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

REGULAR MEETING Monday, August 19, 2024 9:30 A.M.

Members of the public who wish to observe and/or participate in the meeting may do so (1) from the OCERS Boardroom or (2) via the Zoom app or telephone (information below) from any location.

NOTICE OF APPEARANCE VIA TELECONFERENCE

Pursuant to Gov. Code, § 54953, Board Chair, Ms. Adele Tagaloa, and Trustee, Mr. Roger Hilton will be participating in the Regular Board Meeting of August 19, 2024 via teleconference from the following location, which is open to the public:

Business Center within Fairmont Copley Plaza 138 St. James Avenue, Boston, Massachusetts 02116

Members of the public will have the opportunity to address the Board at this teleconference location.

OCERS Zoom Video/Teleconference information		
Join Using Zoom App (Video & Audio)) Join by Telephone (Audio Only)	
	Dial by your location	
Join Zoom Meeting	+1 669 900 6833 US (San Jose)	
https://ocers.zoom.us/j/82083404803	+1 346 248 7799 US (Houston)	
	+1 253 215 8782 US	
Meeting ID: 820 8340 4803	+1 301 715 8592 US	
Passcode: 422801	+1 312 626 6799 US (Chicago)	
	+1 929 436 2866 US (New York)	
Go to https://www.zoom.us/download to		
download Zoom app before meeting	Meeting ID: 820 8340 4803	
Go to https://zoom.us to connect online using	Passcode: 422801	
any browser.		
A Zoom Meeting Participant Guide is available on OCERS website Board & Committee meetings page		

AGENDA

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

- 1. CALL MEETING TO ORDER AND ROLL CALL
- 2. PLEDGE OF ALLEGIANCE

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3. OATH OF OFFICE - RICHARD OATES AND JEREMY VALLONE

Administered by Orange County Clerk of the Board, Robin Stieler

4. BOARD MEMBER STATEMENT REGARDING PARTICIPATION VIA ZOOM (IF NECESSARY) (Government Code section 54953(f))

5. PUBLIC COMMENTS

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. Members of the public who participate in the meeting from the OCERS Boardroom and who wish to provide comment during the meeting may do so from the podium located in the OCERS Boardroom. When addressing the Board, please state your name for the record prior to providing your comments. Speakers will be limited to three (3) minutes.

At this time, members of the public may comment on (1) matters <u>not</u> included on the agenda, provided that the matter is within the subject matter jurisdiction of the Board; and (2) any matter appearing on the Consent Agenda.

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

CONSENT AGENDA

All matters on the Consent Agenda are to be approved by one action unless a Board Member requests separate action on a specific item.

BENEFITS

C-1 OPTION 4 RETIREMENT ELECTION

Recommendation: Grant election of retirement benefit payment, Option 4, based on Segal Consulting's actuarial report.

- James Nasser
- Jerald Hill

ADMINISTRATION

C-2 BOARD MEETING MINUTES

Regular Board Meeting Minutes

July 15, 2024

Recommendation: Approve minutes.

DISABILITY/MEMBER BENEFITS AGENDA 9:30 AM

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NOTE: WHEN CONSIDERING DISABILITY RETIREMENT APPLICATIONS OR MEMBER APPEALS OF DISABILITY RETIREMENT DETERMINATIONS, THE BOARD MAY ADJOURN TO CLOSED SESSION TO DISCUSS MATTERS RELATING TO THE MEMBER'S APPLICATION OR APPEAL PURSUANT TO GOVERNMENT CODE SECTIONS 54957 OR 54956.9. IF THE MATTER IS A DISABILITY APPLICATION UNDER SECTION 54957, THE MEMBER MAY REQUEST THAT THE DISCUSSION BE IN PUBLIC.

OPEN SESSION

CONSENT ITEMS

All matters on the Consent Agenda are to be approved by one action unless a Board member requires separate action on a specific item. If separate action is requested, the item will be discussed in closed session during agenda item DA-1.

A. Disability Committee Recommendations:

DC-1: THERESA WHITNEY

Eligibility Technician, Orange County Social Services Agency (General)

Recommendation: The Disability Committee:

 Deny service connected disability retirement due to insufficient evidence of permanent incapacity.

B. CEO Recommendations:

DC-2: TYNG KAO

Sr. IT Applications Developer, Orange County Sheriff's Department (General)

Recommendation: Steve Delaney, CEO, recommends that the Board:

- Grant service-connected disability retirement.
- Set the effective date as August 21, 2023.

DC-3: WILLIAM LACKEY

Fire Captain, Orange County Fire Authority (Safety)

Recommendation: Steve Delaney, CEO, recommends that the Board:

- Grant service-connected disability retirement.
- Set the effective date as March 9, 2023.

DC-4: PAUL ROBERTSON

Firefighter, Orange County Fire Authority (Safety)

Recommendation: Steve Delaney, CEO, recommends that the Board:

- Grant service-connected disability retirement.
- Set the effective date as March 10, 2023.

DC-5: SHANI RODRIQUEZ

Deputy Corner, Orange County Sheriff's Department (General)

Recommendation: Steve Delaney, CEO, recommends that the Board:

Page 4

- Grant service-connected disability retirement.
- Set the effective date as October 20, 2023.

DC-6: ROBERT TORREZ

Deputy Sheriff II, Orange County Sheriff's Department (Safety)

Recommendation: Steve Delaney, CEO, recommends that the Board:

- Grant service-connected disability retirement.
- Set the effective date as March 10, 2023.

CLOSED SESSION

Government Code section 54957

Adjourn to Closed Session under Government Code section 54957 to consider member disability applications and to discuss member medical records submitted in connection therewith. The applicant may waive confidentiality and request his or her disability application to be considered in Open Session. As per the OCERS Bylaws, for disability matters before the Board, the applicant or their attorney is allowed to present for a maximum of ten (10) minutes. The opposing counsel is allowed a time limit of seven (7) minutes for argument, followed by a three (3) minute rebuttal from the applicant or their attorney.

DA-1: INDIVIDUAL ACTION ON ANY ITEM TRAILED FROM THE DISABILITY/MEMBER BENEFITS CONSENT AGENDA

OPEN SESSION

REPORT OF ACTIONS TAKEN IN CLOSED SESSION

ACTION ITEMS

NOTE: Public comment on matters listed in this agenda will be taken at the time the item is addressed, prior to the Board'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. Persons attending the meeting in person and wishing to provide comment on a matter listed on the agenda should fill out a speaker card located at the back of the Boardroom and deposit it in the Recording Secretary's box located near the back counter.

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

INFORMATION ITEMS

Each of the following informational items will be presented to the Board for discussion.

I-1 ORTHOPEDICS 101 FOR DISABILITY RETIREMENT

Presentation by Dr. Alexander Latteri

I-2 CEM BENCHMARKING

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Presentation by Steve Delaney, CEO, and Will Tsao, Director of EPMO, OCERS

WRITTEN REPORTS

The following are written reports that will not be discussed unless a member of the Board requests discussion.

R-1 MEMBER MATERIALS DISTRIBUTED

Application Notices August 19, 2024
Death Notices August 19, 2024

R-2 COMMITTEE MEETING MINUTES

- None

R-3 CEO FUTURE AGENDAS AND 2024 OCERS BOARD WORK PLAN

Written Report

R-4 QUIET PERIOD – NON-INVESTMENT CONTRACTS

Written Report

R-5 BOARD COMMUNICATIONS

Written Report

R-6 LEGISLATIVE UPDATE

Written Report

R-7 OCERS TRAVEL POLICY APPROVED CONFERENCES LIST

Written Report

R-8 2024 OCERS STRATEGIC PLANNING WORKSHOP- AGENDA

Written Report

R-9 QUARTERLY TRAVEL AND TRAINING EXPENSE REPORT

Written Report

R-10 SECOND QUARTER 2024 BUDGET TO ACTUALS REPORT

Written Report

R-11 SECOND QUARTER UNAUDITED FINANCIAL STATEMENTS FOR THE SIX MONTHS ENDED JUNE 30,

2024

Written Report

R-12 OCERS BY THE NUMBERS (2024 EDITION)

Written Report

R-13 THE EVOLUTION OF OCERS' UAAL (2024 EDITION)

Written Report

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R-14 2024 EMPLOYER AND EMPLOYEE CONTRIBUTIONS MATRIX
Written Report

R-15 TENNESSEE CONSOLIDATED RETIREMENT SYSTEM VISIT REPORT
Written Report

CHIEF EXECUTIVE OFFICER/STAFF COMMENTS

COUNSEL COMMENTS

BOARD MEMBER COMMENTS

ADJOURNMENT: (IN MEMORY OF THE ACTIVE MEMBERS, RETIRED MEMBERS, AND SURVIVING SPOUSES WHO PASSED AWAY THIS PAST MONTH)

NOTICE OF NEXT MEETINGS

PERSONNEL COMMITTEE MEETING August 27, 2024 9:30 A.M.

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

INVESTMENT COMMITTEE MEETING August 28, 2024 9:00 A.M.

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

BUILDING COMMITTEE MEETING August 30, 2024 9:30 A.M.

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

STRATEGIC PLANNING WORKSHOP
Tuesday and Wednesday, September 10 and 11,
2024
8:30 A.M. to 4:45 P.M.

WESTIN SOUTH COAST PLAZA 686 ANTON BLVD. COSTA MESA, CA 92626

DISABILITY COMMITTEE MEETING September 16, 2024 8:30 A.M.

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

> BUILDING COMMITTEE MEETING October 3, 2024 9:30 A.M.

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

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PERSONNEL COMMITTEE MEETING
October 8, 2024
9:30 A.M.

ORANGE COUNTY EMPLOYEES RETIREMENT
SYSTEM
2223 E. WELLINGTON AVENUE, SUITE 100

SANTA ANA, CA 92701

AUDIT COMMITTEE MEETING October 9, 2024 9:30 A.M.

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

October 21, 2024 8:30 A.M.

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

> REGULAR BOARD MEETING October 21, 2024 9:30 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 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.



Memorandum

DATE: August 19, 2024

TO: Members of the Board of Retirement

FROM: Irene Warkentine, Member Services Benefits Analyst

SUBJECT: OPTION 4 RETIREMENT ELECTION – JERALD HILL

Recommendation

Grant election of retirement benefit payment, Option 4, based on Segal Consulting's actuarial report.

Background/Discussion

This member elected Option 4 as the benefit payment option for his service retirement allowance as required by his Domestic Relations Order (DRO), effective March 29, 2024. The Orange County Employees Retirement System (OCERS) was joined in the member's dissolution of marriage and under the terms of the DRO, the member's exspouse was awarded a lifetime continuance as a percentage of the member's allowance.

The approval of Option 4 will not increase OCERS liability because the cost of this Option 4 benefit is proportional to the cost of the other benefit plans. Segal Consulting has calculated the member's monthly allowance as indicated in the attached letter, as well as the allowance payable to the member's ex-spouse.

Submitted by:



I.W. – APPROVED

Irene Warkentine Member Services Benefits Analyst



Molly Calcagno, ASA, MAAA, EA Senior Actuary T 415.263.8254 M 415.265.6078 mcalcagno@segalco.com 180 Howard Street Suite 1100 San Francisco, CA 94105-6147 segalco.com

Personal and Confidential

July 15, 2024

Jonathea Tallase Member Services Manager Orange County Employees Retirement System 2223 Wellington Avenue Santa Ana, CA 92701-3101

Re: Orange County Employees Retirement System (OCERS)
Option 4 Calculation for Jerald Hill

Dear Jonathea:

Pursuant to your request, we have determined the Option 4 benefits payable to Jerald Hill and his ex-spouse based on the unmodified benefit and other information provided in the System's request received on June 28, 2024.

The monthly benefits payable to the member and the ex-spouse and the data we used for our calculations are as follows:

Data Element	Data Provided by OCERS	
Member's date of birth		
Date of retirement	March 29, 2024	
Plan of membership	Safety Plan F	
Monthly unmodified benefit	\$15,258.76	
Ex-spouse's date of birth		
Ex-spouse's share of unmodified benefit	37.52%	

Jonathea Tallase July 15, 2024 Page 2

Calculations

We calculated the adjustment to the member's unmodified benefit to provide a 37.52% continuance to the ex-spouse. As instructed by OCERS, the cost to provide the continuance benefit to the ex-spouse is shared equally between the member and the ex-spouse.

Monthly Benefit Type	Payable while the Member is Alive	Payable after the Member's Death
Payable to member ¹		
Annuity:	\$1,502.35	
Pension:	7,659.25	
- Total payable to member	\$9,161.60	\$0.00
Payable to ex-spouse ²	\$5,353.02	\$5,353.02

Actuarial assumptions

We have calculated the Option 4 benefits based on the following actuarial assumptions:

Interest

Effective interest rate of 4.136253% per year, which is calculated using an investment return assumption of 7.00% per year together with a cost-of-living adjustment assumption of 2.75% per year.

Mortality Table

Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table, projected generationally with the two-dimensional mortality improvement scale MP-2019 associated with a retirement year of 2024, weighted 80% male and 20% female for members.

Pub-2010 General Contingent Survivor Amount-Weighted Above-Median Mortality Table with rates increased by 5%, projected generationally with the two-dimensional mortality improvement scale MP-2019 associated with a retirement year of 2024, weighted 20% male and 80% female for beneficiaries.

This ex-spouse's benefit payable is equal to 37.52% of the member's unmodified benefit (i.e., 37.52% × \$15,258.76 or \$5,725.09) adjusted by \$372.07 to provide a benefit payable over the ex-spouse's lifetime or to the estate of the ex-spouse if the ex-spouse pre-deceases the member.



¹ This member's benefit payable is equal to 62.48% of the member's unmodified benefit (i.e., 62.48% × \$15,258.76 or \$9,533.67) adjusted by \$372.07 to provide a benefit payable over the ex-spouse's lifetime or to the estate of the ex-spouse if the ex-spouse pre-deceases the member.

Jonathea Tallase July 15, 2024 Page 3

Other considerations

The actuarial calculations contained in this letter were prepared under my supervision. I am a member of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

Please let us know if you have any comments or questions. As in all matters pertaining to the interpretation and application of the law, Plan, or individual Option 4 Calculation provisions, you should be guided by the advice of the Plan's Legal Counsel.

Sincerely,

Molly Calcagno, ASA, MAAA, EA

Senior Actuary

AW/bbf

cc: Irene Warkentine





July 15, 2024

Jerald J. Hill

Re: Retirement Election Confirmation - Option 4

Dear Mr. HILL:

You have elected Option 4 as your retirement option. This option will provide a 37.52% of your monthly benefit, for the life of the benefit, to:

GAYLE HILL

This designation is irrevocable; you will not be allowed to change your retirement option or designated beneficiary.

Please complete this form and return to OCERS as soon as possible.

(VI understand that my retirement option is irrevocable; by choosing Option 4 I will take a monthly reduction in order to provide a 37.52% continuance to GAYLE HILL.

Member Signature/Date

4 11

Aileen Daag

Sr. Retirement Program Specialist

PO Box 1229, Santa Ana, CA 92702 ◆ Telephone (714) 558-6200 ◆ www.ocers.org
"We provide secure retirement and disability benefits with the highest standards of excellence."



Memorandum

DATE: August 19, 2024

TO: Members of the Board of Retirement

FROM: Irene Warkentine, Member Services Benefits Analyst

SUBJECT: OPTION 4 RETIREMENT ELECTION – JAMES NASSER

Recommendation

Grant election of retirement benefit payment, Option 4, based on Segal Consulting's actuarial report.

Background/Discussion

This member elected Option 4 as the benefit payment option for his service retirement allowance as required by his Domestic Relations Order (DRO), effective September 30, 2023. The Orange County Employees Retirement System (OCERS) was joined in the member's dissolution of marriage and under the terms of the DRO, the member's ex-spouse was awarded a lifetime continuance as a percentage of the member's allowance.

The approval of Option 4 will not increase OCERS liability because the cost of this Option 4 benefit is proportional to the cost of the other benefit plans. Segal Consulting has calculated the member's monthly allowance as indicated in the attached letter, as well as the allowance payable to the member's ex-spouse.

Submitted by:



I.W. – APPROVEDIrene WarkentineMember Services Benefits Analyst



Molly Calcagno, ASA, MAAA, EA Senior Actuary T 415.263.8254 M 415.265.6078 mcalcagno@segalco.com 180 Howard Street. Suite 1100 San Francisco, CA 94105-6147 segalco.com

Personal and Confidential

July 30, 2024

Jonathea Tallase Member Services Manager Orange County Employees Retirement System 2223 Wellington Avenue Santa Ana, CA 92701-3101

Re: Orange County Employees Retirement System (OCERS)
Option 4 Calculation for James Nasser

Dear Jonathea:

Pursuant to your request, we have determined the Option 4 benefits payable to James Nasser and his ex-spouse based on the unmodified benefit and other information provided in the System's request received on July 26, 2024.

The monthly benefits payable to the member and the ex-spouse and the data we used for our calculations are as follows:

Data Element	Data Provided by OCERS	
Member's date of birth		
Date of retirement ¹	September 30, 2023	
Plan of membership	General Plan B and Safety Plan F	
Monthly unmodified benefit — Total ²	\$11,453.70	
Monthly unmodified benefit — Plan B	\$94.60	
 Monthly unmodified benefit — Plan F 	\$11,359.10	
Ex-spouse's date of birth		
Ex-spouse's share of unmodified benefit ²	7.49%	

Calculations

As requested, the Option 4 benefits contained herein have been prepared under two Scenarios:

- Scenario 1 Service Retirement
- 1 This date of retirement is applicable for both the service retirement and the service-connected disability retirement calculations.
- The total monthly unmodified benefit and the ex-spouse's share of the total unmodified benefit is the same for both the service retirement and the service-connected disability retirement calculations.

Jonathea Tallase July 30, 2024 Page 2

Scenario 2 – Service-Connected Disability

For each Scenario, we calculated the adjustment to the member's unmodified benefit to provide a 7.49% continuance to the ex-spouse. As instructed by OCERS, the cost to provide the continuance benefit to the ex-spouse is paid for entirely by the ex-spouse.

Scenario 1 — Service Retirement

Monthly Benefit Type	Payable while the Member is Alive	Payable after the Member's Death
Payable to member		
Plan B Annuity:	\$22.02	
Plan B Pension:	65.49	
Plan F Annuity:	2,586.58	
Plan F Pension:	7,921.73	
- Total payable to member	\$10,595.82	\$0.00
Payable to ex-spouse*	\$625.42	\$625.42

Scenario 2 — Service-Connected Disability Retirement

Monthly Benefit Type	Payable while the Member is Alive	Payable after the Member's Death
Payable to member		
Plan B Annuity:	\$23.35	
Plan B Pension:	64.16	
Plan F Annuity:	2,743.83	
Plan F Pension:	7,764.48	
- Total payable to member	\$10,595.82	\$0.00
Payable to ex-spouse*	\$592.05	\$592.05

The benefits determined in this letter as payable to the ex-spouse in Scenario 2 are less than those calculated in Scenario 1 even though the member's total unmodified benefit amount is the same in both scenarios. This is because the present value of the Option 4 benefits calculated in Scenario 1 is set equal to the larger present value of the total unmodified benefit assuming a longer life expectancy for the member as anticipated using the service retirement mortality assumptions. In Scenario 2, the present value of the Option 4 benefits is set equal to the smaller present value of the total unmodified benefit assuming a shorter life expectancy for the member as anticipated using the disability mortality assumptions.

^{*} This is equal to 7.49% of the member's total unmodified benefit (i.e., 7.49% * \$11,453.70 or \$857.88) adjusted further to provide a benefit payable over the ex-spouse's lifetime or to the estate of the ex-spouse if the ex-spouse pre-deceases the member.



Jonathea Tallase July 30, 2024 Page 3

Actuarial assumptions

Scenario 1 — Service Retirement

We have calculated the Option 4 benefits based on the following actuarial assumptions:

Interest

Effective interest rate of 4.136253% per year, calculated using an investment return assumption of 7.00% per year together with a cost-of-living adjustment assumption of 2.75% per year.

Mortality Table

Pub-2010 Safety* Healthy Retiree Amount-Weighted Above-Median Mortality Table, projected generationally with the two-dimensional mortality improvement scale MP-2019 associated with a retirement year of 2024, weighted 80% male and 20% female for members.

Pub-2010 General Contingent Survivor Amount-Weighted Above-Median Mortality Table with rates increased by 5%, projected generationally with the two-dimensional mortality improvement scale MP-2019 associated with a retirement year of 2024, weighted 20% male and 80% female for beneficiaries.

Scenario 2 — Service-Connected Disability Retirement

We have calculated the Option 4 benefits based on the following actuarial assumptions:

Interest

Effective interest rate of 4.136253% per year, calculated using an investment return assumption of 7.00% per year together with a cost-of-living adjustment assumption of 2.75% per year.

Mortality Table

Pub-2010 Safety* Disabled Retiree Amount-Weighted Mortality Table, projected generationally with the two-dimensional mortality improvement scale MP-2019 associated with a retirement year of 2024, weighted 80% male and 20% female for members.

Pub-2010 General Contingent Survivor Amount-Weighted Above-Median Mortality Table with rates increased by 5%, projected generationally with the two-dimensional mortality improvement scale MP-2019 associated with a retirement year of 2024, weighted 20% male and 80% female for beneficiaries.

^{*} Since the member last worked as a Safety member, we used Safety assumptions in determining optional benefits even for benefits paid from the General Plan.



Jonathea Tallase July 30, 2024 Page 4

Other considerations

The actuarial calculations contained in this letter were prepared under my supervision. I am a member of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

Please let us know if you have any comments or questions. As in all matters pertaining to the interpretation and application of the law, Plan, or individual Option 4 Calculation provisions, you should be guided by the advice of the Plan's Legal Counsel.

Sincerely,

Molly Calcagno, ASA, MAAA, EA

Molly Calcagno

Senior Actuary

JY/bbf

cc: Irene Warkentine





August 1, 2024
James A. Nasser
Re: Retirement Election Confirmation – Option 4
Dear Mr. NASSER:
You have elected Option 4 as your retirement option. This option will provide a 7.49% of your monthly benefit, for the life of the benefit, to:
Summer C Johns
This designation is irrevocable; you will not be allowed to change your retirement option or designated beneficiary.
Please complete this form and return to OCERS as soon as possible.
() I understand that my retirement option is irrevocable; by choosing Option 4 I will take a monthly reduction is order to provide a 7.49% continuance to Summer C Johns.
Member Signature/Date
Sincerely,
David Viramontes
Retirement Program Specialist

PO Box 1229, Santa Ana, CA 92702 ● Telephone (714) 558-6200 ● www.ocers.org "We provide secure retirement and disability benefits with the highest standards of excellence."

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

REGULAR MEETING Monday, July 15, 2024 9:30 A.M.

MINUTES

Chair Tagaloa called the meeting to order at 9:31 a.m.

Recording Secretary administered the Roll Call attendance.

Attendance was as follows:

Present in Person: Adele Tagaloa, Chair; Richard Oates; Arthur Hidalgo; Wayne Lindholm;

Roger Hilton; Chris Prevatt; Shawn Dewane; Shari Freidenrich.

Also Present: Suzanne Jenike, Assistant CEO, External Operations; Brenda Shott, Assistant

CEO, Internal Operations; Manuel Serpa, General Counsel; Kwame Addo, Director of Compliance; Will Tsao, Director of EPMO; Cynthia Hockless, Director of HR; Nicole McIntosh; Director of Disability; Jenny Sadoski, Director of IT; Joon Kim, Staff Attorney; Anthony Beltran, Audio-Visual

Technician; Marielle Horst, Recording Secretary.

Guests: Paul Angelo and Todd Tauzer, Segal; Mayak Chin, ReedSmith.

Absent: Charles Packard; Jeremy Vallone.

CONSENT AGENDA

BENEFITS

C-1 OPTION 4 RETIREMENT ELECTION

Recommendation: Grant election of retirement benefit payment, Option 4, based on Segal Consulting's actuarial report.

Randy Black

ADMINISTRATION

C-2 BOARD MEETING MINUTES

Regular Board Meeting Minutes

June 17, 2024

Recommendation: Approve minutes.

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MOTION by Mr. Dewane, **seconded** by Mr. Oates, to approve the Consent Agenda.

The motion passed unanimously.

******* DISABILITY/MEMBER BENEFITS AGENDA 9:30 AM

OPEN SESSION CONSENT ITEMS

A. Disability Committee Recommendations:

NONE

B. CEO Recommendations:

DC-1: JAKE BUENDIA

Sr. Accounting Clerk, Transportation Corridor Agencies (General)

Recommendation: Steve Delaney, CEO, recommends that the Board:

- Grant non service-connected disability retirement.
- Set the effective date as July 22, 2022.

DC-2: JOHN CHEDISTER

Fire Captain, Orange County Fire Authority (Safety)

Recommendation: Steve Delaney, CEO, recommends that the Board:

- Grant service-connected disability retirement.
- Set the effective date as November 1, 2023.

DC-3: MARK EIDE

Fire Captain, Orange County Fire Authority (Safety)

Recommendation: Steve Delaney, CEO, recommends that the Board:

- Grant service-connected disability retirement.
- Set the effective date as March 24, 2023.

DC-4: YOLANDA HERNANDEZ-OBILLO

Staff Specialist, Orange County Healthcare Agency (General)

Recommendation: Steve Delaney, CEO, recommends that the Board:

• Deny service and non-service connected disability retirement without prejudice due to the member's decision not to join the application process initiated by the employer.

DC-5: MARC MOORE

Fire Battalion Chief, Orange County Fire Authority (Safety)

Recommendation: Steve Delaney, CEO, recommends that the Board:

Page 3

- Grant service-connected disability retirement.
- Set the effective date as March 24, 2023.

DC-6: LEONARD OJEDA

Park Maintenance Worker I, Orange County Community Resources (General)

Recommendation: Steve Delaney, CEO, recommends that the Board:

• Deny service and non-service connected disability retirement without prejudice due to the member's decision not to join the application process initiated by the employer.

DC-7: RAUL RAMALHO

Fire Apparatus Engineer, Orange County Fire Authority (Safety)

Recommendation: Steve Delaney, CEO, recommends that the Board:

- Grant service-connected disability retirement.
- Set the effective date as March 24, 2023.

DC-8: EVELYN RANSON

Coach Operator, Orange County Transportation Authority (General)

Recommendation: Steve Delaney, CEO, recommends that the Board:

- Grant service-connected disability retirement.
- Set the effective date as June 21, 2020.

DC-9: THOMAS RIVAS

Firefighter, Orange County Fire Authority (Safety)

Recommendation: Steve Delaney, CEO, recommends that the Board:

• Deny service and non-service connected disability retirement without prejudice due to the member's decision not to join the application process initiated by the employer.

DC-10: PAUL SCHAFF

Sergeant, Orange County Sheriff's Department (Safety)

Recommendation: Steve Delaney, CEO, recommends that the Board:

- Grant service-connected disability retirement.
- Set the effective date as March 10, 2023.

DC-11: GEORGE TISCARENO

Deputy Sheriff I, Orange County Sheriff's Department (Safety)

<u>Recommendation:</u> Steve Delaney, CEO, recommends that the Board:

- Grant service-connected disability retirement.
- Set the effective date as July 29, 2022.

MOTION by Mr. Dewane, **seconded** by Mr. Prevatt, to approve staff recommendations.

The motion passed unanimously.

Page 4

ACTION ITEMS

A-2 ALAMEDA IMPLICATIONS FOR EMPLOYEES OF OCDA AND OCSD COVERED BY THE ORANGE COUNTY BOARD OF SUPERVISORS RESOLUTION

Presentation by Suzanne Jenike, Assistant CEO, External Operations, OCERS

Recommendation:

- Make a system-wide exception pursuant to Section 4 of the Overpaid and Underpaid Plan Contributions Policy, by collecting any applicable interest associated with an ongoing payment plan from the Employer through the actuarial Unfunded Actuarial Accrued Liability (UAAL) process and not from the member directly, and;
- 2. Direct the CEO to offer to extend the time-period for a member's installment payment to a period not exceeding the expected life expectancy of the member as determined by the actuary pursuant to Section 9(c) of the Overpaid and Underpaid Plan Contributions Policy.

MOTION by Mr. Oates, **seconded** by Mr. Hilton, to approve staff recommendations with the following addition:

OCERS is responding to a change in policy after December 20, 2022, where the Board of Supervisors adopted a resolution positively impacting the retirement benefits of some AOCDS members, specifically Peace Officers and Supervising Peace Officers with the Orange County Sheriff's Department and the Orange County District Attorney's Office.

Ms. Freidenrich requested clarification on which rate group this affects, and if this would be spread over the UAAL through the County and plan sponsors. Ms. Jenike confirmed that this is specific to the County, and Rate Group 7.

Mr. Lindholm clarified that the county required an additional \$75,000 for 20 years is not a total cost impact to the UAAL. The total contributions and interest refund increases to \$1.5 million, not \$1.03 million on the Payment Plan Accrued Interest. Ms. Jenike noted the amounts in the letters are the maximum amount if everyone takes a lifetime expectancy payment.

Mr. Lindholm sought clarification on the payment plan. Ms. Jenike explained these dollars are associated with the contributions of on-call or K-9 pay that we refunded and will be collected back as part of the repayment plan.

The motion passed, under the following vote:

AYES	<u>NAYS</u>	<u>ABSTAIN</u>	<u>ABSENT</u>
Mr. Dewane			
Ms. Freidenrich			
Mr. Hidalgo			
Mr. Hilton			
	Mr. Lindholm		
Mr. Oates			
Mr. Prevatt			
			Mr. Packard
			Mr. Vallone

Page 5

Chair Tagaloa

A-3 CONSIDERATION OF EARLY PAYMENT OF EMPLOYER CONTRIBUTIONS FOR FISCAL YEAR- 2025-2026

Presentation by Brenda Shott, Asst. Chief Executive Officer, Internal Operations and Molly Murphy, Chief Investment Officer, CFA, OCERS

Recommendation: Approve the terms of a prepayment discount program for the advance payment of employer contributions, including a 7.0% discount rate to be used for contribution year July 2025 through June 2026.

MOTION by Mr. Oates, **seconded** by Ms. Lindholm, to approve staff recommendations.

The motion passed unanimously.

A-4 OUTCOMES FROM THE PERSONNEL COMMITTEE MEETING HELD ON JULY 8, 2024

Presentation by Suzanne Jenike, Assistant CEO, External Operations, OCERS

Recommendation: The Personnel Committee recommends the Board adopt the following:

1. Approve the addition of a total of 1 new position to the Member and Employer Relations (MER) section of Member Services.

MOTION by Mr. Dewane, **seconded** by Ms. Lindholm, to approve staff recommendations.

Ms. Freidenrich commented that she prefers to empower supervisors over hiring additional staff. Mr. Oates voiced that his vote will remain consistent with his previous vote on the Personnel Committee. Ms. Tagaloa commented that it is difficult to have 22 employees under one supervisor, thus she supports the recommendation. Mr. Hilton and Mr. Prevatt both provided their insights on their support of the recommendation.

The motion passed, under the following vote:

<u>AYES</u>	<u>NAYS</u>	<u>ABSTAIN</u>	<u>ABSENT</u>
Mr. Dewane			
	Ms. Freide	nrich	
Mr. Hidalgo			
Mr. Hilton			
Mr. Lindholm			
	Mr. Oates		
Mr. Prevatt			
			Mr. Packard
			Mr. Vallone
Chair Tagaloa			

The Board recessed for break at 10:22 a.m.

The Board reconvened from break at 10:35 a.m.

Recording Secretary administered the Roll Call attendance.

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INFORMATION ITEMS

Each of the following informational items will be presented to the Board for discussion.

I-1 ILLUSTRATIONS OF RETIREMENT COSTS, UNFUNDED ACTUARIAL ACCRUED LIABILITY AND FUNDED RATIO UNDER ALTERNATIVE INVESTMENT RETURN SCENARIOS

Presentation by Segal

Mr. Angelo and Mr. Tauzer presented their findings to the Board. Ms. Freidenrich would like to see what projections were used in 2013 and how they have changed from where OCERS is today. Mr. Angelo noted that this information might not be as useful as some may assume but would be happy to provide it at a future date.

I-2 ACTUARIAL RISK ASSESSMENT BASED ON THE DECEMBER 31, 2023 ACTUARIAL VALUATION Presentation by Segal

The Board thanked Mr. Angelo for his service to OCERS and congratulated him on his retirement.

I-3 WORKPLACE VIOLENCE PREVENTION PLAN

Presentation by Manuel Serpa, General Counsel, OCERS

I-5 BOARD MEMBER IPAD DEPLOYMENT

Presentation by Jenny Sadoski, Director of Information Technology, OCERS

Mr. Dewane and Mr. Lindolm departed at 11:30 a.m.

I-4 AB 1234 TRAINING - CALIFORNIA PUBLIC RECORDS ACT TRAINING

Presentation by Manuel Serpa, General Counsel, OCERS

The Board adjourned to closed session at 12:11 p.m.

CLOSED SESSION ITEMS

E-1 CONFERENCE WITH LEGAL COUNSEL--EXISTING LITIGATION (Government Code Section 54956.9(d)(1))

Morell v. Board of Retirement for Orange County Employees' Retirement System; Case No. B331080 (Superior Court No. 22STCP02345)

Recommendation: Take appropriate action.

E-2 CONFERENCE WITH LEGAL COUNSEL--ANTICIPATED LITIGATION (Government Code Section 54956.9(d)(2))

One potential case

Recommendation: Take appropriate action.

The Board returned from closed session at 12:51 p.m.

Page 7

The Recording Secretary did not administer Roll Call attendance but noted the attendance of Ms. Freidenrich, Mr. Hidalgo, Mr. Hilton, Mr. Oates, Mr. Prevatt, and Chair Tagaloa.

Mr. Serpa reported no reportable action was taken during closed session.

WRITTEN REPORTS

The following are written reports that will not be discussed unless a member of the Board requests discussion.

R-1 MEMBER MATERIALS DISTRIBUTED

Application Notices July 15, 2024
Death Notices July 15, 2024

R-2 COMMITTEE MEETING MINUTES

April 2024- Personnel Committee Minutes

R-3 CEO FUTURE AGENDAS AND 2024 OCERS BOARD WORK PLAN

Written Report

R-4 QUIET PERIOD – NON-INVESTMENT CONTRACTS

Written Report

R-5 BOARD COMMUNICATIONS

Written Report

R-6 LEGISLATIVE UPDATE

Written Report

R-7 OCERS TRAVEL POLICY APPROVED CONFERENCES LIST

Written Report

R-8 2024 OCERS STRATEGIC PLANNING WORKSHOP – DRAFT AGENDA

Written Report

R-9 CONTRACT STATUS FOR NAMED SERVICE PROVIDERS

Written Report

R-10 UPDATE BOARD ELECTIONS: SAFETY MEMBER, ALTERNATE SAFETY MEMBER AND GENERAL MEMBER

Written Report

R-11 THIRD QUARTER REVIEW OF OCERS BOARD 2024-2026 STRATEGIC PLAN

Written Report

CIO COMMENTS- None

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CHIEF EXECUTIVE OFFICER/STAFF COMMENTS- Mr. Delaney informed the Board that OCERS received 112 applications for the Assistant CEO of External Operations position. They are currently working on the interviews of the candidates for the replacement of Ms. Jenike.

