of this policy.

A rectangular box containing a handwritten signature in blue ink that reads "Steve Delaney".

Steve Delaney  
Secretary of the Board

2/19/19

Date



## Memorandum

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**DATE:** June 4, 2021  
**TO:** Members of the Audit Committee  
**FROM:** David Kim, Director of Internal Audit  
**SUBJECT:** **STATUS UPDATE OF 2021 AUDIT PLAN**

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### *Written Report*

#### **Background/Discussion**

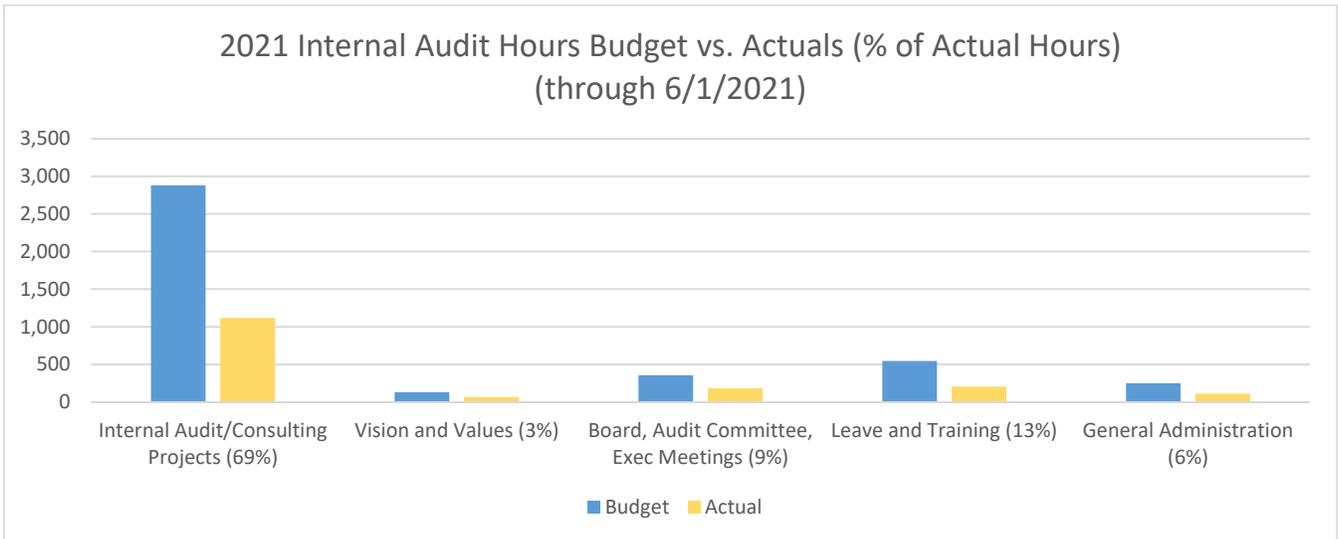
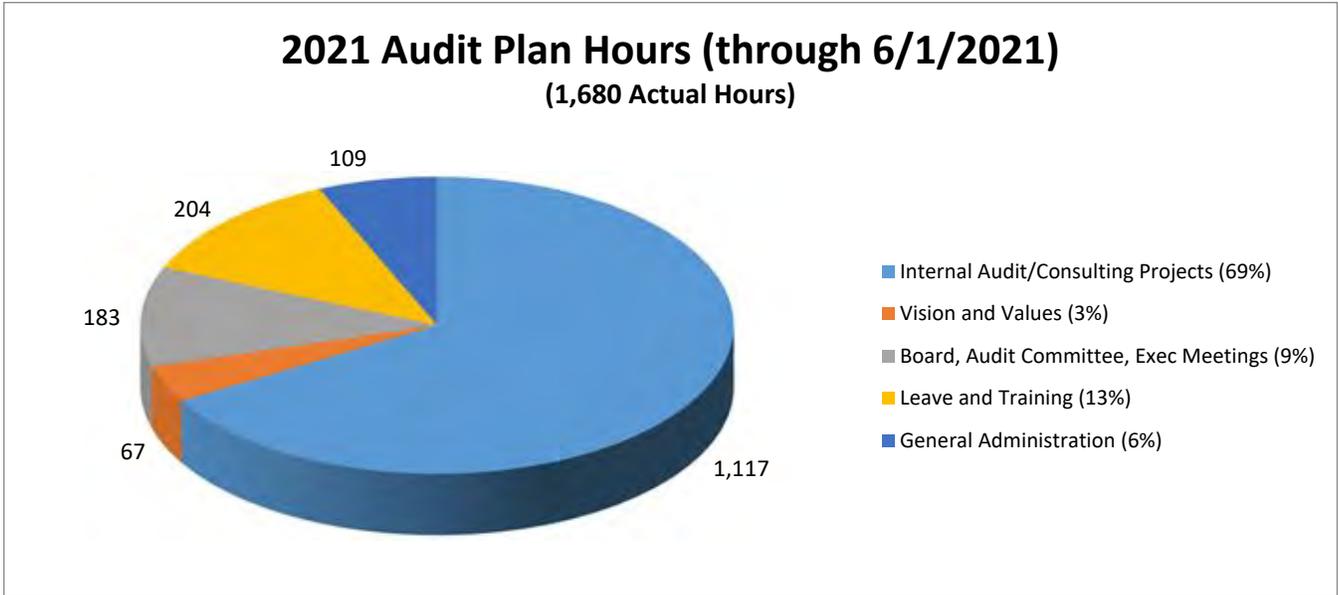
Attached is a comparison of budgeted 2021 audit plan hours versus the completed program actual hours, by project.

#### **Submitted by:**

DK - Approved

David Kim  
Director of Internal Audit

## 2021 Internal Audit Plan



## 2021 Internal Audit Plan

Audit Activity	Description	Planned Hours	Actual Hours	Projected Remaining Hours	Comments
<b>Internal Audit/Consulting/Planning/QAIP</b>		<b>2,880</b>	<b>1,117</b>	<b>1,761</b>	
<b>Internal Audits - Assurance</b>		<b>2,220</b>	<b>1,020</b>	<b>1,198</b>	
Contribution transmittals Employer (OC Sheriff) Carryover	Review employer's supporting documentation to verify accuracy and completeness of payroll data transmitted to OCERS pension administration system; review employer's controls to ensure compliance with OCERS Membership Eligibility Requirements Policy.	50	53	0	Complete - First time auditing OC Sheriff
IT Audit - Vulnerability and Patch Management - Carryover	Evaluate OCERS' vulnerability and patch management (V&PM) processes and controls to verify unexpected changes and vulnerabilities within an environment are identified and addressed to mitigate operational information security risks. Performed by RSM	20	23	0	Complete
Private Equity Consultant Review	Review TorreyCove's controls that verify completeness and accuracy of OCERS share of PE funds' capital calls/distributions and PE fund fees charged to OCERS along with the OCERS Investment's review controls.	300	215	85	Fieldwork underway
Cash/Wire Process	Review the controls in OCERS Finance Department and Investments Division to ensure that cash/wire transfers are properly authorized, and are completely and accurately recorded to the General Ledger.	300	0	300	
Dependent Eligibility/Survivor Claim	Review Member Services Department controls that help confirm dependent eligibility, and ensure the accuracy and completeness of survivor benefit payments.	390	20	370	
COLA Adjustments	Review Member Services Department controls that help ensure accuracy and completeness of COLA adjustments to benefit payments.	300	0	300	
Contribution transmittals Employer (OC Cemetery District)	Review employer's supporting documentation to verify accuracy and completeness of payroll data transmitted to OCERS pension administration system; review employer's controls to ensure compliance with OCERS Membership Eligibility Requirements Policy.	300	292	0	Complete - First time auditing this Employer
Internal Audit - Management Action Plan Follow-up	Action Plan Follow-up - Perform MAP follow-ups with management.	160	87	73	Ongoing review of implemented MAPs from completed audits.
Continuous Audit -FAS Benefit Calculation	Continuous audit of the FAS calculation with criteria for manual adjustments to the FAS. Sample on quarterly basis	400	330	70	FAS calculation reviews of Q2 complete
<b>Internal Audits - Consulting</b>		<b>270</b>	<b>56</b>	<b>214</b>	
IT Audit Program	IT Automated Controls Audit and CIS Controls Self-Assessment Advisory	110	7	103	Outsourced to a third party.
Consulting/Ad-hoc projects	Open for any ad-hoc project TBD	160	49	111	
<b>Internal Audits - Planning</b>		<b>250</b>	<b>24</b>	<b>226</b>	
Annual Audit Planning	Review and update Risk and Control Matrix.	100	24	76	
	Annual preparation of the Audit Plan, updates to the current Audit Plan.	150	0	150	
<b>Internal Audits - Quality Assurance and Improvement Program</b>		<b>140</b>	<b>17</b>	<b>123</b>	
Quality Assurance and Improvement Program	IA Quality Review- self assessment - QAIP program	60	16	44	
	Use of hotline reporting system.	80	1	79	

## 2021 Internal Audit Plan

Audit Activity	Description	Planned Hours	Actual Hours	Projected Remaining Hours	Comments
<b>Vision and Values</b>		<b>130</b>	<b>67</b>	<b>63</b>	
	Vision and Values - Continuous Improvement Program	50	22	28	Route to appropriate parties, report to OCERS executives
	Vision and Values Committee (Internal OCERS Committee)	80	45	35	Internal committee to promote a positive culture at OCERS - Chair of the committee
<b>Board, AC, OCERS Executive Meetings</b>		<b>356</b>	<b>183</b>	<b>173</b>	
	Board meetings, Audit Committee, Personnel Committee, Governance Committee, Executive meeting	290	152	138	
	Weekly meetings with CEO	26	11	15	
	Monthly meeting with Audit Committee Chair	40	20	20	
<b>General admin time</b>		<b>250</b>	<b>109</b>	<b>141</b>	
	General admin time	250	109	141	6% of 2021 actuals
<b>Leave (Holiday/Annual) and Training</b>		<b>544</b>	<b>204</b>	<b>340</b>	
	Holidays (12 days), Annual Leave (15 days)	432	152	281	
	Training and Continuing Education	112	53	60	Difficult Conversations, Cyber Vulnerabilities, Organizational Risks for 2021
<b>Grand Total Hours</b>		<b>4,160</b>	<b>1,680</b>	<b>2,478</b>	



## Memorandum

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**DATE:** June 4, 2021  
**TO:** Members of the Audit Committee  
**FROM:** David Kim, Director of Internal Audit  
**SUBJECT: MANAGEMENT ACTION PLAN VERIFICATION**

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### *Written Report*

#### **Background/Discussion**

Under the International Standards for the Professional Practice of Internal Auditing (“Standards”), Internal Audit must establish and maintain a system to monitor the disposition of prior results communicated to management. This includes a follow-up process to monitor and ensure that management action plans have been implemented or that management and the Audit Committee has accepted the risk of not taking action.

The follow-up on management action plans (MAPs) involves:

- Confirming management has implemented an action plan and no further action is required.
- Internal Audit has tested the operational effectiveness of the MAP.

The following report contains the status of the MAPs that have been reported to the Audit Committee:

- For the MAPs noted as Open, Internal Audit will continue to work with the respective parties until the MAP is closed and verified.
- For the MAPs noted as Closed – No Further Action Required (YTD), Internal Audit has confirmed the MAPs have been implemented and were operating effectively during the current year.
- For the MAPs noted as Closed – No Further Action Required (Prior Years), MAPs that have been implemented and confirmed as operating effectively prior to the current year.

#### **Submitted by:**

**DK - Approved**

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David Kim  
Director of Internal Auditor



## Management Action Plan Status Report

Project(s): ALL  
Mgmt. Status: ALL

Process Owner(s): EMPLOYER,  
EXECUTIVE,  
FINANCE,

*"We provide secure retirement and disability benefits  
with the highest standards of excellence."*



REPORTING FOR: 2018, 2019, 2020, 2021, ARCHIVED	OPEN	Closed - No Further Action Required (YTD)	Closed - No Further Action Required (Prior Years)	Total
<b>Process Owner</b>				
EMPLOYER	2	0	12	14
EXECUTIVE	1	1	4	6
FINANCE	2	0	19	21
INFORMATION TECHNOLOGY	12	4	2	18
INVESTMENTS	0	3	6	9
MEMBER SERVICES	12	3	18	33
<b>Total Count:</b>	<b>29</b>	<b>11</b>	<b>61</b>	<b>101</b>



## Management Action Plan Status Report

Project(s): ALL  
Mgmt. Status: ALL

Process Owner(s): EMPLOYER,  
EXECUTIVE,  
FINANCE,

*"We provide secure retirement and disability benefits  
with the highest standards of excellence."*



**Project:** Audit of the Benefit Setup Process (2012)  
**Report Date:** 12/04/2012  
**Total Observations:** 6  
**Open Observations:** 2  
**Closed:** 4

### Observation #1 - Manual FAS override

OPEN

**Process Owner:** Member Services

**Due Date:** 08/31/2021

**Action Plan:** Management agreed to the following recommendation: Subsequent changes made to FAS after the initial benefit setup process should require a supervisory approval prior to making an override in the system. Additionally, management should use a system-generated report from V3 that lists all manual overrides to identify all such changes made in the system. Management should review and sign off on each manual override on that report for propriety and accuracy to mitigate the risk of unauthorized or incorrect amounts being entered in the system.

**IA Follow-Up:** IA to confirm action plan has been implemented in Q3 2019 and to perform testing in Q3 2021.

### Observation #8 - Manual FAS supporting documentation

OPEN

**Process Owner:** Member Services

**Due Date:** 08/31/2021

**Action Plan:** Management agreed to the following recommendation: All manual overrides to data should be fully documented with the staff that made the change, date the change was made, prior amount, revised amount, and reason for the change with supervisory approval documented in V3 in accordance with the current method of maintaining supporting documentation for benefits calculation. Member Services personnel are required to document V3 via note for any member file that requires a manual override.

**IA Follow-Up:** IA to confirm action plan has been implemented in Q3 2019 and to perform testing in Q2 2021.

### Observation #3 - Benefit setup checklist

CLOSED

**Process Owner:** Member Services

**Completion Date:** 05/21/2019

**Action Plan:** A check list that contains all of the required forms and documents necessary for each type of benefit setup will be created and scanned into LibertyNET until we have fully implemented V3. We have configured several workflows in V3 which will act as an electronic check list to ensure that all required documents are not only received but verified and audited by supervisors.

**IA Follow-Up:** IA has verified the use of a workflow process in V3 in V3 benefit setup audits performed after V3 go-live in December 2014.

### Observation #5 - Automation with V3 system

CLOSED

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## Management Action Plan Status Report

Project(s): ALL  
Mgmt. Status: ALL

Process Owner(s): EMPLOYER,  
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**Process Owner:** Member Services

**Completion Date:** 06/05/2019

**Action Plan:** Every attempt is being done to incorporate as many of the manual processes into V3 as possible so the application is automated.

**IA Follow-Up:** IA has verified the implementation of automated process in V3 that were previously manual within PensionGold. Processes related to reciprocity, service credit purchases, interest postings, domestic relations orders, and initial FAS calculations were tested.

### Observation #7 - Update written procedures

CLOSED

**Process Owner:** Member Services

**Completion Date:** 05/21/2019

**Action Plan:** Member Services has agreed to revise its written procedures to explicitly state the reviewer's practice of signing and dating the spreadsheet template to indicate approval of the FAS calculation. Management recently updated to include this recommendation. However, at the time of the audit it was pending final manager sign off.

**IA Follow-Up:** IA has verified the signature requirement process with benefit setup audits performed after the V3 go-live date in December 2014.

### Observation #9 - FAS audit trail

CLOSED

**Process Owner:** Member Services

**Completion Date:** 04/27/2020

**Action Plan:** Management agreed to the following recommendation: We recommend that the new pension administration system (V3) include an audit trail within the system for manual override and other changes made to records. There should be a better audit trail in the new pension administration system to account for changes made in the system instead of relying only on records scanned into LibertyNET or similar imaging software for an explanation.

**IA Follow-Up:** IA confirmed an audit trail function exists in V3 noting the original and new FAS, change date and Changed by.

### Project: Audit of OCERS' Practices and Procedures for the Recording and Reconciliation the Investments (2013)

**Report Date:** 02/18/2013

**Total Observations:** 6

**Open Observations:** 0

**Closed:** 6

### Observation #1 - Automated journal voucher entries

CLOSED

**Process Owner:** Finance

**Completion Date:** 05/03/2019

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**Action Plan:** Management agreed to the following recommendation: Finance should consider use of State Street's General Ledger Feed software or consider building a Microsoft Access database. We are in the process of working with State Street to implement an automated process for downloading the trial balances with a goal of completing this by year end. Manual JV preparation will continue until detailed research/analysis is successfully completed with regards to automation of the GL feed with State Street in 2013. Target Completion Date: December 31, 2013.

**IA Follow-Up:** IA verified that Finance is no longer manually entering State Street trial balance information, but uploading a State Street spreadsheet file into the monthly Investment Journal Entry worksheet.

### Observation #2 - Update policy over manager statement reconciliations

CLOSED

**Process Owner:** Finance

**Completion Date:** 05/07/2019

**Action Plan:** Management agreed to the following recommendation: Finance should enforce timely due dates for when quarterly investment manager reconciliations are to be completed; the policy should be updated accordingly. Due date for the quarterly investment reconciliation between investment managers and State Street will be established to reflect 45-60 days after quarter-end. Policy will be updated to include the changes effective January 2013. Finance has prepared both the 1st quarter 2012 and 2nd quarter 2012 reconciliations and are pending review and approval by management. Target Completion Date: March 31, 2013.

**IA Follow-Up:** IA verified that policy requires a reconciliation after Investment Managers Reports are collected from emailed statements and working trial balances are received from the State Street website. Private investment statements are often not available after the 45-60 day period.

### Observation #3 - Update Finance manual for manager statement reconciliations

CLOSED

**Process Owner:** Finance

**Completion Date:** 05/07/2019

**Action Plan:** Management agreed to the following recommendation: Management should revise appropriate sections of the policy to reflect the current practice of performing quarterly, not monthly, reconciliations of investment manager statements and State Street trial balances.

**IA Follow-Up:** IA verified that policy requires a reconciliation after Investment Managers Reports are collected from emailed statements and working trial balances are received from the State Street website. Private investment statements are often not available after the 45-60 day period.

### Observation #4 - Finance manager signoff for reconciliations

CLOSED

**Process Owner:** Finance

**Completion Date:** 05/03/2019

**Action Plan:** Management agreed to the following recommendation: Finance should revise its policy to require management signoff of the reconciliation of the general ledger to evidence review and approval. Furthermore, Finance should perform these reconciliations on a monthly basis to help ensure that reconciling items are resolved in a timely manner. The Trial Balance Reconciliation process and policy will be revised to include Management signoff requirement. The revised policy will also show that the reconciliation process will be performed on a monthly basis in 2013 and the worksheet will reflect the names of preparer, approver, and approval date. Target Completion Date: March 31, 2013.

**IA Follow-Up:** IA verified that internal policy now requires a management signoff review of the monthly trial balance reconciliation for investment accounts.

### Observation #5 - Manager review of CIO Investment report reconciliation

CLOSED

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**Process Owner:** Finance  
**Completion Date:** 05/07/2019  
**Action Plan:** Management agreed to the following recommendation: A supervisor should review and approve reconciliations of the CIO Investment Report. As evidence of review, the supervisor should sign and date the reconciliations, and note any discrepancies found. Finance policies and procedures should be updated accordingly. Current policy will be updated to include management signoff of the reconciliation. The reconciliation worksheet will reflect the names of preparer, approver, and approval date. Target Completion Date: December 31, 2012.  
**IA Follow-Up:** IA verified that policy requires management signoff on the reconciliation with the worksheet reflecting the names of the preparer, approver and approval date.

### Observation #6 - State Street bank - customer services issues

CLOSED

**Process Owner:** Finance  
**Completion Date:** 05/03/2019  
**Action Plan:** We believe management has addressed customer service issues with State Street custodian bank. We recommend that OCERS staff continue to monitor State Street's compliance with the action plan.  
**IA Follow-Up:** OCERS staff continues to monitor and address any issues/discrepancies in State Street reporting. This occurs through emails and periodic meetings between OCERS investments and finance staff and State Street staff. Annually, the review of the custodial relationship with State Street is presented to the Investment Committee.