COUNSEL COMMENTS- None

BOARD MEMBER COMMENTS- None

Meeting <u>ADJOURNED</u> at 12:56 p.m. in memory of active members, retired members, and surviving spouses who passed away this passed month.

.,,		
Submitted by:	Approved by:	
 Steve Delaney	Adele Tagaloa	
Secretary to the Board	Chairperson	



Memorandum

DATE: August 19, 2024

TO: Members of the Board of Retirement

FROM: Suzanne Jenike, Assistant CEO, External Operations; Nicole McIntosh, Director of Disability

SUBJECT: ORTHOPEDICS 101 FOR DISABILITY RETIREMENT

The Disability Department is pleased to announce that Dr. Alexander Latteri, an orthopedic surgeon with over 48 years of experience, will be providing an informational presentation to the Board of Retirement. Dr. Latteri has been serving as an Independent Medical Evaluator (IME) for OCERS, assisting in the application process by evaluating Applicants and providing medical opinions on permanent incapacity and service connection. During his presentation, Dr. Latteri will explain the evaluation process from an IME perspective, and an explanation of the information used to reach his medical opinions, such as medical history, diagnostic testing, and the applicant's subjective complaints. This presentation aims to enhance the Board's understanding of how IME reports are compiled, which is crucial for informed decision-making.

Submitted by:

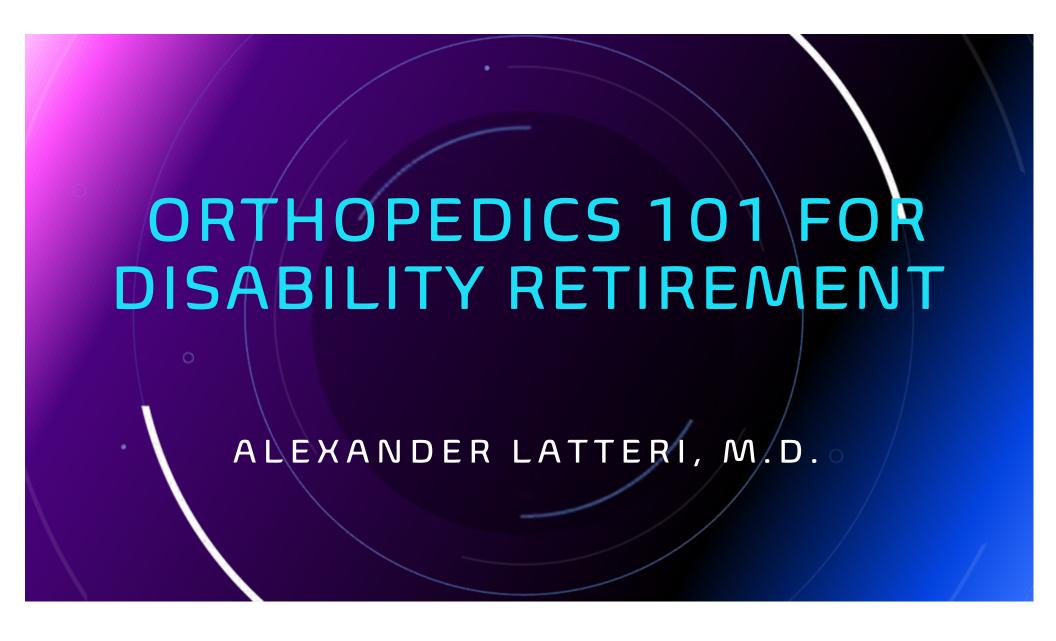


S. J. - APPROVED

Suzanne Jenike
Assistant CEO, External Operations



Nicole McIntosh Director of Disabilities



ORTHOPEDIC DEFINITIONS

- Meniscus tear of the knee.
- Rotator cuff tear of the shoulder.
- Carpal tunnel syndrome.
- Epicondylitis inflammation of the elbow.

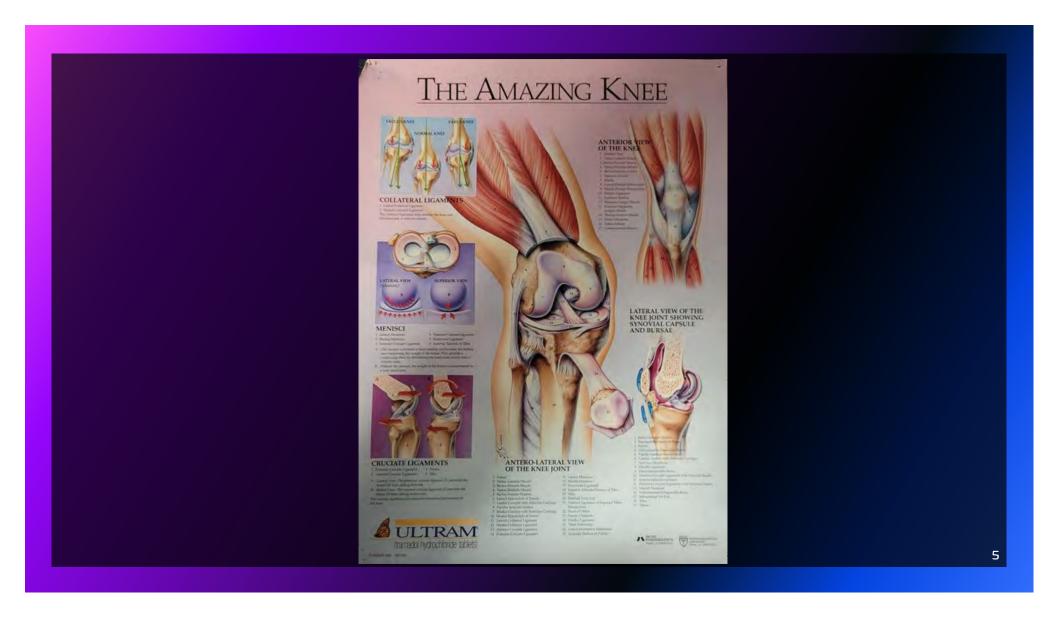
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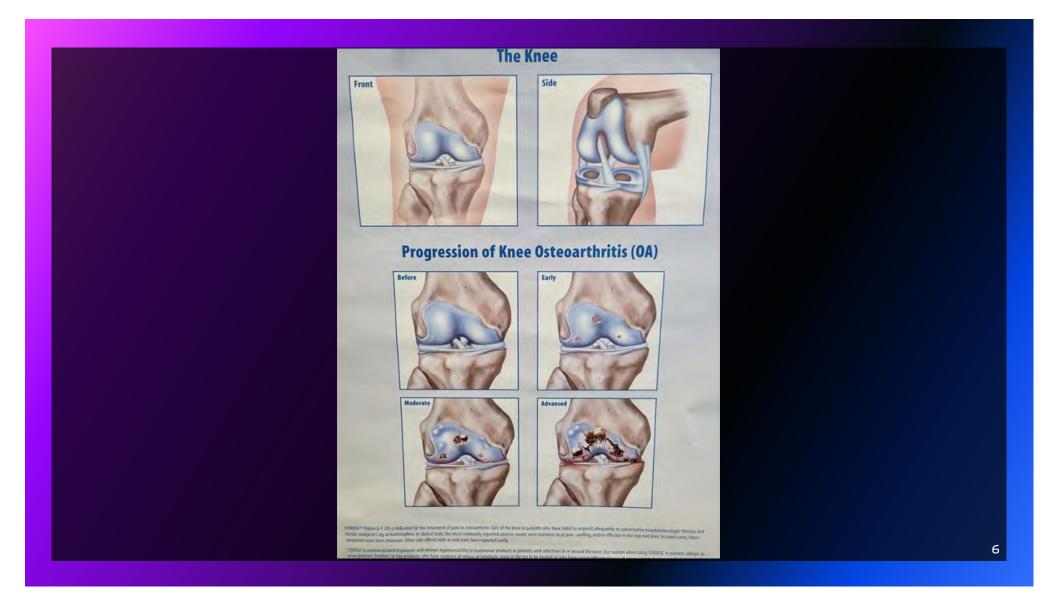
MORE ORTHOPEDIC DEFINITIONS

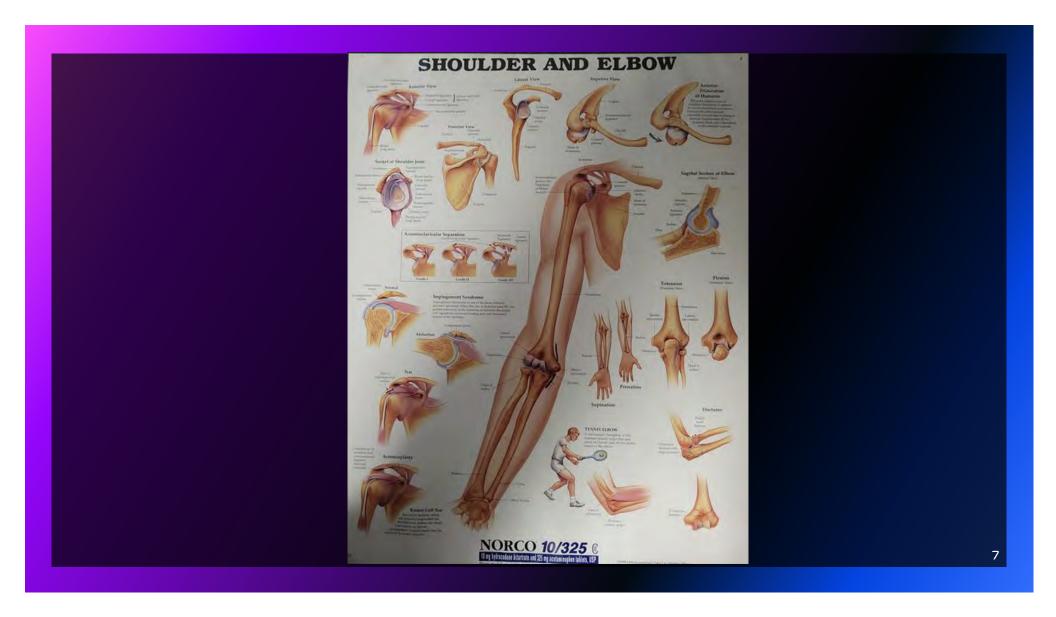
- Biceps / shoulder tear.
- Tendonitis of the wrist.
- Neck / disc herniation.

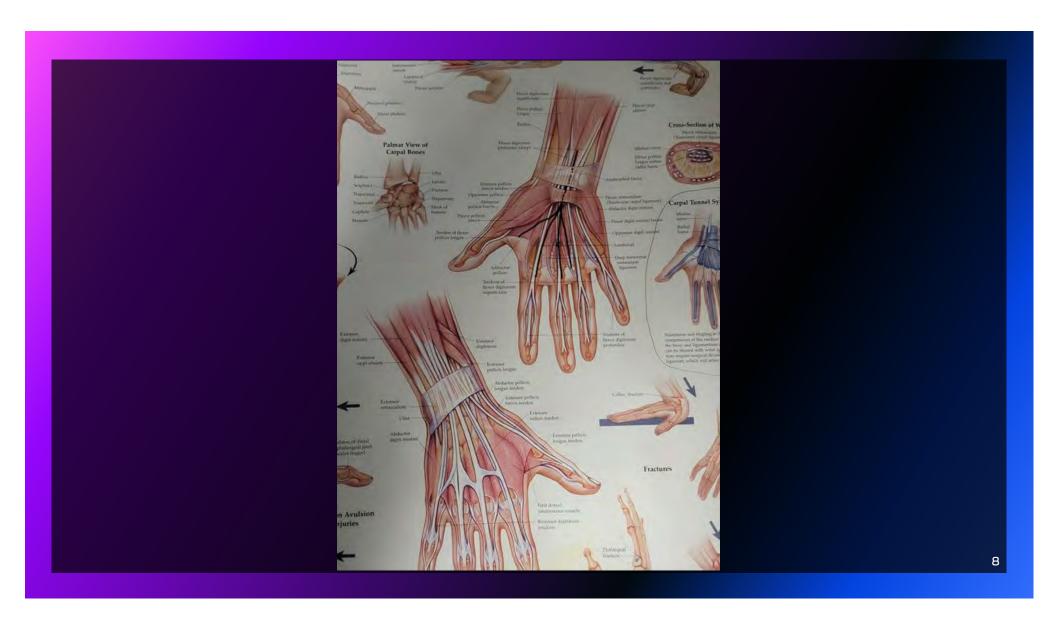
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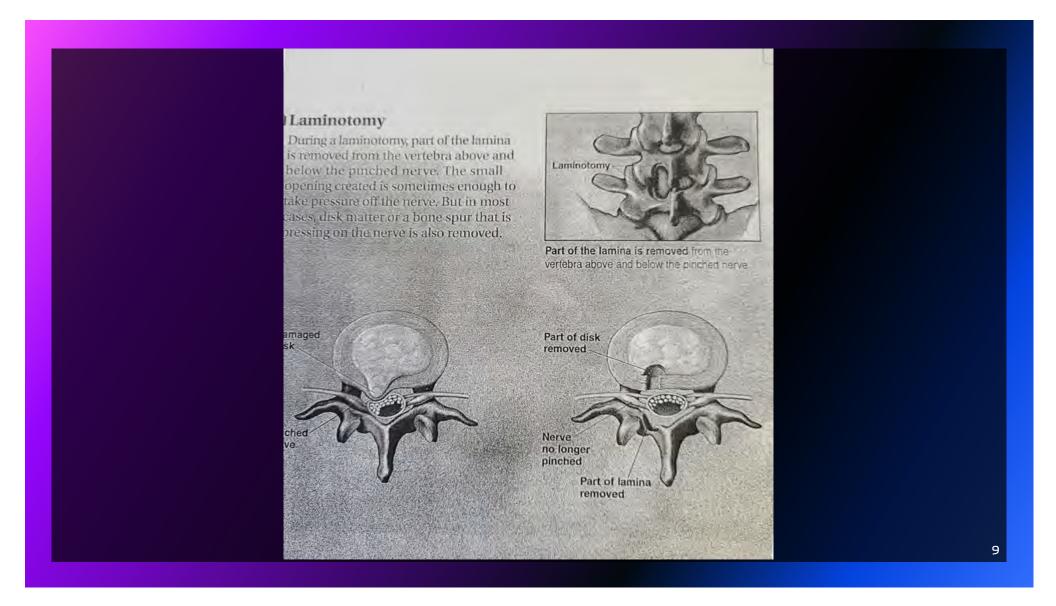












ANY OTHER DEFINITIONS BEFORE WE MOVE ON?

1. WORKERS' COMPENSATION:

- Provides benefits for work-related injuries or illnesses.
- Covers medical bills and temporary or permanent disabilities.
- If employer denies or delays workers' compensation benefits, worker can file a Disability Insurance (DI) claim.
- Worker usually cannot receive both workers' compensation and DI benefits simultaneously.
- If SDI issues benefits while a workers' compensation case is pending, a lien will be filed to recover those benefits when the workers' compensation case is settled.

2. DISABILITY INSURANCE (DI):

- Part of the State Disability Insurance (SDI) program.
- Offers partial wage replacement for non-work-related illnesses, injuries, pregnancy, or childbirth.
- Paid for a short period of time only.

3. BENEFITS UNDER WORKERS' COMPENSATION:

- Medical care: Treatment for work-related injuries.
- Temporary disability: Payment for lost wages during recovery.
- Permanent disability: Compensation for permanent loss of function.
- Job displacement benefits: Payment for job retraining only.

4. COMPARISON OF RETIREMENT LAW AND WORKERS' COMPENSATION:

- In evaluating the applicant, be aware of the fact that establishing
 "permanent incapacity" under retirement law is not the same as
 establishing "permanent disability" under workers' compensation law.
 "Permanent disability" under workers' compensation law is a permanent
 injury that impairs a worker's earning capacity or a worker's bodily function,
 or that creates a competitive handicap for the worker in the open labor
 market.
- Under disability retirement law, "permanent incapacity" for the performance
 of duty is the inability of an applicant to substantially perform their usual
 and actual duties. They do not include duties performed only rarely.

APPLICANTS STATEMENT OF INCAPACITY

- An applicant seeking a service-connected disability retirement must produce a preponderance of <u>substantial evidence of a real and measurable</u> <u>work contribution</u> to the claimed disabling injury or disease. Real and measurable must be more than infinitesimal or inconsequential.
- Compensation may not be awarded where the nature of the employee's duties merely provide a <u>stage</u> for the event.
- The applicant has the burden of proving <u>service-connection</u>, in addition to proving the <u>disability</u> itself.
- The applicant must meet this burden of proof by establishing facts by a preponderance of the evidence.

SERVICE-CONNECTION (INDUSTRIAL CAUSATION)

- What specific employment factors contributed to the applicant's incapacities?
- Detail the specific employment trauma.
- County employment need not be the sole cause of the incapacity, but <u>it must make a substantial contribution to the incapacity</u>.
- County employment makes a substantial contribution to a member's incapacity where there
 is a demonstrated <u>real and measurable link</u> between the County employment and the
 member's incapacity.
- County employment can be less than a 50% causal factor and still be real and measurable.
- Service-Connection is established where the employment <u>materially aggravates or</u>
 <u>accelerates</u> the underlying pathology of a pre-existing condition causing a member to be
 disabled at an earlier time than if he had not worked for the County.

NO SERVICE-CONNECTION:

- Service-Connection is not found when the County employment merely causes a <u>temporary aggravation</u> of symptoms.
- Service-connection is not found when the County employment has played a passive role in the development of the incapacity; that is, the County employment has <u>merely been a "stage" for the</u> <u>natural progression</u> of a non-industrial condition.
- Industrial causation is not proven if there is no identifiable
 mechanism of injury to establish a real and measurable link
 between the employment and the incapacity or, if reaching such a
 conclusion would involve speculation.

STANDARD FOR INCAPACITY

INCAPACITATED: Under the Retirement Law, a member is incapacitated, physically or mentally, if the member is substantially unable to perform their usual job duties. Usual job duties are duties frequently performed, as opposed to duties performed rarely or duties that the employer does not actually require to be performed. As to a particular duty, a member is incapacitated from performing that duty if:

- it is not physically possible for the member to perform the activity at all, or event.
- 2) even if it is possible for the member to perform the duty for a period of time, it is medically probable that performance of the duty will cause further injury.
- 3) Also, pain can be a factor contributing to a finding of incapacity where it is probable that performance of the duty in question would cause pain sufficiently severe to make performance of the duty impossible or exceedingly difficult.

STANDARD FOR INCAPACITY

NOT INCAPACITATED: A member is not incapacitated from an activity if:

- 1) he or she can actually perform it, even if performing it would
 - a. cause some pain or discomfort.
 - b. cause fear of further injury and/or
 - c. create some risk of future injury that is less than probable.

STANDARD FOR PERMANENCY

PERMANENT: An incapacity is <u>permanent</u> when:

- A. Further change in an applicant's medical condition that would render him able to perform his actual duties is unlikely, and
- B. There is no reasonable accommodation possible to allow the applicant to perform the duty in an alternative way.

STANDARD FOR PERMANENCY

NOT PERMANENT: An incapacity is <u>not permanent</u> where:

- A. There is a distinct probability that further conventional medical treatment reasonably available to the member will bring about a <u>positive material change</u> in the member's medical condition without unreasonable risk to the member which enables him to perform his duties, or a reasonable accommodation is available that enables the member to perform his duties in an alternative way.2
- B. A member may not meet the permanency standard, if their <u>refusal</u> to accept further treatment is determined by medical opinion to be unreasonable. An applicant's refusal is usually found to be unreasonable where the medical treatment has little risk and it is likely to improve the applicant's condition to the point where they can perform their duties. An applicant's refusal is usually found to be reasonable where the medical treatment has substantial risk, where it is not likely to significantly improve the applicant's condition, or where the applicant has bona fide religious beliefs that interfere with pursuit of the treatment.

1) What is objective evidence of orthopedic disorders?

- a. What tests and measurements were performed, with what results;
- b. Whether any test or measurement that produced an abnormal result is subject to the volition of the applicant and, if so, whether you feel that the applicant fairly performed the test; and
- c. Whether the presence, absence, or degree of any objective finding is remarkable in light of the subjective complaints or the given history.

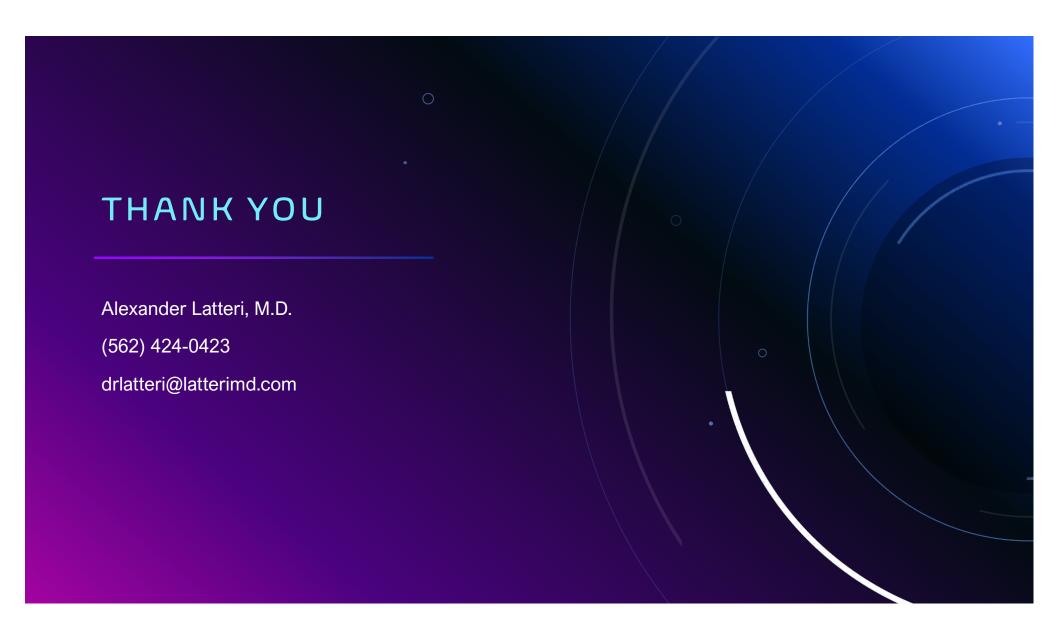
- 2) What are the subjective complaints attributable to the orthopedic disorders that are claimed to be incapacitating?
 - a. the frequency, intensity, and duration of those complaints, both claimed by the member and as evaluated by you;
 - b. any factors that precipitate or ameliorate the complaints; and
 - c. whether the presence, absence, degree, or other aspect of any subjective complaint is remarkable in light of the objective findings or the given history.

- 3) Are the orthopedic conditions claimed to be incapacitating:
 - a. worsening;
 - b. improving; or
 - c. remaining the same?

- 4) If you find that the member is presently incapacitated is such current incapacity:
 - a. permanent; or
 - b. likely to materially improve with additional treatment, or passage of time to the point where the member can return to her usual duties with or without reasonable accommodation; or
 - c. not presently ascertainable as either temporary or permanent?

C







Memorandum

DATE: August 19, 2024

TO: Members of the Board of Retirement

FROM: Steve Delaney, Chief Executive Officer

SUBJECT: CEM BENCHMARKING

Presentation

Background

OCERS has been participating for more than a decade in the CEM Benchmarking administrative report program, allowing us to see our service levels and administrative cost comparisons in the context of other similar pension systems.

Attached you will find the 2023 (received 2024) edition of the biennial CEM Benchmarking study.

I will share highlights of the report on August 19.

Some points to keep in mind when reviewing the report:

While it is helpful to provide us with context for the administrative work we accomplish, there are certain issues that can detract from our total score when compared to others, issues where we have purposefully chosen not to follow the path taken by some of our peer systems. The following is an example of that kind of outcome:

Page 3-38 of the 2023 Benchmarking Analysis Report.

OCERS receives a score of "5 out of 100" when it comes to "returning a decision on a disability application in 1 month or less". This all comes down to how we choose to view the question. OCERS "starts the clock" on making a decision regarding a disability application when that application is received. To our members, that is when the process begins, and our goal is to make that period from initial receipt to final determination as short as possible, but we will likely never get to 30 days, as the time necessary to collect medical records, send a member to an independent doctor for review, and then prep for a date before the OCERS Board of Retirement together takes more than 30 days. We have learned some other systems with higher scores do not "start the clock" as it were until they have collected all the medical materials necessary, and the item is ready to go to their Board for approval.

Submitted by:



Steve Delaney Chief Executive Officer

I-2 CEM Benchmarking Regular Board Meeting 08-19-2024

BenchmarkAdmin

2023 Benchmarking Analysis for Orange County Employees Retirement System

CEM Benchmarking Inc. 372 Bay Street, Suite 1000, Toronto, ON, M5H 2W9 Tel: 416-369-0568 Fax: 416-369-0879 www.cembenchmarking.com



79 leading global pension systems participate in the benchmarking service.

Participants

NYSLRS

United States	Ohio PERS	Ontario Pension Board	United Kingdom*
Arizona SRS	Oregon PERS	Ontario Teachers	Armed Forces Pension Scheme
CalPERS	Orange County ERS	OPTrust	BSA NHS Pensions
CalSTRS	Pennsylvania PSERS	RCMP	BT Pension Scheme
City of Austin ERS	PSRS PEERS of Missouri	Saskatchewan PEPP	Greater Manchester PF
Colorado PERA	Sacramento County ERS	Saskatchewan MEPP	Hampshire Pension Services
Delaware PERS	South Dakota RS	TTC Pension Plan	Kent Pension Fund
EESRS of Fairfax County	STRS Ohio	University Pension Plan	Local Pensions Partnership
Florida RS	TRS Illinois	Wise Trust	Lothian PF
Idaho PERS	TRS of Louisiana		Merseyside PF
Illinois MRF	TRS of Texas	<u>Australia</u>	Pension Protection Fund
Indiana PRS	University of California RP	ESS Super	Principal Civil Service
Iowa PERS	Utah RS		Railpen
Kansas PERS	Virginia RS	South Africa	Royal Mail Pensions
LACERA	Washington State DRS	Eskom Pension and Provident Fund	Scottish Public Pensions Agency
Michigan ORS			South Yorkshire Pensions Authority
Minnesota State RS	<u>Canada</u>	The Netherlands	Surrey County Council
Nevada PERS	Alberta Pension Services	ABP	Teachers' Pensions
New Mexico PERA	Alberta Teachers	PFZW	Tyne & Wear PF
North Carolina RS	BC Pension Corporation		Universities Superannuation
NYC BERS	Canadian Forces PP		West Midlands Metro
NYC TRS	Federal Public Service PP		West Yorkshire PF
NYCERS	LAPP of Alberta		

Municipal Pension Plan of BC

^{*} Systems in the UK complete different benchmarking surveys and hence your analysis does not include their results.

Your peer group consists of the following 9 participants:

	Actives	Membership	
Peers	Members	Annuitant	Total
City of Austin ERS	11,197	7,802	18,999
Saskatchewan MEPP	16,825	7,409	24,234
TTCPP	15,984	10,584	26,568
Sacramento County ERS	13,167	13,934	27,101
University Pension Plan	20,974	12,407	33,381
EESRS of Fairfax County	22,916	13,747	36,663
Orange County ERS	22,718	21,950	44,668
RCMP	21,734	23,382	45,116
NYC BERS	28,324	21,056	49,380
Peer Median	20,974	13,747	33,381
Peer Average	19,315	14,697	34,012

^{1.} Inactive members are not considered when selecting peers because they are excluded when determining cost per member. They are excluded because they are less costly to administer than active members or annuitants.

CEM's service score methodology was updated to reflect global pension administration trends.

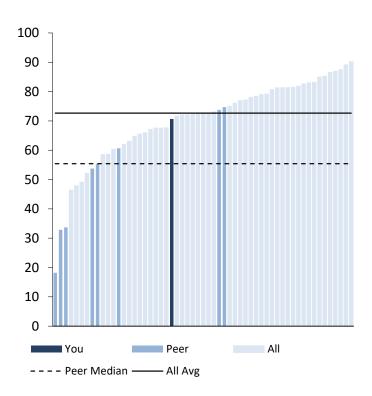
- It has been nine years since the service methodology was last updated.
- The pandemic has accelerated digital adoption and transformation.
- Digital-first is now considered the highest service level by most members for transactions.

Key changes:

- The service score takes a more member-centric view of service: member journeys.
- Service metrics were added for digital member services and targeted campaigns.
- The service weights for digital activities were increased.
- Service metrics that are less relevant today, or minor and non-differentiating, were removed from the service model.
- The threshold to score maximum points for each service metric were updated based on what the new norm is in the pension industry. For example, a call wait time of 120 seconds gets a perfect score now versus 60 seconds in 2021, because more systems are allowing for longer wait times in favor of higher first contact resolutions.
- Please note that historic scores have been restated to reflect changes in methodology, and will differ from previous reports.

Your total service score was 71 out of 100. This was above the peer median of 55.

Total Service Score



CEM believes the right measure is member service, or the service score.

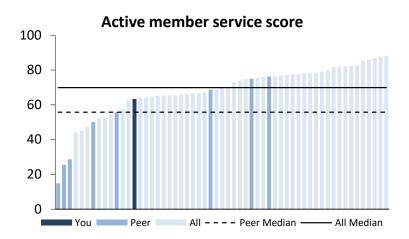
Service is defined from a member's perspective. Higher service means more channels, faster turnaround times, more availability, more choice, better content and higher quality.

Higher service is not necessarily cost-effective. For example, the ability to answer the telephone 24 hours a day is higher service, but not cost effective.

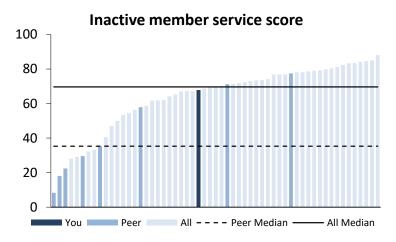
Your total service score is the weighted average of the service scores for each of the four member journeys below.

			Peer
Member journey	Weight	You	Median
Active member experience	30%	63	56
Inactive member experience	5%	68	35
Retiring experience	35%	67	63
Annuitant experience	30%	82	50
Weighted total service score	100%	71	55

Service score by member journey and activity

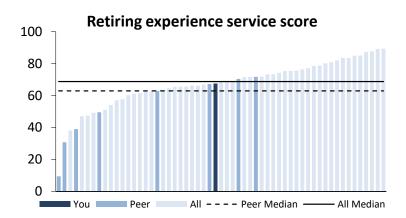


			Peer
Activity	Weight	You	Median
Targeted campaigns	7.5%	38	38
Purchases and Transfers-in	10.0%	12	12
Member statements	12.5%	60	55
-	n/a	n/a	n/a
-	n/a	n/a	n/a
Personal information	5.0%	60	60
Salary and service credit information	5.0%	75	65
Secure website accessibility	30.0%	94	60
Contact center: accessibility	7.5%	59	59
Contact center: capability	5.0%	90	70
Contact center: call quality	5.0%	10	10
1-on-1 counseling	5.0%	80	80
Member presentations	2.5%	100	100
Feedback	5.0%	20	20
Active member service score	100%	63	56

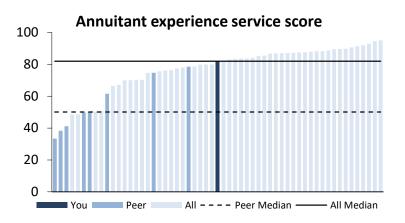


			Peer
Activity	Weight	You	Median
Targeted campaigns	10.0%	12	15
-	n/a	n/a	n/a
-	n/a	n/a	n/a
Tracking inactive members	10.0%	45	52
Transfers-out	5.0%	80	26
Personal information	7.5%	60	60
Salary and service credit information	5.0%	75	65
Secure website accessibility	40.0%	100	20
Contact center: accessibility	7.5%	59	59
Contact center: capability	5.0%	90	70
Contact center: call quality	5.0%	10	10
-	n/a	n/a	n/a
-	n/a	n/a	n/a
Feedback	5.0%	10	10
Inactive member service score	100%	68	35

Service score by member journey and activity



			Peer
Activity	Weight	You	Median
Targeted campaigns	7.5%	10	10
Pension estimates: self-service	7.5%	68	73
Pension estimates: assisted service	2.5%	85	45
Retirement applications	7.5%	70	30
Pension inceptions	10.0%	100	95
Disability inceptions	5.0%	5	3
-	n/a	n/a	n/a
Personal information	2.5%	60	60
Salary and service credit information	2.5%	75	65
Secure website accessibility	20.0%	100	72
Contact center: accessibility	7.5%	59	59
Contact center: capability	5.0%	90	70
Contact center: call quality	5.0%	10	10
1-on-1 counseling	7.5%	80	80
Member presentations	5.0%	100	100
Feedback	5.0%	10	20
Retiring experience service score	100%	67	63



			Peer
Activity	Weight	You	Median
Targeted campaigns	10.0%	61	36
-	n/a	n/a	n/a
-	n/a	n/a	n/a
-	n/a	n/a	n/a
-	n/a	n/a	n/a
-	n/a	n/a	n/a
Pension payments	30.0%	98	94
Personal information	5.0%	60	20
	n/a	n/a	n/a
Secure website accessibility	32.5%	100	10
Contact center: accessibility	7.5%	59	59
Contact center: capability	5.0%	90	65
Contact center: call quality	5.0%	10	10
-	n/a	n/a	n/a
-	n/a	n/a	n/a
Feedback	5.0%	30	30
Annuitant experience service score	100%	82	50

Key outliers where you were different compared to your peers

Higher than peers

- You have more emails of your annuitants available and they accessed their secure area in higher numbers compared to your peers:
 - Emails: 77.0% (peers: 46.7%)
 - Accessing the secure area: 46.8% (peers: 26.0%)
- You scored well in some contact center areas:
 - You offered all workflow capabilities such as information on previous calls/ emails from the member or the member's use of digital tools. You also offer co-browsing (peers: 55.6%, 55.6% and 22.2% Yes respectively).
 - Call wait time: 67 seconds (peers: 132 seconds).
- You scored well above the peer median for pension estimates assisted service:
 - Turnaround time written estimates: 2 days (peers: 7.4 days)
 - You provided estimates over the phone, linked to the member's account data and with alternate payment scenarios (peers: 44.4% Yes).
 - Members could request an estimate during a counseling session (peers: 44.4% Yes).
- Your percentages of pensions incepted within 1 month were:
 - Service pensions: 100.0% (peers: 82.5%)
 - Survivor pensions: 95.0% (peers: 66.1%)
- Your members could retire online (peers: 28.6% Yes).
- Your transfers-out were completed in 20.0 days (peers: 59.3 days).

Lower than peers

- You scored below peer median for purchases and transfers-in because:
 - You offered no online service credit calculators (peers: 33.3% Yes).
 - Your turnaround time for a written service credit purchase estimate was 120 days (peers: 77.4 days).
 - To complete a transfer-in it took you 9 months (peers: 4.9 months).
- Your member statements did not show pensionable earnings or an estimate of future pension entitlement (peers: 62.5% and 50.0% Yes).
- It took 10.5 months to complete a disability application (peers: 8.4 months).
- While you did survey all your members, you only surveyed 1-on-1 counseling, none of the other transactions such as the website, calls or journeys (retirement experience, disability, new members, etc.
- You did not track all undesired call outcomes, resulting in a default that had a negative impact on your service score.

Your service score increased from 69 to 71 between 2021 and 2023.



1. Trend analysis is based on systems that have provided 4 consecutive years of data (33 of 56 systems).

2. Your historic service scores may differ from previous reports because historic scores have been restated to reflect changes in methodology.

Your service score was relatively stable with minor changes having an impact.

Changes that had a positive impact compared to 2021

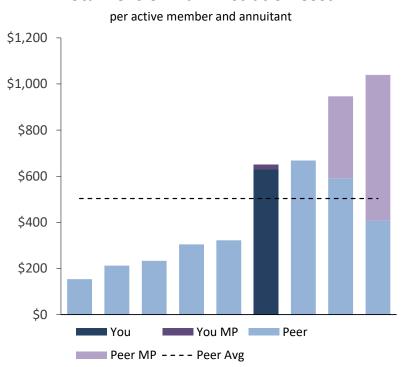
• Contact center: In 2021 you did not track your call wait time. This year the wait time was tracked and was 67 seconds, well below the threshold of 120 seconds.

Changes that had a negative impact compared to 2021

• **Disability**: Completion of your disability applications increased from 9 months to 10.5 months.

Your total pension administration cost of \$650 per active member and annuitant was \$147 above the peer average of \$503.

Total Pension Administration Cost¹



	\$000s	\$ per active member and annuitant	
Category	You	You	Peer Avg
Business-As-Usual Costs	28,091	629	391
Major Project Costs ¹	965	22	112
Total Pension Administration	29,056	650	503

We include costs that are directly related to pension administration (e.g., staff costs or an third-party costs) plus attributions of governance, financial control, IT, building and utilities, HR, support services and other costs.

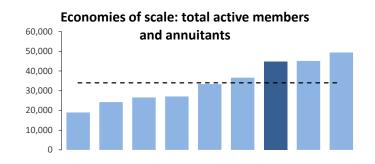
The costs associated with investment operations and investment management are specifically excluded.

1. Major project costs are denoted by the lighter shading on the bars. These one-off costs correspond to administration projects only.

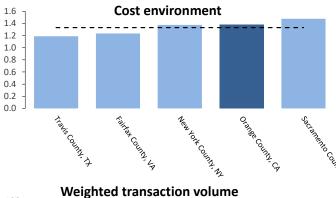
Reasons why your total cost was \$147 higher than the peer average:

		Comparison		Impact
Reason	You	Peer average	More/ Less	\$s per member
	FTF ner 10	000 members		
A. Using 52% more FTE to serve members	23.3	15.3	52%	\$121
B. Paying more in total per FTE for:	Cost	per FTE		
• Salaries & benefits	\$171,558	\$133,932	28%	
Building expenses	<u>\$8,933</u>	<u>\$17,448</u>	-49%	
	\$180,490	\$151,381	19%	\$68
C. Paying less per member in total for:	\$s per	<u>member</u>		
Professional Fees	\$111	\$100	11%	
Amortization	\$57	\$35	65%	
 Other administration expenses 	<u>\$62</u>	<u>\$137</u>	-54%	
	\$230	\$272	-15%	-\$41
Total				\$147

Differences in costs can also be attributed to factors such as economies of scale, cost environment, and differences in transaction volumes.



Research suggests that for every tenfold increase in size, administrative costs fall by \$40 per member. This suggests that you have a \$4.73 per member advantage relative to the peer average.



Your cost environment was 4% higher than the peer average.



Workloads: your weighted transaction volume was 61, which was 15% above the peer average. This suggests that you do more transactions and/or have a more costly mix of transactions per active member and annuitant.

The next page shows you where you are doing more or less transactions in comparison with your peers.

Where are you doing more/fewer transactions than your peers?

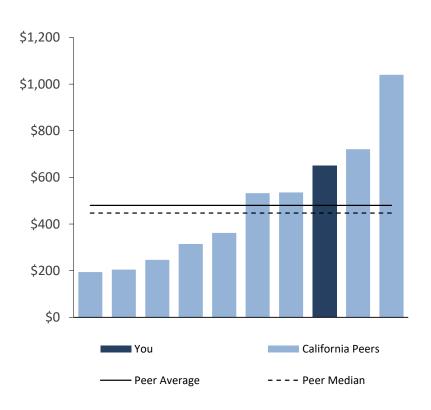
Where are you doing more/fewer transactions than your			Volume per 1,000 active members and annuitants		
	Activity volume	Your			More/-
Activity	description	Volume	You	Peer Avg	less
1. Member Transactions					
A. Pension Payments	annuitants	21,950	491.4	423.5	16%
B. Pension Inceptions and Written		4 477	26.2	22.0	440/
Pension Estimates	service & survivor inceptions	1,177	26.3	23.8	11%
C. Withdrawals	withdrawals	631	14.1	23.2	-39%
D. Purchases	purchases	114	2.6	27.3	-91%
E. Disability	disability applications	103	2.3	1.1	110%
2. Member Communication					
A. Member Calls	calls & emails	84,286 ¹	1,886.9	823.3	129%
B. Mail Room	incoming letters	41,055	919.1	557.3	65%
C. 1-on-1 Counseling	counseling sessions	2,008	45.0	54.5	-18%
D. Presentations	presentations	56	1.3	1.0	26%
E. Mass Communication	active members	22,718	508.6	576.5	-12%
3. Collections and Data Maintenance					
A. Employer data	active members	22,718	508.6	576.5	-12%
B. Non-employer data	annuitants, inactive members	30,551	684.0	558.9	22%
Weighted Total ²			61.3	53.1	15%

^{1.} CEM has used a default where your response was "unknown".

^{2.} The weights used for each transaction type are equal to the 2023 fiscal year global PABS participant median. See section 5 for more details.

Additional cost information for California systems:

Pension Administration Cost per Active Member and Annuitant (California)



Your total pension administration cost of \$650 per active member and annuitant was \$170 above the California peer average of \$480.

	California systems
CalSTRS	Sacramento County ERS
CalPERS	San Bernardino ERS
LACERA	San Diego City ERS
LACERS	Sonoma County ERA
Orange County ERS	University of California RP

Why are California plan costs so high?

- Regulatory complexity
- "20 bp" budgets for County plans
- Size Several peers are much smaller than the average plan

Cost Trends

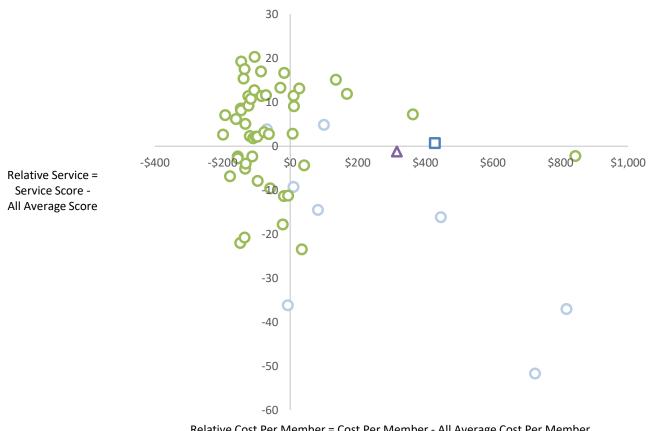


Your total pension administration cost per active member and annuitant increased by 10.0% per annum between 2021 and 2023 (a 3-year period).

The all average cost for systems with 4 years of consecutive data increased by 8.0% per annum (4-year period).

^{1.} Trend analysis is based on systems that have provided 4 consecutive years of data (33 of 56 systems).

You were higher cost and slightly higher service than the average participant in the CEM universe.



Relative Cost Per Member = Cost Per Member - All Average Cost Per Member

■You ●Peer ●All ▲You (2021)

Key takeaways:

Cost

- Your pension administration cost was \$650 per active member and annuitant. This was \$147 above the peer average of \$503.
- Between 2021 and 2023 your total pension administration cost per active member and annuitant increased by 10% per annum.
- The main reasons why:
 - You increased the number of FTEs from 76.8 FTE to 104 FTE.
 - Your professional fees increased \$81 per member to \$111 per member, partly due to laying the groundwork for all major projects, such as automatic processing of benefit payments.

Service

- The CEM service model was updated to capture the change in digital adoption and transformation in the pension industry over the last eight years. It also takes a more member-centric view: scores are calculated by member journey.
- Your total service score was 71 out of 100. This was above the peer median of 55.
- Your service score increased from 69 to 71 between 2021 and 2023.

Pension service organizations globally are experiencing significant changes.

Legacy system modernization Al
Service digitalization Cybersecurity

Data quality management Operational Excellence
Customer Experience Member engagement
Hybrid work Employee recruitment and retention
Regulatory change

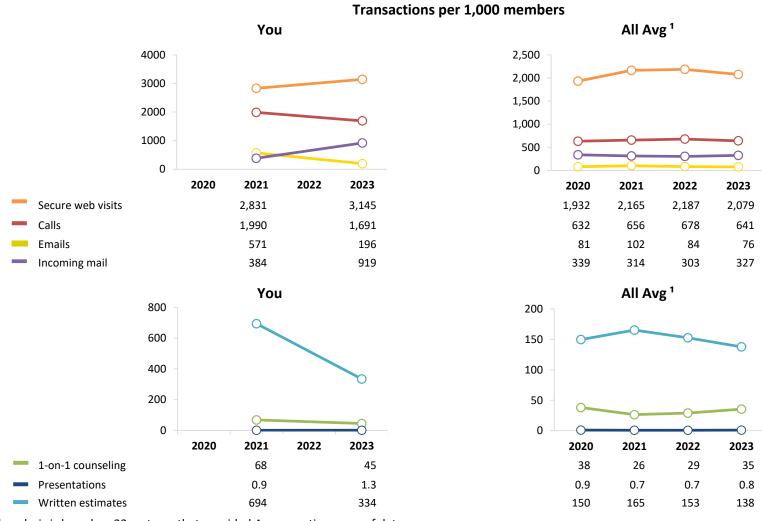
Digitalization

- Members have higher expectations based on their interactions with companies in other industries.
- Upgrading or replacing legacy systems is impacting the costs for most organizations.
- As digitalization increases, there is a growing concern about cybersecurity and data quality...
- ... and there are opportunities with robotic automation and AI.

Post-pandemic impacts

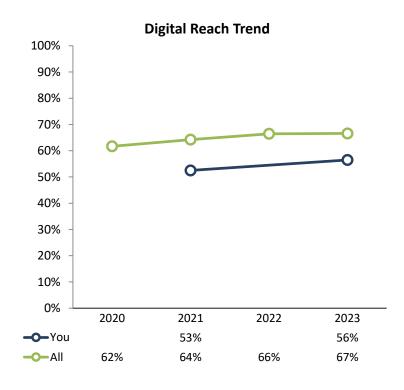
- More transactions are happening on secure websites.
- Organizations continue to adjust to hybrid work models.
- Employee recruitment and retention challenges are disrupting pension operations.
- There has been a substantial decrease in call service levels.

Greater digitalization is the key driver for higher service scores.



1. Trend analysis is based on 33 systems that provided 4 consecutive years of data.

The digital reach of peers with four consecutive years of data increased by 2% per year between 2020 and 2023.

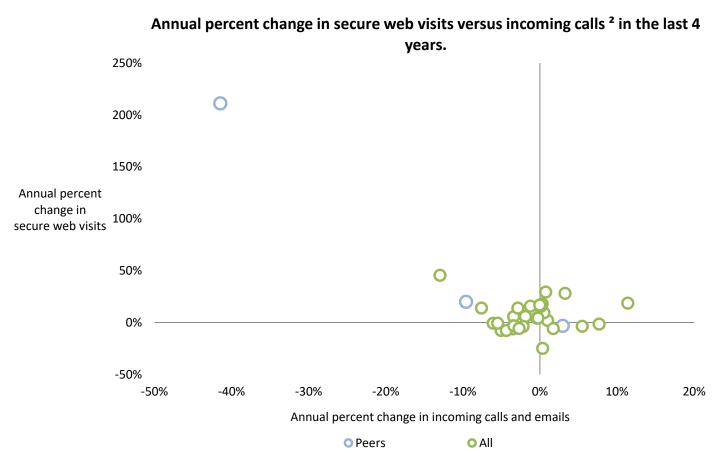


Digital reach measures the proportion of your selfservice volumes versus self-service and assisted service transactions, as follows.

Digital reach	
Activity	Volume
Total secure website visits (A)	140,463
Incoming calls (B)	67,195
Incoming emails/secure messages (C)	8,753
Incoming letters (D)	41,055
Digital reach [A / (A + B + C + D)]	56%

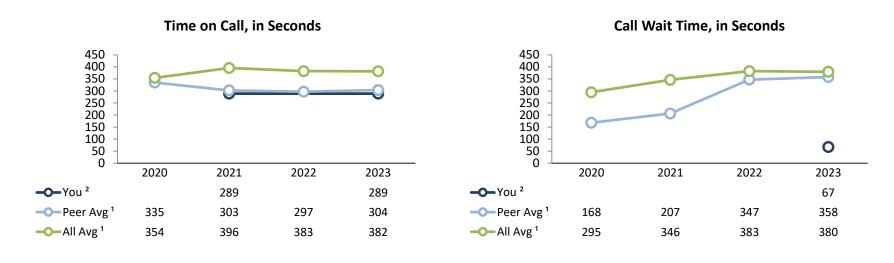
^{1.} Trend analysis is based on systems that have provided 4 consecutive years of data (33 of the 56 systems in the universe).

36% of plans with eight consecutive years of data have increased secure web visits while decreasing incoming call and email volumes.

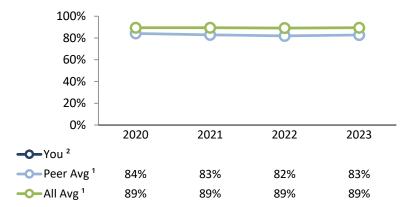


- 1. Trend analysis is based on systems that have provided 4 consecutive years of data (33 of the 56 systems in the universe).
- 2. Volumes are calculated per 1,000 active members and annuitants.

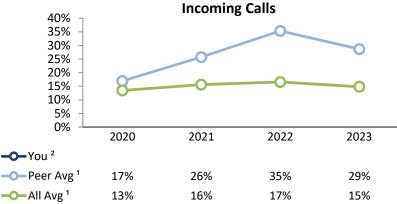
The nature of member calls has changed in the last eight years.







Undesired Call Outcomes as a Percent of



- 1. Trend analysis is based on systems that have provided 4 consecutive years of data (33 of the 56 systems in the universe).
- 2. If You data is blank, your response was either "unknown" or the question was new.

Plans with cloud access are using AI to improve their operations. Most commonly, plans start with low-risk AI use cases in their contact centers to support to service agents.

Common use cases

Contact center

- Automatically create a call transcript and add the post-call summary to the Client Relationship Management (CRM) system.
- Perform call quality assurance and sentiment assessments.

Document management

 Aggregate internal documents into discrete repositories, with meta data, so staff can easily query these repositories for the data they need.

Automation

Robotic automation of routine back-office tasks.

Proof-of-life verification

 Tracking/identifying members with facial recognition technology.

Less common or higher risk use cases

Contact center

- Redirect members to digital channels and guide workflow with an AI assistant that integrates CRM and browser-based solutions.
- Chatbots for processing member information and answering their questions.
- Predicting a member's next question real-time, on call.
- Real-time, on-call member satisfaction metrics based on voice recognition.

Data quality management

• Large-scale analysis and cleaning of member data.

2

Peer Characteristics

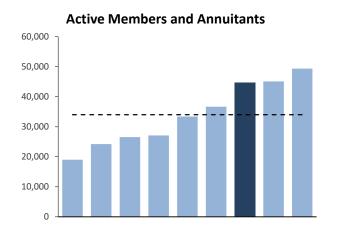
This section:

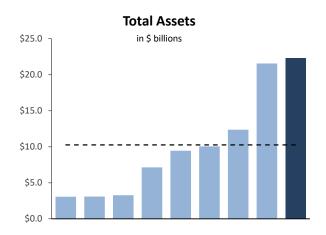
- Details of your peer group.
- A comparison of the characteristics of your peers.

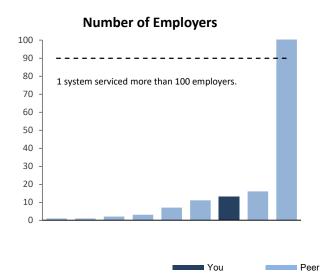
Your peer group consists of 9 peers.

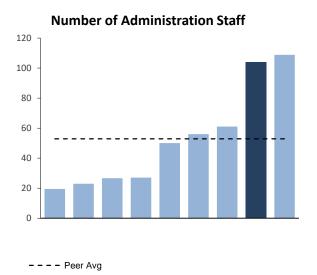
	Custom Pee	r Group for C	Orange Cou	inty ERS		
		Members				# pension
				Assets	#	admin.
	Active	Annuitant	Total	\$ billions	employers	FTEs
NYC BERS	28,324	21,056	49,380	9.5	7	109
RCMP	21,734	23,382	45,116	21.6	1	27
Orange County ERS	22,718	21,950	44,668	22.3	13	104
EESRS of Fairfax County	22,916	13,747	36,663	3.1	1	27
University Pension Plan	20,974	12,407	33,381	10.1	16	61
Sacramento County ERS	13,167	13,934	27,101	12.4	11	56
TTCPP	15,984	10,584	26,568	7.1	3	20
Saskatchewan MEPP	16,825	7,409	24,234	3.1	755	50
City of Austin ERS	11,197	7,802	18,999	3.3	2	23
Peer Average	19,315	14,697	34,012	10,258	90	53
Peer Median	20,974	13,747	33,381	9,457	7	50

Graphical comparison of peer characteristics









Profiles of the 56 benchmarking participants:

page 1 of 2 (excluding European and UK systems)

Participant	Men	nbers by Ty	pe		N	1em	ber	Gro	oup	S			P	lan	Тур	es		
	Active Members	Annuitants	Inactive Members	City or County Only	State/ County Employees	leachers School	Police and/or Fire	Participating Local Employers	Other (judges etc)	Corporate	Industry	DB			DB/ Money Match Dron	D. O.	Hybrid DB/ DC	Administer Retiree Healthcare
Canada Alberta Teachers	458,645	31,839	12,123		,	X						Х						
APS	225,578	132,974	62,567		χ		Χ	Χ	Χ		Х	X						
BC Pension Corporation	382,423	233,017	104,702		X X	х х	Χ	Χ	Χ	Χ	Χ	х		Х			Χ	
Canadian Forces Pension Plans	88,615	119,661	23,154						Χ			х						
FPSPP	396,541	292,023	51,065		Χ							Х						
LAPP of Alberta	173,459	88,058	42,934		X		Χ				Χ	Х						
Municipal Pension Plan of BC	240,610	123,908	57,461		X	Х	Χ	Χ	Χ	Χ	Χ	Х		Χ			Х	
Ontario Pension Board	50,151	41,519	7,842		Χ		Χ					Х						
Ontario Teachers	183,872	155,654	66,225			х х						X						
OPTrust	54,529	43,190	13,413		X		X			Х	Χ	X						
RCMP Saskatchewan MEPP	21,734	23,382	746		X	v	X X	v				X						
Saskatchewan PEPP	16,825 36,377	7,409 8,141	4,038 28,991		Λ X	^	^	^	v	Х	v	^				Х		
TTC Pension Plan	15,984	10,584	1,150		^			Х	^	^	X	Х				٨		Х
University Pension Plan	20,974	12,407	5,888		Χ			^			X	X		Χ				^
WiseTrust	5,225	4,475	•	x :							^	X		^				
United States																		
Arizona SRS	215,299	171,137	261,016		x x	х х		Х	Χ			Х	Х					Х
CalPERS	925,799	791,514	520,698	:	Χ	Х	Χ	Χ	Χ			Х						Х
CalSTRS	458,645	328,954	234,479	:	X X	х х						Х		Χ				
City of Austin ERS	11,197	7,802	4,280									Х						
Colorado PERA	244,688	137,446	328,044			ХХ						Х				Х	Х	X
Delaware PERS	45,630	33,715	23,958			ХХ		Х	Χ			X						
ER of Fairfax County	22,916	13,747	6,067			ХХ		v	v			X			V	V		
Florida RS Idaho PERS	644,977 74,409	483,375 53,190	120,998 50,203			X X X X						X			Х	X	Х	
Illinois MRF	74,409 181,227	152,894	157,188		^ /		X		٨			X					^	
Indiana PRS	249,790	174,205	2,196		χ	x x			Х			X			Х	X	Х	
Iowa PERS	179,903	133,848	90,374			ХХ						X			,	•		
Kansas PERS	151,984	113,031	75,622			ХХ						Х	Х		Х			
LACERA	96,917	75,077	20,176				Χ	Χ	Χ			Х						х

Profiles of the 56 benchmarking participants:

page 2 of 2 (excluding European and UK systems)

Participant	Men	nbers by Ty	pe		Me	emb	er	Gro	oup	S		Pla	an T	уре	es		
	Active Members	Annuitants	Inactive Members	City or County Only	Jeachers	School	Police and/or Fire	Participating Local Employers	Other (judges etc)	Corporate	ırıdusury DB	Cash Balance		\preceq	DC	Hybrid DB/ DC	Administer Retiree Healthcare
United States (continued)																	
Michigan ORS	161,161	287,363	581,588		X	Χ			Χ		X				Χ	Χ	Х
Minnesota State RS	58,192	54,080	32,806				X		X		X				Χ		
Nevada PERS	112,019	81,861	20,090		, X	Х		v	X		X						
New Mexico PERA North Carolina RS	48,147 473,933	45,738 356,781	28,612 169,808		X	v		X			X						
NYC BERS	28,324	21,056	2,924			X	^	^	^		X						
NYC TRS	125,543	90,650	31,542			Х					X					х	
NYCERS	181,832	176,168	73,496			Х	Χ		Х		x						
NYSLRS	514,150	514,629	181,354	. x	(Χ	Χ	Χ	Χ		X						
Ohio PERS	308,453	220,876	756,735	x	(Χ		Χ		X	X			Χ	Х	Х
Orange County ERS	22,718	21,950	8,601				Χ	Χ			X						
Oregon PERS	183,655	165,337	78,434	. X	X	Χ	Χ	Χ	Χ				Χ			Χ	Х
Pennsylvania PSERS	257,998	248,907	175,110	X	X						X						Х
PSRS PEERS of Missouri	130,224	107,244	69,626		Х	Χ)	< X						
Sacramento County ERS	13,167	13,934	4,702					Χ			X						
South Dakota RS	42,504	33,281	25,043		X		Χ	Χ	Х		X						
STRS Ohio	214,852	159,039	166,434		Х						X				Χ	Х	Х
TRS Illinois	169,889	131,017	147,329		X						X						
TRS of Louisiana	95,180	84,583	34,754			X					X			Χ	Х		
TRS of Texas	953,295	489,921	558,758		X		.,		.,	,	, X				.,		X
University of California RP	141,416	87,286	120,556			X		v	X	,	X				X	V	Х
Utah RS	100,644	80,391	62,109		X						X				Χ	X X	
Virginia RS Washington State DRS	353,851 352,207	239,733 225,572	207,642 335,169		X						X					X	
Washington State DNS	332,207	225,572	333,109	│ ^	. ^	^	^	^	^		^					^	
South Africa																	
EPPF	38,718	33,598	1,663	×	(×	(
Australia																	
ESS Super	37,011	48,891	28,893		Х		Χ	Χ	Χ		X				Χ	Χ	

^{*} We have not yet received clean data from systems identified with an asterisk.

3

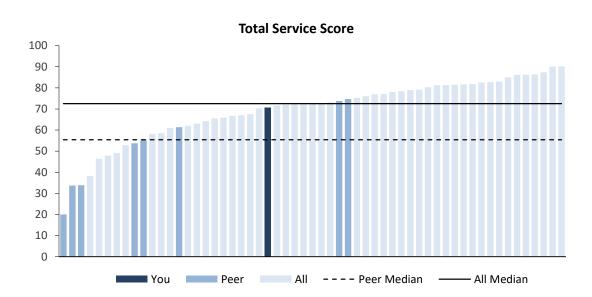
Service Levels

This section:

- Total service score
- Service score by member journey
- Changes in service score
- Service score methodology

Total service score

Your total service score was 71 out of 100. This was above the peer median of 55.



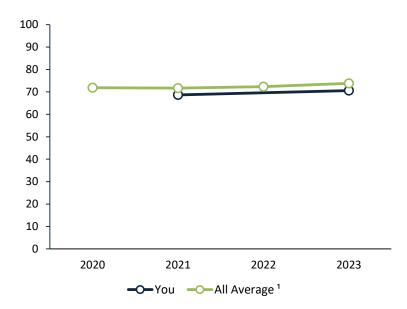
Your total service score is the weighted average of the service scores for each of the four member journeys below.

Member journey	Weight	You	Peer Median
Active member experience	30%	63	56
Inactive member experience	5%	68	35
Retiring experience	35%	67	63
Annuitant experience	30%	82	51
Weighted total service score	100%	71	55

- High service may not always be cost-effective or optimal. For example, it is higher service for your members to have a contact center open 24 hours a day but few systems would be able to justify the cost.
- The service measures are most useful for identifying what you do differently than your peers. Understanding these differences gives you ideas on how you may want to improve or reduce the service you provide to your members.
- Our 'weights' are an approximation of the importance of an individual service element. The weights will not always reflect the relative importance that you or your members attach to an individual service element.

Service trends

Your service score has increased from 69 to 71 between 2021 and 2023.



	Total Se	rvice Score T	rends	
	2020	2021	2022	2023
You		69		71
All Average ¹	72	72	72	74

1. Trend analysis is based on 31 systems that have participated for 4 consecutive years. This ensures that trends are not caused by changes in the composition of the participants.

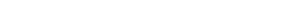
Historic scores have been restated to reflect changes in methodology. If any service question was not asked in a prior year, we used your response this year as a default. Defaults are applied historically to ensure year-on-year consistency.

Service score by member journey

Your total service score is the weighted average of your service scores for each of the member journeys shown below.

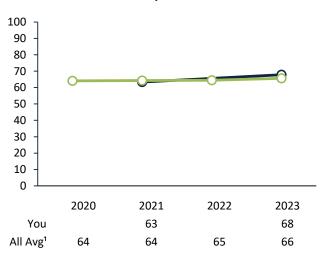


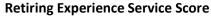
Service trends by member journey



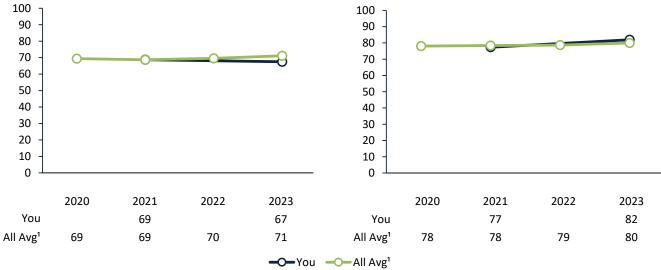
Inactive Member Experience Service Score







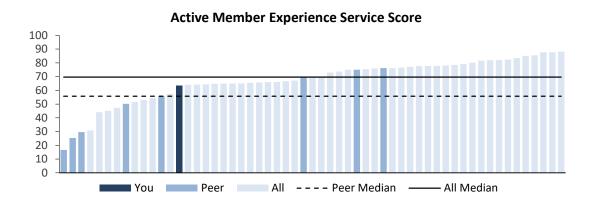
Annuitant Experience Service Score



1. Trend analysis is based on 31 systems that have participated for 4 consecutive years. This ensures that trends are not caused by changes in the composition of the participants.

Total service score for active members

Your service score for active member experience was 63 out of 100. This was above the peer median of 56.



Your total service score for active members is the weighted average of the activity service scores below:

			Peer	Higher/
Activity	Weight	You	Median	Lower
Targeted campaigns	7.5%	38	38	0
Purchases and Transfers-in	10.0%	12	12	0
Member statements	12.5%	60	55	5
Personal information	5.0%	60	60	0
Salary and service credit information	5.0%	75	65	10
Secure website accessibility	30.0%	94	60	34
Contact center: accessibility	7.5%	59	59	0
Contact center: capability	5.0%	90	70	20
Contact center: call quality	5.0%	10	10	0
1-on-1 counseling	5.0%	80	80	0
Member presentations	2.5%	100	100	0
Feedback	5.0%	20	20	0
Active member experience	100.0%	63	56	8

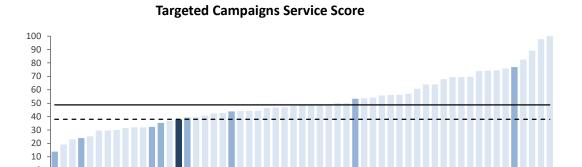
Targeted campaigns

Active member experience

Your service score for targeted campaigns was 38 out of 100. This was equal to the peer median of 38.

Peer

■ You



- - - Peer Median

– All Median

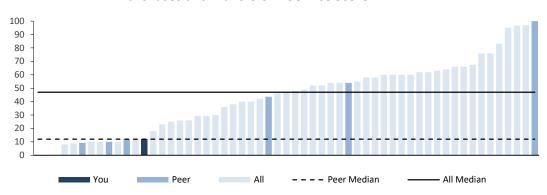
Scorin	ng method	Your	Peer	Your
		Data	Average	Score
	Email addresses			
+30	If you have email addresses for 90% or more of your active members, otherwise			
	33.3 X % of active members you have email addresses for	66.0%	62.6%	22.0
	Targeted campaigns			
	If you send targeted communication to active members for the following:			
+12	new member enrollment	Yes	66.7% Yes	12.0
+12	(likely) eligibility to purchase prior service credit	No	11.1% Yes	0.0
n/a	vested for pension benefits	n/a	37.5% Yes	0.0
+12	eligibility to purchase credit for in-service-leave	No	0.0% Yes	0.0
+12	missing beneficiary	No	22.2% Yes	0.0
+12	missing email address	No	0.0% Yes	0.0
	Newsletters			
+2	If you send active members a newsletter	Yes	100.0% Yes	2.0
+3	If active members receive a different newsletter from inactive members or			
	annuitants	No	25.0% Yes	0.0
	Presentations			
+3	If you have presentations targeted specifically to mid-career members	No	66.7% Yes	0.0
+2	If you have presentations targeted specifically to new members	Yes	100.0% Yes	2.0
	Total score			38.0

Purchases and Transfers-in

Active member experience

Your service score for purchases and transfers-in was 12 out of 100. This was equal to the peer median of 12.





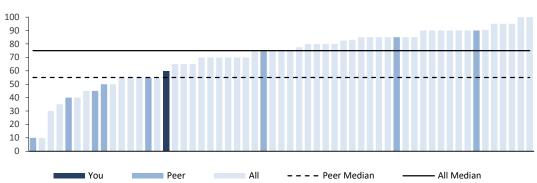
Scorin	g method	Your	Peer	Your
		Data	Average	Score
	Service credit purchase calculator			
	If you have an online calculator for:			
+10	prior service credit purchases	No	33.3% Yes	0.0
+10	in-service-leave credit purchases (e.g., maternity, parental, sabbatical,			
	educational, illness leave)	No	16.7% Yes	0.0
+10	If you can provide an estimate of the cost to purchase service credit on a real-			
	time basis over the phone	Yes	44.4% Yes	10.0
	Service credit purchase estimates			
+40	If you can provide a written estimate in 1 day or less, otherwise 40 - 2 per day			
	over 1 day	120.0 days	77.4 days	0.0
	Transfers-in			
+20	If a member can apply for a transfer-in online	No	16.7% Yes	0.0
+10	If a member's transfer-in application is processed within 1 month, otherwise 10 -			
	1 per month over 1 month	9.0 months	4.9 months	2.0
	Total score			12.0

Member statements

Active member experience

Your service score for member statements was 60 out of 100. This was above the peer median of 55.





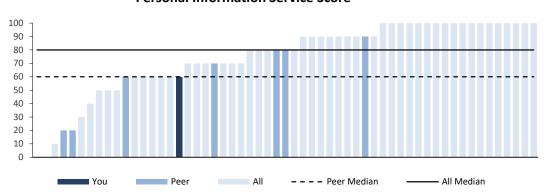
Scorin	g method	Your	Peer	Your
		Data	Average	Score
	Availability			
+10	If the most recent member statement is available online	Yes	85.7% Yes	10.0
+10	If you send an email notice to all active members (that have opted not to receive			
	mail) in the last year that member statements are available online	Yes	42.9% Yes	10.0
+10	If you send paper member statements to all active members (that have opted to			
	receive mail) in the last year	No	66.7% Yes	0.0
	Timeliness			
+30	If data is current to 1 month, otherwise 30 - 5 for each month in excess of 1			
	month out of date	1.0 month	0.7 months	30.0
	Content			
	If your member statement:			
+10	summarizes service credit	Yes	100.0% Yes	10.
+10	provides pensionable earnings	No	62.5% Yes	0.
+5	provides a historical summary of salary and service credit earned each year	No	0.0% Yes	0.
+15	shows an estimate of future pension entitlement	No	50.0% Yes	0.
	Total score			60.0

Personal information

Active member experience

Your service score for personal information was 60 out of 100. This was equal to the peer median of 60.



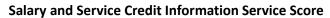


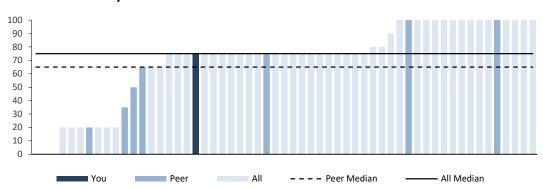
Scoring	g method	Your	Peer	Your
		Data	Average	Score
	Self-service Self-service			
	If members can do the following online:			
+15	change address	Yes	85.7% Yes	15.0
+15	change email address	Yes	75.0% Yes	15.0
+10	change communication preferences	No	57.1% Yes	0.0
+10	change beneficiary	Yes	71.4% Yes	10.0
	Secure messaging			
	If you have a secure portal for members:			
+10	that includes a history of recent correspondence	No	57.1% Yes	0.0
+20	where members can upload documents	No	28.6% Yes	0.0
	Assisted service			
	If members can do the following over the phone:			
+10	change address	Yes	66.7% Yes	10.0
+10	change email address	Yes	77.8% Yes	10.0
	Total score			60.0

Salary and service credit information

Active member experience

Your service score for salary and service credit information was 75 out of 100. This was above the peer median of 65.