**Project:** Audit of OCERS' Process for the Annual Actuarial Data Extract  
**Report Date:** 12/10/2013  
**Total Observations:** 3  
**Open Observations:** 3  
**Closed:** 0

### Observation #2 - Details Removed - Discussed in Closed Session

OPEN

**Process Owner:** Finance  
**Due Date:**  
**Action Plan:** Details Removed - Discussed in Closed Session  
**IA Follow-Up:**



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**Project:** Audit of Orange County Sanitation District Payroll Transmittals  
**Report Date:** 03/26/2014  
**Total Observations:** 1  
**Open Observations:** 1  
**Closed:** 0

**Observation #2 - Details Removed - Discussed in Closed Session**

OPEN

**Process Owner:** Employer  
**Due Date:**  
**Action Plan:** Details Removed - Discussed in Closed Session  
**IA Follow-Up:**

**Project:** Review of OCERS' Derivatives Investments (2014)  
**Report Date:** 07/10/2014  
**Total Observations:** 3  
**Open Observations:** 0  
**Closed:** 3

**Observation #1 - OCERS is not in compliance with the Investment Policy Statement regarding the speculative use of derivatives.**

CLOSED

**Process Owner:** Investments  
**Completion Date:** 09/25/2019  
**Action Plan:** OCERS should either follow the current investment policy and discontinue the practice of using derivatives for speculative purposes, or amend the Investment Policy Statement to follow the current practice.  
Staff has clarified the language on the derivatives within the Investment Policy Statement and the Investment Committee approved the changes at the 6/25/14 meeting.  
**IA Follow-Up:** Internal Audit reviewed the minutes of the June 25, 2014 Investment Committee meeting and the updated Investment Policy Statement

**Observation #2 - Annual reporting of derivatives to the Investment Committee**

CLOSED

**Process Owner:** Investments  
**Completion Date:** 08/10/2020



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**Action Plan:** Currently, the quarterly Derivatives Report provides information relating to the separately managed accounts. The commingled fund investments do not provide similar level of transparency, therefore the quarterly report does not include commingled funds data. The Investments staff has created a template (undergoing internal review) which could be used as a tool to receive information relating to derivatives directly from the investment managers. Such a disclosure and declaration is outside the norm, so it is difficult to predict how many or if the investment managers will comply. As soon as the template is finalized, staff will send it out to gather responses from the various investment managers. Our current expectation is that OCERS will not be able to impose periodic reporting requirements of our own on certain managers, and that in some if not most cases, we will be compelled to accept data as it can be provided by them on their annual cycles. Efforts will be made to achieve more-frequent reporting, but at this time there can be no assurance that such efforts will be successful. The Investment Policy Statement, approved at the 6/25/14 Investment Committee meeting, was amended in part to include the following: "The compliance report for separate account managers will be reviewed with the Investment Committee on a quarterly basis. The CIO shall report to the Committee annually on the staff and consultants' surveillance of diversification and risk controls associated with [derivatives]."

**IA Follow-Up:** Internal Audit reviewed the 2019 Security Report reviewed and approved by the Investment Department. The Investment Team provided an update to the action plan. The quarterly Derivatives Report had been discontinued for a number of years and is no longer reported to the Investment Committee. For the action plan, Investments reviews the derivative information in preparation of the CAFR, which is presented to the Audit Committee. Internal Audit to follow-up during the Investment teams review of the derivative information as part of the 2019 CAFR preparation. Updated 8/10/20 Investments provided the "Derivatives List - 2019.xls" file which includes the securities inventory that Investments provides to Finance with the investment types and leveling of assets.

### Observation #3 - Counterparty risk reporting

CLOSED

**Process Owner:** Investments

**Completion Date:** 05/21/2020

**Action Plan:** Management has agreed to the recommendation: Counterparty risk, the risk that a financial institution will not honor the terms of a derivative contract due to poor financial health, is a key risk for derivatives. The Board is not getting complete information on the counterparty risks of all investment managers. Because many of OCERS' investment managers use the same institutions as counterparties, if a counterparty fails, it would affect several investment managers in the OCERS' portfolio simultaneously. Therefore, reporting on total counterparty risk to OCERS would be useful for accessing a concentration of risk with a single counterparty. OCERS' custodian bank, State Street, provides data on investment holdings and counterparty holdings that can be used to create a compilation of counterparties in the OCERS portfolio, though this will only include the OCERS' separately managed accounts. OCERS should request that State Street on a quarterly basis provide a report listing derivatives holdings by counterparty with amounts of currency forward contracts, swaps, and total fair value. The report should also include a credit rating agency's rating. This report should be included with the derivatives report to the Investment Committee.

**IA Follow-Up:** Internal Audit reviewed the 2019 Counterparty Risk Report reviewed and signed by the CIO.



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Project(s): ALL  
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**Project:** Audit of OCERS' Due Diligence Process (2015)  
**Report Date:** 08/06/2015  
**Total Observations:** 5  
     **Open Observations:** 0  
     **Closed:** 5

### Observation #1 - No Due Diligence Policy

CLOSED

**Process Owner:** Investments  
**Completion Date:** 01/07/2021  
**Action Plan:** Management has agreed to the recommendation: The CIO and his staff should create written procedures that specifically document the steps necessary to conduct adequate due diligence. We concur with the recommendation that written procedures are desirable, and staff is working on the development of a document that would fulfill this objective.  
**IA Follow-Up:** The CIO and Investment Team developed Investment due diligence procedural documents including the Contract Due Diligence Checklist Procedure document and the Contract Due Diligence Checklist document.

### Observation #2 - Operational Due Diligence

CLOSED

**Process Owner:** Investments  
**Completion Date:** 02/13/2020  
**Action Plan:** Management has agreed to the recommendation: For non-traditional pension fund managers that have not undergone an operational due diligence review from the OCERS' investment consultants, OCERS should consider the following on a case-by-case basis or at the CIO's discretion. A criteria or threshold (e.g., a dollar amount of an investment) should be set by the CIO to trigger when such a review will occur. Management agrees that a "deeper dive" could be appropriate for certain non-traditional managers, but only if a majority of the Board considers such measures to be necessary, cost-beneficial or justifiable on a risk-vs-cost basis. Cost-sharing strategies and outsourcing-versus-internal capacity should be explored and considered, along with a prioritization protocol.  
**IA Follow-Up:** In discussions with CIO, and review of the September Investment Committee meeting minutes, confirmed OCERS no longer requires the use of a special operational due diligence consultant. The consultant was not used or required when initially contracts.

### Observation #3 - Due diligence for RFP managers

CLOSED

**Process Owner:** Investments  
**Completion Date:** 02/13/2020  
**Action Plan:** Management has agreed to the recommendation: For RFP-sourced managers, there should be consistent narrative due diligence reporting provided to the Investment Committee. Investments should consider using a checklist to make sure all documents are included for the Investment Committee to consider. We agree that our written procedures and future practices should include routine reporting of internal due diligence when the RFP channel is deployed for manager selection. The Director of Investment Operations has already included this step in the working draft of written procedures we are formulating and refining.  
**IA Follow-Up:** Due Diligence would apply to all managers, not just under an RFP process. Internal Audit observed due diligence process during Investment Consulting engagement.

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### Observation #4 - Manager RFP standardized questioning

CLOSED

**Process Owner:** Investments

**Completion Date:** 01/07/2021

**Action Plan:** Management has agreed to the recommendation: Future RFP questionnaires should include interrogatories regarding a manager's operational infrastructure and negative findings disclosed from their annual external audit. We agree that future RFPs should include standard (first-stage or second stage) provisions and questions that are relatively uniform regarding due diligence, operations, and related legal, regulatory and compliance risks. The cited incident was an oversight that need not recur. Written procedures and a process to review those routinely will be helpful to assure consistency.

**IA Follow-Up:** Investments included in the Contract Due Diligence Checklist document and the Compliance Report document steps to validate operational infrastructure of money managers.

### Observation #5 - Consultant due diligence documentation

CLOSED

**Process Owner:** Investments

**Completion Date:** 02/13/2020

**Action Plan:** Management has agreed to the recommendation: As part of its due diligence process, OCERS' Investments staff should obtain and review NEPC's Investment Due Diligence Research Report for all managers NEPC recommends to OCERS. We agree that consultant documentation or pertinent summaries of their due diligence should routinely and consistently be included in Committee materials when managers are presented, or subsequently as a validating consent agenda item if their work follows a provisional approval.

**IA Follow-Up:** As part of the Investment Consulting engagement, Internal Audit was able to observe the due diligence process which included reviewing the materials from the investment consultants.

### Project: Audit of OCERS' Private Equity Managers Abbott Capital and Pantheon (2016)

**Report Date:** 03/21/2016

**Total Observations:** 4

**Open Observations:** 0

**Closed:** 4

### Observation #1 - Estimated management fees

CLOSED

**Process Owner:** Finance

**Completion Date:** 04/29/2019

**Action Plan:** The Investments Division staff will coordinate with Finance to review the management fees for the 40 funds with OCERS' four private equity managers on a sampling or rotation basis. Finance concurs with this recommendation and will compare expected management fees provided by Investments to actual fees disclosed in the private equity managers' quarterly financial statements.

**IA Follow-Up:** Management modified the approach with approval from the Board to use the annual Investment Fee Report prepared in accordance with the Board's Investment Fee Policy as the method by which OCERS' investment management costs are and will be tracked, reported and managed.

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Process Owner(s): EMPLOYER,  
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### Observation #2 - State Street reporting of manager fees

CLOSED

**Process Owner:** Finance

**Completion Date:** 05/03/2019

**Action Plan:** Management agreed to the following recommendation: OCERS' Finance should consult with State Street to ensure that State Street includes the management fees for Abbott Capital and Pantheon in the information for monthly journal entries provided to OCERS, since these fees are disclosed on the managers' quarterly investment statements. OCERS is currently working with State Street on the consistency of their reporting and directing them to capture all non-cash investment management fees in their custodial reports.

**IA Follow-Up:** IA verified that Finance is reconciling fees noted on the manager statements are being captured in State Street journal entries.

### Observation #3 - CAFR fee disclosures

CLOSED

**Process Owner:** Finance

**Completion Date:** 04/29/2019

**Action Plan:** Management agreed to the following recommendation: OCERS' financial management should consider stating that the "Schedule of Investment Expenses" disclosure does not include underlying fund management fees and performance fees which are netted with investment returns. Finance will consider adding this disclosure in OCERS' 2015 CAFR as part of an overall review of all investment-related disclosures with its external auditors, Macias Gini & O'Connell LLP, and ensure that any changes in the disclosures are in compliance with GASB.

**IA Follow-Up:** Disclosure has been added to the CAFR and confirmed by IA.

### Observation #4 - Consideration of ILPA best practices

CLOSED

**Process Owner:** Investments

**Completion Date:** 01/25/2021

**Action Plan:** OCERS should implement Institute of Limited Partners Association (ILPA) best practices in LPAs with direct investment private equity funds if OCERS goes into direct private equity program. In considering whether OCERS should adopt a direct private equity program, OCERS' Investments management should consider the cost of implementing the ILPA best practices. OCERS investment staff will first work with our private equity fund of funds managers to monitor their use of ILPA guidelines and best practices, as we further our own internal education about these evolving standards.

**IA Follow-Up:** Investment Team developed a guide to track and assess the key legal and ILPA-related terms OCERS negotiates through the private markets investment manager contracting processes.



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**Project:** Audit of OCERS' Death Match Process (2016)  
**Report Date:** 06/24/2016  
**Total Observations:** 7  
**Open Observations:** 4  
**Closed:** 3

### Observation #1 - Overpayment to deceased members

OPEN

**Process Owner:** Member Services

**Due Date:** 07/30/2021

**Action Plan:** The deceased members identified by Internal Audit will be processed immediately according to the specific circumstances of the accounts. Overpayments will be processed according to policy and beneficiaries will be contacted regarding lump sum payment options for refunds. Management will investigate possible options for instituting a multi-step review process to ensure entries are made into V3 or a quarterly/annually comparison of the database with the information from a death match service provider.