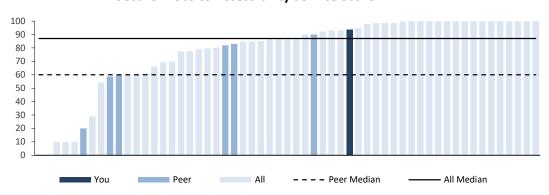
Scorin	g method	Your	Peer	Your
		Data	Average	Score
	Calf comics			
	Self-service	.,	66 70/ 1/	20.0
+30	If you offer secure access to both salary and service credit data	Yes	66.7% Yes	30.0
+25	If salary and service credit data is up-to-date to the most recent pay period	Yes	66.7% Yes	25.0
+25	If a complete annual history since employment began of salary and service credit			
	data is available online	No	22.2% Yes	0.0
	Assisted service			
	If you can provide the following on a real-time basis over the phone:			
+10	pensionable salary	Yes	66.7% Yes	10.0
+10	service credit history including gaps	Yes	88.9% Yes	10.0
	Total score			75.0

Secure website accessibility

Active member experience

Your service score for secure website accessibility was 94 out of 100. This was above the peer median of 60.

Secure Website Accessibility Service Score



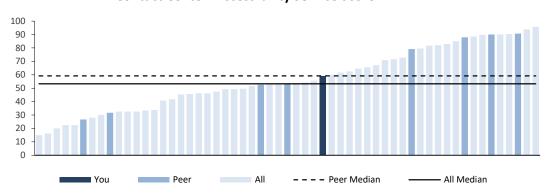
Scorin	g method	Your	Peer	Your
		Data	Average	Score
+10	Access If you have a secure website accessible for active members	Yes	77.8% Yes	10.0
+20	If the secure member area is customized to only show options relevant to active	163	77.6% 163	10.0
.20	members (e.g., active members see different options than annuitants)	Yes	62.5% Yes	20.0
+10	If the member's name is prominent on the home page	Yes	75.0% Yes	10.0
-10	If members have to acknowledge a disclaimer every time they log-in	No	28.6% Yes	0.0
	Secure website use			
	Number of active members that accessed the secure area in the year (A)	8,137		
	Number of active members (B)	22,718		
+60	If 40% or more of your active members accessed the secure area at least once in			
	the past year, otherwise 150 X $\%$ of active members that accessed the secure area = (A) / (B)			
	Score of 20 if total unique visit is unknown	35.8%	33.3%	53.7
	Total score			93.7

Contact center: accessibility

Active member experience

Your service score for contact center: accessibility was 59 out of 100. This was equal to the peer median of 59.

Contact Center: Accessibility Service Score



Scorin	g method	Your	Peer	Your
		Data	Average	Score
	Access			
+5	If you have a toll-free phone number	No	77.8% Yes	0.0
+10	If your call center is open 50 or more hours a week, otherwise 10 - 0.5 for each			
	hour less than 50 hours per week	40 h	44.1 h	5.0
	Phone menu layers and wait times			
-10	If a receptionist is the first point of contact	No	11.1% Yes	0.0
+20	If there are none or 1 menu layer, otherwise 10 if 2 layers, 5 if 3 layers or 0 if 4	2	1.7	10.0
	plus layers	layers	layers	
	Average time to to navigate receptionists (A)	n/a		
	Average time to navigate the menu (B)	13 s		
	Average time waiting in queue for a service agent (C)	<u>54 s</u>		
	Total wait time	67 s		
+30	If members reach a service agent in 120 seconds or less, otherwise 54 - 0.2 per			
	second to reach a knowledgeable person = (A) + (B) + (C)	67 s	132 s	30.0

Contact center: accessibility (continued)

Active member experience

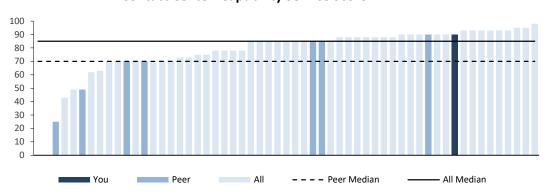
Scoring method	Your	Peer	Your
	Data	Average	Score
Undesired call outcomes			
<u>Desired call outcomes</u>			
a) Incoming calls that reach and are responded to by a knowledgeable service			
representative (i.e., exclude messages, etc.)?	67,195		
c) Incoming calls satisfied by self-serve options, if any?	<u>0</u>		
Total desired call outcomes (A)	67,195		
<u>Undesired call outcomes during business hours</u>			
a) Busy signal, never enters the system?	Unknown		
b) Caller gets pre-recorded 'call another time' message during business hours?	n/a		
c) Abandoned calls (i.e., caller hangs-up while in a menu)?	46		
d) Abandoned calls (i.e., caller hangs-up while in a queue or on hold)?	671		
e) Busy signal after navigating an automated attendant menu, or after being			
transferred by a receptionist?	n/a		
f) Call rings unanswered during business hours?	7,621		
# Receptionists takes a message	n/a		
If you have a callback feature, # of callback requests that were not completed	<u>n/a</u>		
Total undesired call outcomes during business hours (B)	Unknown		
Total incoming calls (C = A + B)	75,533		
Undesired outcomes as a percentage of total incoming calls (B / C)	Unknown	9.1%	
+20 If undesired outcomes were 0%, otherwise 20 - percentage of undesired			
outcomes X 200 (Minimum of 0), 6.7 if one or more undesired call outcomes			
were unknown	Unknown	9.1%	6.7
Email turnaround times			
+15 If the wait time is 0.5 days or less, otherwise 15 - 5 for each day over 0.5 days	2.0 days	2.1 days	7.5
Total score			59.2

Contact center: capability

Active member experience

Your service score for contact center: capability was 90 out of 100. This was above the peer median of 70.

Contact Center: Capability Service Score



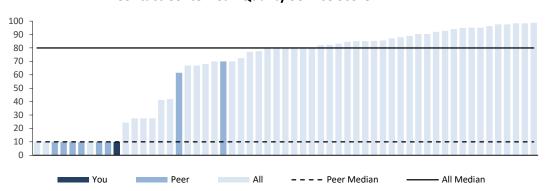
Scorir	ng method	Your	Peer	Your
		Data	Average	Score
	Workflow system			
	If you have a workflow system that provides service agents with real time			
	information about each member's:			
+15	previous calls or emails to the system	Yes	55.6% Yes	15.0
+15	recent online correspondence	Yes	66.7% Yes	15.0
+15	real-time status of open items	Yes	77.8% Yes	15.0
+15	member's use of digital tools	Yes	55.6% Yes	15.0
+15	most recent member statement	Yes	88.9% Yes	15.0
+10	beneficiary information	Yes	88.9% Yes	10.0
	Other capabilities			
	If you offer the following tools to help serve members better:			
+5	co-browsing	Yes	22.2% Yes	5.0
+5	request a call back online and over the phone, 3 if over the phone only, 2 if			
	online	No	0.0% Both	0.0
+3	live web chat	No	0.0% Yes	0.0
+2	chatbot	No	0.0% Yes	0.0
	Total score			90.0

Contact center: call quality

Active member experience

Your service score for contact center: call quality was 10 out of 100. This was equal to the peer median of 10.

Contact Center: Call Quality Service Score

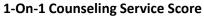


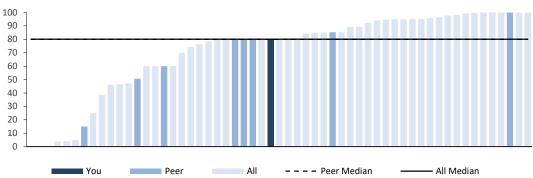
Scorin	g method	Your	Peer	Your
		Data	Average	Score
+30	First Contact Resolution If 100% of calls are satisfied by their first contact, 0 if 75% or fewer calls are satisfied by the first contact, otherwise 30 - 120 X (1 - % satisfied by the first contact) [Subject to a minimum score of 0, and 10 if not measured]	Unknown	82.7%	10.0
+55	Call quality monitoring If you review your staff's responses to member calls for coaching purposes 4 or more times per month; otherwise 13.75 X # of times per month you review calls	n/a	6.5 times	0.0
+15	If the review is based on listening in on a recording (versus a live call)	n/a	0% Recording	0.0
	Total score			10.0

1-on-1 counseling

Active member experience

Your service score for 1-on-1 counseling was 80 out of 100. This was equal to the peer median of 80.





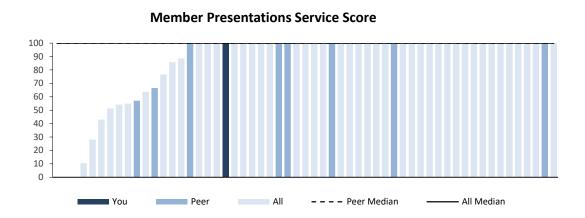
Scorin	g method	Your Data	Peer Average	Your Score
	Availability			
	Number of members you counseled:			
	In-house	2,008	1,915	
	In the field (C)	Unknown	0	
	At the employer	n/a	2	
	Via teleconference	0	1,170	
	Online, via videoconference (D)	<u>n/a</u>	<u>50</u>	
	Total number of 1-on-1 counseling sessions (A)	2,008	3,136	
	Total active members (B)	22,718	19,315	
+60	If the number of members counseled 1-on-1 was $1.00\%^1$ or more of active members, otherwise $6,000^1$ X # of members you met individually as a % of active members = (A) / (B)	8.8%	10.5%	60.0
+20	If the percentage of sessions in the field, separate from the member's place of employment and/or video conference, was 50% or more, otherwise 40 X percentage of sessions in the field separate from the employer = (C + D) / (A)	0.0%	8.1%	0.0
		0.070	0.170	0.0
	Capability	V	00.00/ \/ = :	10.0
+10	If you provide counseling to all members who walk-in to your office	Yes	88.9% Yes	10.0
+5	If you have real-time access to the member's data	Yes	77.8% Yes	5.0
+5	If all in-person counseling takes place in a private office with a door	Yes	88.9% Yes	5.0
	Total score			80.0

¹Better website content and functionality reduces the number of members that attend 1-on-1 sessions. Using your percentage of pensions incepted online as a proxy for the strength of your website, we reduce the 1.0% attendee cutoff rate for a perfect availability score to a minimum of 0.15% (i.e. if 189.6% of your pension inceptions occur online, you need attendees equal to 1.00% of your active member population to achieve a perfect score of 60; we use a multiplication factor of 6,000 because 60 / 1.00% = 6,000).

Member presentations

Active member experience

Your service score for member presentations was 100 out of 100. This was equal to the peer median of 100.



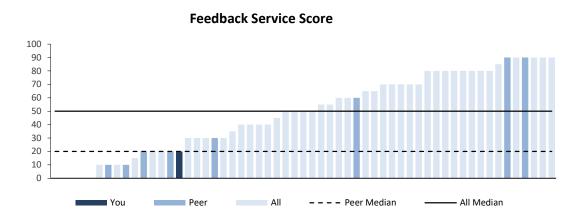
Scoring method	Your Data	Peer Average	Your Score
Availability			
Number of presentations:			
- In-house	12	2	
- In the field	32	13	
- Live webinars	<u>12</u>	<u>17</u>	
Total presentations	56	32	
Total number of presentation attendees (A)	1,999	1,724	
Total active members (B)	22,718	19,315	
+100 If the total number of attendees was 2.5% ¹ or more of active members, otherwise 4,000 ¹ X attendees as percent of active members (including those attending			
webinars) = (A) / (B)	8.8%	9.2%	100.0
Total score			100.0

¹Better website content and functionality reduces the number of members that attend presentations. Using your percentage of pensions incepted online as a proxy for the strength of your website, we reduce the 2.5% attendee cutoff rate for a perfect availability score to a minimum of 0.4% (i.e. if 189.60% of your pension inceptions occur online, you need attendees equal to 2.50% of your active member population to achieve a perfect score of 100; we use a multiplication factor of 4,000 because 100 / 2.50% = 4,000).

Feedback

Active member experience

Your service score for feedback was 20 out of 100. This was equal to the peer median of 20.

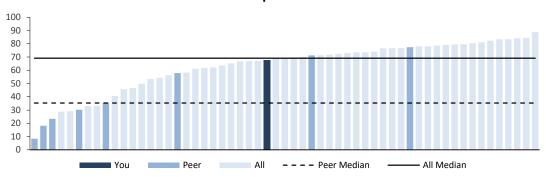


Scoring	g method	Your	Peer	Your
		Data	Average	Score
	Member experience surveying			
	If you survey member satisfaction, NPS or effort exclusively for each of the			
	following:			
+10	active members	Yes	100.0% Yes	10.0
+10	new members	No	n/a Yes	0.0
+20	secure website	No	33.3% Yes	0.0
+20	telephone calls	No	33.3% Yes	0.0
+5	1-on-1 counseling	Yes	55.6% Yes	5.0
+5	member presentations	No	66.7% Yes	0.0
	Methodology			
	If you survey members within two days or less of using the following:			
+10	secure website	No	22.2% Yes	0.0
+10	telephone calls	No	22.2% Yes	0.0
+5	1-on-1 counseling	Yes	44.4% Yes	5.0
+5	member presentations	No	55.6% Yes	0.0
	Total score			20.0

Total service score for inactive members

Your service score for inactive member experience was 68 out of 100. This was above the peer median of 35.





Your total service score for pre-retirement inactive members is the weighted average of the activity service scores below:

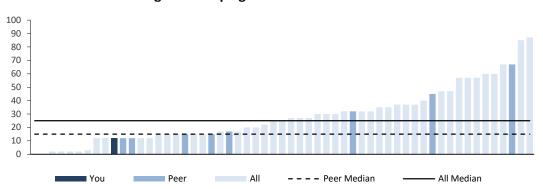
			Peer	Higher/
Activity	Weight	You	Median	Lower
Targeted campaigns	10.0%	12	15	-3
Tracking inactive members	10.0%	45	52	-8
Transfers-out	5.0%	80	26	54
Personal information	7.5%	60	60	0
Salary and service credit information	5.0%	75	65	10
Secure website accessibility	40.0%	100	20	80
Contact center: accessibility	7.5%	59	59	0
Contact center: capability	5.0%	90	70	20
Contact center: call quality	5.0%	10	10	0
Feedback	5.0%	10	10	0
Weighted total service score	100.0%	68	35	33

Targeted campaigns

Inactive member experience

Your service score for targeted campaigns was 12 out of 100. This was below the peer median of 15.





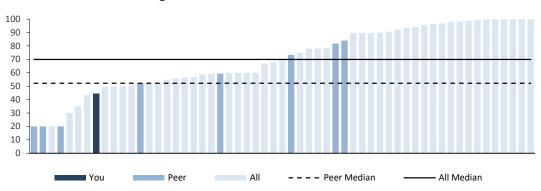
Scorin	g method	Your	Peer	Your
		Data	Average	Score
	Targeted campaigns			
	If you send targeted communication to inactive members for the following:			
+10	leaving the plan	Yes	55.6% Yes	10.0
+20	eligibility for retirement	No	22.2% Yes	0.0
+10	missing beneficiary	No	0.0% Yes	0.0
+20	missing email address	No	11.1% Yes	0.0
+20	missing address	No	22.2% Yes	0.0
	Member statements			
+15	If you send paper member statements to inactive members annually	No	62.5% Yes	0.0
	Newsletters			
+2	If you send inactive members a newsletter	Yes	55.6% Yes	2.0
+3	If inactive members receive a different newsletter from active members or			
	annuitants	No	0.0% Yes	0.0
	Total score			12.0

Tracking inactive members

Inactive member experience

Your service score for tracking inactive members was 45 out of 100. This was below the peer median of 52.

Tracking Inactive Members Service Score



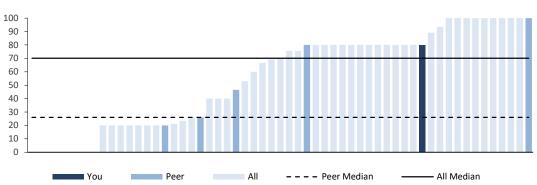
Scorin	g method	Your	Peer	Your
		Data	Average	Score
+10	If you actively keep track of the addresses of inactive members	n/a	0.0% Yes	0.0
+30	If you have email addresses for 50% or more of your vested inactive members, otherwise 60 X % of vested inactive members you have email addresses for	41.0%	43.3%	24.6
+60	60 - 60 X % of inactive members that reached their normal retirement age in the year that have not received any benefits yet because mail has been returned and the member has been recorded as 'gone away'. Your score will be 20 if unknown.			
		Unknown	15.9%	20.0
	Total score			44.6

Transfers-out

Inactive member experience

Your service score for transfers-out was 80 out of 100. This was above the peer median of 26.





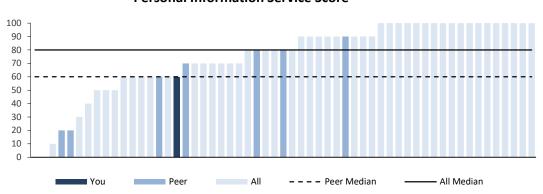
Scorin	g method	Your	Peer	Your
		Data	Average	Score
+20	Self-service If a member can apply for a transfer-out application online	No	16.7% Yes	0.0
+20	Assisted service If you can provide a member leaving the plan with their transfer value on a real- time basis over the phone	Yes	55.6% Yes	20.0
+60	Timeliness If transfers-out are completed in 30 days or less, otherwise 45 - 0.9 for each day			
.00	over 30 days	20.0 days	59.3 days	60.0
	Total score			80.0

Personal information

Inactive member experience

Your service score for personal information was 60 out of 100. This was equal to the peer median of 60.





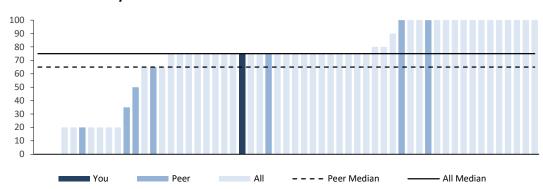
Scoring method		Your	Peer	Your
		Data	Average	Score
	Self-service			
	If members can do the following online:			
+15	change address	Yes	85.7% Yes	15.0
+15	change email address	Yes	75.0% Yes	15.0
+10	change communication preferences	No	57.1% Yes	0.0
+10	change beneficiary	Yes	71.4% Yes	10.0
	Secure messaging			
	If you have a secure portal for members:			
+10	that includes a history of recent correspondence	No	57.1% Yes	0.0
+20	where members can upload documents	No	28.6% Yes	0.0
	Assisted service			
	If members can do the following over the phone:			
+10	change address	Yes	66.7% Yes	10.0
+10	change email address	Yes	77.8% Yes	10.0
	Total score			60.0

Salary and service credit information

Inactive member experience

Your service score for salary and service credit information was 75 out of 100. This was above the peer median of 65.



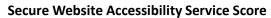


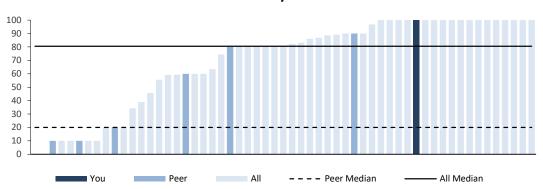
Scoring method		Your	Peer	Your
		Data	Average	Score
	Self-service			
+30	If you offer secure access to both salary and service credit data	Yes	66.7% Yes	30.0
	,			
+25	If salary and service credit data is up-to-date to the most recent pay period	Yes	66.7% Yes	25.0
+25	If a complete annual history since employment began of salary and service credit			
	data is available online	No	22.2% Yes	0.0
	Assisted service			
	If you can provide the following on a real-time basis over the phone:			
+10	pensionable salary	Yes	66.7% Yes	10.0
+10	service credit history including gaps	Yes	88.9% Yes	10.0
	Total score			75.0

Secure website accessibility

Inactive member experience

Your service score for secure website accessibility was 100 out of 100. This was above the peer median of 20.





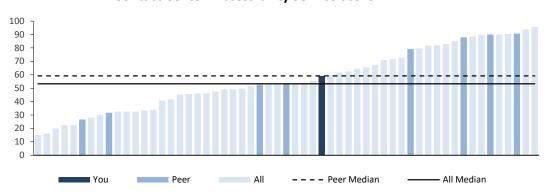
Scorin	g method	Your Data	Peer Average	Your Score
		Data	Average	30016
	Access			
+10	If you have a secure website accessible for inactive members	Yes	55.6% Yes	10.0
+20	If the secure member area is customized to only show options relevant to			
.20	inactive members (e.g., inactive members see different options than annuitants)	Yes	50.0% Yes	20.0
. 10		Ves	75 00/ Vaa	10.0
+10	If the member's name is prominent on the home page	Yes	75.0% Yes	10.0
-10	If members have to acknowledge a disclaimer every time they log-in	No	28.6% Yes	0.0
	Secure website use			
	Number of inactive members that accessed the secure area in the year (A)	1,685		
	Number of inactive members (B)	8,601		
+60	If 15% or more of your inactive members accessed the secure area in the past			
	year, otherwise 400 X % of inactive members that accessed the secure area			
	= (A) / (B)			
	Score of 20 if total unique visit is unknown	19.6%	25.4%	60.0
	Total score			100.0

Contact center: accessibility

Inactive member experience

Your service score for contact center: accessibility was 59 out of 100. This was equal to the peer median of 59.

Contact Center: Accessibility Service Score



Scorin	g method	Your	Peer	Your
		Data	Average	Score
	Access			
+5	If you have a toll-free phone number	No	77.8% Yes	0.0
+10	If your call center is open 50 or more hours a week, otherwise 10 - 0.5 for each			
	hour less than 50 hours per week	40 h	44.1 h	5.0
	Phone menu layers and wait times			
-10	If a receptionist is the first point of contact	No	11.1% Yes	0.0
+20	If there are none or 1 menu layer, otherwise 10 if 2 layers, 5 if 3 layers or 0 if 4	2	1.7	10.0
	plus layers	layers	layers	
	Average time to to navigate receptionists (A)	n/a		
	Average time to navigate the menu (B)	13 s		
	Average time waiting in queue for a service agent (C)	<u>54 s</u>		
	Total wait time	67 s		
+30	If members reach a service agent in 120 seconds or less, otherwise 54 - 0.2 per			
	second to reach a knowledgeable person = (A) + (B) + (C)	67 s	132 s	30.0

Contact center: accessibility (continued)

Inactive member experience

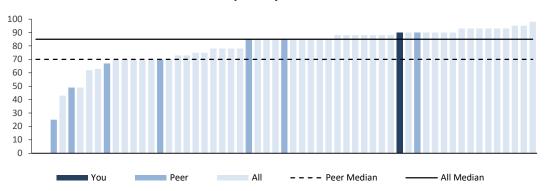
Scoring method	Your Data	Peer Average	Your Score
Undesired call outcomes	Data	Meruge	30010
Desired call outcomes			
a) Incoming calls that reach and are responded to by a knowledgeable service			
representative (i.e., exclude messages, etc.)?	67,195		
c) Incoming calls satisfied by self-serve options, if any?	<u>0</u>		
Total desired call outcomes (A)	67,195		
Undesired call outcomes during business hours			
a) Busy signal, never enters the system?	Unknown		
b) Caller gets pre-recorded 'call another time' message during business hours?	n/a		
c) Abandoned calls (i.e., caller hangs-up while in a menu)?	46		
d) Abandoned calls (i.e., caller hangs-up while in a queue or on hold)?	671		
e) Busy signal after navigating an automated attendant menu, or after being			
transferred by a receptionist?	n/a		
f) Call rings unanswered during business hours?	7,621		
# Receptionists takes a message	n/a		
If you have a callback feature, # of callback requests that were not completed	<u>n/a</u>		
Total undesired call outcomes during business hours (B)	Unknown		
Total incoming calls (C = A + B)	75,533		
Undesired outcomes as a percentage of total incoming calls (B / C)	Unknown	9.1%	
+20 If undesired outcomes were 0%, otherwise 20 - percentage of undesired			
outcomes X 200 (Minimum of 0), 6.7 if one or more undesired call outcomes			
were unknown	Unknown	9.1%	6.7
Email turnaround times			
+15 If the wait time is 0.5 days or less, otherwise 15 - 5 for each day over 0.5 days	2.0 days	2.1 days	7.5
Total score			59.2

Contact center: capability

Inactive member experience

Your service score for contact center: capability was 90 out of 100. This was above the peer median of 70.

Contact Center: Capability Service Score



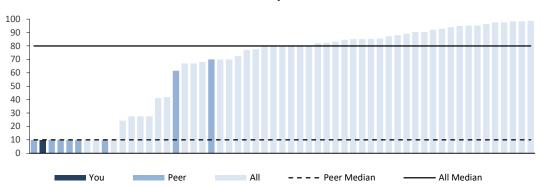
Scorin	ng method	Your	Peer	Your
		Data	Average	Score
	Workflow system			
	If you have a workflow system that provides service agents with real time			
	information about each member's:			
+15	previous calls or emails to the system	Yes	55.6% Yes	15.0
+15	recent online correspondence	Yes	66.7% Yes	15.0
+15	real-time status of open items	Yes	77.8% Yes	15.0
+15	member's use of digital tools	Yes	55.6% Yes	15.0
+15	most recent member statement	Yes	88.9% Yes	15.0
+10	beneficiary information	Yes	88.9% Yes	10.0
	Other capabilities			
	If you offer the following tools to help serve members better:			
+5	co-browsing	Yes	22.2% Yes	5.0
+5	request a call back online and over the phone, 3 if over the phone only, 2 if			
	online	No	0.0% Both	0.0
+3	live web chat	No	0.0% Yes	0.0
+2	chatbot	No	0.0% Yes	0.0
	Total score			90.0

Contact center: call quality

Inactive member experience

Your service score for contact center: call quality was 10 out of 100. This was equal to the peer median of 10.

Contact Center: Call Quality Service Score

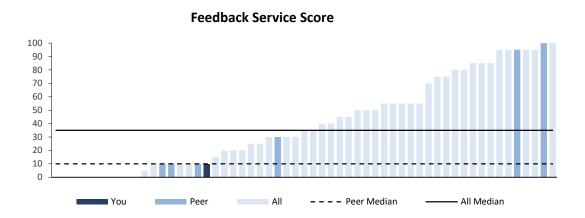


Scorin	g method	Your	Peer	Your
		Data	Average	Score
+30	First Contact Resolution If 100% of calls are satisfied by their first contact, 0 if 75% or fewer calls are satisfied by the first contact, otherwise 30 - 120 X (1 - % satisfied by the first contact) [Subject to a minimum score of 0, and 10 if not measured]	Unknown	82.7%	10.0
+55	Call quality monitoring If you review your staff's responses to member calls for coaching purposes 4 or more times per month; otherwise 13.75 X # of times per month you review calls.	n/a	6.5 times	0.0
+15	If the review is based on listening in on a recording (versus a live call)	n/a	1% Recording	0.0
	Total score			10.0

Feedback

Inactive member experience

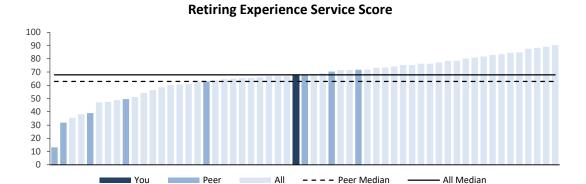
Your service score for feedback was 10 out of 100. This was equal to the peer median of 10.



Scoring	method	Your	Peer	Your
		Data	Average	Score
	Member experience surveying			
	If you survey member satisfaction, NPS or effort exclusively for each of the			
	following:			
+10	inactive members	Yes	77.8% Yes	10.0
+5	member leaving the plan	No	11.1% Yes	0.0
+25	secure website	No	33.3% Yes	0.0
+20	telephone calls	No	33.3% Yes	0.0
	Methodology			
	If you survey members within two days or less of using the following:			
+20	secure website	n/a	22.2% Yes	0.0
+20	telephone calls	No	22.2% Yes	0.0
	Total score			10.0

Total service score for retiring members

Your service score for retiring experience was 67 out of 100. This was above the peer median of 63.



Your total service score for retiring members is the weighted average of the activity service scores below:

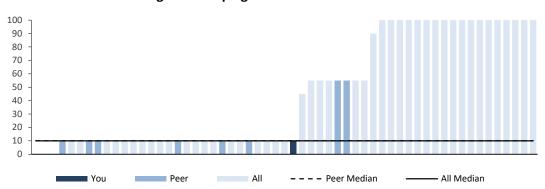
		Service	Peer	Higher/
Activity	Weight	score	Median	Lower
Targeted campaigns	7.5%	10	10	0
Pension estimates: self-service	7.5%	68	73	-5
Pension estimates: assisted service	2.5%	85	45	40
Retirement applications	7.5%	70	30	40
Pension inceptions	10.0%	100	95	5
Disability inceptions	5.0%	5	3	3
Personal information	2.5%	60	60	0
Salary and service credit information	2.5%	75	65	10
Secure website accessibility	20.0%	100	72	28
Contact center: accessibility	7.5%	59	59	0
Contact center: capability	5.0%	90	70	20
Contact center: call quality	5.0%	10	10	0
1-on-1 counseling	7.5%	80	80	0
Member presentations	5.0%	100	100	0
Feedback	5.0%	10	20	-10
Weighted total service score	100.0%	67	63	5

Targeted campaigns

Retiring member experience

Your service score for targeted campaigns was 10 out of 100. This was equal to the peer median of 10.





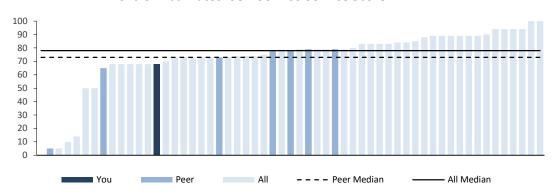
Scorin	g method	Your	Peer	Your
		Data	Average	Score
	Targeted campaigns			
	If you send targeted communication to the following member segments who are eligible or approaching eligibility for retirement:			
+45	active members	No	0.0% Yes	0.0
+45	inactive members	No	22.2% Yes	0.0
	Presentations			
+10	If you have presentations targeted specifically to members approaching retirement or ready to retire	Yes	100.0% Yes	10.0
	Total score			10.0

Pension estimates: self-service

Retiring member experience

Your service score for pension estimates: self-service was 68 out of 100. This was below the peer median of 73.

Pension Estimates: Self-Service Service Score



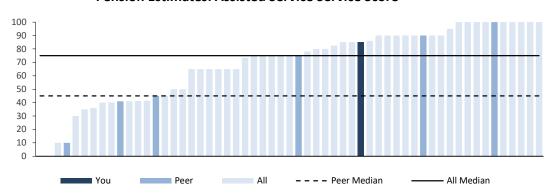
Scorin	g method	Your	Peer	Your
		Data	Average	Score
	Online pension estimate calculator			
+10	If you have an interactive calculator on your website	Yes	88.9% Yes	10.0
+40	If the calculator is linked to member salary and service credit data	Yes	100.0% Yes	40.0
-5	If you force members to acknowledge a disclaimer every time they use the calculator	No	50.0% Yes	0.0
	Calculator capabilities			
	If your pension estimate calculator allows members to model:			
+5	different retirement start dates	Yes	77.8% Yes	5.0
+5	salary changes	Yes	66.7% Yes	5.0
+5	different working percentages (e.g., part-time or early termination)	No	33.3% Yes	0.0
+5	alternative payment options	No	55.6% Yes	0.0
	If the calculator provides an estimate showing the retirement in:			
+10	both gross and net, 4 if gross or net, 0 otherwise	Gross	42.9% Both	4.0
+10	both monthly and annual, 4 if monthly or annual, 0 otherwise	Monthly	14.3% Both	4.0
+10	multiple estimates on one page for comparative purposes	No	22.2% Yes	0.0
	Total score			68.0

Pension estimates: assisted service

Retiring member experience

Your service score for pension estimates: assisted service was 85 out of 100. This was above the peer median of 45.

Pension Estimates: Assisted Service Service Score



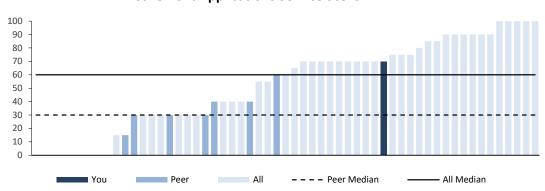
Scorin	g method	Your	Peer	Your
		Data	Average	Score
	Written pension estimates			
+30	If the average turnaround time for providing written estimates was 10 business			
	days, or less, otherwise 30 - for each day beyond 10 days	2.0 days	7.4 days	30.0
+10	If you clearly address if and how the pension benefit is inflation protected	No	33.3% Yes	0.0
n/a	If you discuss the effects of social security	n/a	22.2% Yes	0.0
+5	If you discuss alternative scenarios that could improve the pension	No	22.2% Yes	0.0
+10	If you model alternative pension payment options	Yes	66.7% Yes	10.0
	Call center			
	If you can provide the following on a real-time basis over the phone:			
+10	member's pension estimate	Yes	44.4% Yes	10.0
+15	an estimate linked to the member's actual account data	Yes	44.4% Yes	15.0
+10	alternate annuity payment scenarios	Yes	44.4% Yes	10.0
	1-on-1 counseling			
+10	If you can provide a pension estimate for a member during a counseling session	Yes	44.4% Yes	10.0
	Total score			85.0

Retirement applications

Retiring member experience

Your service score for retirement applications was 70 out of 100. This was above the peer median of 30.

Retirement Applications Service Score

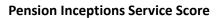


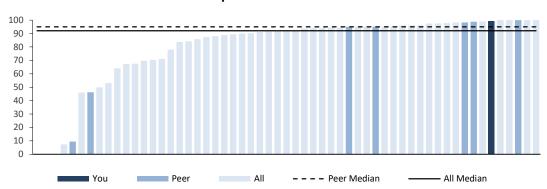
Scorin	g method	Your	Peer	Your
		Data	Average	Score
+40	If a member can submit a retirement application online	Yes	28.6% Yes	40.0
+20	If more than 50% of your online applications can be completed without signed documents needing to be uploaded or mailed in	25.0%	50.0%	0.0
+30	If you do not require notarization for most retirement applications, or + 15 if you require notarization of some retirement applications	Not required	77.7% not required	30.0
+10	If you do not require the member's birth certificate before incepting a pension	Required	22.2% not required	0.0
	Total score			70.0

Pension inceptions

Retiring member experience

Your service score for pension inceptions was 100 out of 100. This was above the peer median of 95.





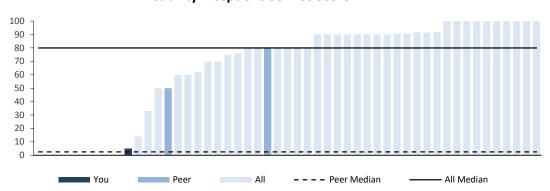
Scorin	ng method	Your	Peer	Your
		Data	Average	Score
+90	If 100% of your service pensions were incepted without a cashflow interruption greater than 1 month, otherwise 90 X percent of inceptions that occur within 1 month of the member's final paycheck	100.0%	82.5%	90.0
-5	5 X percent of service retirements based on estimates [Subject to a maximum deduction of 5)	n/a	44.2%	0.0
+10	If all of your survivor pensions were incepted without a cashflow interruption greater than 1 month, otherwise 100 x percent of pensions paid without interruption to survivors	95.0%	66.1%	9.5
	Total score			99.5

Disability inceptions

Retiring member experience

Your service score for disability inceptions was 5 out of 100. This was above the peer median of 3.

Disability Inceptions Service Score



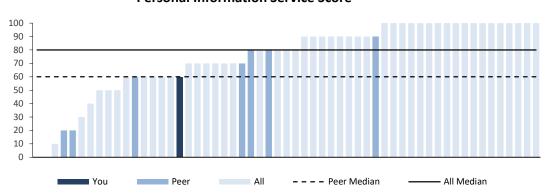
Scoring method	Your	Peer	Your
	Data	Average	Score
+100 If you return a decision on a disability application in 1 month or less, otherwise 100 - 10 for each month over 1 month [Subject to a minimum score of 0]	10.5 months	8.4 months	5.0
Total score			5.0

Personal information

Retiring member experience

Your service score for personal information was 60 out of 100. This was equal to the peer median of 60.



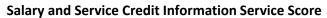


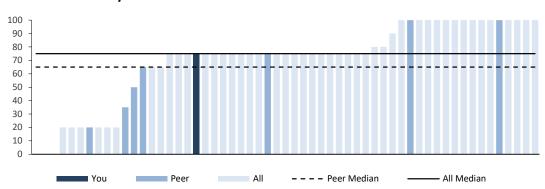
Scoring	g method	Your	Peer	Your
		Data	Average	Score
	Self-service Self-service			
	If members can do the following online:			
+15	change address	Yes	85.7% Yes	15.0
+15	change email address	Yes	75.0% Yes	15.0
+10	change communication preferences	No	57.1% Yes	0.0
+10	change beneficiary	Yes	71.4% Yes	10.0
	Secure messaging			
	If you have a secure portal for members:			
+10	that includes a history of recent correspondence	No	57.1% Yes	0.0
+20	where members can upload documents	No	28.6% Yes	0.0
	Assisted service			
	If members can do the following over the phone:			
+10	change address	Yes	66.7% Yes	10.0
+10	change email address	Yes	77.8% Yes	10.0
	Total score			60.0

Salary and service credit information

Retiring member experience

Your service score for salary and service credit information was 75 out of 100. This was above the peer median of 65.





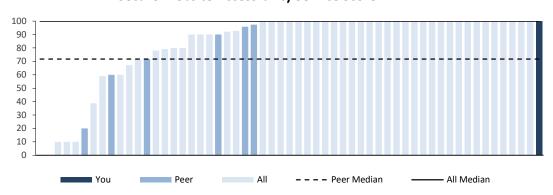
Scorin	g method	Your	Peer	Your
		Data	Average	Score
	Self-service			
+30	If you offer secure access to both salary and service credit data	Yes	66.7% Yes	30.0
+25	If salary and service credit data is up-to-date to the most recent pay period	Yes	66.7% Yes	25.0
+25	If a complete annual history since employment began of salary and service credit data is available online	No	22.2% Yes	0.0
	Assisted service			
	If you can provide the following on a real-time basis over the phone:			
+10	pensionable salary	Yes	66.7% Yes	10.0
+10	service credit history including gaps	Yes	88.9% Yes	10.0
	Total score			75.0

Secure website accessibility

Retiring member experience

Your service score for secure website accessibility was 100 out of 100. This was above the peer median of 72.

Secure Website Accessibility Service Score



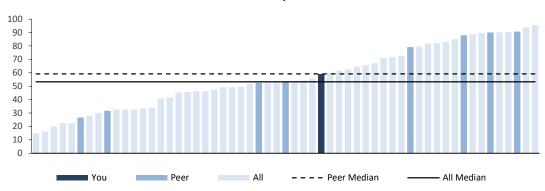
Scorin	g method	Your	Peer	Your
		Data	Average	Score
	Access			
+10	If you have a secure website accessible for active members	Yes	77.8% Yes	10.0
+20	If the secure member area is customized to only show options relevant to active			
	members (e.g., active members see different options than annuitants)	Yes	62.5% Yes	20.0
+10	If the member's name is prominent on the home page	Yes	75.0% Yes	10.0
-10	If members have to acknowledge a disclaimer every time they log-in	No	28.6% Yes	0.0
	Secure website use			
	Number of active members that accessed the secure area in the year (A)	8,137		
	Number of active members (B)	22,718		
+60	If 30% or more of your active members accessed the secure area in the past year,			
	otherwise 200 X % of active members that accessed the secure area = (A) / (B)			
	Score of 20 if total unique visit is unknown	35.8%	33.3%	60.0
	Total score			100.0

Contact center: accessibility

Retiring member experience

Your service score for contact center: accessibility was 59 out of 100. This was equal to the peer median of 59.

Contact Center: Accessibility Service Score



Scorin	ng method		Peer	Your
		Data	Average	Score
	Access			
+5	If you have a toll-free phone number	No	77.8% Yes	0.0
+10	If your call center is open 50 or more hours a week, otherwise 10 - 0.5 for each			
	hour less than 50 hours per week	40 h	44.1 h	5.0
	Phone menu layers and wait times			
-10	If a receptionist is the first point of contact	No	11.1% Yes	0.0
+20	If there are none or 1 menu layer, otherwise 10 if 2 layers, 5 if 3 layers or 0 if 4	2	1.7	10.0
	plus layers	layers	layers	
+20	If undesired outcomes were 0%, otherwise 20 - percentage of undesired			
	outcomes X 200 (Minimum of 0)	11.0%	9.1%	6.7
	Average time to to navigate receptionists (A)	n/a		
	Average time to navigate the menu (B)	13 s		
	Average time waiting in queue for a service agent (C)	<u>54 s</u>		
	Total wait time	67 s		
+30	If members reach a service agent in 120 seconds or less, otherwise 54 - 0.2 per			
	second to reach a knowledgeable person = (A) + (B) + (C)	67 s	132 s	30.0

Contact center: accessibility (continued)

Retiring member experience

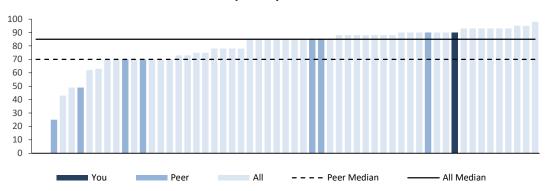
Scoring method		Peer Average	Your Score
Undesired call outcomes	Data	Meruge	30010
Desired call outcomes			
a) Incoming calls that reach and are responded to by a knowledgeable service			
representative (i.e., exclude messages, etc.)?	67,195		
c) Incoming calls satisfied by self-serve options, if any?	<u>0</u>		
Total desired call outcomes (A)	67,195		
Undesired call outcomes during business hours			
a) Busy signal, never enters the system?	Unknown		
b) Caller gets pre-recorded 'call another time' message during business hours?	n/a		
c) Abandoned calls (i.e., caller hangs-up while in a menu)?	46		
d) Abandoned calls (i.e., caller hangs-up while in a queue or on hold)?	671		
e) Busy signal after navigating an automated attendant menu, or after being			
transferred by a receptionist?	n/a		
f) Call rings unanswered during business hours?	7,621		
# Receptionists takes a message	n/a		
If you have a callback feature, # of callback requests that were not completed	<u>n/a</u>		
Total undesired call outcomes during business hours (B)	Unknown		
Total incoming calls (C = A + B)	75,533		
Undesired outcomes as a percentage of total incoming calls (B / C)	Unknown	9.1%	
+20 If undesired outcomes were 0%, otherwise 20 - percentage of undesired			
outcomes X 200 (Minimum of 0), 6.7 if one or more undesired call outcomes were			
unknown	Unknown	9.1%	6.7
Email turnaround times			
+15 If the wait time is 0.5 days or less, otherwise 15 - 5 for each day over 0.5 days	2.0 days	2.1 days	7.5
Total score			59.2

Contact center: capability

Retiring member experience

Your service score for contact center: capability was 90 out of 100. This was above the peer median of 70.

Contact Center: Capability Service Score



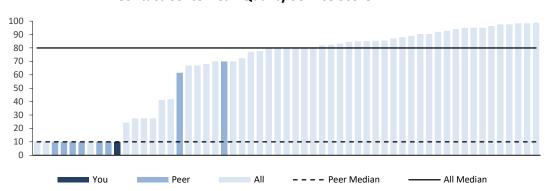
Scorin	g method	Your	Peer	Your
		Data	Average	Score
	Workflow system			
	If you have a workflow system that provides service agents with real time			
	information about each member's:			
+15	previous calls or emails to the system	Yes	55.6% Yes	15.0
+15	recent online correspondence	Yes	66.7% Yes	15.0
+15	real-time status of open items	Yes	77.8% Yes	15.0
+15	member's use of digital tools	Yes	55.6% Yes	15.0
+15	most recent member statement	Yes	88.9% Yes	15.0
+10	beneficiary information	Yes	88.9% Yes	10.0
	Other capabilities			
	If you offer the following tools to help serve members better:			
+5	co-browsing	Yes	22.2% Yes	5.0
+5	request a call back online and over the phone, 3 if over the phone only, 2 if			
	online	No	0.0% Both	0.0
+3	live web chat	No	0.0% Yes	0.0
+2	chatbot	No	0.0% Yes	0.0
	Total score			90.0

Contact center: call quality

Retiring member experience

Your service score for contact center: call quality was 10 out of 100. This was equal to the peer median of 10.

Contact Center: Call Quality Service Score



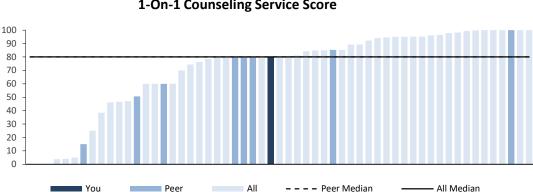
Scorin	g method	Your	Peer	Your
		Data	Average	Score
+30	First Contact Resolution If 100% of calls are satisfied by their first contact, 0 if 75% or fewer calls are satisfied by the first contact, otherwise 30 - 120 X (1 - % satisfied by the first contact) [Subject to a minimum score of 0, and 10 if not measured]	Unknown	82.7%	10.0
+55	Call quality monitoring If you review your staff's responses to member calls for coaching purposes 4 or more times per month; otherwise 13.75 X # of times per month you review calls	n/a	6.5 times	0.0
+15	If the review is based on listening in on a recording (versus a live call)	n/a	1% Recording	0.0
	Total score			10.0

1-on-1 counseling

Scaring method

Retiring member experience

Your service score for 1-on-1 counseling was 80 out of 100. This was equal to the peer median of 80.



	1-On-1 Counseling Service Score
100 7	
90 -	
80 -	
70 -	
60 -	
50 -	
40 -	
30 -	
20 -	
10 -	
0 1	
	You Peer All Peer Median ——— All Median

Scorin	g method	Your	Peer	Your
		Data	Average	Score
	Availability			
	Number of members you counseled:			
	In-house	2,008	1,915	
	In the field (C)	Unknown	0	
	At the employer	n/a	2	
	Via teleconference	0	1,170	
	Online, via videoconference (D)	<u>n/a</u>	<u>50</u>	
	Total number of 1-on-1 counseling sessions (A)	2,008	3,136	
	Total active members (B)	22,718	19,315	
+60	If the number of members counseled 1-on-1 was $1.00\%^1$ or more of active members, otherwise $6,000^1$ X # of members you met individually as a $\%$ of active			
	members = $(A) / (B)$	8.8%	10.5%	60.0
+20	If the percentage of sessions in the field, separate from the member's place of employment and/or video conference, was 50% or more, otherwise 40 X			
	percentage of sessions in the field separate from the employer = (C + D) / (A)	0.0%	8.1%	0.0
	Capability			
+10	If you provide counseling to all members who walk-in to your office	Yes	88.9% Yes	10.0
+5	If you have real-time access to the member's data	Yes	77.8% Yes	5.0
+5	If all in-person counseling takes place in a private office with a door	Yes	88.9% Yes	5.0
	Total score			80.0

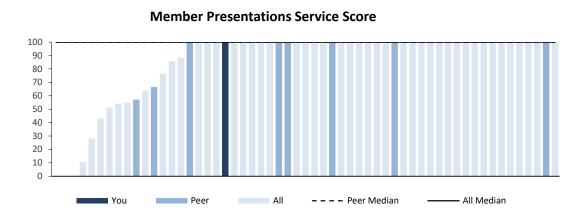
¹Better website content and functionality reduces the number of members that attend 1-on-1 sessions. Using your percentage of pensions incepted online as a proxy for the strength of your website, we reduce the 1.0% attendee cutoff rate for a perfect availability score to a minimum of 0.15% (i.e. if 189.6% of your pension inceptions occur online, you need attendees equal to 1.00% of your active member population to achieve a perfect score of 60; we use a multiplication factor of 6,000 because 60 / 1.00% = 6,000).

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Member presentations

Retiring member experience

Your service score for member presentations was 100 out of 100. This was equal to the peer median of 100.



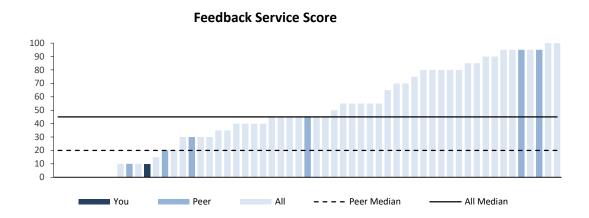
Scoring method		Peer	Your
	Data	Average	Score
Availability			
Number of presentations:			
- In-house	12	2	
- In the field	32	13	
- Live webinars	<u>12</u>	<u>17</u>	
Total presentations	56	32	
Total number of presentation attendees (A)	1,999	1,724	
Total active members (B)	22,718	19,315	
+100 If the total number of attendees was 2.5% ¹ or more of active members, otherwise			
4,000 ¹ X attendees as percent of active members (including those attending			
webinars) = (A) / (B)	8.8%	9.2%	100.0
Total score			100.0

¹Better website content and functionality reduces the number of members that attend presentations. Using your percentage of pensions incepted online as a proxy for the strength of your website, we reduce the 2.5% attendee cutoff rate for a perfect availability score to a minimum of 0.4% (i.e. if 189.60% of your pension inceptions occur online, you need attendees equal to 2.50% of your active member population to achieve a perfect score of 100; we use a multiplication factor of 4,000 because 100 / 2.50% = 4,000).

Feedback

Retiring member experience

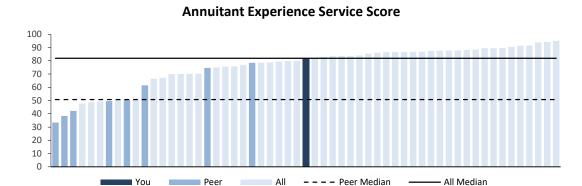
Your service score for feedback was 10 out of 100. This was below the peer median of 20.



Scoring	method	Your	Peer	Your
		Data	Average	Score
	Member experience surveying			
	If you survey member satisfaction, NPS or effort exclusively for each of the			
	following:			
+20	retirement experience	No	33.3% Yes	0.0
+5	disability retirement experience	No	n/a Yes	0.0
+20	secure website	No	33.3% Yes	0.0
+15	telephone calls	No	33.3% Yes	0.0
+5	1-on-1 counseling	Yes	55.6% Yes	5.0
+5	member presentations	No	66.7% Yes	0.0
	Methodology			
	If you survey members within two days or less of using the following:			
+10	secure website	No	22.2% Yes	0.0
+10	telephone calls	No	22.2% Yes	0.0
+5	1-on-1 counseling	Yes	44.4% Yes	5.0
+5	member presentations	No	55.6% Yes	0.0
	Total score			10.0

Total service score for annuitants

Your service score for annuitant experience was 82 out of 100. This was above the peer median of 51.



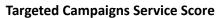
Your total service score for annuitants is the weighted average of the activity service scores below:

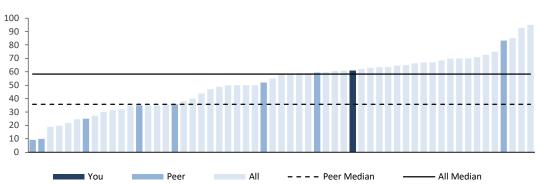
		Service	Peer	Higher/
Activity	Weight	score	Median	Lower
Targeted campaigns	10.0%	61	36	25
Pension payments	30.0%	98	94	4
Personal information	5.0%	60	20	40
Secure website accessibility	32.5%	100	10	90
Contact center: accessibility	7.5%	59	59	0
Contact center: capability	5.0%	90	65	25
Contact center: call quality	5.0%	10	10	0
Feedback	5.0%	30	30	0
Weighted total service score	100%	82	51	31

Targeted campaigns

Annuitant experience

Your service score for targeted campaigns was 61 out of 100. This was above the peer median of 36.





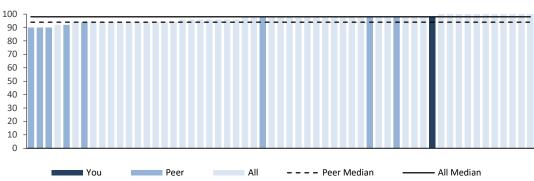
Scorin	g method	Your	Peer	Your
		Data	Average	Score
	Email addresses			
+30	If you have email addresses for 80% or more of your annuitants, otherwise 37.5 X			
	% of annuitants you have email addresses for	77.0%	46.7% Yes	28.9
	Targeted campaigns			
	If you send targeted communication to annuitants for the following:			
+15	pension amount change	Yes	55.6% Yes	15.0
+15	new to retirement	Yes	66.7% Yes	15.0
+10	missing beneficiary	No	0.0% Yes	0.0
+10	missing address	No	22.2% Yes	0.0
+10	missing email address	No	11.1% Yes	0.0
	Newsletters			
+2	If you send annuitants a newsletter	Yes	77.8% Yes	2.0
+3	If annuitants receive a different newsletter from active or inactive members	No	42.9% Yes	0.0
	Presentations			
+5	If you have presentations targeted specifically to changes to benefits	No	22.2% Yes	0.0
	Total score			60.9

Pension payments

Annuitant experience

Your service score for pension payments was 98 out of 100. This was above the peer median of 94.





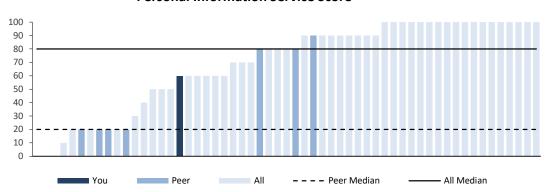
Scorin	ng method	Your	Peer	Your
		Data	Average	Score
	Timeliness			
+90	If none of your pension payrolls were late vis-à-vis your normal payment cycle,			
+90		Nama	Nama	00.0
	otherwise 100 - (10 X number of late payrolls X average days late)	None	None	90.0
	Self-service			
	If members can do the following online:			
+2	change banking information	Yes	57.1% Yes	2.0
+2	view pension payment gross amounts and deductions	Yes	57.1% Yes	2.0
+2	change tax withholding amount	Yes	57.1% Yes	2.0
+2	download tax receipts	Yes	85.7% Yes	2.0
	Assisted service			
	If members can do the following over the phone:			
+2	change banking information	No	11.1% Yes	0.0
	Total score			98.0

Personal information

Annuitant experience

Your service score for personal information was 60 out of 100. This was above the peer median of 20.



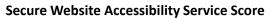


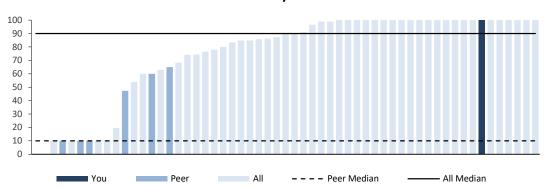
Scorin	g method	Your	Peer	Your
		Data	Average	Score
	Self-service			
	If members can do the following online:			
+15	change address	Yes	85.7% Yes	15.0
+15	change email address	Yes	75.0% Yes	15.0
+10	change communication preferences	No	57.1% Yes	0.0
+10	change beneficiary	Yes	71.4% Yes	10.0
	Secure messaging			
	If you have a secure portal for members:			
+10	that includes a history of recent correspondence	No	57.1% Yes	0.0
+20	where members can upload documents	No	28.6% Yes	0.0
	Assisted service			
	If members can do the following over the phone:			
+10	change address	Yes	66.7% Yes	10.0
+10	change email address	Yes	77.8% Yes	10.0
	Total score			60.0

Secure website accessibility

Annuitant experience

Your service score for secure website accessibility was 100 out of 100. This was above the peer median of 10.





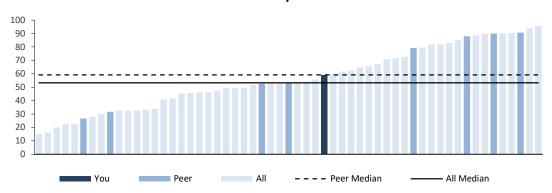
Scorin	g method	Your	Peer	Your
		Data	Average	Score
	Access			
+10	If you have a secure website accessible for annuitants	Yes	44.4% Yes	10.0
+20	If the secure member area is customized to only show options relevant to			
	annuitants (e.g., annuitants see different options than active members)	Yes	50.0% Yes	20.0
+10	If the member's name is prominent on the home page	Yes	75.0% Yes	10.0
-10	If members have to acknowledge a disclaimer every time they log-in	No	28.6% Yes	0.0
	Secure website use			
	Number of annuitants that accessed the secure area in the year (A)	10,276		
	Number of annuitants (B)	21,950		
+60	If 30% or more of your annuitants accessed the secure area in the past year,			
	otherwise 200 X % of annuitants that accessed the secure area (A) / (B)			
	Score of 20 if total unique visit is unknown	46.8%	26.0%	60.0
	Total score			100.0

Contact center: accessibility

Annuitant experience

Your service score for contact center: accessibility was 59 out of 100. This was equal to the peer median of 59.

Contact Center: Accessibility Service Score



Scorin	g method	Your	Peer	Your
		Data	Average	Score
	Access			
+5	If you have a toll-free phone number	No	77.8% Yes	0.0
+10	If your call center is open 50 or more hours a week, otherwise 10 - 0.5 for each			
	hour less than 50 hours per week	40 h	44.1 h	5.0
	Phone menu layers and wait times			
-10	If a receptionist is the first point of contact	No	11.1% Yes	0.0
+20	If there are none or 1 menu layer, otherwise 10 if 2 layers, 5 if 3 layers or 0 if 4	2	1.7	10.0
	plus layers	layers	layers	
+20	If undesired outcomes were 0%, otherwise 20 - percentage of undesired			
	outcomes X 200 (Minimum of 0)	11.0%	9.1%	6.7
	Average time to to navigate receptionists (A)	n/a		
	Average time to navigate the menu (B)	13 s		
	Average time waiting in queue for a service agent (C)	<u>54 s</u>		
	Total wait time	67 s		
+30	If members reach a service agent in 120 seconds or less, otherwise 54 - 0.2 per			
	second to reach a knowledgeable person = (A) + (B) + (C)	67 s	132 s	30.0

Contact center: accessibility (continued)

Annuitant experience

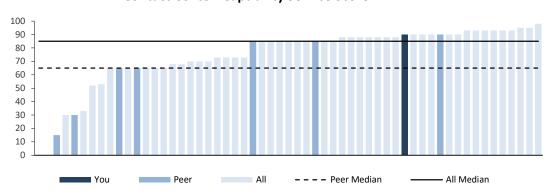
Scoring method	Your Data	Peer Average	Your Score
Undesired call outcomes	Data	7.1761456	300.0
Desired call outcomes			
a) Incoming calls that reach and are responded to by a knowledgeable service			
representative (i.e., exclude messages, etc.)?	67,195		
c) Incoming calls satisfied by self-serve options, if any?	<u>0</u>		
Total desired call outcomes (A)	67,195		
Undesired call outcomes during business hours			
a) Busy signal, never enters the system?	Unknown		
b) Caller gets pre-recorded 'call another time' message during business hours?	n/a		
c) Abandoned calls (i.e., caller hangs-up while in a menu)?	46		
d) Abandoned calls (i.e., caller hangs-up while in a queue or on hold)?	671		
e) Busy signal after navigating an automated attendant menu, or after being			
transferred by a receptionist?	n/a		
f) Call rings unanswered during business hours?	7,621		
# Receptionists takes a message	n/a		
If you have a callback feature, # of callback requests that were not completed	<u>n/a</u>		
Total undesired call outcomes during business hours (B)	Unknown		
Total incoming calls (C = A + B)	75,533		
Undesired outcomes as a percentage of total incoming calls (B / C)	Unknown	9.1%	
+20 If undesired outcomes were 0%, otherwise 20 - percentage of undesired			
outcomes X 200 (Minimum of 0), 6.7 if one or more undesired call outcomes were			
unknown	Unknown	9.1%	6.7
Email turnaround times			
+15 If the wait time is 0.5 days or less, otherwise 15 - 5 for each day over 0.5 days	2.0 days	2.1 days	7.5
Total score			59.2

Contact center: capability

Annuitant experience

Your service score for contact center: capability was 90 out of 100. This was above the peer median of 65.

Contact Center: Capability Service Score



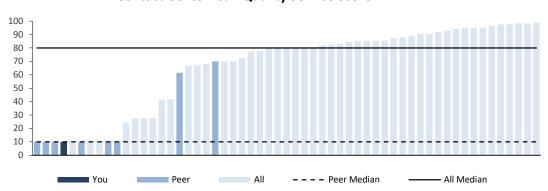
Scorin	g method	Your	Peer	Your
		Data	Average	Score
	Workflow system			
	If you have a workflow system that provides service agents with real time			
	information about each member's:			
+20	previous calls or emails to the system	Yes	55.6% Yes	20.0
+15	recent online correspondence	Yes	66.7% Yes	15.0
+15	real-time status of open items	Yes	77.8% Yes	15.0
+20	member's use of digital tools	Yes	55.6% Yes	20.0
+15	beneficiary information	Yes	88.9% Yes	15.0
	Other capabilities			
	If you offer the following tools to help serve members better:			
+5	co-browsing	Yes	22.2% Yes	5.0
+5	request a call back online and over the phone, 3 if over the phone only, 2 if			
	online	None	0.0% Both	0.0
+3	live web chat	No	0.0% Yes	0.0
+2	chatbot	No	0.0% Yes	0.0
	Total score			90.0

Contact center: call quality

Annuitant experience

Your service score for contact center: call quality was 10 out of 100. This was equal to the peer median of 10.

Contact Center: Call Quality Service Score

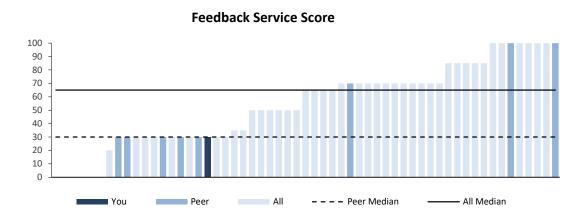


Scorin	g method	Your	Peer	Your
		Data	Average	Score
+30	First Contact Resolution If 100% of calls are satisfied by their first contact, 0 if 75% or fewer calls are satisfied by the first contact, otherwise 30 - 120 X (1 - % satisfied by the first contact) [Subject to a minimum score of 0, and 10 if not measured]	Unknown	82.7%	10.0
+55	Call quality monitoring If you review your staff's responses to member calls for coaching purposes 4 or more times per month; otherwise 13.75 X # of times per month you review calls	n/a	6.5 times	0.0
+15	If the review is based on listening in on a recording (versus a live call)	n/a	1% Recording	0.0
	Total score			10.0

Feedback

Annuitant experience

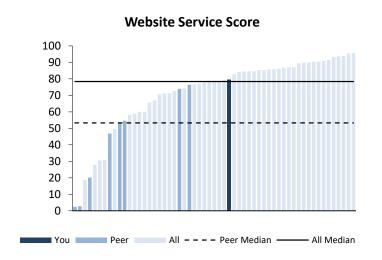
Your service score for feedback was 30 out of 100. This was equal to the peer median of 30.



Scorin	g method	Your	Peer	Your
		Data	Average	Score
	Member experience surveying			
	If you survey member satisfaction, NPS or effort exclusively for each of the			
	following:			
+30	annuitants	Yes	100.0% Yes	30.0
+20	secure website	No	33.3% Yes	0.0
+20	telephone calls	No	33.3% Yes	0.0
	Methodology			
	If you survey members within two days or less of using the following:			
+15	secure website	No	22.2% Yes	0.0
+15	telephone calls	No	22.2% Yes	0.0
	Total score			30.0

Service score by channel

Member journeys are omni-channel. The channel service scores below extract all relevant metrics from the four member journeys above to calculate a service score out of 100.





Contact Center Service Score 100 90 80 70 60 50 40 30 20 10 70 10 70 All ---- Peer Median —— All Median



^{1.} Trend analysis is based on 31 systems that have participated for 4 consecutive years. This ensures that trends are not caused by changes in the composition of the participants.

Website service score

Your website service score is based on the combined website metrics and weights of the four member journeys. Your adjusted service score was 80 out of 100. This was above the peer average of 46.

					Your
		Your	Peer	Your	Adjusted
Scoring	Method	Data	Average	Score	Score ¹
	Access				
	If the member's name is prominent on the home page for				
+10	active members	Yes	75.0% Yes	10.0	4.9
+10	inactive members	Yes	75.0% Yes	10.0	0.5
+10	annuitants	Yes	75.0% Yes	10.0	2.5
	If you have a secure website accessible for:				
+10	active members	Yes	77.8% Yes	10.0	4.9
+10	inactive members	Yes	55.6% Yes	10.0	0.5
+10	annuitants	Yes	44.4% Yes	10.0	2.5
	If the secure member area is customized to only show options relevant				
	to:				
+20	active members	Yes	62.5% Yes	20.0	9.8
+20	inactive members	Yes	50.0% Yes	20.0	1.0
+20	annuitants	Yes	50.0% Yes	20.0	4.9
	If 400/				
+60	If 40% or more of your active members accessed the secure area at least once in the past year, otherwise 150 X % of active members that				
	accessed the secure area	25 00/	22.20/	F2 7	12.2
	accessed the secure area	35.8%	33.3%	53.7	12.2
+60	If 15% or more of your inactive members accessed the secure area in the				
	past year, otherwise 400 X % of inactive members that accessed the				
	secure area	19.6%	25.4%	60.0	0.0
	15200/				
+60	If 30% or more of your annuitants accessed the secure area in the past	46.00/	26.00/	60.0	447
	year, otherwise 200 X % of annuitants that accessed the secure area	46.8%	26.0%	60.0	14.7
-5	If you force members to acknowledge a disclaimer every time they use				
	the calculator	No	50.0% Yes	0.0	0.0
10	If mambars have to acknowledge a disclaim or seem times the selection	NI -	20 CO/ V-	0.0	0.0
-10	If members have to acknowledge a disclaimer every time they log-in	No	28.6% Yes	0.0	0.0

¹Each of these service metrics contributes to your total service score differently, because they may apply to one or more member journeys. For example, a metric that scores you 10 points in the inactive member experience, will give you an adjusted score of 0.5, because the inactive member experience contributes 5% to your total service score.

Website service score continued

coring	Method	Your Data	Peer Average	Your Score	Your Adjusted Score ¹
	Pension estimate calculator				
+10	If you have an interactive calculator on your website	Yes	88.9% Yes	10.0	0.7
+40	If the calculator is linked to member salary and service credit data	Yes	77.8% Yes	40.0	2.6
	If your pension estimate calculator allows members to model:				
+5	different retirement start dates	Yes	77.8% Yes	5.0	0.3
+5	salary changes	Yes	66.7% Yes	5.0	0.3
+5	different working percentages (e.g., part-time or early termination)	No	33.3% Yes	0.0	0.0
+5	alternative payment options	No	55.6% Yes	0.0	0.0
	If the calculator provides an estimate showing:				
+10	both gross and net, 4 if gross or net, 0 otherwise	gross	42.9% Both	4.0	0.3
+10	both monthly and annual, 4 if monthly or annual, 0 otherwise	monthly	14.3% Both	4.0	0.3
+10	multiple estimates on one page for comparative purposes	No	22.2% Yes	0.0	0.
	Service purchase calculator				
	If you have an online calculator for:				
+10	prior service credit purchases	No	33.3% Yes	0.0	0.
+10	in-service-leave credit purchases (e.g., maternity, parental, sabbatical,	No	16.7% Yes	0.0	0.
	Self-service				
+40	If a member can submit a retirement application online	Yes	22.2% Yes	40.0	2.
+20	If most online applications can be completed without signed documents				
	needing to be uploaded or mailed in	75.0%	11.1% Yes	0.0	0.0
+20	If a member can apply for a transfer-in application online	No	11.1% Yes	0.0	0.0
+20	If a member can apply for a transfer-out application online	No	11.1% Yes	0.0	0.0
	If members can do the following online:				
+15	change address (Actives, Inactive, Annuitant)	Yes	66.7% Yes	15.0	1.9
+15	change email address (Actives, Inactive, Annuitant)	Yes	66.7% Yes	15.0	1.9
+10	change communication preferences (Actives, Inactive, Annuitant)	No	44.4% Yes	0.0	0.
+10	change beneficiary (Actives, Inactive, Annuitant)	Yes	55.6% Yes	10.0	1.
+20	If you have a secure portal for members where members can upload documents (Actives, Inactive, Annuitant)	No	22.2% Yes	0.0	0.

¹Each of these service metrics contributes to your total service score differently, because they may apply to one or more member journeys. For example, a metric that scores you 10 points in the inactive member experience, will give you an adjusted score of 0.5, because the inactive member experience contributes 5% to your total service score.

Website service score continued

					Your
		Your	Peer	Your	Adjusted
Scoring	Method	Data	Average	Score	Score ¹
	Self-service continued				
	If members can do the following online:				
+2	change banking information	Yes	44.4% Yes	2.0	0.5
+2	view pension payment gross amounts and deductions	Yes	44.4% Yes	2.0	0.5
+2	change tax withholding amount	Yes	44.4% Yes	2.0	0.5
+2	download tax receipts	Yes	66.7% Yes	2.0	0.5
	Availability				
+30	If you offer secure access to both salary and service credit data	Yes	66.7% Yes	30.0	2.6
+25	If salary and service credit data is up-to-date to the most recent pay period	Yes	66.7% Yes	25.0	2.2
	penda	163	00.770 103	23.0	2.2
+25	If a complete annual history of salary and service credit data since				
	employment began is available	No	22.2% Yes	0.0	0.0
+10	If the most recent member statement is available	Yes	66.7% Yes	10.0	0.9
+10	If you have a secure portal for members that includes a history of recent				
	correspondence	No	44.4% Yes	0.0	0.0
	Feedback				
+20	If you survey satisfaction or NPS regarding your website	No	33.3% Yes	0.0	0.0
+10	If you survey website within 2 days of visit/usage	n/a	22.2% Yes	0.0	0.0
	Website service score				79.7

¹Each of these service metrics contributes to your total service score differently, because they may apply to one or more member journeys. For example, a metric that scores you 10 points in the inactive member experience, will give you an adjusted score of 0.5, because the inactive member experience contributes 5% to your total service score.