**IA Follow-Up:** Member Services has repaid or wrote off \$421,402 of the \$990,694 of the 24 deferred members. Additionally, Member Services has recovered \$16,008 of the \$20,620 from the four deceased payees.

### Observation #2 - Manual query of V3 until new report is created

OPEN

**Process Owner:** Member Services

**Due Date:** 03/31/2021

**Action Plan:** The overpayment to the specific member and DRO payee identified by Internal Audit will be dealt with immediately according to current policy. As V3 is currently configured the system will prevent future overpayments from occurring by suspending the benefit once a death date is entered. The items on the overpayment log need to be reconciled with V3 as a post-go live project but it was envisioned that V3 will replace the need for a manual spreadsheet outside of the system. A query or report may be needed during the transition period.

**IA Follow-Up:** 5-21-2019 - Investigation is still ongoing by Member Services

### Observation #4 - Death data vendors

OPEN

**Process Owner:** Member Services

**Due Date:** 03/31/2021

**Action Plan:** Management agreed to the following recommendation: OCERS management should consider using only death audit vendors that hire external auditors to review its client data security controls. OCERS should require that death audit vendors provide copies of the audit report and the audit results to OCERS on an annual basis for review. OCERS management should consider using the RFP process to compare the services of death audit vendors and obituary review service vendors. Quality of services, price, and data security controls of vendors should be compared.

**IA Follow-Up:** Management to discuss the approach for obtaining and reviewing vendor security report.

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### Observation #5 - Member banking information within V3

OPEN

**Process Owner:** Member Services

**Due Date:** 03/31/2021

**Action Plan:** Management agreed to the following recommendation: To reduce the possibility of fraudulently diverting benefit payments for deceased members, OCERS should implement automated checks and balances within the V3 system to ensure that no one employee can unilaterally change a payee's banking information without supervisory approval. The resulting change to V3 may require an additional change order to reconfigure the V3 system. However, the headline risk to OCERS outweighs the financial cost of making such a change.

**IA Follow-Up:** Discussing solutions with Member Services

### Observation #3 - Certification letters

CLOSED

**Process Owner:** Member Services

**Completion Date:** 04/07/2021

**Action Plan:** Management agreed to the following recommendation: OCERS' management should consider sending a certification letter to payees over a selected age to confirm the status of the payee. Management should consider stopping benefit payments if OCERS does not receive a response after a reasonable number of attempts in order to incentivize the payee to return the letter. OCERS' management should also consider the costs/benefits of hiring a third party to perform random physical alive and well checks with payees that meet a given profile. However clear communication will need to be developed as the payees within this demographic may be the hardest to reach. In addition, the implications to payee's medical insurance needs to be considered any time a benefit is suspended.

**IA Follow-Up:** After Member Services management discussed formulating a formal policy addressing when such certification letters should be sent and to whom after the result of a cost benefit analysis to be performed. Certification letters are sent to all international payees. Member Services relies on the death match file for updates to domestic members.

### Observation #6 - Pro-rating final payment for deceased members

CLOSED

**Process Owner:** Member Services

**Completion Date:** 02/25/2021

**Action Plan:** OCERS' management should consider the costs versus benefits of prorating a deceased member's final monthly benefit payment based upon the actual date of death versus making a full payment. V3 is not configured to calculate a prorated final benefit payment and a prorated initial continuance benefit payment effective the day after death for the remainder of the month. OCERS would have to pay additional costs to have Vitech reconfigure V3 and for OCERS' employees and consultants to test the changes. The estimated cost of reconfiguring and testing V3 to prorate the final benefit payment, the initial continuance payment, and payroll deductions is estimated by Vitech at \$144,000. In addition, management estimates that testing of the system changes would need to be done by staff or consultants at an estimated cost of \$150,000. A prorated final benefit policy would also result in more overpayments for Member Services to pursue for collection since the benefit payment is paid on the first of the month. Under current policy, deaths reported to OCERS in the month following death allows enough time for Member Services to terminate the benefit with no need to prorate. Under a prorated policy, it would be impossible for Member Services to prorate the final payment on the 1st of the month if the death was reported in the month after death. Member Services would possibly need to cross train staff in collection efforts to accommodate such an increase in collection efforts.

**Management Response**

Management considered the costs versus benefits of adopting a proration of the final benefit payment policy, but determined to continue the current practice of paying in full the final month's benefit. Prorating the member's final payment and survivor continuance first payment introduces additional complexity to the administration of the system and would require additional staff in Member Services and possibly Finance, in addition to the V3 configuration changes. Retiree payroll is typically

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**IA Follow-Up:** Management considered the costs versus benefits of adopting a proration of the final benefit payment policy, but determined to continue the current practice of paying in full the final month's benefit.

### Observation #7 - Debt collection versus debt forgiveness

CLOSED

**Process Owner:** Member Services

**Completion Date:** 04/17/2020

**Action Plan:** Management agreed to the following recommendation: For overpayments in which Member Services has exhausted internal collection efforts, Member Services should inquire of the CEO and/or Board to forgive or partially forgive overpayments to these deceased payees or possibly make use of a collections agency for additional collection efforts.

**IA Follow-Up:** OCERS' Board Policy Write Off Policy now provides guidelines regarding when OCERS is permitted to forgo collection of amounts overpaid by or owing to OCERS, and when OCERS will not be required to make corrective distributions to OCERS members or their beneficiaries.

### Project: Audit of V3 Benefit Setup Process (2016)

**Report Date:** 07/21/2016

**Total Observations:** 2

**Open Observations:** 0

**Closed:** 2

### Observation #1 - Use of 2,088 hours for benefit calculation

CLOSED

**Process Owner:** Member Services

**Completion Date:** 04/01/2020

**Action Plan:** Management will follow up with staff regarding the applicability of 2,088 to all retiring members and will review all benefits established in V3 to ensure the appropriate salary was used regardless of status. The part-time member's benefit identified by Internal Audit as being incorrect will be recalculated to reflect the salary associated to 2,088 hours.

**IA Follow-Up:** IA reviewed the FAS recalculations performed by Member Services.

### Observation #2 - V3 workflow process

CLOSED

**Process Owner:** Member Services

**Completion Date:** 04/02/2020

**Action Plan:** The workflow module in V3 was an area that contained defects when we went live with the new system which prevented effective use. The majority of the defects have been addressed and staff is utilizing the workflows as part of their daily operations. However, we have found that a workflow can be completed without all of the steps being marked individually and as a result additional modifications to the overall configuration are being discussed. Management will work with staff to ensure that proper use of the workflow is being followed for all benefit setups. In addition, we will review the workflow steps as currently configured and make enhancements as needed to ensure all critical steps in the process are appropriated captured.



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**IA Follow-Up:** IA confirmed worksteps are completed and V3 enhancements were implemented.

**Project: Audit of OCERS' Service Credit Purchase Process (2016)**

**Report Date:** 11/26/2016

**Total Observations:** 2

**Open Observations:** 0

**Closed:** 2

**Observation #1 - Work in Process reporting**

CLOSED

**Process Owner:** Member Services

**Completion Date:** 04/07/2021

**Action Plan:** OCERS' management agrees to initiate discussions with Vitech for best cost-benefit solutions to building work-in-process reporting to track the status of buybacks throughout its business processes to provide additional management oversight of staffing and resources; track compliance with business goals; and improve customer service response times to members.

**IA Follow-Up:** IA has verified that OCERS has implemented a work-in-process tracking database within SharePoint.

**Observation #2 - Reconfigure V3 data entry sheet**

CLOSED

**Process Owner:** Member Services

**Completion Date:** 06/04/2019

**Action Plan:** Management agreed to investigate the costs versus benefits of reconfiguring V3's SCP datasheet for faster data entry.

**IA Follow-Up:** IA verified that OCERS has implemented an automated data entry process for SCP calculations.

**Project: Audit of OCERS' Bank Wire and ACH Transfer Process (2016)**

**Report Date:** 11/30/2016

**Total Observations:** 5

**Open Observations:** 0

**Closed:** 5

**Observation #1 - Finance review of new manager fundings**

CLOSED



## Management Action Plan Status Report

Project(s): ALL  
Mgmt. Status: ALL

Process Owner(s): EMPLOYER,  
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**Process Owner:** Finance

**Completion Date:** 04/23/2019

**Action Plan:** Management agreed to the following recommendation: Before sending a written wire request to State Street to fund a new manager or rebalance the investment portfolio, the Investments Divisions should also obtain approval from authorized initiators within the Finance Division. The Finance Division should review the wire transfer request letter prepared by the Investments Division against the money manager's wire instructions or funding agreement. Management concurs that the Finance Department should review wire transfer request letters prepared by the Investment Department and compare against the investment manager's wire instructions or funding agreement for transactions related to initial funding of investments and portfolio rebalancing transfers.

**IA Follow-Up:** Internal Audit confirmed Finance is following proposed audit report resolution response as noted via email with appropriate attachments and inclusion of both Finance and Investments in confirmation email.

### Observation #2 - Verification call backs on all wire transfer amounts

CLOSED

**Process Owner:** Finance

**Completion Date:** 05/03/2019

**Action Plan:** Management agreed to the following recommendation: Finance Division should instruct State Street to telephone OCERS' authorized verifiers to verify wire transfer request letters for amounts under \$100,000. Management concurs that all wires should be verified regardless of amount. State Street has a standard limit where call backs are not completed on wires under \$100,000. OCERS' Client Service Representative at State Street is looking into whether the limit can be removed and call backs placed on all wires.

**IA Follow-Up:** IA verified that under the new eCFM (State Street's web-based wire transfer system) that transfer amounts under \$100,000 require dual approval.

### Observation #3 - Timely review of bank account reconciliations

CLOSED

**Process Owner:** Finance

**Completion Date:** 05/03/2019

**Action Plan:** Management agreed to the following recommendation: In addition to the daily reconciliations of online bank activity, the Finance Division should perform monthly bank reconciliations ideally within 30 days after month-end. Management concurs that bank reconciliations should be performed and reviewed on a timely basis.

**IA Follow-Up:** IA verified that the monthly Wells Fargo bank reconciliation is being performed in a timely manner.

### Observation #4 - System limits for wire transfer amount authorizations

CLOSED

**Process Owner:** Finance

**Completion Date:** 04/23/2019

**Action Plan:** Management agreed to the following recommendation: Management should consider decreasing the cumulative dollar limit for daily wire transfers within CEO Portal® to appropriate business levels. Current monthly wire transfer activity is approximately \$5.2 million. Management concurs that the cumulative dollar limit for daily wire transfers can be reduced from its current limit of \$20 million to \$6 million.