Contact Center service score

Your contact center service score is based on the combined contact center metrics and weights of the four member journeys. Your adjusted service score was 53. This was above the peer average of 50.

					Your
		Your	Peer	Your	Adjusted
Scoring	Method	Data	Average	Score	Score 1
	Access				
+5	If you have a toll-free phone number	No	77.8% Yes	0.0	0.0
73	ii you nave a toil-nee phone number	INO	77.0/0 163	0.0	0.0
+10	If your call center is open 50 or more hours a week, otherwise 10 - 0.5 for				
	each hour less than 50 hours per week	40 h	44.1 h	5.0	1.8
	Phone menu layers and wait times				
	If a receptionist is the first point of contact	No	11.1% Yes	0.0	0.0
+20	If there are none or 1 menu layer, otherwise 10 if 2 layers, 5 if 3 layers or				
120	0 if 4 plus layers	2 layers	1.7 layers	10.0	3.5
		,			0.0
+20	If the abandonment rate in queue was 0%, otherwise 20 - abandonment				
	rate X 200 (Minimum of 0)	11.0%	9.1%	6.7	2.3
+30	If members reach a service agent in 120 seconds or less, otherwise 54 -				
	0.2 per second to reach a knowledgeable person	67 s	132 s	30.0	10.6
	Workflow system				
	If you have a workflow system that provides service agents with real time				
	information about each member's:				
+15	previous calls to the system	Yes	55.6% Yes	15.0	3.5
+15	recent online correspondence or emails	Yes	66.7% Yes	15.0	3.5
+15	real-time status of open items	Yes	77.8% Yes	15.0	3.5
+15	member's use of digital tools	Yes	55.6% Yes	15.0	3.5
+15	most recent member statement	Yes	88.9% Yes	15.0	2.5
+10	beneficiary information	Yes	88.9% Yes	10.0	2.3
	Call center capabilities				
	If you can provide the following on a real-time basis over the phone:				
+10	member's pension estimate	Yes	44.4% Yes	10.0	0.4
+15	an estimate linked to the member's actual account data	Yes	44.4% Yes	15.0	0.6
+10	alternate annuity payment scenarios	Yes	44.4% Yes	10.0	0.4
+10	an estimate of the cost to purchase service credit	Yes	44.4% Yes	10.0	1.4

¹Each of these service metrics contributes to your total service score differently, because they may apply to one or more member journeys. For example, a metric that scores you 10 points in the inactive member experience, will give you an adjusted score of 0.5, because the inactive member experience contributes 5% to your total service score.

Contact Center continued

					Your
		Your	Peer	Your	Adjusted
Scoring	Method	Data	Average	Score	Score 1
	Andread and the Constitution of the				
	Assisted service for all members				
	If members can do the following over the phone:		66 =0()(
+10	change address	Yes	66.7% Yes	10.0	2.3
+10	change email address	Yes	77.8% Yes	10.0	2.3
	Assisted service for all members except annuitants				
	If you can provide the following on a real-time basis over the phone:				
+10	pensionable salary	Yes	66.7% Yes	10.0	1.6
+10	service credit history including gaps	Yes	88.9% Yes	10.0	1.6
	Assisted service for inactive member				
+20	If you can provide a member leaving the plan with their transfer value on				
	a real-time basis over the phone	Yes	55.6% Yes	20.0	0.2
	Assisted service for annuitants				
	If members can do the following over the phone:				
+2	change banking information	No	11.1% Yes	0.0	0.0
	Other capabilities				
	If you offer the following tools to help serve members better:				
+5	co-browsing	Yes	22.2% Yes	5.0	1.2
+5	request a call back online and over the phone, 3 if over the phone				
	only, 2 if online	No	0.0% both	0.0	0.0
+3	live web chat	No	0.0% Yes	0.0	0.0
+2	chatbot	No	0.0% Yes	0.0	0.0
	First Contact Resolution				
+30	If 100% of calls are satisfied by their first contact, 0 if 75% or fewer calls				
	are satisfied by the first contact, otherwise 30 - 120 X (1 - % satisfied by				
	the first contact) [Subject to a minimum score of 0, and 10 if not				
	measured]	Unknown	82.7%	10.0	2.3

¹Each of these service metrics contributes to your total service score differently, because they may apply to one or more member journeys. For example, a metric that scores you 10 points in the inactive member experience, will give you an adjusted score of 0.5, because the inactive member experience contributes 5% to your total service score.

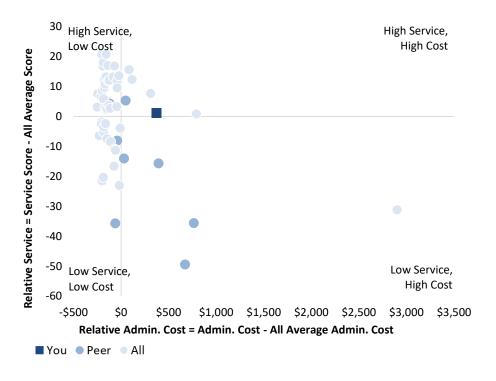
Contact Center continued

					Your
		Your	Peer	Your	Adjusted
Scoring	Method	Data	Average	Score	Score 1
+55	Call quality monitoring If you review your staff's responses to member calls for coaching purposes 4 or more times per month; otherwise 13.75 X # of times per				
	month you review calls	n/a	6.5 times	0.0	0.0
+15	If the review is based on listening in on a recording (versus a live call)	n/a	Recording	0.0	0.0
	Feedback				
+20	If you survey satisfaction or NPS regarding telephone calls	No	100.0% Yes	0.0	0.0
+10	If you survey within 2 days of the call	n/a	100.0% Yes	0.0	0.0
+15	Email turnaround times If the wait time is 0.5 days or less, otherwise 15 - 5 for each day over 0.5				
	days	2 days	2.1 days	7.5	2.6
	Contact center service score				54.3

¹Each of these service metrics contributes to your total service score differently, because they may apply to one or more member journeys. For example, a metric that scores you 10 points in the inactive member experience, will give you an adjusted score of 0.5, because the inactive member experience contributes 5% to your total service score.

Relationship between service and pension administration cost

Relative Service versus Relative Cost



Service scores are not good predictors of costs because:

- Costs are driven much more by the volume of service transactions (e.g., the number of calls, 1-on-1 sessions, presentations, etc.) than they are by their timeliness, availability, or quality.
- Service is partly a function of historic investment in information technology. These historic costs are not always reflected in current administration costs.

Rationale for the weighting scheme

The scoring methodology used to calculate the service scores for each of the four member journeys (shown in detail in this section of the report) is based on many years of discussion between CEM and participating pension systems. We actively seek the input of participants at meetings, workshops and peer conferences. We also complete regular research on topics of interest – and that research helps us refresh the model and reflect new working practices.

The following list reflects the thinking that drives the scoring methodology and the weights:

1 Different member groups have different needs

The services you provide for retiring members are clearly different to the services you provide for inactive members. The scoring reflects the best practices for servicing each of these member groups.

2 Relative volume of each activity

The average system does 25 pension inceptions and receives 617 member calls for every 1,000 active members and annuitants. So, based solely on relative volume, calls are 24.8 times more important than pension inceptions.

3 Expectations based on external experience

Members have various external points of reference to compare some activities, e.g., experience on the telephone where they can compare with their bank, utility providers etc. They rarely have any experience of having a pension set-up though.

4 About the members' money

Nothing gets a member's attention faster than their own money so things like benefit calculators linked to member data and paying pensions are much more important than your booklet.

5 Mission critical

Paying pensions is mission critical. Producing newsletters is not.

6 Volume is a good indicator of quality

If you do a lot of something then you are more likely to be good at it. For example, the more members you meet, the more likely you are to invest in making the experience as complete as possible.

7 Focus on what is material

We could ask a thousand questions about service – but we really want to produce a good indicator of overall service levels without getting too detailed (and without involving your team in a substantial amount of work). We try to get the balance right and focus on what is material.

8 What gets measured gets managed

... and what doesn't get measured doesn't get managed. So measure what matters. We penalize plans in the scoring system for failing to measure some things we think are important to members.

4

Cost Analysis

This section:

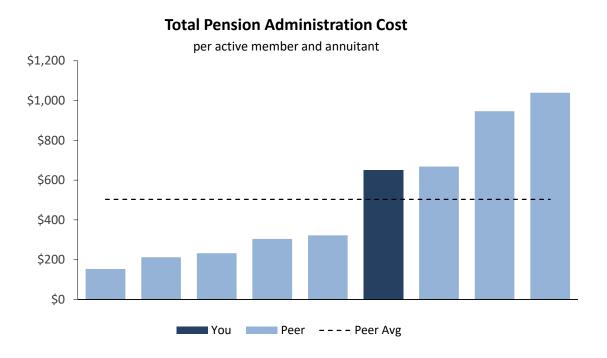
- Compares your total costs per member.
- Shows how differences in FTE, salaries, professional fees and building costs impact your costs.
- Compares other factors that impact costs such as workloads, productivity, economies of scale, cost environment, and major projects.

Your total pension administration cost per the survey was \$29.1 million, or \$650 per active member and annuitant.

	In \$0	00s	as a % o	f total
		Peer		Peer
Cost Category	You	Average	You	Average
Salaries and benefits	17,842	7,410	61%	45%
Professional fees (actuarial, legal, audit, consulting, outsourced IT, etc)	4,956	3,598	17%	20%
Building expenses (rent, depreciation, leasehold amortization, utilities, facility services)	929	836	3%	6%
Cross charges paid to sister organizations	0	0	0%	0%
Amortization and depreciation (non-building)	2,540	1,535	9%	7%
Other administrative expenses	2,789	4,075	10%	22%
total administration cost (A) active members and annuitants (B) \$ per active member and annuitant	\$29,056 44,668 \$650.49	\$17,454 34,012 \$503.35	100%	100%

All foreign currency amounts have been converted to USD using Purchasing Power Parity figures as per the OECD (see Appendix B). The benefit of using the same exchange rate for prior years is that changes in costs reflect fluctuations in your peers' costs and not fluctuations in foreign exchange.

Your pension administration cost was \$650 per active member and annuitant. This was \$147 above the peer average of \$503.

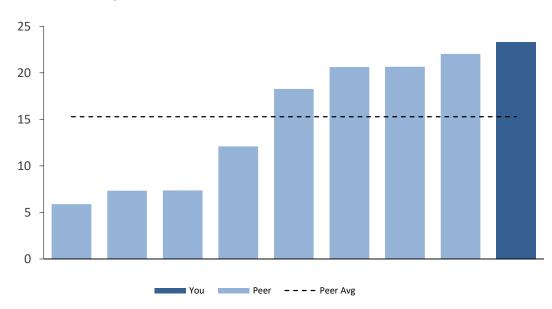


Inactive members are excluded from the total membership because they are much less costly to administer than either active members or annuitants. Inactive members are also excluded from the denominator when determining total cost per member.

Reasons why your cost of \$650 was \$147 above the peer average:

		Comparison Peer	More/	Impact \$s per
Reason	You	average	Less	member
	•	000 members	520/	4424
A. Using 52% more FTE to serve members	23.3	15.3	52%	\$121
B. Paying more in total per FTE for:	Cost	per FTE		
Salaries & benefits	\$171,558	\$133,932	28%	
 Building expenses 	<u>\$8,933</u>	<u>\$17,448</u>	-49%	
	\$180,490	\$151,381	19%	\$68
C. Paying less per member in total for:	\$s per	member		
 Professional Fees 	\$111	\$100	11%	
 Amortization 	\$57	\$35	65%	
 Charges to sister organizations 	\$0	\$0	0%	
 Other administration expenses 	<u>\$62</u>	<u>\$137</u>	-54%	
	\$230	\$272	-15%	-\$41
Total				\$147

You used 52% more FTE to serve your members in comparison to the peer average.



FTE per 10,000 active members and annuitants

Using more FTE increases your cost relative to the peer average by an estimated \$120.73 per member.

Key reasons for differences in FTE per member include differences in workloads and differences in productivity.

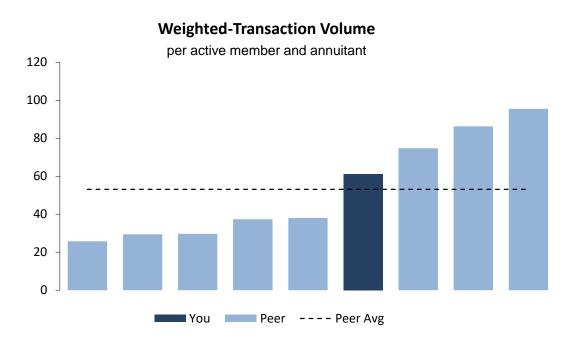
- Workloads: your weighted transaction volume was 61, which was 15% above the peer average. This suggests that you do more transactions and/or have a more costly mix of transactions per active member and annuitant.
- Productivity: your weighted-transaction score per FTE was 26,312, which is 40% lower than the peer average. Differences in productivity are caused by differences in staff capabilities, IT capability, service levels, economies of scale, organizational processes, complexity, projects and outsourcing (i.e., using consultants instead of internal staff will increase productivity per internal FTE).

Refer to section 5 Transaction Volumes for more insight into workloads.

Graphical comparisons - Where do you pay more/less?



Differences in costs can also be attributed to differences in transaction volumes.

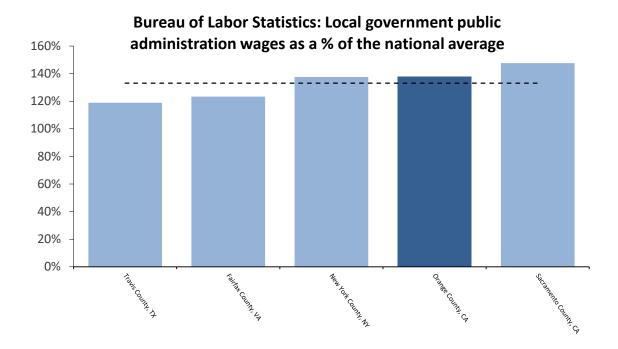


Workloads: your weighted transaction volume was 61, which was 15% above the peer average. This suggests that you do more transactions and/or have a more costly mix of transactions per active member and annuitant.

Refer to section 5 Transaction Volumes for more insight into workloads.

Your cost environment was 4% higher than the peer average.

The more expensive the location you are in, the higher your costs. The highest cost environment in your peer group was 24% higher cost than the lowest cost environment.

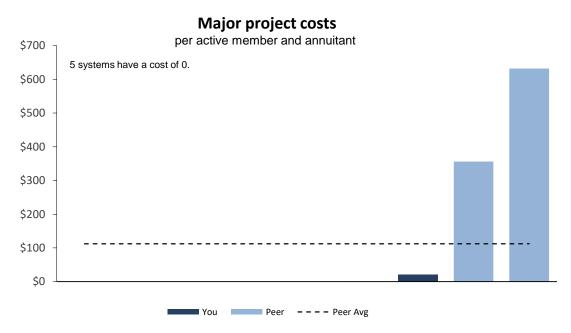


Source: Bureau of Labor Statistics (BLS), United States Department of Labor

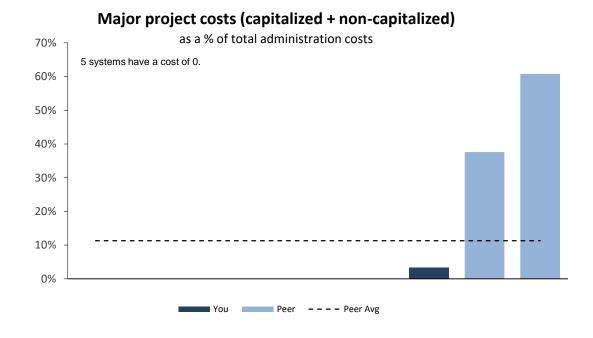
The cost environment measure is based on Bureau of Labor Statistics data for state and local government public administration wages within a given geographical area. It is normalized by dividing it by the national average.

Major projects: cost per member and as a % of total administration costs.

Your major project cost per member was \$22 was below peer average of \$112

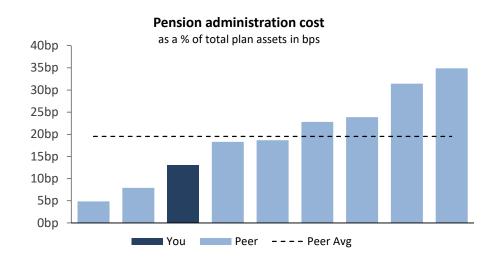


Your major project cost as a % of total adminstration costs was 3% was below peer average of 11%



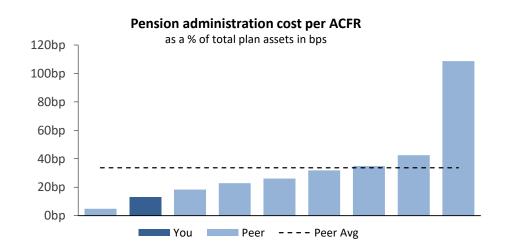
Differences in investment in major projects can have a very large impact on relative cost performance.

An alternative way of comparing costs is as a percentage of total assets. Your cost of 13.0 bps was below the peer average of 19.5 bps.



Calculation of your pension administration cost as a percentage of total assets						
Total pension administration cost in \$000s (A)	\$29,056					
Total assets in \$ billions at the end of the fiscal year (B)	\$22.3					
Pension administration cost as a % of total assets in bps (A/B divided by 1000)	13.0 bps					
1 basis point (bps) equals 0.01%.						

The above calculation uses your net pension administration cost. These exclude any healthcare or investment management related costs. If healthcare and investment management related costs are included in this calculation, your cost was 13.0 bps compared to a peer average of 33.7.



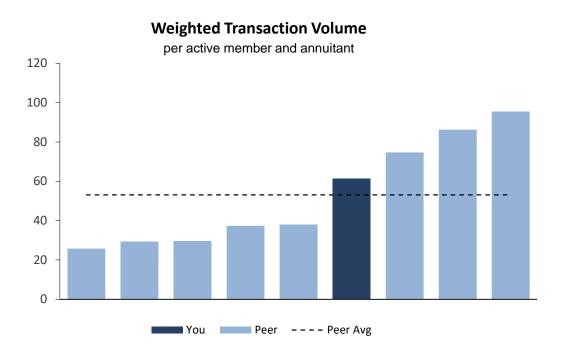
5

Transaction Volumes

This section contains:

- Comparisons of the most important pension administration transaction volumes. Transactions are a major driver of costs. It is higher cost to have higher transaction volumes per member.
- The calculation of your weighted transaction volume score per member. It shows whether your transaction volumes are more or less costly in aggregate.
- Comparisons of online transaction volumes.

Your weighted transaction volume was 15% higher than the peer average.



The weighted transaction volume shows whether your transaction volumes are more or less costly in aggregate.

Differences in volume per member reflect differences in:

- Activities that you administer. For example, some plans do not administer disability.
- Services provided. For example, some plans do not offer counseling.
- Online self-service. For example, self-service can reduce call volumes.
- Membership mix. Active members cause more transaction volumes than annuitants.
- Member demographics. Some member types demand more services than others.

Your weighted transaction volume equals the cost weighted average of 12 key activity volumes.

Calculation (of your Weighted Transaction Vo	olume per	Member	
Activity	Activity volume description	Your Volume (A)	Weight = World PABS Cost per Unit (B)	Weighted Volume (A x B)
Activity	description	(/1)	(5)	(A X D)
1. Member Transactions				
A. Pension Payments B. Pension Inceptions and Writ	annuitants Eten	21,950	9	206,769
Estimates	service & survivor inceptions	1,177	284	333,750
C. Withdrawals	withdrawals	631	144	90,826
D. Purchases	purchases	114	415	47,307
E. Disability	disability applications	103	1,983	204,262
2. Member Communication				
A. Member Calls	calls & emails	84,286 ¹	10	805,772
B. Mail Room	incoming letters	41,055	7	289,848
C. Pension Estimates	written estimates	6,180	41	250,51
C. 1-on-1 Counseling	counseling sessions	2,008	105	210,57
D. Member Presentations	presentations	56	1,301	72,864
E. Mass Communication	active members & annuitants	22,718	4	83,829
3. Collections and Data Maintena	nce			
A. Employer data & money	active members	22,718	5	115,40
B. Non-employer data	actives, inactives, annuitants	30,551	1	24,746
otal				2,736,478
Total per active member and anni	uitant			6:

¹ Default. You responded 'unknown'.

The weights used are the in-house peer median cost per transaction for all participants in CEM's global pension administration benchmarking service. These weights enable us to normalize for the substantial differences in time and effort expended on each type of task. For example, the work effort in responding to a disability application is much higher than answering a telephone call.

For some activities, we have used members as a proxy for the activity's transactions. For example, active members is used as a proxy for the transactions of employer data and money. The implicit assumption is that data maintenance transactions (such as new hires, leaves, exits, changes in family status, address changes, etc) will occur at similar ratios of members for all schemes.

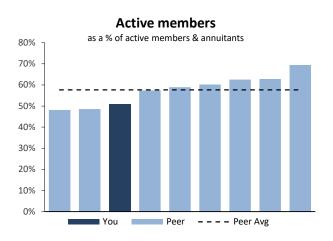
Where are you doing more/fewer transactions than your peers?

Where are you doing more/fewer transactions than your peers?							
				per 1,000 s and ani		Cost- impact	
	Activity volume	Your		Peer	More/	You vs.	
Activity	description	Volume	You	Avg	-less	Peers	
1. Member Transactions							
A. Pension Payments	annuitants	21,950	491.4	423.5	16%	increasing	
B. Pension Inceptions and Written	service & survivor	4 4 7 7	26.2	22.0	440/		
Estimates C. Withdrawals	inceptions withdrawals	1,177	26.3	23.8	11%	increasing	
		631	14.1	23.2	-39%	decreasing	
D. Purchases	purchases	114	2.6	27.3	-91%	decreasing	
E. Disability	disability applications	103	2.3	1.1	110%	increasing	
2. Member Communication							
A. Member Calls	calls & emails	84,286 ¹	1,886.9	823.3	129%	increasing	
B. Mail Room	incoming letters	41,055	919.1	557.3	65%	increasing	
C. Pension Estimates	written estimates	6,180	138.4	52.9	161%	increasing	
C, 1-on-1 Counseling	counseling sessions	2,008	45.0	54.5	-18%	decreasing	
D. Presentations	presentations	56	1.3	1.0	26%	increasing	
	active members &						
E. Mass Communication	annuitants	22,718	508.6	576.5	-12%	decreasing	
3. Collections and Data Maintenance							
A. Employer data	active members	22,718	508.6	576.5	-12%	decreasing	
B. Non-employer data	annuitants, inactives	30,551	684.0	558.9	22%	increasing	
Weighted Total			61.3	53.1	15%	increasing	

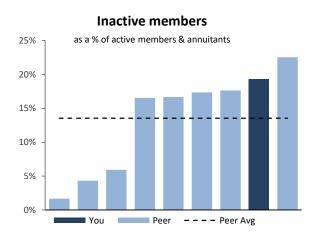
¹ You responded 'unknown'. Therefore, a default based on the peer average was applied.

All volumes in the above table are compared on a 'per 1,000 active members and annuitants', even if both member groups do not always cause the volume. This is because active members & annuitants is the divisor used to determine cost per member. Therefore, if you want to know how volumes impact your relative cost performance, they need to be compared on the same basis.

Membership mix impacts transaction volumes



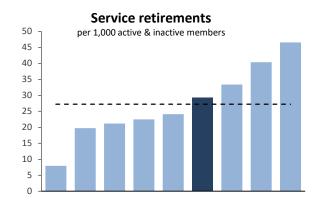
Active members cause more transactions than annuitants. For your system, active members represented 51% of the divisor used to determine cost per member (i.e., active members and annuitants). This was less than the peer average of 58%. Having less active members decreases your relative volumes and costs.

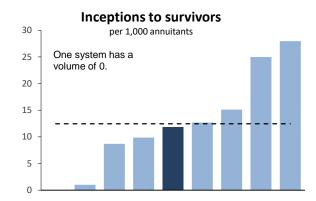


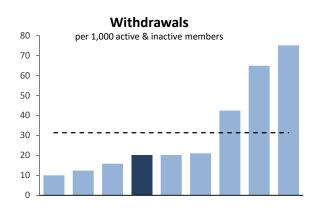
Inactive members cause the fewest transactions. Therefore they are excluded from membership volumes when determining cost per member. But they still cause some transactions (i.e., withdrawals, service retirements, calls). So having more inactive members increases your relative volumes and costs. Your system had more. Inactive members represented 19% of the divisor used to determine cost per member (i.e., active members and annuitants) which was more than the peer average of 14%.

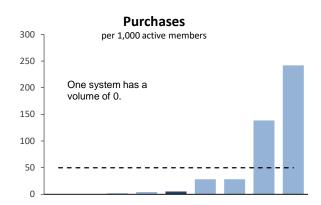
Member transactions - Where are you doing more/less?

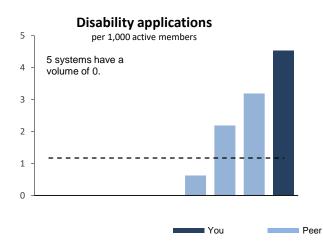
Transaction volumes below, and on the following two pages, are compared versus the member group subsets that are most likely to cause the volumes.











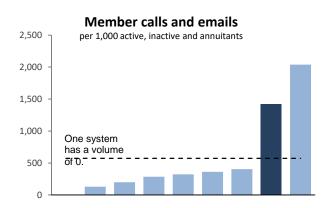
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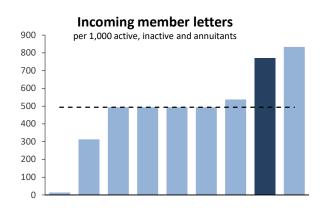
Transaction Volumes 5-6

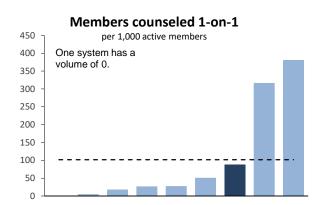
--- Peer Avg

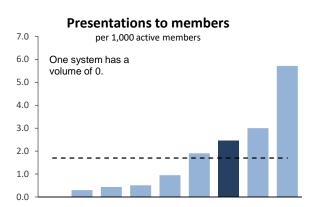
185

Communication transactions - Where are you doing more/less?





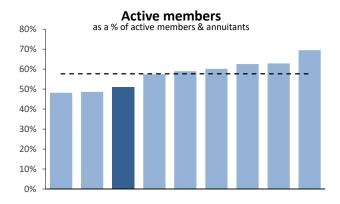




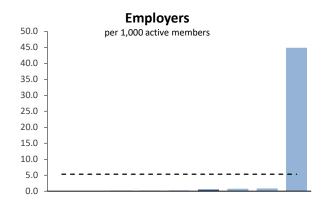


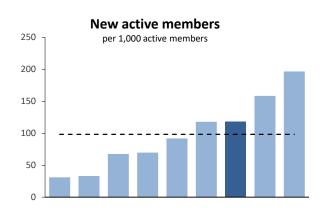
Collections and data transactions - Where are you doing more/less?

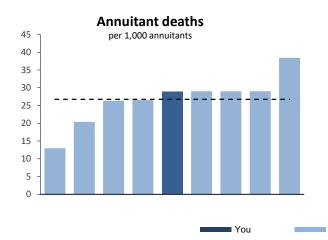
The key driver of collection and data transactions and costs is active members which in turn cause data transactions such as service accruals, divorce, leaves of absence, exits, withdrawals, inceptions, deaths, beneficiaries and new members. Annuitants and inactive members cause far fewer data transactions. So if you have a higher ratio of actives relative to annuitants, this will increase your relative cost per member.

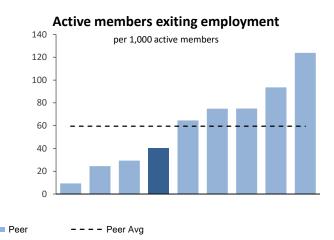


Shown below are secondary drivers of collections and data cost.

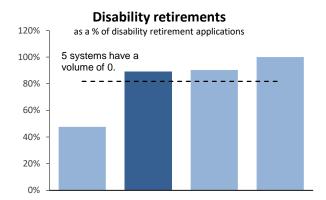


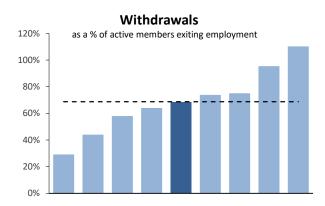


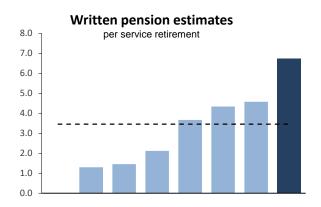


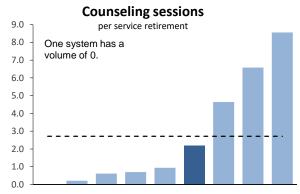


Interesting ratios









Service retirements are not the only driver of counseling sessions. Systems that administer healthcare often counsel retirees on healthcare choices.

You Peer --- Peer Avg

Online Transactions

In non-secure area Inked to member's salary and service data Yes 100% Yes Member can: Model different retirement start dates Yes 100% Yes Model salary changes Yes 86% Yes Model different working percentages (e.g., part-time or early termination) No 43% Yes Model alternative payment options No 71% Yes Model gross and net retirement income gross 29%both Model monthly and annual retirement income monthly 0%both View retirement incomes in one-page summary for comparative purposes No 29% Yes	Online Tool	Do you	ı offer?
In non-secure area inked to member's salary and service data Yes 100% Yes Member can: Model different retirement start dates Yes 100% Yes Model salary changes (e.g., part-time or early termination) No 43% Yes Model different working percentages (e.g., part-time or early termination) No 43% Yes Model different working percentages (e.g., part-time or early termination) No 43% Yes Model different working percentages (e.g., part-time or early termination) No 71% Yes Model gross and net retirement income gross 29% both Model monthly and annual retirement income monthly 0% both View retirement incomes in one-page summary for comparative purposes No 29% Yes Sabbilities on your website: Submit a retirement application online Yes 29% Yes Member provided with an estimate, final gross (or net) amount, or neither Percent of online applications require follow-up 75% 50% Member view the status of online retirement application No 0% Yes Prior service credit purchase calculator No 33% Yes Prior service credit purchase calculator No 17% Yes In-service credit purchase calculator No 17% Yes In-service credit purchase calculator No 17% Yes Apply for a prior service credit purchase Apply for a prior service credit purchase Apply for a transfer-iou No 17% Yes Apply for a transfer-iou No 17% Yes Apply for a transfer-out No 17% Yes Apply for a transfer-out No 17% Yes Change address Yes 29% Yes Change beneficiary Yes Change beneficiary Yes 75% Yes Change beneficiary Yes Change tax withholding amount View or download duplicate tax receipts [i.e., 1099s in the U.S.] Yes 86% Yes Yes Yes Prior download duplicate tax receipts [i.e., 1099s in the U.S.] Yes 86% Yes Yes Yes Yes Prior download duplicate tax receipts [i.e., 1099s in the U.S.] Yes 86% Yes Yes Yes Yes Yes Yes Prior download duplicate tax receipts [i.e., 1099s in the U.S.] Yes 86% Yes Yes Yes Prior download duplicate tax receipts [i.e., 1099s in the U.S.] Yes 86% Yes		You	Peer Avg
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Submit a retirement application onlineYes29% YesMember provided with an estimate, final gross (or net) amount, or neither75%50%Percent of online applications require follow-up75%50%Member view the status of online retirement applicationNo0% YesPrior service credit purchase calculatorNo33% YesPrior service credit purchase calculatorNo17% YesIn-service credit purchase calculatorNo17% YesIn-service credit estimate is finaln/a100% YesApply for a prior service credit purchaseYes29% YesApply for a prior service credit purchaseYes17% YesApply for a transfer-inNo17% YesApply for transfer-outNo17% YesChange addressYes86% YesChange email addressYes75% YesChange beneficiaryYes57% YesChange banking information for direct depositYes57% YesChange tax withholding amountYes57% YesView or download duplicate tax receipts [i.e., 1099s in the U.S.]Yes86% YesView pension payment details [i.e., gross amounts, deductions]Yes57% YesSecure portal that includes a member's history of recent correspondenceNo57% YesView most recent member statementYes86% YesUpload documentsNo29% YesView pensionable earnings and/or service without downloadingYes100% YesIf yes:Both salary and service data are available <td>View retirement incomes in one-page summary for comparative purposes</td> <td>No</td> <td>29% Yes</td>	View retirement incomes in one-page summary for comparative purposes	No	29% Yes
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Apply for a transfer-in Apply for transfer-out Apply for transfer-out Change address Change beneficiary Change email address Change banking information for direct deposit View or download duplicate tax receipts [i.e., 1099s in the U.S.] View pension payment details [i.e., gross amounts, deductions] Secure portal that includes a member's history of recent correspondence View most recent member statement View pensionable earnings and/or service without downloading If yes: Both salary and service data are available Is online data up-to-date to the most recent pay period No 17% Yes 86% Yes 75% Yes 57% Yes 57% Yes 86% Yes 57% Yes 86% Yes 100% Yes 86% Yes 86% Yes	Apply for a prior service credit purchase	Yes	29% Yes
Apply for transfer-out Change address Change beneficiary Change email address Change banking information for direct deposit View or download duplicate tax receipts [i.e., 1099s in the U.S.] View pension payment details [i.e., gross amounts, deductions] Secure portal that includes a member's history of recent correspondence View most recent member statement View pensionable earnings and/or service without downloading View pensionable earnings and/or service without downloading Ves Source View pensionable earnings and/or service without downloading Ves View pensionable earnings and/or service without downloading Ves Source View pensionable earnings and/or service without downloading Ves View pensionable earnings and/or service without downloading Ves Source View pensionable earnings and/or service without downloading Ves View pensionable earnings and/or service without downloading Ves Source View pensionable earnings and/or service without downloading Ves View pensionable earnings and/or service without downloading Ves Source View pensionable earnings and/or service without downloading Ves Source View pensionable earnings and/or service without downloading Ves Source View pensionable earnings and/or service without downloading Ves Source View pensionable Ves Source View p	Apply for an in-service credit purchase	Yes	17% Yes
Change address Change beneficiary Change email address Change banking information for direct deposit View or download duplicate tax receipts [i.e., 1099s in the U.S.] View pension payment details [i.e., gross amounts, deductions] View most recent member statement View most recent member statement View pensionable earnings and/or service without downloading View pensionable earnings and/or service without downloading Ves: Both salary and service data are available Is online data up-to-date to the most recent pay period Yes 86% Yes	Apply for a transfer-in	No	17% Yes
Change beneficiary Change email address Change banking information for direct deposit Change tax withholding amount View or download duplicate tax receipts [i.e., 1099s in the U.S.] View pension payment details [i.e., gross amounts, deductions] Secure portal that includes a member's history of recent correspondence View most recent member statement View pensionable earnings and/or service without downloading Ves View pensionable earnings and/or service without downloading	Apply for transfer-out	No	17% Yes
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Change banking information for direct deposit Change tax withholding amount View or download duplicate tax receipts [i.e., 1099s in the U.S.] View pension payment details [i.e., gross amounts, deductions] Secure portal that includes a member's history of recent correspondence View most recent member statement Ves View pensionable earnings and/or service without downloading If yes: Both salary and service data are available Is online data up-to-date to the most recent pay period Yes 57% Yes	Change beneficiary		
Change tax withholding amount View or download duplicate tax receipts [i.e., 1099s in the U.S.] View pension payment details [i.e., gross amounts, deductions] Secure portal that includes a member's history of recent correspondence View most recent member statement Ves 86% Yes Upload documents View pensionable earnings and/or service without downloading If yes: Both salary and service data are available Is online data up-to-date to the most recent pay period Yes 86% Yes 86% Yes	Change email address	Yes	75% Yes
Change tax withholding amount View or download duplicate tax receipts [i.e., 1099s in the U.S.] View pension payment details [i.e., gross amounts, deductions] Secure portal that includes a member's history of recent correspondence View most recent member statement Ves 86% Yes Upload documents View pensionable earnings and/or service without downloading If yes: Both salary and service data are available Is online data up-to-date to the most recent pay period Yes 86% Yes 86% Yes	Change banking information for direct deposit	Yes	57% Yes
View pension payment details [i.e., gross amounts, deductions] Secure portal that includes a member's history of recent correspondence View most recent member statement Upload documents View pensionable earnings and/or service without downloading If yes: Both salary and service data are available Is online data up-to-date to the most recent pay period Yes 57% Yes 86% Yes 86% Yes 86% Yes 86% Yes	Change tax withholding amount		
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View most recent member statement Upload documents No 29% Yes View pensionable earnings and/or service without downloading Yes 100% Yes If yes: Both salary and service data are available Is online data up-to-date to the most recent pay period Yes 86% Yes	View pension payment details [i.e., gross amounts, deductions]	Yes	57% Yes
Upload documents View pensionable earnings and/or service without downloading If yes: Both salary and service data are available Is online data up-to-date to the most recent pay period No 29% Yes 100% Yes 29% Yes	Secure portal that includes a member's history of recent correspondence	No	57% Yes
View pensionable earnings and/or service without downloading If yes: Both salary and service data are available Is online data up-to-date to the most recent pay period Yes 100% Yes 86% Yes	View most recent member statement	Yes	86% Yes
If yes: Both salary and service data are available Is online data up-to-date to the most recent pay period Yes 86% Yes 86% Yes	Upload documents	No	29% Yes
Both salary and service data are available Is online data up-to-date to the most recent pay period Yes 86% Yes	View pensionable earnings and/or service without downloading	Yes	100% Yes
Both salary and service data are available Is online data up-to-date to the most recent pay period Yes 86% Yes	If yes:		
		Yes	86% Yes
Is a complete annual history from the beginning of employment provided No 29% Yes	Is online data up-to-date to the most recent pay period	Yes	86% Yes
	Is a complete annual history from the beginning of employment provided	No	29% Yes