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Mgmt. Status: ALL

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**IA Follow-Up:** Cumulative daily dollar limit for wire transfers has been reduced from \$20 million to \$6 million, and has been adjusted to \$8 million based on current activity.

### Observation #5 - Encryption of payroll file

CLOSED

**Process Owner:** Finance

**Completion Date:** 05/03/2019

**Action Plan:** Management agreed to the following recommendation: Management should consider encrypting the ACH file before uploading to Wells Fargo's CEO Portal® in order to add another layer of protection over payees' confidential banking information. Encrypted files intercepted by fraudsters are unreadable.

**IA Follow-Up:** IA verified that the monthly payroll file is encrypted before it is sent to Wells Fargo bank.

### Project: Audit of City of San Juan Capistrano Payroll Transmittals (2017)

**Report Date:** 03/22/2017

**Total Observations:** 4

**Open Observations:** 0

**Closed:** 4

### Observation #1 - Manual transmittal file adjustments

CLOSED

**Process Owner:** Employer

**Completion Date:** 08/11/2020

**Action Plan:** Management agreed to the following recommendation: San Juan Capistrano will submit manual payroll adjustments into V3 that contain the payroll records required by OCERS for every subsequent pay period until year-end.

**IA Follow-Up:** IA noted that SJC has submitted manual payroll adjustments into V3 required by OCERS.

### Observation #2 - Contribution basis dates

CLOSED

**Process Owner:** Employer

**Completion Date:** 04/27/2020

**Action Plan:** San Juan Capistrano's V3 transmittal file should reflect the correct reciprocal start date or the correct enrollment date with OCERS in the transmittal file field labeled "Reported Contribution Basis Date" in order to prevent these payroll exceptions from occurring again in V3. San Juan Capistrano concurs with this recommendation, which has been addressed based on information provided by OCERS' Member Services to SJC's Payroll Accountant.

**IA Follow-Up:** IA examined a recent V3 payroll transmittal exception report for PP#2, 2020 and noted there were no exceptions related to reported contribution basis dates.



## Management Action Plan Status Report

Project(s): ALL  
Mgmt. Status: ALL

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### Observation #3 - Earnable salary records

CLOSED

**Process Owner:** Employer

**Completion Date:** 08/11/2020

**Action Plan:** San Juan Capistrano will submit manual payroll adjustments into V3 that contain earnable salary payroll records required by OCERS during each pay period that the employee is out on leave of absence.

**IA Follow-Up:** IA noted that SJC has submitted manual payroll adjustments for employees Away On Leave into V3, as required by OCERS.

### Observation #4 - Incorrect age of entry

CLOSED

**Process Owner:** Member Services

**Completion Date:** 05/21/2019

**Action Plan:** Member Services will notify the member that there was an error in the contribution basis date used to collect contributions since their date of entry. Member Services will update V3 accordingly and finalize the calculation of contributions due from the member plus interest. OCERS staff will offer the member a payment plan pursuant to our standard process and work with SJC to establish the collection via payroll deductions from the member's biweekly paycheck.

**IA Follow-Up:** IA verified that the Member Services communicated the age of entry error to the member and that the member repaid undercollected contributions via payroll adjustments.

### Project: Audit of OCERS' Reciprocity Process (2017)

**Report Date:** 08/02/2017

**Total Observations:** 3

**Open Observations:** 0

**Closed:** 3

### Observation #1 - Member educational efforts

CLOSED

**Process Owner:** Member Services

**Completion Date:** 05/21/2019

**Action Plan:** Consideration will be given to the following: OCERS should take additional steps to educate members of the benefits of reciprocity and the importance of timely notifying OCERS of previous public service. OCERS' welcome letters to new members could also include existing pamphlets describing the benefits of reciprocity. Furthermore, OCERS should inquire with the County if it would allow OCERS to present the benefits of reciprocity during the County's lunch time seminars available to County staff. In addition, staff should use the OCERS' At Your Service newsletter, the County Connection magazine, and other sources of communications with members to publicize the need for members to notify OCERS early about their eligibility for reciprocity. Member Services will work with Legal on the following: OCERS should consider recognizing a member's reciprocity only on a go-forward basis from the date of the member's reciprocity request, after confirming eligibility with the reciprocal system.

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**IA Follow-Up:** IA verified that quarterly newsletters to OCERS membership discussed the benefits of establishing reciprocity with other systems as well as the steps necessary to establish reciprocity. IA verified that OCERS has put in place a self-certification process to recognize reciprocity on a go-forward basis pending verification with the reciprocal system.

### Observation #2 - Calculation of OCFA reciprocity refunds

CLOSED

**Process Owner:** Member Services

**Completion Date:** 06/05/2019

**Action Plan:** Management agreed to the following recommendation: Member Services staff should be trained, with the assistance of OCFA payroll personnel, in how OCFA calculates reciprocity refunds so that Member Services can add its own secondary review process over OCFA reciprocity refunds. Management has been in contact with the payroll team at OCFA and we have taken steps to reinstate the review process.

**IA Follow-Up:** IA verified that OCERS Member Services is now calculating OCFA's reciprocity refund calculations. The calculations are reviewed by management.

### Observation #3 - Write off

CLOSED

**Process Owner:** Member Services

**Completion Date:** 06/05/2019

**Action Plan:** Management agreed to the following recommendation: Member Services should write off the \$36 due to immateriality or attempt to recover the \$36 overpayment from the member.

**IA Follow-Up:** IA verified that Member Services has written off the amount as per OCERS Write-Off policy.

### Project: Audit of Orange County Fire Authority (2018)

**Report Date:** 10/23/2018

**Total Observations:** 8

**Open Observations:** 1

**Closed:** 7

### Observation #6 - V3 contribution rate configurations SOD

OPEN

**Process Owner:** Information Technology

**Due Date:** 12/31/2021

**Action Plan:** Management agreed to the following recommendation: OCERS' management should re-assign the duties of configuring updated rates in V3 from OCERS' Director of IT to the appropriate personnel for cross-training, process documentation, and backup purposes. The revised process will encompass multiple departments, and will segregate duties related to preparing the rate schedules, data input into V3 and verification/audit of contribution rates.

**IA Follow-Up:** Internal Audit has spoken with management about this action plan and will verify when duties are transitioned in time for the 2021 annual rate change in V3. ETA end of 2021.



## Management Action Plan Status Report

Project(s): ALL  
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### Observation #1 - Contributions - Vacation Excess Pay

CLOSED

**Process Owner:** Member Services

**Completion Date:** 04/02/2019

**Action Plan:** Management agreed to the following recommendation: On a go-forward basis, OCERS should now require that OCFA and its Legacy employees pay employer and employee contributions on the "Vacation Excess" pensionable pay item on a bi-weekly basis. This would also require OCERS to reconfigure the "Vacation Excess" pay item in V3 to expect bi-weekly contributions from OCFA via the bi-weekly payroll transmittal process. OCERS management agrees that any pensionable pay item should be reported biweekly and subject to employer and employee contributions. This would include "Vacation Excess" for Legacy members employed at OCFA. OCERS is in the process of reviewing the pay of all Plan Sponsors so that OCERS' management can ensure accurate reporting on a biweekly basis as well as consistency across the organization.

**IA Follow-Up:** Internal Audit confirmed OCERS management sent a memo to OCFA on the Vacation Excess contributions and that V3 was configured to address the bi-weekly contributions.  
  
IA confirmed that OCFA and Legacy OCFA employees are paying contributions directly on VE (Vacation Excess) Pay.

### Observation #2 - Contributions - On Call Pay

CLOSED

**Process Owner:** Member Services

**Completion Date:** 04/02/2019

**Action Plan:** Management agreed to the following recommendation: On a go-forward basis, OCERS should now require that OCFA report "On Call" pay to Legacy members as a pensionable pay item in its automated bi-weekly payroll transmittals and that OCFA and its employees pay both employer and Legacy employee contributions on a bi-weekly basis. OCERS management agrees that any pensionable pay item should be reported biweekly and subject to employer and employee contributions. This would include "On Call" pay for Legacy members employed at OCFA. OCERS is in the process of reviewing the pay of all Plan Sponsors so that OCERS' management can ensure accurate reporting on a biweekly basis as well as consistency across the organization.

**IA Follow-Up:** Internal Audit confirmed OCERS management sent a memo to OCFA on the On Call contributions.  
  
IA confirmed that both OCFA and Legacy OCFA employees are paying contributions directly on (On Call) Pay.

### Observation #3 - Contribution Discrepancy Tracking Report

CLOSED

**Process Owner:** Information Technology

**Completion Date:** 04/02/2019

**Action Plan:** In June 2018, OCERS incorporated the necessary changes to the V3 "Contribution Discrepancy Tracking Report" within a system enhancement to V3. The cost to incorporate these changes was approximately \$7,800.

**IA Follow-Up:** 1. IA confirmed that modifications to the report were made, tested, and put into production.  
2. IA obtained user testing documentation indicating that the modifications were made, tested, approved and put into production. IT also pulled a recent report with these modifications incorporated.

### Observation #4 - OCFA's MOU for employer paid pickups of Legacy employee contributions does not reflect actual payroll processes.

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**Process Owner:** Employer  
**Completion Date:** 04/02/2019  
**Action Plan:** OCFA agrees that this needs to be corrected, but not by a side letter. Effective pay period 21 (pay date 10/19/18) OCFA management corrected the OCFA payroll interface to the OCERS' V3 system to be consistent with the Firefighter MOU. Per CERL 31581.2 the employer paid pickup of employee contributions are to be considered vested with the employee.  
**IA Follow-Up:** Internal audit verified that OCFA employer paid pickups of employee contributions are properly classified as § 31581.2 pickups on the transmittal files.

### Observation #5 - Transition to OCFA Payroll Manager

CLOSED

**Process Owner:** Employer  
**Completion Date:** 04/02/2019  
**Action Plan:** As discussed and agreed to by OCERS Internal Auditor, this is not reflective of an internal control weakness for OCFA. The original intent of having both OCFA and OCERS staff maintain the spreadsheets was to prevent the errors that would occur due to either rounding differences or applying actuarial discounts differently. OCFA staff will take over the maintenance of the spreadsheets from OCERS Director of Technology. OCERS would need to ensure that the OCFA rates reflected in the rate spreadsheets provided by OCFA staff to OCERS are the same rates as those entered into the V3 system. The above transition from OCERS to OCFA took place beginning with Pay Period #14 in 2018.  
**IA Follow-Up:** Internal audit confirmed that maintenance of the spreadsheets has transitioned to OCFA's payroll manager.

### Project: Audit of Orange County Superior Court Payroll Transmittal (2018)

**Report Date:** 11/08/2018  
**Total Observations:** 6  
**Open Observations:** 1  
**Closed:** 5

### Observation #4 - Superior Court's HR Department does not have policies and procedures in place to determine if the independent contractor status for its independent contractors complies with IRS rules

OPEN

**Process Owner:** Employer  
**Due Date:**  
**Action Plan:** Superior Court to review independent contractors working for court reporting services, court language services and court technology to determine if their independent contractor status complies with IRS rules defined for independent contractors.  
**IA Follow-Up:** Internal Audit has spoken with management about this action plan and will verify when policies are updated, 2Q 2021.

### Observation #1 - CRR Pay Certification

CLOSED

**Process Owner:** Employer



## Management Action Plan Status Report

Project(s): ALL  
Mgmt. Status: ALL

Process Owner(s): EMPLOYER,  
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**Completion Date:** 04/03/2019

**Action Plan:** Superior Court will implement a process in October 2018 by which Court Reporters receiving CRR pay must provide proof of active certification (such as proof of training transcripts over a three year period) within 90 days or have the CRR pay removed. Record of this will be placed in the employee's electronic personnel file. Additionally, a reminder in the Court's training system will be flagged on these employees to check for certification every 3 years.

**IA Follow-Up:** IA confirmed a notification had been distributed noting the requirements for CRR pay and CRR documentation for court reporters has been recorded.

### Observation #2 - QRR Pay Certification

CLOSED

**Process Owner:** Employer

**Completion Date:** 04/03/2019

**Action Plan:** Superior Court will implement annually signed attestations beginning October 2018. Employees currently receiving QRR pay will need to complete the annual 45 day attestation within 90 days of the announcement to maintain the QRR pay. If no attestation is received, QRR pay will be removed for that employee. The Court will verify that at least 45 days of realtime court reporting services have been worked by the employee over the course of the last year.

**IA Follow-Up:** IA confirmed a notification had been distributed noting the requirements for QRR pay and QRR documentation for court reporters has been recorded

### Observation #3 - Superior Court does not monitor independent contractor court reporters who are OCERS' retirees for compliance with CERL and PEPRA 960 hour rule limit.

CLOSED

**Process Owner:** Employer

**Completion Date:** 04/10/2019

**Action Plan:** Superior Court will monitor hours worked for all retired independent contractor court reporters to ensure they do not work more than 960 hours in a fiscal year. A new report has been established through Superior Court's RITS tracking system and will be monitored monthly. Current retired independent contractors who have already worked more than 960 hours in the current fiscal year will not work hours until the next fiscal year.

**IA Follow-Up:** IA confirmed Superior Court is monitoring the hourly limit for retired members and the retired members have not exceeded 960 hours.

### Observation #5 - Employees On-Leave Status

CLOSED

**Process Owner:** Employer

**Completion Date:** 04/23/2019

**Action Plan:** Orange County Superior Court currently uses the CAPS+ system that is administered by Orange County Auditor Controller. The current CAPS+ system has known limitations for employees in an "O" (unpaid leave) status. These employees are not included on the regular transmittal file to OCERS and thus no earnable record is generated. They do appear on the missing member report from OCERS Auditor Controller is working on a long-term solution for "O" status employees to still appear on the OCERS transmittal file. There is no current timeline for implementation. However, in the meantime, Superior Court's human resources staff will create updated employment records indicating a "Leave of Absence" in V3 for the above employees. Also, on a go-forward basis Superior Court's human resources staff will perform the same step in V3 for each employee who becomes classified with the above "O" status in CAPS+. This will allow OCERS personnel to more easily identify the reason for gaps in earnable salary records until the point in time when Auditor-Controller can correct the above CAPS+ limitations.

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**IA Follow-Up:** Internal Audit and management agreed that currently existing controls are sufficient to address the risk of missing pay periods. Internal Audit verified in V3 the automated messages that help the retirement specialist identify potential missing pay periods when retiring a member.

### Observation #6 - Member Affidavit

CLOSED

**Process Owner:** Member Services

**Completion Date:** 04/03/2019

**Action Plan:** Beginning in 4th quarter 2018, OCERS' Member Services will run a recently updated V3 report ("Missing Member Affidavit" report) that flags any member account without the Member Affidavit document type. OCERS' Member Services' Payroll Transmittal Team will monitor this quarterly report and contact plan sponsors to request a completed Member Affidavit for any members flagged in the above report.

**IA Follow-Up:** Confirmed missing Member Affidavit was received and Member Services has scheduled the Missing Member Affidavit to be run on a monthly basis.

### Project: Audit of Orange County Transportations Authority (2018)

**Report Date:** 11/12/2018

**Total Observations:** 1

**Open Observations:** 0

**Closed:** 1

### Observation #1 - Contributions on PTO cashouts

CLOSED

**Process Owner:** Member Services

**Completion Date:** 04/02/2019

**Action Plan:** OCERS is in the process of reviewing and evaluating all pay items in order to categorize and document in policy each item of compensation earnable for Legacy members and pensionable compensation for PEPRA members. OCERS intends to present this policy to the OCERS Board for review and approval by 1st quarter of 2019.

The majority of OCERS' plan sponsors do not apply the contribution rates to cashouts (as does OCTA); instead, they rely on the actuarial cash out assumption (Load Factor) to pay for the actuarial cost of adding vacation pay and sick pay to a Legacy member's FAS calculation upon retirement. OCERS believes this is the better approach and will incorporate this in the new policy in order to have consistency among all plan sponsors. In addition to the new policy, by 1st quarter of 2019, OCERS intends to distribute a circular letter to all plan sponsors informing them of this approach to not collect contributions on these cashouts.

**IA Follow-Up:** Internal Audit confirmed the circular letters have been posted to the OCERS website.



## Management Action Plan Status Report

Project(s): ALL  
Mgmt. Status: ALL

Process Owner(s): EMPLOYER, EXECUTIVE, FINANCE,

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**Project:** Disability Payment Audit (2018)  
**Report Date:** 01/28/2019  
**Total Observations:** 1  
**Open Observations:** 1  
**Closed:** 0

### Observation #1 - Disability payment calculation

OPEN

**Process Owner:** Member Services

**Due Date:** 09/30/2021

**Action Plan:** Member Services will be continuing to review with increased diligence or newly implementing to ensure accuracy of Disability benefits that are setup:

- Ensure that all disability benefits are peer audited (FAS calc) before benefit setup, including disability recalculations (from Service Retirement to SCD, Service Retirement to NSCD, NSCD to SCD)
- Verify selected data points on the "New Benefit Setup Validation Report" (which will contain a subset of 16 reports – expected to be ready by Q3 2019)
- Additional training will be provided to the RPS assigned to the disability department (this was a new position in 2018). These types of benefits are more specialized than regular retirement setups, and the Disability RPS will be trained to look for specific factors that affect the benefit, such as gaps in service, measuring period compression, manual calculations of FAS, recalculation issues.

**IA Follow-Up:** IA to confirm action plan has been implemented in Q4 2019 and to perform testing in Q1 2021.

**Project:** External Quality Assessment (2018)  
**Report Date:** 02/07/2019  
**Total Observations:** 1  
**Open Observations:** 0  
**Closed:** 1

### Observation #1 - Strengthen the management of IAD performance by developing and maintaining a formal QAIP.

CLOSED

**Process Owner:** Internal Audit

**Completion Date:** 11/01/2019

**Action Plan:** ?We agree with observation and recommendation that a Quality Assurance and Improvement Program needs to be implemented within the Internal Audit department. The implementation of a QAIP has been budgeted within the 2019 Audit Program.

**IA Follow-Up:** An internal QAIP has been implemented.



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Project(s): ALL  
Mgmt. Status: ALL

Process Owner(s): EMPLOYER,  
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**Project:** 1901 - Finance Contributions audit  
**Report Date:** 05/16/2019  
**Total Observations:** 1  
**Open Observations:** 1  
**Closed:** 0

**Observation #1 - A formal periodic review of proper user access to OCERS applications and network is not documented by the appropriate members of the business.**

OPEN

**Process Owner:** Information Technology

**Due Date:** 12/31/2021

**Action Plan:** Per IT Governance and Information Security action items to address Center for Internet Security (CIS) Control 16: Account Monitoring and Control, OCERS IT and the Executive management team are establishing the following:  
1. Develop Account Management and Access Control Policies.  
2. Create an annual User Account review process and supporting documentation.  
3. Setup means for staff to review and enter data in SharePoint with associated workflow to complete and track reviews initiated with IT managed systems.

**IA Follow-Up:** Access review is underway. Formal policies are currently in working draft as of February 2021.

**Project:** 1943 2019 BCDR Audit  
**Report Date:** 10/17/2019  
**Total Observations:** 8  
**Open Observations:** 2  
**Closed:** 6

**Observation #3 - 3. A formal process involving critical OCERS stakeholders is not in place to test the recovery of dependent IT applications.**

OPEN

**Process Owner:** Information Technology

**Due Date:** 05/31/2021

**Action Plan:** OCERS IT will formalize and adopt a new Business Continuity and Disaster Recovery test plan that will include test activities, confirmation, and sign-off by the various business units within OCERS.

**IA Follow-Up:** IT has developed testing templates and scenarios, implemented with Finance.

**Observation #6 - 6. Recovery procedures for dependent IT applications are not documented in the recovery plans.**

OPEN

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**Process Owner:** Information Technology

**Due Date:** 12/31/2021

**Action Plan:** End User documents are being developed for the purpose of providing recovery instructions to the crisis management team, in the event IT staff are not available in the event of an emergency. The documents will provide simple easy to follow instructions on how to failover and/or recover sites or systems in the event of a technology failure. These documents will be included in OCERS IT Backup and Recovery test plan stored in Catalyst to ensure procedures are complete and can be followed by non- IT staff

**IA Follow-Up:** Procedures the steps involved in the recovery process have been drafted, however, an overall backup policy needs to be formally developed.

**Observation #1 - OCERS Business Continuity Policy document has existed since 2015 but the documentation of the approvals were not formalized.**

CLOSED

**Process Owner:** Finance

**Completion Date:** 12/13/2019

**Action Plan:** We believe that the current document titled "OCERS Business Continuity Policy" would be more accurately described as a program document. As such, our plan is to retile the document to be OCERS Business Continuity Program and review it with the CMT making updates as deemed appropriate. The Chief Executive Office will then formally approve the updated document. The updated document will be reviewed every three years for necessary changes. As an extension to this observation, staff will also recommend to the Board of Retirement a change to the CEO Charter the next time the Charter is due for a review. The change will be to specifically delegate to the CEO the duty of implementing, testing and maintaining a Business Continuity Program.

**IA Follow-Up:** IA confirmed the Business Continuity Program documents has been formally approved by the CMT.

**Observation #2 - The Business Continuity Program Standard Operating Procedures document has existed since 2015 but the documentation of the approvals by the Crisis Management Team were not formalized.**

CLOSED

**Process Owner:** Finance

**Completion Date:** 02/26/2020

**Action Plan:** We concur with the observation and will formalize the approval of the document.

**IA Follow-Up:** IA confirmed the Business Continuity Standard Operating Procedure document has been formally approved by the CMT.