6

Appendices

Appendix A - Survey Responses

Appendix B - Foreign Currency Conversion

Appendix A - Orange County ERS Survey Responses

		,	Your Data			rs 2023			
Su	rvey Questions	2023	2022	2021	Max.	Median	Min.	Avg	Count
1	Orange County Employees Retirement System								
2	Main survey contact:								
	William Tsao								
	<u>Director of Enterprise Project Management Office</u>								
	<u>714-558-6238</u>								
	wtsao@ocers.org								
3	Indicate 'yes' if your employers/ member groups can be								
	described as the following (indicate all that apply):								
	a) Is your membership limited to a city or county?	No		No	67% Yes,	33% No			9
	b) Participating Local Employers? [i.e. municipalities have a								
	choice in participating in your plan]	Yes		Yes	44% Yes,	56% No			9
	c) State, Province, Country?	No		No	33% Yes,	67% No			9
	d) Teachers?	No		No	22% Yes,	78% No			9
	e) School Employees (Custodians, Admin. Staff)?	No		No	33% Yes,	67% No			9
	f) Safety (Police, Fire, Sheriff's Dept, etc)?	Yes		Yes	44% Yes,	56% No			9
	g) Other (Judges, Legislators, etc)?	No		No	11% Yes,	89% No			9
	h) Corporate?	No		No	0% Yes, 1				9
	i) Industry?	No		No	22% Yes,	78% No			9
	i1) If Industry, describe the industry:								
	<u>n/a</u>								
4	Which of the following descriptions best describes the non-								
	optional benefit plans that you administer for each of your								
	member groups:								
	A plan is non-optional if members' must participate in it, or								
	choose between it and alternatives. Do not include membership								
	in benefit plans that are supplemental and optional such as								
	deferred compensation 457, 403B or 401(k) plans. Do not								
	include plans administered by a 3rd party.								
	a) Traditional Defined Benefit ("DB")?	Yes		Yes	100% Yes				9
	b) DC Cash Balance (aka Money Purchase)?	No		No	0% Yes, 1				9
	c) Hybrid DB/ DC Cash Balance?	No		No	11% Yes,				9
	d) Hybrid DB/ Money Match?	No		No	0% Yes, 1				9
	e) DROP savings?	No		No	0% Yes, 1				9
	f) Defined Contribution ("DC")?	No No		No No	0% Yes, 1				9 9
	g) Hybrid DB/ DC?	No		No	0% Yes, 1 0% Yes, 1				9
	h) Other (describe)? n/a	INO		NO	0/6 165, 1	00% NO			9
5	Which of the following programs do you offer to members AND								
	administer yourself (i.e., design, enrolment, premium								
	collection)?	NI-		NI-	00/1/	000/ 11			0
	a) Pre-retirement health?	No		No	0% Yes, 1				9
	b) Post-retirement health?	No		No	11% Yes,				9 9
	c) Pre-retirement dental and vision? d) Post-retirement dental and vision?	No No		No No	0% Yes, 1 11% Yes,				9
	,	No		No	· '				9
	e) Long-term care insurance? f) Loans to members?	No		No	0% Yes, 1 11% Yes,				9
	g) Optional tax deferred savings plans? [i.e., 457, 403, 401k,	110		.40	11/0 163,	5570 I 4 0			,
	401a, etc]	No		No	11% Yes,	89% No			9
	h) Optional insurance? [i.e., life and/or auto and/or home]	No		No	11% Yes,				9
	i) Other (describe)?	No		No	11% Yes,				9
	n/a					-			-

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				1	Doors 2022			
Ç	rvey Questions	Your Da 2023 2022		Max.	Median	eers 2023 Min.	Avg	Count
Su	n/a	2023 2022	2021	IVIAX.	iviculari	ı ıvıııı.	Avg	Count
	<u>n/a</u>							
6	What was your total asset value in \$ millions at the end of the							
	fiscal year?	\$22,300.0	\$22,436.0					
7	Number of:							
•	a) Employers at the end of your fiscal year?	13	13	755	7	1	90	9
Me	embership							
8	Provide the breakdown of total members between:							
0	End of most recent fiscal year							
	a) Active members	22,718	22,011	28,324	20,974	11,197	19,315	9
	b) Deferred members	8,601	7,238	8,601	4,280	746	4,266	9
	c) Annuitants (Service, Disabled, Survivor)	21,950	19,826	23,382	13,747	7,409	14,697	9
	End of prior fiscal year							
	a) Active members	22,061	21,559	30,456	20,984	10,440	19,197	9
	b) Deferred members	7,894	6,818	7,894	3,984	688	3,987	9
	c) Annuitants (Service, Disabled, Survivor)	20,678	19,419	22,776	13,338	7,134	14,187	9
Tra	ansaction Volumes							
9	What were your volumes for:							
	What were your volumes for:							
	a) Service retirement inceptions?	917	828	1,261	596	123	665	9
	b) Inceptions to survivors, partners, ex-partners or dependents?	260	214	589	121	0	211	9
	c) Disability retirement inceptions?	92	95	552	7	0	81	9
	d) Disability retirement applications?	103	135	103	42	0	43	5
	e) Deaths of annuitants/survivor/disabled?	636	n/a	636	367	178	386	9
	f) New active members?	2,689	1,798	4,505	1,972	410	1,962	9
	g) Active members exiting employment? [exclude service and							
	disability retirements]	919	837	2,122	850	203	1,112	9
	h) Withdrawals, refunds?	631	221	2,027	375	224	768	9
Ad	ministration Costs							
10	Total administrative expenses per your financial statements							
	(ACFR)	\$29,056.0	\$21,473.0					
	Subtract, if included:							
	a) Healthcare administration costs	\$0.0	\$0.0					
	b) Optional and third party administered benefits, such as tax							
	deferred savings plans, loans, dental, etc.	n/a	n/a					
	c) Investment administration costs	\$0.0	n/a					
	d) Accrued, non-cash, pension and OPEB expense (per GASB 68							
	& 75)	\$0.0	n/a					
	Add, if not included:							
	e) Amortization and depreciation of administrative assets	\$0.0	\$0.0					
	f) Actuarial and all other professional fees relating to pension							
	administration	\$0.0	\$0.0					
	g) Cash contributions for pension and OPEB, for active staff	\$0.0	\$1,029.0					
	Net pension administration costs	\$29,056.0	\$22,502.0					
11	Provide the breakdown of your net pension administrative costs							
	from question 10 above:							
	a) Salaries and benefits	\$17,842.0	\$14,380.0					
	b) Professional fees (actuarial, legal, audit, consulting,							
	outsourced IT, etc.)	\$4,956.0	\$3,395.0					
	c) Building expenses (rent, depreciation, utilities, facility	4000 0	4654.0					
	services, amortization of lease holds)	\$929.0	\$651.0					
	d) Amortization and depreciation (non-building)	\$2,540.0	\$2,577.0					
	e) Other administrative expenses	\$2,789.0	\$1,499.0					

Appendix - 3

		Your Data			D			
Sui	vey Questions	2023 2022	2021	Max.	Median	ers 2023 Min.	Avg	Count
	Total administrative expenses	\$29,056.0	\$22,502.0					
12	Are any of the following services provided free of charge, or at a subsidized cost, by a sister organization (cost should be included in cost allocation above):							
	Provided by sister org.? a) Building?	No	No	0% Yes	100% No			9
	b) IT services?	No	No		100% No			9
	c) Actuarial services?	No	No	,	100% No			9
	d) Pension payroll?	No	No	0% Yes,	100% No			9
	e) Member data maintenance?	No	No	0% Yes,	100% No			9
	f) Other? Please describe below:	No	No	0% Yes,	100% No			9
	<u>n/a</u>							
	Free of charge?							
	a) Building?	n/a	n/a	0% Yes,				0
	b) IT services?	n/a	n/a	0% Yes,				0
	c) Actuarial services?	n/a	n/a	0% Yes,				0
	d) Pension payroll?	n/a n/a	n/a n/a	0% Yes, 0% Yes,				0 0
	e) Member data maintenance? f) Other? Please describe below:	n/a	n/a	0% Yes,				0
13	Provide the number of full-time equivalent ("FTE") of all staff whose compensation is included in 11a above. [i.e. the full time equivalent of all administrative staff, less health care, nonpension and optional benefit, and investment administration staff, less staff whose salaries were capitalized]. Include the FTEs who are under contract, part-time and non-permanent. For example, a person who works 3 days a week counts as 0.6 FTE. Do not include the FTE of unfilled positions.					10.5	53.0	
	·	104.0	76.8	108.8	50.0	19.5	52.9	9
14	Did you capitalize any pension administration related costs last	No	No	220/ Voc	679/ No			8
	year? a) If yes, total amount capitalized?	n/a	n/a	22% Yes	, 67% No			٥
1 5	Did you have any major project costs that were not capitalized?	No	No	11% Voc	, 89% No			9
13	a) If yes, what were your total non-capitalized major project		110	1170 103	, 0370 110			J
	costs?	\$965.0	\$0.0					
Sei	vice							
16	How do you provide customer service to your members? Digital-only: only through digital channels. Members must use self-service options, and assisted service channels are not readily available. Digital-first: prioritizing digital channels, but assisted service channels are available for complex transactions. Traditional: members can choose between assisted and self-service options, with no preference towards digital channels.	DigitalFirst	DigitalFirst	33% Dig	italFirst, 0%	DigitalOnly	, 67% Tradi	iti 9
	a) If digital-first: do you encourage 1-on-1 counseling as an assisted service option?	Yes	Yes	33% Yes	. 0% No			3
Per	nsion Payments							
	Do you administer annuity pensions?	Yes	Yes	100% Ye	s, 0% No			9
18	Were any of your pension payrolls late vis-à-vis your normal payment cycle? [For example, a payroll might be late because of IT system problems.]	No	No	0% Yes,	100% No			9
	If yes: a) How many payrolls were late?	n/a	n/a	n/a	n/a	n/a	n/a	0
	b) On average, how many days late were they?	n/a	n/a	n/a	n/a	n/a	n/a	0
19	What percentage of pensions are paid by check? [as opposed to		-			-	-	
	Electronic Funds Transfer ("EFT")]	0.2%	0.2%	11.6%	0.4%	0.0%	1.7%	9

			Your Data	9	Peers 2023				
Sui	vey Questions	2023	2022	2021	Max.	Median	Min.	Avg	Count
Pei	nsion Inceptions and Written Estimates								
20	How many changes in gross amount of annuity pensions paid								
	occurred as a result of changes in an individual annuitant's						_		
	personal circumstances?	471		471	658	150	0	225	8
	For example:								
	• When the spouse of an annuitant dies "last survivor" options result in decreases, and "pop-up" or "reversion" options result								
	in increases. [Exclude annuitant deaths that result in new								
	pensions paid to spouses.]								
	When an annuitant or their beneficiary becomes eligible for								
	social security, it often results in a reduction of the gross								
	pension paid.								
	Redesign of the payment option, appeal decisions, high low								
	options shifting to low.								
21	What percentage of annuity inceptions for:								
	a) Retiring active members are paid without an interruption of								
	cash flow greater than 1 month between the final pay check and the first pension check?	100.0%		100.0%	100.0%	99.4%	10.0%	82.5%	8
	b) Survivors are paid without an interruption of cash flow								
	between the pensioner's final pension check and the survivor's								
	first pension check?	95.0%		95.0%	100.0%	96.2%	0.0%	66.1%	9
22	Will you initiate a service retirement pension based on existing								
	data or estimates, recognizing that you will have to finalize the								
	payments later after you get final data?	No		No	56% Yes,	44% No			9
	a) If yes, what proportion of your service retirement inceptions								
	to retiring active members was based on existing data or	n/a		n/a	100.0%	20.2%	0.0%	44.2%	5
	estimates? b) On average, how long did it take to finalize service retirement	ii/a		11/ a	100.076	20.276	0.076	44.270	,
	inceptions based on estimates? (in months)	n/a		n/a	1.5	1.0	1.0	1.1	5
23	Do you require birth certificates and/or marriage certificates								
	before incepting a pension?	Yes		Yes	78% Yes,	22% No			9
24	Do you require notarization of normal or early retirement								
	applications?	None		None	22% All,		9		
	If some, describe those that require versus those that do not:								
	<u>n/a</u>								
25	What % of vested inactive members that reached their normal								
	retirement age in the year have not received any benefits yet								
	because mail has been returned and the member is								_
_	unreachable?	Unknown		Unknown	51.0%	10.0%	1.0%	15.9%	5
Pei	nsion Estimates								
26	Do you offer written pension estimates to members?	Yes		Yes	78% Yes,	22% No			9
	If no, go directly to question 31.								
27	How many written pension estimates did you mail out pursuant								
	to individual member requests? [Exclude estimates prepared								
	during counseling sessions and not mailed in advance.]	6,180		5,140	6,180	2,356	179	2,846	6
28	When a member requests multiple different estimate scenarios,								
	do you count each scenario as an 'estimate' or do you count the								
	'multiple request' as a single estimate?	single		single	22% eacl	n, 78% singl	e		9
	a) If you count each scenario, what is the approximate average	n/a		n/a	2	2	2	2	1
	number of scenarios per request by a member?	11/ a		11/ a	[۷	۷	۷	1
29	On average, how many business days does it take to provide a								
	written pension estimate from the time of initial request from a member? [Exclude time in the mail.]	2.0		2.0	19.0	5.0	2.0	7.4	6
	member: [Exclude time III the IIIan.]					5.5			3

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Survey Questions	2022	Your Data		r	eers 2023		
	2023	2022 2021	Max.	Media	n Min.	Avg	Count
30 Do your written pension estimates (including cover letters, etc. sent with the estimate):a) Clearly address if and how the pension is inflation protected		·					
(or not protected)? b) If your pension is coordinated with or reduced by social	No	No	33% Ye	s, 44% No			7
security (or CPP in Canada) is the impact explained? c) Discuss alternative scenarios that could improve the pension	n/a	n/a	22% Ye	s, 11% No			3
such as purchasing service credit or working longer?	No	No	22% Ye	s, 56% No			7
d) Model alternative retirement payment options?	Yes	Yes	67% Ye	s, 11% No			7
Refunds, Transfers-out, Withdrawals 31 How many written estimates for refunds/ terminations/ transferouts did you prepare in response to member requests? [Include							
all estimates whether they result in a refund or not.]	42	42	2,194	250	42	665	5
32 How long does it take on average, in business days, for you to complete an individual transfer-out to a member's new pension plan, including delays caused by external parties, beginning from the time of initial request by the member?	20	20	168	38	3	59	6
Purchases and Transfers-in							
33 Number of actual: a) Prior service credit purchases? [e.g., for prior refunded							
service, military service, etc.]	49	49	603	95	0	146	8
 b) In-service credit purchases? [e.g., maternity, parental, sabbatical, educational, illness leaves.] c) Upgrades or 'Top-ups' where members can improve their 	61	61	2,742	61	0	607	5
pensionable salary (but not service credit)?	n/a	n/a	389	0	0	43	9
 d) Upgrades where members can pay to upgrade from an older retirement formula to a new retirement formula? e) Individual transfers-in from member's previous pension plan? [For example, many systems have reciprocal agreements with 'sister' plans that permit members to transfer-in credit from their previous employer's pension plan to their new plan and 	n/a	n/a	14	0	0	2	9
vice versa? Do not include collective transfers-in.]	4	4	2,155	8	0	281	9
34 How many written purchase, upgrade, or transfer-in estimates did you prepare in response to member requests? [Include all estimates whether these result in a purchase or not.]	606	606	1,451	219	8	388	8
35 On average, how many business days does it take from the date of first request to provide a written service credit purchase cost?	120	120	250	24	1	77	8
36 How long does it take on average, in months, for you to complete an individual transfer-in, including delays caused by	120				-	.,	· ·
external parties?	9	9	9	4	1	5	5
Disability							
37 Do you administer:a) Long-term disability/ disability pensions?	Yes	Yes		s, 33% No			9
b) Short-term disability?If you do not administer either short-term or long-term disability, or disability pensions skip to question 39.	No	No	0% Yes	, 100% No			9
38 How many months, on average, does it take to return a decision on a disability application from:							
a) Date of initial request from a member? b) Date of receipt of all necessary documentation to complete	10.5	9.0	18.0 15.0	8.3 3.0	1.0	8.4 5.3	6 5
an application?	5.3	6.0					

		Your Data		1					
Sur	vey Questions	2023	2022	2021	Max.	Median	eers 2023 Min.	Avg	Count
	Volumes What were your volumes of: a) Incoming calls that reach and are responded to by a								
	knowledgeable service representative (i.e., exclude messages, etc.)? b) Outgoing calls from service representatives responding to messages (voice mail, receptionist, etc.) or following-up on	67,195		67,195	67,195	10,054	4,634	21,370	8
	previous calls?	4,662		4,662	5,708	2,555	6	2,464	7
	c) Incoming calls satisfied by self-serve options, if any?	n/a		n/a	0	0	0	0	8
	d) Email queries from members?	Unknown		23,891	27,362	3,052	322	6,826	7
	e) Member queries via your secure messaging portal? f) Incoming mail?	n/a 41,055		n/a 16,052	3,399 43,607	0 22,978	0 324	456 24,461	9 5
40	Before Reaching a Service Rep What number of member phone calls did not connect to a person during business hours because:								
	a) Busy signal, never enters the system?b) Caller gets pre-recorded 'call another time' message during	Unknown		Unknown	0	0	0	0	1
	business hours?	n/a		n/a	0	0	0	0	3
	c) Abandoned calls (i.e., caller hangs-up while in a menu)? d) Abandoned calls (i.e., caller hangs-up while in a queue or on	46		46	46	46	46	46	1
	hold)? e) Busy signal after navigating an automated attendant menu, or	671		0	58,966	48	0	6,712	9
	after being transferred by a receptionist? f) Call rings unanswered during business hours?	n/a 7,621		n/a 7,621	0 7,621	0	0	0 1,089	3 7
41	Do you have a menu system that callers negotiate before speaking to someone? If yes:	Yes		Yes	67% Yes	, 33% No			9
	a) What is the average number of menu layers that must be navigated before a caller can speak to a live person? [Count each and every time a caller must select a menu option by pressing a button on the phone as a menu layer. Use the volume-weighted average number of menu layers if callers must negotiate different numbers of menu layers to reach a service								
	representative on some menu-tree branches than on others.] b) What is the average time in seconds that it would take a caller to negotiate the menu and listen to menu options before the caller is forwarded to a live person (or queue for a live	2		2	3	2	1	2	6
	person)? c) Is the menu system by-passed if a service representative is	13		13	113	28	8	40	6
	available? c1) If yes, for what percentage of calls is the menu system by-	No		No	0% Yes,	67% No			6
42	passed? Is a receptionist the first point of human contact when a	n/a		n/a	n/a	n/a	n/a	n/a	0
	member calls? [A receptionist handles only basic requests like transferring calls, and is not a service representative.]	No		No	11% Yes	, 89% No			9
43	Do you have a queue for service representatives? [The entry to the queue could be a recorded message, a menu system or a receptionist.] If yes:	Yes		Yes	78% Yes	, 22% No			9
	a) What is the average wait time in seconds in queue for a service representative?	54		Unknown	480	44	15	114	6
44	Does your system notify the caller of the expected wait time, or their place in the queue, for reaching a knowledgeable service representative if the expected wait exceeds a certain threshold?								
		No		No	11% Yes	, 89% No			9

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		Your Data		Peers 20					
Su	vey Questions	2023	2022	2021	Max.	Median	Min.	Avg	Count
45	Do you have a callback feature on your phone system? [i.e., the								
	caller's telephone number is placed in a queue for callback when	NI-		NI -	00/1/	000/ 11			0
	their turn comes up]	No		No	0% Yes, 1	100% No			9
	If yes: a) Can a member request a callback via the website?	n/a		n/a	0% Yes, (0% No			0
	b) What was the total volume of callbacks?	n/a		n/a	n/a	n/a	n/a	n/a	0
	c) What is the callback completion rate (i.e., what percentage of	.,, ~		, ۵	,	, a	, ۵	, ۵	· ·
	callers that chose to be called back, were actually reached)?	n/a		n/a	n/a	n/a	n/a	n/a	0
		.,, ~		, ۵	,	, a	, ۵	, ۵	· ·
16	After Reaching a Service Rep What was the:								
40	a) Average talk time? [Do not include: hold or queuing time								
	prior to a member reaching a knowledgeable person, or hold								
	time after a member has reached a knowledgeable person.]	289		289	600	289	199	337	7
	b) Average after call work time when service representative is								
	unavailable to take another call?	180		180	766	180	23	278	5
	c) Average occupancy %? [time spent handling calls, including								
	after call work, as a percentage of total available time to answer								
	calls.]	Unknown		Unknown		70.1%	11.0%	62.8%	4
	d) % of calls satisfied by the first contact?	Unknown		Unknown	91.9%	82.7%	73.5%	82.7%	2
47	When a member calls in, do your service representatives have								
	real-time access to the following member data:								
	a) Interactions via calls and email?	Yes		Yes	56% Yes,	44% No			9
	b Copies of recent online correspondence?	Yes		Yes	67% yes,	33% no, 0%	6 some		9
	c) Use of digital tools (e.g., the pension calculator in the secure	.,		.,					•
	area of the website, etc.)?	Yes		Yes	56% Yes,				9
	d) Most recent member statement?	Yes Yes		Yes Yes	89% Yes, 89% Yes,				9 9
	e) Beneficiary information?	165		163	03% 165,	11% NO			9
48	Do your service representatives have real-time access to a								
	workflow system that lets them know the status of open items?	Yes		Yes	78% Yes,	22% No			9
49	Do you provide the following information on real-time basis to								
	members over the phone? [If you do not have real-time access								
	to the information or if your policy is not to give the information								
	over the phone because of security or other concerns then your								
	answer should be 'no'.]								
	a) Estimates of the member's pension at retirement?	Yes		Yes	44% Yes,	56% No			9
	If yes:								
	a1) Can you provide alternate annuity payment options? [i.e.,	Vac		Vaa	4.40/ \/	EC0/ NI-			0
	joint and 50% survivor, joint and 70% survivor, etc.]	Yes		Yes	44% Yes,	56% NO			9
	a2) Is the estimate based on an interactive benefit calculator linked to the member's actual account data?	Yes		Yes	44% Yes,	56% No			9
	b) Transfer value assuming the member exited employment at	103		103	4470 103,	3070110			,
	the time of the call?	Yes		Yes	56% Yes,	44% No			9
	c) Pensionable salary?	Yes		Yes	67% Yes,				9
	d) Service credit history including gaps?	Yes		Yes	89% Yes,				9
	e) Cost to purchase service credit?	Yes		No	44% Yes,	56% No			9
50	Can members calling in perform the following transactions over								
	the phone:								
	a) Change address?	Yes		No	67% Yes,	33% No			9
	b) Change email address?	Yes		No	78% Yes,	22% No			9
	c) Change payment instructions? [i.e., bank account]	No		No	11% Yes,	89% No			9
51	Do you have the following call center support technology:								
	a) Live chat?	No		No	0% Yes, 2	L00% No, 09	% n/a		9
	b) Chatbot (or virtual service agent)?	No		No	0% Yes, 1	100% No, 09	% n/a		9

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		Your Data						
Survey Questions	20		2021	Max.	Median	ers 2023 Min.	Avg	Count
c) Co-browsing? [Co-browsing enables joint navigation	n through							
the secure member area by the customer service repr			.,					
and member.]	Yes		Yes	22% Yes,	78% No, 0%	6 n/a		9
Quality and Other								
52 Do you review your staff's responses to member calls								
coaching purposes on a regular basis? [As opposed to								
intermittent or only while training new service repres etc.]	entatives, No		No	22% Yes,	78% No			9
If yes:	140		110	22/0 103,	7070110			3
a) How many calls per agent per month (on average)	do you							
monitor?	n/a		n/a	10	7	3	7	2
b) Are you listening in on a live call or a recording?	n/a		n/a	0% record	ding, 11% li	ve, 11% bot	th	2
53 Do you have a toll free number that members can call	l to speak							
with a service representative? [Or a number where m	embers							
are only charged the cost of a local call no matter who	•							
are located.]	No		No	78% Yes,	22% No			9
54 How many hours per week is your 'call center' operat	ional? 40.0		40.0	62.5	40.0	40.0	44.1	8
55 What is the average time (in business days) to respon	d to a							
member query via email or the secure messaging port								
include auto-responses or confirmation of email recei			2.0	5.0	1.0	1.0	2.1	8
1-on-1 Counseling								
56 Do you provide 1-on-1 counseling?	Yes		Yes	100% Yes	s. 0% No			9
If you do not offer 1-on-1 counseling skip to question			. 55	20070100	,, 0,,, 1,0			J
57 Provide the number of members counseled 1-on-1 th	at were:							
a) Pre-scheduled and/or walk-in counseled in-house?	[Include							
only if the member actually sees a counselor. Exclude	'walk-							
through' traffic (i.e., picking up brochures or forms) w								
needs can be met by the receptionist.]	2,008	3	2,008	9,634	469	86	1,915	7
b) In the field at locations separate from the member	•				0	0	0	-
employment? c) At the member's place of employment?	Unkn n/a	own	Unknown n/a	13	0	0	0 2	7 8
d) Via teleconference? [These are actual sessions with	-		11/ 0	13	U	O	2	0
counselors, and will also include pre-scheduled couns								
session covering materials sent to the member in adv			n/a	6,882	51	0	1,170	7
e) Online, via videoconference	n/a		n/a	312	0	0	50	8
(Total counseled 1-on-1)								
58 Do you provide counseling for walk-in traffic?	Yes		Yes	89% Yes,	11% No			9
59 For in-person 1-on-1 counseling sessions:								
a) Do almost all sessions take place in a private office	with a							
door (versus a cubicle, etc.)?	Yes		Yes	89% Yes,	0% No, 11%	% n/a		8
b) Do you have real-time access to the member's data			V	700/1/	440/11 44	0/ /		0
salary, service credit, refund value and beneficiaries.) c) Do you provide new written estimates on a real-tim			Yes	78% Yes,	11% No, 11	.% n/a		8
anybody that wants one?	Yes		Yes	44% Yes,	44% No, 11	.% n/a		8
Member Presentations								
60 Do you offer member presentations (including group counseling)?	Yes		Yes	100% Yes	s. 0% No			9
If you do not offer member presentations skip to que					, 2.30			,
61 How many presentations (including group counseling								
for members or annuitants [exclude presentations to	333,0113,							
employers] did you do that took place:								
a) In-house?	12		12	12	0	0	2	8

Appendix - 9

		Your Data			P				
Su	rvey Questions	2023	2022	2021	Max.	Median	Min.	Avg	Count
	b) In the field?	32		32	32	11	0	13	8
	c) Online, via a live webinar? [i.e., a real-time, online presentation that allows two-way communication between the presenter and audience] (Total Presentations)	12		12	38	14	4	17	8
62	What was the total number of attendees at all of the presentations per the question 61 above?	1,999		768	3,846	1,549	219	1,724	9
63	Did you do specific presentations for members, in the past fiscal year, targeted solely for:								
	a) New members?	Yes		Yes	100% Ye	s, 0% No			9
	b) Members in mid career?	No		Yes	67% Yes,	33% No			9
	c) Members approaching retirement or ready to retire?	Yes		Yes	100% Ye	s, 0% No			9
	d) Healthcare?	Yes		No	11% Yes,	89% No			9
	e) Changes to benefits?	No		No	22% Yes,	78% No			9
	f) Other? (Please describe)	Yes		Yes	44% Yes,	56% No			9
	Employer Sponsored Job Fair								
We	ebsite								
64	Does your website have a secure member area where:								
	a) Active members can access their own data?	Yes		Yes	78% Yes,	22% No			9
	b) Inactive members can access their own data?	Yes		Yes	56% Yes,	44% No			9
	c) Annuitants can access their own data?	Yes		Yes	44% Yes,	56% No			9
	d) Is the member's name prominently displayed on the home								
	page in their secure member area?	Yes		Yes	67% Yes,	22% No, 1	1% n/a		8
65	Is the secure member area customized to only show options relevant to each member group? [e.g., active members see different options than annuitants]								
	a) Active members?	Yes		Yes	56% Yes,	33% No, 1	1% n/a		8
	b) Inactive members?	Yes		Yes	33% Yes,	33% No, 3	3% n/a		6
	c) Annuitants?	Yes		Yes	33% Yes,	33% No, 3	3% n/a		6
66	How many unique members accessed the secure area in the year (count a member only once even if they visited multiple times)?								
	a) Active members?	8,137		8,137	11,000	7,324	4,698	7,478	5
	b) Inactive members?	1,685		1,685	2,500	1,685	448	1,544	3
	c) Annuitants?	10,276		10,276	10,276	2,871	2,400	5,182	3
	d) Total (please provide - even if you can't split between members)	20,098		17,907	20,098	10,643	4,698	11,134	5
67	Provide the total number of visits to the secure area of the website [i.e., if one member logs in 3 times then the answer is 3]	140,463		118,439	140,463	30,881	10,202	66,606	5
68	Do you have pension estimate calculator:								
	a) In the non-secure area?	Yes		Yes	44% Yes,	44% No, 1	1% n/a		8
	ai) Volume in the non-secure area?	Unknown		24,025	2,278	2,278	2,278	2,278	1
	b) In the secure area, linked to a member's salary and service data?	Yes		Yes	78% Yes,	0% No, 22	% n/a		7
	bi) Volume in the secure area, linked to a member's salary and service data? If yes, can the member:	192,594		175,385	192,594	98,320	4,045	98,320	2
	b1) Model different retirement start dates?	Yes		Yes	78% Yes	0% No, 22	% n/a		7
	b2) Model salary changes?	Yes		Yes		11% No, 2	-		, 7
	, , , , , , , , , , , , , , , , , , , ,	. 23		. 23	5.70 103,	,0 140, Z	_,,,,,,		,