**Observation #4 - The tabletop exercise did not fully validate the organization's preparedness at an entity or department level in the event of a disaster.**

CLOSED

**Process Owner:** Executive

**Completion Date:** 12/06/2019



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**Action Plan:** We believe the program is ready to enhance future exercises by including more functional testing. As an example, during our July 2019 tabletop, a component of the Finance team was asked to work from home in order to test their connectivity and functionality. In future exercises, we will expand the scenarios to encompass various departments within the organization such that over time, all departments with a recovery plan will have participated in a functional exercise. For upcoming exercises, we will create scenarios which allow us to include departments which have not yet participated in an exercise.  
We have added an item to the October 2019 Crisis Management Team meeting to discuss timing of the expansion of functional testing efforts as well as the importance of referring to the Crisis Management Plan and Department Recovery Plans during exercises. Our recommendation will be to conduct IT testing as part of our January exercises and deeper functional testing as part of our July exercises.

**IA Follow-Up:** IA confirmed the Q4 CMT meeting discussed expanding the functional testing with plans to start with IT testing in January.

**Observation #5 - Management personnel are not consistently updating the relevant information in the Business Impact Analysis and Department Recovery Plan documents in a timely manner.**

CLOSED

**Process Owner:** Executive

**Completion Date:** 12/13/2019

**Action Plan:** The CMT Leader, OCERS CEO, will remind the CMT at least two weeks prior to the quarterly Business Continuity meetings to update the appropriate Business Continuity documents to reflect any changes in personnel, technology or vendors since the last meeting. Additionally, the CMT Leader will add as a standing agenda item for the quarterly meetings a reminder that the CMT should update the appropriate Business Continuity documents. The plan owners will update the necessary documents based on the reminder at least on a quarterly basis.

The CMT Leader will also work with Administrative Services to add a workstep in the off-boarding and on-boarding processes for the plan owners to assess the organizational impact of the terminated or new employee to the Business Continuity documentation. Based on the assessment, the plan owner will update the documentation accordingly.

**IA Follow-Up:** IA was able to confirm:  
- the BCDR CMT Meeting email contained a reminder for the CMT to review/update their documents  
- the agenda did contain an item notifying CMT members to update their documents  
- a workstep was added to the on-boarding and off-boarding checklist

**Observation #7 - 7. The identification of alternative facility locations has not been formally documented and approved in the BCDR system.**

CLOSED

**Process Owner:** Executive

**Completion Date:** 12/13/2019

**Action Plan:** The Business Continuity Coordinator team is currently working with the County of Orange to formalize an agreement to use County facilities as an alternate workspace location in the event of a localized disaster at OCERS headquarters. The County requested OCERS to complete a questionnaire, which was completed and sent back to the County on August 8, 2019. The most recent conversations with the County occurred on August 21, 2019; we will schedule a follow-up call with County representatives in the very near future. Once the agreement is formalized, all program documentation will be updated to include the alternate workspace site information and an action item to review the alternate workspace location on an annual basis will be created. This action item will serve to ensure that the alternate workspace location is still viable. The BC Coordinator team will continue to refine the alternate workspace options for additional scenarios. In addition, the BC Coordinators will create a schedule detailing space needs over time.

**IA Follow-Up:** IA confirmed the Alternate Facility plan has been formally approved. Additionally, the BC Coordinator follow-ed up with the County contact. Progress is being made to secure a location for OCERS.

**Observation #8 - 8. Key members of the Crisis Management Team (CMT) are not consistently taking the assigned electronic resources when traveling from the office.**

CLOSED



## Management Action Plan Status Report

Project(s): ALL  
Mgmt. Status: ALL

Process Owner(s): EMPLOYER,  
EXECUTIVE,  
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**Process Owner:** Executive  
**Completion Date:** 12/06/2019  
**Action Plan:** The CMT Leader, OCERS CEO, will remind the CMT at the quarterly Business Continuity meetings of the importance of taking the necessary resources (laptops) when traveling away from the office.  
**IA Follow-Up:** IA confirmed the Q4 CMT agenda included a reminder to take the necessary resources when traveling.

**Project:** 1944 - Finance Benefits Audit  
**Report Date:** 01/13/2020  
**Total Observations:** 4  
**Open Observations:** 1  
**Closed:** 3

**Observation #2 - Finance does not systematically delete V3's ACH files containing beneficiaries' banking information from local hard drives.**

OPEN

**Process Owner:** Finance  
**Due Date:** 12/31/2021  
**Action Plan:** Management will establish procedures to delete copies of the ACH text files from local hard drives after a copy of the file has been uploaded to Wells Fargo.  
Finance will work with IT and Vitech to consider the cost/benefit of changing the ACH file process to directly upload an ACH file once it has been created in V3 and directly downloading the file to a secured network folder in the Finance directory.  
**IA Follow-Up:** IA confirmed with the Finance team the deletion of the ACH file from the local hard drive is now being performed by management. IA reviewed the procedures updated to reflect this practice. Due to COVID, the cost/benefit analysis has been moved to 2021.

**Observation #1 - V3's Pre Disbursement Register report contains payee's full social security numbers and full names.**

CLOSED

**Process Owner:** Finance  
**Completion Date:** 12/09/2019  
**Action Plan:** Build 8.14 will include the replacement of full Social Security Numbers with OCERS ID# (OID) and/or OIP# on the Pre-Disbursement Register Report and Disbursement Schedule.  
**IA Follow-Up:** IA confirmed the updated Disbursement Schedule Detail Report and Pre-Disbursement Register Report now display the OID numbers in place of SSNs.

**Observation #3 - Finance procedures manual related to benefit and lump sum payments (i.e. payroll) do not reflect all current procedures.**

CLOSED

**Process Owner:** Finance  
**Completion Date:** 10/05/2020



## Management Action Plan Status Report

Project(s): ALL  
Mgmt. Status: ALL

Process Owner(s): EMPLOYER,  
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**Action Plan:** Finance will be creating and updating stand-alone procedures for all of its processes as part of an organization-wide 2020 Business Plan Initiative.

**IA Follow-Up:** Internal Audit reviewed the documented lump sum payroll procedures.

**Observation #4 - General Ledger entries to transfer employee contribution reserves were not booked timely.**

CLOSED

**Process Owner:** Finance

**Completion Date:** 12/20/2019

**Action Plan:** In the instance noted here, processes with material impact to operations and financials were performed during the unforeseen long-term leave of absence of one of the Finance Managers, but in the future, Management will document approval of decisions to postpone processes due to extenuating circumstances noting impact and materiality of postponement.

**IA Follow-Up:** IA confirmed the Finance Risk and Control Matrix (RACM) was updated to include additional documentation requirement.

**Project: 1945- FAS Pay Items Audit**

**Report Date:** 06/04/2020

**Total Observations:** 5

**Open Observations:** 3

**Closed:** 2

**Observation #1 - A formal reconciliation was not performed to ensure the pay items reported to the Board accurately and completely corresponded with the configuration in V3.**

OPEN

**Process Owner:** Member Services

**Due Date:** 06/30/2021

**Action Plan:** Member Services will address the variances noted in the audit, which includes making the appropriate configuration updates to the V3 system, communicating the updates to the Employers and following procedures in the OCERS' Overpaid and Underpaid Plan Contributions Policy in regards to the over and underpayment of contributions of the variances noted. At the next update to the Board, Member Services will include the corrections identified in this audit for pensionable attributes of relevant pay items. Going forward, Member Services will develop a process to perform a full reconciliation of the pay item file presented to the Board with the pay item configurations in the V3 system periodically, at least prior to the annual presentation to the Board to ensure accurate and complete reporting of pay items to the Board. Any discrepancies identified by the reconciliation will be addressed as needed.

**IA Follow-Up:**

**Observation #3 - A process does not exist to identify updates to Employer documentation that may impact the list of pay items.**

OPEN

**Process Owner:** Member Services

**Due Date:** 06/30/2021



## Management Action Plan Status Report

Project(s): ALL  
Mgmt. Status: ALL

Process Owner(s): EMPLOYER,  
EXECUTIVE,  
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**Action Plan:** Member Services is in the process of documenting all current MOU's and will draft an update to the pay item review procedure to include a section on monitoring MOU's for adjustments made by Employers to ensure Employers have obtained OCERS approval prior to implementing a new pay item.

Currently, the Employer is required to submit a "pay item request form" to OCERS for approval in order to add a new or adjust an existing pay item. This is required to be done at least two pay periods prior to implementation of the pay item in the Employer payroll. If however an Employer attempts to pass a pay item that has not been added for that Employer, the system will produce an error for the Employer when they submit the payroll. This process assists Member Services in monitoring the implementation of pay items directly by the Employer.

**IA Follow-Up:**

**Observation #5 - A formal project management methodology for the Pay Item Review was not documented.**

OPEN

**Process Owner:** Member Services

**Due Date:** 06/30/2021

**Action Plan:** Member Services team will establish formal project management protocols and best practices on all future projects which will include:

- Designated Project Manager;
- Project Plan;
- Documented roles and responsibilities;
- Documented work breakdown schedules; and
- Quality assurance standards and procedures.

**IA Follow-Up:**

**Observation #2 - Member Services does not have written procedures in regards to the processing, review and authorization of Employer pay items into V3.**

CLOSED

**Process Owner:** Member Services

**Completion Date:** 09/16/2020

**Action Plan:** Member Services has since implemented a process to review the configurations made by OCERS IT to ensure every new or updated Pay Item is configured accurately in OCERS V3 Pension Administration System. This process will include a post review notification to all stakeholders from Member Services (IT, Member Services Director, and the Assistant CEO of External Operations) that will be kept in the same Network Directory as the rest of the supporting documentation (e.g. New Pay Item Submission Form, MOU/Side Letter Agreements, New Pay Item approvals)

In addition to the above procedure, Member Services is working with our third party vendor (Vitech) to implement a process for submitting and approving pay items within the V3 Pension Administration Software. Early analysis began prior to the work from home order.

**IA Follow-Up:** IA confirmed the review process of pay codes in V3 was implemented and documented. The review consisted of walking through a pay item.

**Observation #4 - Member Service management does not formally approve Pay Item Request forms via signature.**

CLOSED

**Process Owner:** Member Services

**Completion Date:** 09/16/2020



## Management Action Plan Status Report

Project(s): ALL  
Mgmt. Status: ALL

Process Owner(s): EMPLOYER,  
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**Action Plan:** Member Services is working with our third party vendor (Vitech) to implement a process for submitting and approving pay items within the V3 Pension Administration Software. Early analysis began prior to the work from home order.

Until V3 updates can be made, Member Services will update our process to include electronic signatures on all future Pay Item Request Forms as presented to and formally approved by the Board

**IA Follow-Up:** Internal Audit confirmed the Pay ItemRequest process and form include electronic signatures.

**Project:** 1971-IT General Controls  
**Report Date:** 06/04/2020  
**Total Observations:** 6  
**Open Observations:** 5  
**Closed:** 1

**Observation #1 - Administrator access granted to the financial reporting and intranet portal applications present a higher than normal risk due to segregation of duties concerns.**

OPEN

**Process Owner:** Information Technology

**Due Date:** 12/31/2021

**Action Plan:** As OCERS is in the process of issuing an RFP for a new financial accounting system, we will defer changes to our current financial accounting system, and focus on building a secure segregated system with the appropriate controls and check and balances as part of the new system to be implemented in 2021.

Due to the size of the OCERS IT Programming group, team members share many administrative responsibilities and needs to be able to cover for other team member assignments and responsibilities when out of the office.

Both the intranet portal and the intranet portal source code repository provide account auditing features that track all changes are made, along with the user that made the change. This information is reported daily to the IT Programming Supervisor, so that he and the IT Management team have complete visibility into any administrative operations that are performed and by whom.

In addition to this audit trail, we have implemented a mandatory workflow process with each IT Programming Request that requires the review of a secondary team member when making changes to the intranet portal or source code in the intranet portal source code repository. This serves as an additional validation and backup to protect against segregation of duties concerns.

**IA Follow-Up:** New financial accounting system implementation was moved to 2021.  
IA confirmed that the Intranet Portal has restricted administrative access

**Observation #2 - OCERS should formalize a process to annually obtain and review SOC reports for relevant IT vendors.**

OPEN

**Process Owner:** Information Technology

**Due Date:** 12/31/2021

**Action Plan:** OCERS has developed criteria to identify IT vendors and technology service providers' requiring SOC2 reports, and will enhance our systems to notify staff to request and review SOC2 reports annually. Process and review documentation is being developed along with updates to our procurement process to mandate SOC2 reports as a deliverable



## Management Action Plan Status Report

Project(s): ALL  
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**IA Follow-Up:** Enhancements have been made to the vendor management system. Processes and Procurement policy needs to be formally updated.

**Observation #3 - OCERS does not maintain data flow diagrams or other documentation of information flow both internally and to external parties.**

OPEN

**Process Owner:** Information Technology

**Due Date:** 12/31/2021

**Action Plan:** Phase one of OCERS Data Classification project, will identify data elements in our V3 system and include the creation of data flow diagrams for data elements classified as "sensitive". In addition, OCERS IT Programming team will develop data flow diagrams of their internal datasets and reporting platform.

Additional data flow diagrams may be developed along with process flow diagrams as part of future lean process improvements.

**IA Follow-Up:** IT to discuss solutions with other vendors.

**Observation #5 - A formalized, integrated IT vendor risk assessment and management process is not in place to evaluate vendor risks in a streamlined, holistic manner.**

OPEN

**Process Owner:** Information Technology

**Due Date:** 12/31/2021

**Action Plan:** Currently OCERS engages in vendor due diligence, cyber monitoring, credit monitoring and performance review activities as appropriate for our organization.

OCERS is enhancing the IT vendor procurement process to help identify risk posed by potential IT vendors. This project is scheduled to be in place by 3Q 2020. This endeavor will be enterprise-wide endeavor (including IT, Information Security, Operational Support Services and Executive Management). This will be performed in addition to annual SOC 2 reviews, as noted in the Management Action Plan for Observation #2

The results of these activities will be recorded in a centralized system and will be reported to the Operational Risk Management Committee.

**IA Follow-Up:**

**Observation #6 - OCERS IT does not maintain a formal project management methodology for technology related projects.**

OPEN

**Process Owner:** Information Technology

**Due Date:** 12/31/2021

**Action Plan:** OCERS will establish formal Project Management protocols and best practices to be followed for all IT Project implementations.

**IA Follow-Up:**

**Observation #4 - Evidence of testing of Intranet portal changes are not retained.**

CLOSED

**Process Owner:** Information Technology



## Management Action Plan Status Report

Project(s): ALL  
Mgmt. Status: ALL

Process Owner(s): EMPLOYER,  
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**Completion Date:** 06/12/2020

**Action Plan:** Currently, OCERS IT Programming records all requested changes to its intranet portal environment in an IT Programming Request list located on OCERS Intranet site. The list includes automated notifications sent to stakeholders and approval workflows generated for approvals and sign off of requests.

To better capture evidence of testing performed prior to implementing changes to the intranet portal or hosted reports, this ticketing system has been modified to include a field for 'Testing Performed'. This field will be used to specifically capture testing that was performed by the developer and/or the end user prior to the implementation of the change. In addition, this field will include instructions the 'attach supporting testing documentation as necessary'.

**IA Follow-Up:** Internal Audit confirmed the creation and use of the "Testing and Validation Performed" field in the IT Programming Requests to document the review of Intranet Portal Changes.

**Project:** 2031 - Audit of Orange County Sanitation District (OCSD) Payroll Transmittals

**Report Date:** 06/04/2020

**Total Observations:** 1

**Open Observations:** 0

**Closed:** 1

**Observation #2031 - An employee in our sample was not entitled to receive a pensionable premium pay item, resulting in an overpayment of that pensionable premium pay item (and contributions paid to OCERS).**

CLOSED

**Process Owner:** Employer

**Completion Date:** 05/21/2020

**Action Plan:** Development Pay requests are manually tracked in Excel, and entered in the FIS system. OCSD staff has begun using an exception report to compare the records from these two data sources, to ensure the number of employees listed on the Excel tracking sheet match the number of employees receiving Development Pay per the FIS system. Secondly, the Development Pay program will be audited bi-annually to capture and correct any administrative errors that may have occurred. Additionally, data entered in the FIS system is now done by using an employee identification (ID) number rather than an employee's last name to ensure the correct record is being updated each time. Lastly, in the past 4 years, we've had 5 different staff members administer the Development Pay program due to staff turnover. We now have a dedicated staff member that is knowledgeable in the program and is solely responsible for entering requests in the Excel worksheet and the FIS system, and a supervisor overseeing the function. OCSD is also working with the employee on a repayment plan to reimburse OCSD for the pensionable pay granted in error. Once this is finalized, the Development Pay for the impacted employee will be reversed and an adjustment entry (for contributions) will be done in V3 for each pay period affected.

**IA Follow-Up:** IA confirmed the correct employee qualified for the certification pay, the premium payment in error was corrected with collections and the semi-annual audit has been implemented.



## Management Action Plan Status Report

Project(s): ALL  
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**Project:** 2032 - Actuarial Extract Audit  
**Report Date:** 10/13/2020  
**Total Observations:** 7  
**Open Observations:** 3  
**Closed:** 4

**Observation #1 - 1. The pension administration system's actuarial extract reporting does not extract the correct status (e.g. Active, Deferred, Retired, Terminated) of a member under certain scenarios, resulting in the need to manually correct the actuarial extract report**

OPEN

**Process Owner:** Information Technology

**Due Date:** 07/30/2021

**Action Plan:** OCERS is working with pension administration vendor to correct issues associated with the member status logic used for the actuarial export and subsequent data cleanup.

**IA Follow-Up:** Member status logic recoding is complete and deployment launched.

**Observation #4 - 4. Numerical thresholds under which further investigation of validation results are no longer considered necessary are not formally defined.**

OPEN

**Process Owner:** Information Technology

**Due Date:** 06/30/2021

**Action Plan:** The IT Programming team will work with OCERS Management to develop acceptable thresholds to use when reviewing the actuarial validation results.

**IA Follow-Up:** Thresholds have been proposed and awaiting final approval.

**Observation #5 - 5. Member Services does not have policies and procedures related to the use of the pension administration system member data validation queries.**

OPEN

**Process Owner:** Member Services

**Due Date:** 12/31/2021

**Action Plan:** The Member Services team will document and formalize policies and procedures related to the pension administration system data queries created by the OCERS IT Department. We will also document the personnel structure responsible for the process as well as the timing and scheduling cycles for the annual review.

**IA Follow-Up:**

**Observation #2 - 2. IT Programming performs logical testing of the programming code behind its actuarial extract validation process but does not keep formalized documentation evidencing the testing.**

CLOSED



## Management Action Plan Status Report

Project(s): ALL  
Mgmt. Status: ALL

Process Owner(s): EMPLOYER,  
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**Process Owner:** Information Technology  
**Completion Date:** 03/11/2021  
**Action Plan:** The IT Programming team will formalize and document the process by which logical testing of our actuarial validation code will be performed.  
**IA Follow-Up:** Formalized testing process has been documented and reviewed by IA

**Observation #3 - 3. Formal documentation of the approval of validation programming code changes does not exist.**

CLOSED

**Process Owner:** Information Technology  
**Completion Date:** 03/11/2021  
**Action Plan:** The IT Programming team will formalize and document the process of how actuarial extract validation code changes will be approved, including how all approvals will be tracked and logged within our system.  
**IA Follow-Up:** IT Programming has formalized the code change validations process.

**Observation #6 - 6. A minor variance noted and addressed during the validation process was not accurately updated in the data extract file sent to the actuary.**

CLOSED

**Process Owner:** Information Technology  
**Completion Date:** 03/11/2021  
**Action Plan:** The IT Programming team will enhance its process to incorporate all validation review updates and related data cleanup changes to ensure all updates are included in the final export to OCERS Actuary.  
**IA Follow-Up:** Data cleanup process has been updated and data validation has occurred.

**Observation #7 - 7. OCERS Actuarial Extract Processing Guide does not describe Informational queries which do not require investigation unless requested by Segal.**

CLOSED

**Process Owner:** Information Technology  
**Completion Date:** 03/11/2021  
**Action Plan:** The IT Programming team will add a section to the Actuarial Extract Processing guide that will describe the additional Informational queries available to OCERS staff to preview potential member datasets based on annual actuarial review question posed by OCERS actuary.  
**IA Follow-Up:** IA confirmed the Actuarial Extract Processing guide has been updated with the informational queries description.



## Management Action Plan Status Report

Project(s): ALL  
 Mgmt. Status: ALL

Process Owner(s): EMPLOYER,  
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**Project:** 2090 - Vulnerability and Patch Management  
**Report Date:** 03/22/2021  
**Total Observations:** 2  
     **Open Observations:** 1  
     **Closed** 1

**Observation #1 - Details Removed - Discussed in Closed Session**

OPEN

**Process Owner:** Executive  
**Due Date:**  
**Action Plan:** Details Removed - Discussed in Closed Session  
**IA Follow-Up:**

**Observation #2 - Details Removed - Discussed in Closed Session**

CLOSED

**Process Owner:** Executive  
**Completion Date:** 05/27/2021  
**Action Plan:** Details Removed - Discussed in Closed Session  
**IA Follow-Up:** Closed