	١	our Dat	a		Peers 2023		3	
Survey Questions	2023	2022	2021	Max.	Median	Min.	Avg	Count
b3) Model different working percentages (e.g., part-time or						/		_
early termination)?	No		No		44% No, 22			7
b4) Model alternative payment options?	No		No	56% Yes,	22% No, 22	2% n/a		7
b5) Do you have a pension estimate calculator that provides estimates of:								
b5i) Gross and net retirement income?	gross		gross	44% gros	s, 11% neit	her 22% h	oth	7
b5ii) Monthly and annual retirement income?	monthly		monthly	_	nthly, 11% a			, 7
b5iii) Are various estimates run consolidated in a one-page	monthly		monthing	077011101	itiliy, 1170 d	iiiiiaai, 070	DOTT	,
summary for comparative purposes?	No		No	22% Yes,	56% No			7
69 Are users required to acknowledge a disclaimer every time they:								
a) Log in?	No		No	22% Yes,	56% No			7
b) Calculate a pension estimate?	No		No	44% Yes,				8
	110		110	4470 103,	4470110			J
70 Indicate whether the following capabilities are available on your website:								
a) Submit a retirement application online?	Yes		Yes	22% Ves	56% No, 22	2% n/a		7
ai) Volume of retirement application online?	2,406		860	2,406	2,406	2,406	2,406	1
If yes:	2,400		000	2,400	2,400	2,400	2,400	-
a1) Is the member provided with an estimate, final gross (or net)								
amount, or neither?	neither		Neither	0% estim	ate, 0% fina	al, 22% nei	ther	2
a2) What percent of online applications require follow-up?	75.0%		0.0%	75.0%	50.0%	25.0%	50.0%	2
a3) Can the member view the status of online retirement								
application?	No		No	0% Yes, 2	22% No			2
b) Prior service credit purchase calculator?	No		No	22% Yes,	44% No, 33	3% n/a		6
b1) Is the purchase estimate final? i.e., it won't change if the	/a		-/-	440/)/	440/ N -			2
member chooses to purchase within a set time period? c) In-service credit purchase calculator? [e.g., maternity,	n/a		n/a	11% Yes,	11% NO			2
parental, sabbatical, educational, illness leave.]	No		No	11% Yes,	56% No, 33	3% n/a		6
c1) Is the purchase estimate final? i.e., it won't change if the								
member chooses to purchase within a set time period?	n/a		n/a	11% Yes,	0% No, 899	% n/a		1
d) Apply for a prior service credit purchase?	Yes		Yes	22% Yes,	56% No, 22	2% n/a		7
e) Apply for an in-service credit purchase?	Yes		Yes	11% Yes,	56% No, 33	3% n/a		6
f) Apply for a transfer-in?	No		No	11% Yes,	56% No, 33	3% n/a		6
g) Apply for transfer-out?	No		No	11% Yes,	56% No, 33	3% n/a		6
h) Change address?	Yes		Yes	67% Yes,	11% No, 22	2% n/a		7
i) Change beneficiary?	Yes		Yes	56% Yes,	22% No, 22	2% n/a		7
j) Change email address?	Yes		Yes	67% Yes,	22% No, 1	1% n/a		8
k) Change banking information for direct deposit?	Yes		Yes	44% Yes,	33% No, 22	2% n/a		7
I) Change tax withholding amount?	Yes		Yes	44% Yes,	33% No, 22	2% n/a		7
m) View or download duplicate tax receipts? [i.e., 1099s in the								
U.S.]	Yes		Yes	67% Yes,	11% No, 22	2% n/a		7
n) View pension payment details? [i.e., gross amounts, deductions]	Yes		Yes	11% Ves	33% No, 22	2% n/a		7
o) Secure portal that includes a member's history of recent	103		103	4470 103,	33/0140, 22	270 H/ U		,
correspondence?	No		No	44% Yes,	33% No, 22	2% n/a		7
p) Upload documents?	No		No	22% Yes,	56% No, 22	2% n/a		7
q) Is the most recent member statement available online?	Yes		Yes	67% Yes,	11% No, 22	2% n/a		7
r) View pensionable earnings and/or service without								
downloading?	Yes		Yes	78% Yes,	0% No, 229	% n/a		7
If yes:								
r1) Is salary and service data available?	Yes		Yes	67% Yes,	11% No, 22	2% n/a		7
r2) Is online data up-to-date to the most recent pay period?	Yes		Yes	67% Yes,	11% No, 22	2% n/a		7

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		Your Data			Peers 202	3	
Survey Questions	2023	2022 2021	Max.	Medi	an Min.	Avg	Cou
r3) Is a complete annual history from the beginn employment provided?	ing of No	No	22% Ye	s, 56% No	, 22% n/a		
71 Can members change their communication preference secure member area?	erences in the No	No	44% Ye	s, 33% No			
Targeted Campaigns							
72 What % of email addresses do you have for the f member groups:	ollowing						
a) Active members?	66.0%	n/a	90.0%	63.6%	11.7%	62.6%	
b) Vested Inactive members?	41.0%	n/a	90.0%	41.0%		43.3%	
c) Annuitants?	77.0%	n/a	77.0%	53.3%		46.7%	
73 Do you automatically send targeted emails, lette correspondence (e.g., social media or text messa members in the following circumstances:							
a1) Approaching eligibility for retirement? (Activ	e members) No	No	0% Yes,	100% No	, 0% n/a		
a2) Approaching eligibility for retirement? (Inact	ive members) No	No	22% Ye	s, 78% No	, 0% n/a		
b1) Missing beneficiary information? (Active med	mbers) No	No	22% Ye	s, 78% No	, 0% n/a		
b2) Missing beneficiary information? (Inactive m	embers) No	No	0% Yes,	100% No	, 0% n/a		
b3) Missing beneficiary information? (Annuitants	S) No	No	0% Yes,	100% No	, 0% n/a		
c1) Missing email address? (Active members)	No	n/a	0% Yes,	89% No,	11% n/a		
c2) Missing email address? (Inactive members)	No	No	11% Ye	s, 89% No	, 0% n/a		
c3) Missing email address? (Annuitants)	No	No	11% Ye	s, 89% No	, 0% n/a		
d1) Missing address? (Inactive members)	No	No	22% Ye	s, 78% No	, 0% n/a		
d2) Missing address? (Annuitants)	No	No	22% Ye	s, 78% No	, 0% n/a		
e) New members?	Yes	Yes	67% Ye	s, 33% No	, 0% n/a		
f) Eligibility or likely eligibility, to purchase prior	service credit? No	n/a	11% Ye	s, 89% No	, 0% n/a		
g) Members are vested for pension benefits (if no		2/2	220/ Va	- FC0/ N-	110//-		
immediately)?	n/a	n/a		s, 56% No			
h) Eligibility to purchase in-leave service credit?i) Leaving the plan?	No	No		89% No,			
j) New retirees?	Yes	Yes		s, 44% No	•		
	Yes	Yes		s, 33% No			
k) Pension amount changes?l) Members are vested for disability benefits (if n	Yes	Yes	56% Ye	s, 44% No	, U% n/a		
immediately)?	n/a	n/a	0% Yes,	78% No,	22% n/a		
m) Expiration of disability benefits for inactive m		n/a	11% Ye	s, 67% No	, 22% n/a		
n) Other milestone communication? (describe be	elow) No	n/a	11% Ye	s, 89% No	, 0% n/a		
n/a							
74 How many times did you send newsletter to the member segments in the past year:	following						
a) Active members?	4	n/a	5	4	2	4	
b) Inactive members?	4	n/a	4	3	0	2	
c) Annuitants?	4	n/a	5	4	0	3	
75 Do the following member segments receive a dif newsletter from the other member groups? a) Active members?	ferent	No	22% Va	s, 67% No	11% n/a		8
b) Inactive members?							
c) Annuitants?	No No	n/a No		56% No,	•		5 7
c) Amultants:	No	No	33% Ye	s, 44% No	, ∠2% n/a		

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	Your Data		Peers 2023					
Survey Questions	2023	2022	2021	Max.	Median	Min.	Avg	Count
a) Active members, either all members or all members that have opted in to receiving mail?b) Active members who have not accessed the secure member	No		No	67% Yes,	22% No, 11	l% n/a		8
portal in the last year? c) Inactive members, either all members or all members that	No		No	44% Yes,	33% No, 22	2% n/a		7
have opted in to receiving mail? d) Do you send an email notice or text message to members (that have opted out of receiving mail) annually that the	No		No		33% No, 11	·		8
member statement is available online? 77 On average, how current is an active member's data in the	Yes		Yes	33% Yes,	44% No, 22	2% n/a		7
statements that the member receives (in months)? [For example, if statements with data current to December 31st are mailed in a staggered mailing beginning May 1st and finishing June 30th, then the members are receiving data that is between 4 and 6 months old, or 5 months old on average.]	1		1	6	2	1	3	8
78 Do your paper or online statements for active members include:								
a) Total accumulated service credit?	Yes		Yes	89% Yes,	0% No, 11%	% n/a		8
b) Pensionable earnings?	No		No	56% Yes,	33% No, 11	l% n/a		8
c) A historical summary of salary and service credit earned each year?d) An estimate of the future pension entitlement based on age	No		No	0% Yes, 8	39% No, 11%	% n/a		8
scenario modeling or assuming the member continues to work until earliest possible retirement?	No		No	44% Yes,	44% No, 11	l% n/a		8
Member Experience								
79 Did you send any satisfaction or member experience surveys in								
your most recent fiscal year? a. Did you survey a sample of the following customer groups:	Yes		n/a	100% Yes	s, 0% No			9
a1. Active members	Yes		No	100% Yes				9
a2. Annuitants	Yes		No	100% Yes	•			9
a3. Inactive members	Yes		No	78% Yes,	22% No			9
b. Did you send a survey focused on a sample of members that recently engaged with your plan?b1. Calls	Yes		Yes	78% Yes,	22% No			9
b1a. Satisfaction / Net Promoter Score (NPS)	n/a		No	33% Yes,	0% No			3
b1b. Effort	n/a		No	33% Yes,	0% No			3
b1c. Was the time between the interaction and the survey less than 2 days?	n/a		n/a	22% Yes,	0% No			2
b2. Self-service website								
b2a. Satisfaction / Net Promoter Score (NPS)	n/a		No	33% Yes,	0% No			3
b2b. Effort	n/a		No	33% Yes,	0% No			3
b2c. Was the time between the interaction and the survey less than 2 days?	n/a		n/a	22% Yes,	0% No			2
b3. 1-on-1 counseling								
b3a. Satisfaction / Net Promoter Score (NPS)	Yes		Yes	56% Yes,	0% No			5
b3b. Effort	Yes		Yes	56% Yes,	0% No			5
b3c. Was the time between the interaction and the survey less than 2 days?	Yes		Yes	44% Yes,	0% No			4
b4. Member presentations								
b4a. Satisfaction / Net Promoter Score (NPS)	n/a		Yes	67% Yes,				6
b4b. Effort	n/a		Yes	44% Yes,	0% No			4

Appendix - 13

	١	our Dat	a		Pee	rs 2023		
Survey Questions	2023	2022	2021	Max.	Median	Min.	Avg	Count
b4c. Was the time between the interaction and the survey less than 2 days?	n/a		n/a	56% Yes,	0% No			5
b5. New member enrollment								
b5a. Satisfaction / Net Promoter Score (NPS)	n/a		n/a	0% Yes, 0	% No			0
b5b. Effort	n/a		n/a	0% Yes, 0	% No			0
b6. Leaving the pension plan								
b6a. Satisfaction / Net Promoter Score (NPS)	n/a		n/a	11% Yes,	0% No			1
b6b. Effort	n/a		n/a	0% Yes, 0	% No			0
b7. Leave of absence								
b7a. Satisfaction / Net Promoter Score (NPS)	n/a		n/a	0% Yes, 0	% No			0
b7b. Effort	n/a		n/a	0% Yes, 0	% No			0
b8. Divorce								
b8a. Satisfaction / Net Promoter Score (NPS)	n/a		n/a	0% Yes, 0	% No			0
b8b. Effort	n/a		n/a	0% Yes, 0	% No			0
b9. Disability								
b9a. Satisfaction / Net Promoter Score (NPS)	n/a		n/a	0% Yes, 0	% No			0
b9b. Effort	n/a		n/a	0% Yes, 0	% No			0
b10. Retirement experience								
b10a. Satisfaction / Net Promoter Score (NPS)	n/a		n/a	33% Yes,	0% No			3
b10b. Effort	n/a		n/a	11% Yes,	0% No			1

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Appendix B - Foreign currency conversion

Purchasing Pow	ver Parity ¹			
Currency	2023	2022	2021	2020
United States Dollars - USD	1.00	1.00	1.00	1.00
Canada Dollars - CAD	0.86	0.81	0.78	0.83
Euro - EUR	1.46	1.43	1.45	1.40
Denmark Kroner - DKK	0.16	0.15	0.15	0.15
Sweden Kronor - SEK	0.12	0.11	0.12	0.11
United Kingdom Pounds - GBP	1.54	1.48	0.00	0.00
Australia Dollars - AUD	0.73	0.69	0.68	0.68

^{1.} Source OECD Website, June 2024.

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2023 CEM Benchmark Results

8/19/2024

Mr. Steve Delaney

Chief Executive Officer



Benefits to benchmarking OCERS administration costs and services

- 1. Measure and manage your performance
 - a. Identify what is important
 - b. Monitor progress using an independent benchmark
 - c. Serve as a catalyst for change
- 2. Communicate to stake-holders
 - a. Demonstrate success and achievements to governing bodies
 - b. Identify service gaps to support resource requests
- 3. Focus on your customer service levels
 - a. Learn what others are doing that you are not
 - b. Gain best practice insights into key areas

Our Peers

2021

		Membership	
	Actives		
Peers	Members	Annuitant	Total
City of Austin ERS	10,138	6,961	17,099
TTCPP	15,384	9,729	25,113
Fairfax County RS	17,740	12,134	29,874
ER of Fairfax County	20,133	12,512	32,645
Orange County ERS	22,011	19,826	41,837
RCMP	22,267	22,156	44,423
NYC BERS	31,198	18,525	49,723
LACERA	99,118	71,366	170,484
CALSTRS	449,339	318,049	767,388
CalPERS	863,767	753,054	1,616,821
Peer Average	155,110	124,431	279,541

2023

	Acres of	Membership	
	Actives		
Peers	Members	Annuitant	Total
City of Austin ERS	11,197	7,802	18,999
Saskatchewan MEPP	16,825	7,409	24,234
TTCPP	15,984	10,584	26,568
Sacramento County ERS	13,167	13,934	27,101
University Pension Plan	20,974	12,407	33,381
EESRS of Fairfax County	22,916	13,747	36,663
Orange County ERS	22,718	21,950	44,668
RCMP	21,734	23,382	45,116
NYC BERS	28,324	21,056	49,380
Peer Median	20,974	13,747	33,381
Peer Average	19,315	14,697	34,012

Source: Executive Summary 1-2

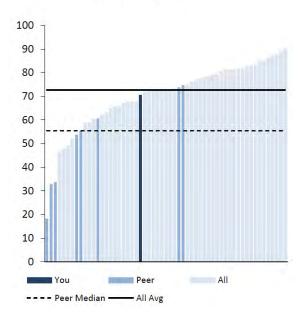


Orange County Employees Retirement System

Overall

- The service score focuses on a member-centric view of service
- Digital activities received more weight in scoring
- Huge improvement from 2021 where OCERS scored below the peer median

Total Service Score



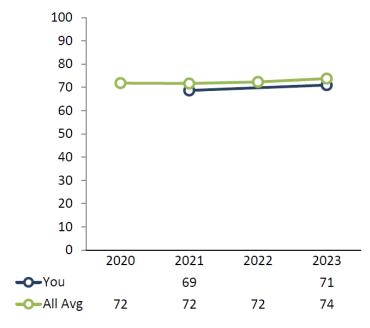
Weighted total service score	100%	71	55
Annuitant experience	30%	82	50
Retiring experience	35%	67	63
Inactive member experience	5%	68	35
Active member experience	30%	63	56
Member journey	Weight	You	Peer Median

Source: Executive Summary 1-4



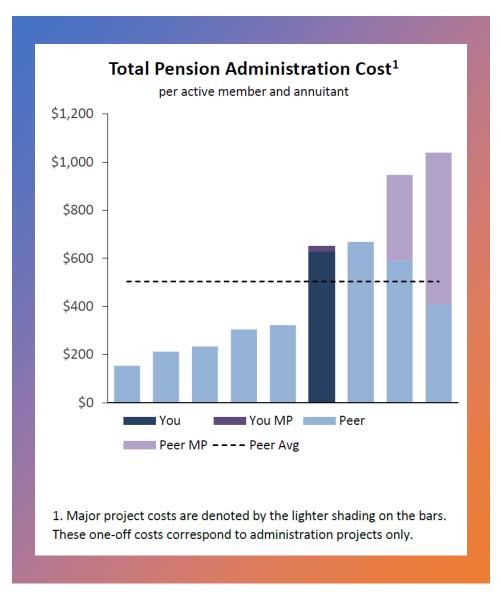
- This year's survey was a very different format with a lot of new questions
- The threshold to score maximum points for each service metric have been updated based on the new norm
 - Call wait times of 120 seconds gets a perfect score now versus 60 seconds in 2021 because more systems are allowing for longer wait times

Trend in Total Service Scores^{1, 2}



- 1. Trend analysis is based on systems that have provided 4 consecutive years of data (33 of 56 systems).
- 2. Your historic service scores may differ from previous reports because historic scores have been restated to reflect changes in methodology.

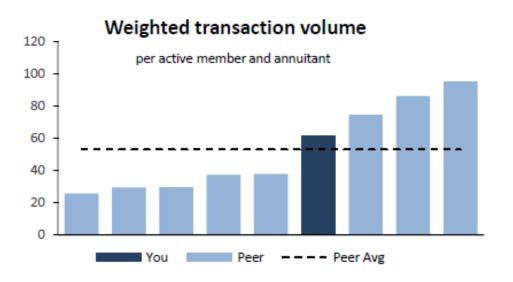
Source: Executive Summary 1-8

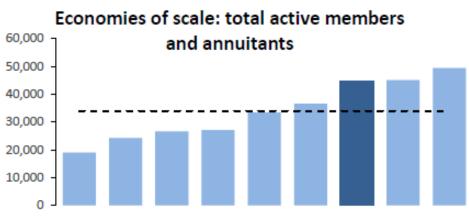


Before adjusting for economies of scale, OCERS pension administration cost of \$650 per active member and annuitant was \$147 above the peer average of \$503.

Source: Executive Summary 1-9

Contributing Cost Factors





Source: Executive Summary 1-11

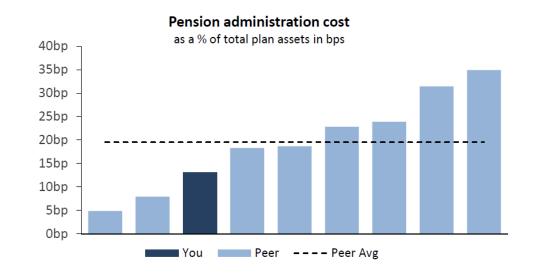
Pension Administration Cost per Active Member and Annuitant (California)

\$1,000 -\$800 -\$600 -\$200 -\$0 -You California Peers OCERS pension administration cost of \$650 per active member and annuitant was \$170 above the California peer average of \$480.

California systems						
	CalSTRS	Sacramento County ERS				
	CalPERS	San Bernardino ERS				
	LACERA	San Diego City ERS				
	LACERS	Sonoma County ERA				
	Orange County ERS	University of California RP				

Source: Executive Summary 13

An alternative way of comparing costs is as a percentage of total assets. Your cost of 13.0 bps was below the peer average of 19.5 bps.



Calculation of your pension administration cost as a percentage of total assets Total pension administration cost in \$000s (A) \$29,056 Total assets in \$ billions at the end of the fiscal year (B) \$22.3 Pension administration cost as a % of total assets in bps (A/B 13.0 bps divided by 1000) 1 basis point (bps) equals 0.01%.

Source: Cost Analysis 4-10

q

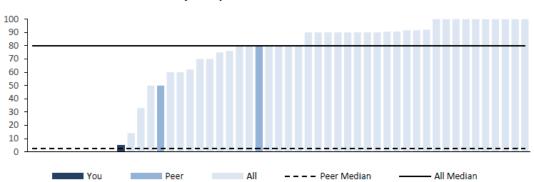
2023 Comparisons

- Areas we scored the most in out of our peers:
 - Volume for online retirement applications
 - Number of written pension estimates mailed out (excluding estimates given during counseling sessions)
 - Disability retirement applications
 - Deaths of annuitants/survivors/disabled
 - Number of incoming calls
 - Number of in-house and in-field presentations
 - Unique members accessing the secure website with also the greatest number of visits
- Takes the longest to complete an individual transfer-in out of peers
- Scored at a minimum 12.5% higher than the peer median score in every category of the Member Journey



The OCERS Approach Can Be Hard to Capture

Disability Inceptions Service Score



Scoring method	Your	Peer	Your
	Data	Average	Score
+100 If you return a decision on a disability application in 1 month or less, otherwise 100 - 10 for each month over 1 month [Subject to a minimum score of 0]	10.5 months	8.4 months	5.0
Total score			5.0

Source: Service Levels 3-38

This study is conducted biennially.
The next report will be in the summer of 2026.

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MEMBER NAME	AGENCY/EMPLOYER	RETIREMENT DATE
ACOSTA, RUDY	ОСТА	5/28/2024
BLACK, RANDY	Fire Authority (OCFA)	5/17/2024
BUTCHER, CYNTHIA	Social Services Agency	5/31/2024
BYWARD, DOLORES	Auditor Controller	6/14/2024
CANTRALL, JASON	Sheriff's Dept	3/29/2024
CASTILLO, REYNALDO	Auditor Controller	6/14/2024
CASTILLO, VIRGINIA	Assessor	6/1/2024
CATENA, JACQUELINE	ОСТА	3/28/2024
DELGADO, GERMAINE	Probation	6/20/2024
DESOTO, JAMES	Sheriff's Dept	3/27/2024
DIAZ, MONICA	Health Care Agency	6/14/2024
DUONG, TU	Social Services Agency	5/31/2024
FORE, ROBERT	Health Care Agency	5/28/2024
FURMAN, CYNTHIA	Health Care Agency	6/17/2024
GILBERT, SAUNDRA	Superior Court	5/31/2024
HAASE, CHRISTIAN	County Executive Office (CEO)	5/31/2024
HANSEN, DENISE	District Attorney	4/26/2024
HOANG, THUY	Social Services Agency	6/18/2024
JENKYNS, RUTH	Child Support Services	6/21/2024
JENSEN, CHRISTOFFER	Sheriff's Dept	5/31/2024
JOHNSON, LAWRENCE	Sanitation District	5/31/2024
LEITAO, PAMELA	District Attorney	3/29/2024
LOMBOY, DANILO	ОСТА	6/13/2024
NGUYEN, TOMMY	OC Public Works	6/14/2024
OSORIO, MAURICIO	City of San Juan Capistrano	5/12/2024
PHUONG, TRUNG	ОСТА	5/25/2024
POLLARD, SUSAN	Health Care Agency	6/23/2024
ROSSOW, LISA	OC Community Resources	6/14/2024
ROWLEY, COLLETTE	Social Services Agency	6/14/2024



SCOTT, MARINA	Superior Court	5/31/2024
SERRATO, DAVID	OC Community Resources	6/22/2024
SINGER, STEVE	ОСТА	6/3/2024
SQUIRES, JAMES	Auditor Controller	5/31/2024
SUE, YAO	Superior Court	6/14/2024
TEXEIRA, JAMES	ОСТА	4/25/2024
TOWNES, DEBORAH	Health Care Agency	6/5/2024
TRAN, TIN	ОСТА	6/2/2024
WADE, KATHLEEN	OC Community Resources	6/1/2024
ZAMUDIO, JOSE	Sheriff's Dept	6/14/2024



ORANGE COUNTY Retirement Board Meeting **Q** August 19, 2024 Death Notices

ACTIVE DEATHS	AGENCY/EMPLOYER			
DIAZ, SARA GIRGIS	Sanitation District			
URSIC, ALBERT	Sanitation District			

RETIRED MEMBERS	AGENCY/EMPLOYER					
AREVALO, MARIA	County Counsel					
ARNDT, JOSEPH	OC Public Works					
AYRES, BARBARA	Sheriff's Dept					
BAIR-MORONEY, JINKS	Social Services Agency					
BAYATI, SAFAA	Registrar of Voters					
BISHNOI, BANWARI	Clerk of the Board					
BIXLER, JOHN	OC Public Works					
BROWN, NAOMI	District Attorney					
BUCHKO, JANICE	Social Services Agency					
CARRUTHERS, GEORGE	Sheriff's Dept					
CAWLEY, RICHARD	Probation					
CONWAY, CATHERINE	City of San Juan Capistrano					
COOK, MILTON	UCI					
COSTA, LARRY	Sheriff's Dept					
DILUCCHIO, BARBARA	OCTA					
EATON, LEROY	Superior Court					
EDIE, IRENE	Social Services Agency					
EVANS, KIM	Human Resources Dept					
GARLIN, BLAKE	Fire Authority (OCFA)					
GRIFFITH, DOLORES	Human Resources Dept					
GUERRERO, PAUL	OC Public Works					
HACECKY, RONALD	Fire Authority (OCFA)					
HAYASHI, YOSHIYE	OC Public Works					
HOOPER, EDWIN	Fire Authority (OCFA)					
HUDZINSKI, RICHARD	Transportation Corridor Agency (TCA)					
JONES, DONNA	District Attorney					
LANE, JOYCE	Superior Court					
MC GUIRE, BERTHA	Health Care Agency					
MC KELVIE, LINDA	Human Resources Dept					
MELLO, GRACE	Social Services Agency					
NINOMIYA, CLYDE	Probation					
NOE, RUSSELL	Sheriff's Dept					
PADBERG, NANCY	District Attorney					
PATTON, RUSSELL	Human Resources Dept					
PEREZ, GUILLERMO	OC Public Works					
PRATT, MARY	Social Services Agency					
RICKS, DONNA	UCI					



RILLERA, OLGA	Superior Court				
ROBBIE, DENNIS	ОСТА				
RUDGE, WILLIAM	Probation				
SHOLL, VINCENT	Health Care Agency				
TA, EMILY	Social Services Agency				
VAN BIBBER, DAVID	John Wayne Airport				
WEANT, CINDY	ОСТА				
WILBER, LEON	District Attorney				
WILSON, THOMAS	Board of Supervisors				

SURVIVING SPOUSES	
ARMBRUST, DOROTHY	
CAMPBELL, KATHRYN	
ELDRIDGE, WILLIAM	
LATONA, CHARLES	
LICHLITER, JOHN	
OWENS, PHILIP	
RIGG, NANCY	
SHERMAN, LESLIE	
STANKOV, GENEVIEVE	
VAN BIBBER, CHARLENE	
VENTURA. CONNIE	



DATE: August 19, 2024

TO: Members of the Board of Retirement FROM: Steve Delaney, Chief Executive Officer

SUBJECT: CEO FUTURE AGENDAS AND 2024 OCERS BOARD WORKPLAN

Written Report

AGENDA TOPICS FOR THE OCERS BOARD OF RETIREMENT

SEPTEMBER

2024-2026 Strategic Plan Review

The Current State of OCERS – Annual Report

OCTOBER

Semi Annual Business Continuity Disaster Recovery Updates

Approve 2025-2027 Strategic Plan

Approve 2025 Business Plan

Adopt 2025 Board Meeting Calendar

Strategic Planning Workshop outcomes

SACRS Business Meeting Directing

Employer & Employee Pension Cost Comparison

Proposed Board meeting schedule for 2025

Quarterly Travel and Training Expense Report

CIO Comments

NOVEMBER

Administrative and Investment OCERS Annual Budget CEO Personnel Review and Compensation Discussion

Quarterly Unaudited Financial Statements

Quarterly Budget vs Actual Report

Submitted by:



SD - Approved

Steve Delaney Chief Executive Officer

OCERS RETIREMENT BOARD - 2024 Work Plan

(A) = Action (I) = Information

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep (Offsite)	Oct	Nov	Dec
System Oversight	Receive Quality of Member Services Report (I)	STAR COLA Posting	Approve 2024 STAR COLA (A)	SACRS Board of Directors Election (A)	Preliminary December 31, 2023 Valuation (I)	Mid-Year Review of 2024 Business Plan Progress (I)	Approve Early Payment Rates for Fiscal Year 2024-26 (A)	Review 2nd Quarter Budget to Actuals Financial Report (I)	Strategic Planning Workshop (I)	Adopt 2025 Board Meeting Calendar (A)	Review 3rd Quarter Budget to Actuals Financial Report (I)	
	Receive OCERS Innovation Report (I)	Approve 2024 COLA (A)	Quarterly Budget vs Actual Report (I)	Quarterly Travel and Training Expense Report (I)	Quarterly Unaudited Financial Statements (I)	Approve December 31, 2023 Actuarial Valuation & Funded Status of OCERS	Quarterly Travel and Training Expense Report (I)	Receive OCERS by the Numbers (I)	Annual OCERS Employer Review (I)	Approve 2025-2027 Strategic Plan (A)	Approve 2025 Administrative (Operating) Budget (A)	
	Annual Disability Statistics (I)	Annual Overpaid And Underpaid Plan Benefits Report (I)	Quarterly Unaudited Financial Statements (I)	Quarterly 2024-2026 Strategic Plan Review (A)	Quarterly Budget vs Actual Report (I)	Approve 2023 Comprehensive Annual Financial Report (A)	Quarterly 2024-2026 Strategic Plan Review (A)	Receive Evolution of the UAAL (I)	State of OCERS (I)	Approve 2025 Business Plan (A)	Annual CEO Performance Review and Compensation (A)	
	Quarterly Travel and Training Expense Report (I)	Annual Report of Contracts >\$100,000 (I)						Quarterly Unaudited Financial Statements (I)	Annual 2024-2026 Strategic Plan Review (A)	Employer & Employee Pension Cost Comparison (I)	Quarterly Unaudited Financial Statements (I)	
	Quarterly 2024-2026 Strategic Plan Review (A)							Employer Employee Contribution Matrix (I)	Propose 2025 Board Meeting Calendar (I)	SACRS Business Meeting Direction (A)		
									Receive Quality of Member Services Report (I)	Quarterly Travel and Training Expense Report (I)		
Board Governance												Adopt Annual Work Plan for 2025 (A) Vice-Chair Election
												(A) Receive 2025 Board Committee Appointments (A)
Regulation / Policies	Communication Policy Fact Sheet (I)											
Compliance	Status of Board Education Hours for 2023 (I)	Annual Policy Compliance Report (I)	Semi Annual Business Continuity Disaster Recovery Updates (I)	Form 700 Due (A)		Receive Financial Audit				Semi Annual Business Continuity Disaster Recovery Updates (I)		
	Annual Information Security Summary (closed session) (I)						-					

1/5/2024 Page 1



DATE: August 19, 2024

TO: Members of the Board of Retirement

FROM: Jim Doezie, Contracts, Risk and Performance Administrator

SUBJECT: QUIET PERIOD – NON-INVESTMENT CONTRACTS

Written Report Background/Discussion

1. Quiet Period Policy Guidelines

The following guidelines established by the Quiet Period Policy, section 3.c, will govern a search process for any contract to be awarded by OCERS:

"...Board Members and OCERS staff shall not knowingly communicate with any party financially interested in any prospective contract with OCERS regarding the contract, the services to be provided under the contract or the selection process;"

2. Quiet Period Guidelines

In addition, the following language is included in all distributed Requests for Proposals (RFP):

"From the date of issuance of this RFP until the selection of one or more respondents is completed and announced, respondents are not permitted to communicate with any OCERS staff member or Board Members regarding this procurement, except through the Point of Contact named herein. Respondents violating the communications prohibition may be disqualified at OCERS' discretion. Respondents having current business with OCERS must limit their communications to the subject of such business."

Distributed RFP's

The RFP and RFQ's noted below are subject to the quiet period until such time as a contract is finalized.

- An RFP for <u>OCERS Replacement Headquarters Project DBE Services</u> was distributed in February 2024.
 This Request for Proposal was sent to four qualified candidates. A vendor was selected, and a contract was put into place with Snyder Langston, LLC.
- An RFP for <u>Independent Medical Evaluation Services</u> was distributed in July. This RFP is to select at least one vendor that can coordinate medical examinations for the OCERS Disability department. Proposals are due to OCERS September 13th, 2024.

Submitted by:





DATE: August 19, 2024

TO: Members of the Board of Retirement

FROM: Steve Delaney, Chief Executive Officer

SUBJECT: BOARD COMMUNICATIONS

Written Report

Background/Discussion

To ensure that the public has free and open access to those items that could have bearing on the decisions of the Trustees of the Board of Retirement, the OCERS Board has directed that all written communications to the entire Board during the interim between regular Board meetings be included in a monthly communications summary.

News Links

The following news and informational item was provided by the CEO for distribution to the entire Board:

From Mary-Joy Coburn, Director of Communications:

• NASRA News Clips

Submitted by:



SD - Approved

Steve Delaney Chief Executive Officer



DATE: August 19, 2024

TO: Members of the Board of Retirement FROM: Manuel D. Serpa, General Counsel

SUBJECT: LEGISLATIVE UPDATE

Written Report

State Legislative Update

The California Legislature reconvened on January 3, 2024, for the second year of the 2023 – 24 Legislative Session. The Legislature reconvened from summer recess on on August 5. August 23 is that last day to amend bills. The Legislature will then adjourn for final recess on August 31. September 30 is the last day for the governor to sign or veto bills.

New or updated information since the last report to the Board is indicated in bold text.

SACRS Sponsored Bills

None to report.

Bills That Would Amend the CERL or Other Laws (PEPRA, the Brown Act, etc.) That Apply to OCERS

AB 817 (Pacheco, Wilson)

The Brown Act generally requires for teleconferencing that the legislative body of a local agency that elects to use teleconferencing post agendas at all teleconference locations, identify each teleconference location in the notice and agenda of the meeting or proceeding, and have each teleconference location be accessible to the public. Existing law also requires that, during the teleconference, at least a quorum of the members of the legislative body participate from locations within the boundaries of the territory over which the local agency exercises jurisdiction.

Existing law authorizes the legislative body of a local agency to use alternate teleconferencing provisions during a proclaimed state of emergency (emergency provisions) and, until January 1, 2026, in certain circumstances related to the particular member if at least a quorum of its members participate from a singular physical location that is open to the public and situated within the agency's jurisdiction and other requirements are met (nonemergency provisions). Existing law imposes different requirements for notice, agenda, and public participation, as prescribed, when a legislative body is using alternate teleconferencing provisions. The nonemergency provisions impose restrictions on remote participation by a member of the legislative body and require the legislative body to **provide** specific means by which the public may remotely hear and visually observe the meeting.

This bill, until January 1, 2026, would authorize a subsidiary body, defined as a legislative body that serves exclusively in an advisory capacity and that is not authorized to take final action on legislation, regulations, contracts, licenses, permits, or any other entitlements, to use similar alternative teleconferencing provisions and would impose requirements for notice, agenda, and public participation, as prescribed. The bill would require at least one staff member of the local agency to be present at a designated primary physical meeting location during the meeting. The bill would require the local agency to post the agenda at the primary physical meeting location. The bill would require the members of the subsidiary body to visibly appear on camera during the open portion of a meeting that is publicly accessible via the internet or other online platform, as specified. The bill would also require the subsidiary body to list a member of the subsidiary body who participates in a teleconference meeting from a remote location in the minutes of the meeting. In order to use teleconferencing pursuant to this act, the bill would require the legislative body that established the subsidiary body by charter, ordinance, resolution, or other formal action to make specified findings by majority vote, before the subsidiary body uses teleconferencing for the first time and every 12 months thereafter.

(STATUS: Introduced; Read first time on 02/13/23. Referred to Com. on L. GOV.; from committee chair, with author's amendments: Amend, and re-refer to Com. on L. GOV.; read second time and amended on 03/16/23. Re-referred to Com. on L. GOV. on 03/20/23. In committee: Hearing postponed by committee on 04/25/23. From committee: Amend, and do pass as amended on 01/16/24. Read second time and amended. Ordered returned to second reading on 01/17/24. Read second time. Ordered to third reading 01/18/24. Read third time. Passed. Ordered to the Senate. In Senate. Read first time. To Com. on RLS. for assignment on 01/25/24. Referred to Coms. On L. GOV. and JUD. on 05/01/24. In committee: Set, first hearing. Hearing canceled at the request of author on 05/21/24. From committee chair, with author's amendments: Amend, and re-refer to committee. Read second time, amended, and re-referred to Com. on L. GOV. on 05/29/24. Died in committee on 06/05/24.)

AB 2284 (Grayson)

PEPRA generally requires a public retirement system, as defined, to modify its plan or plans to comply with the act. PEPRA, among other things, establishes new defined benefit formulas and caps on pensionable compensation. The CERL authorizes counties to establish retirement systems pursuant to its provisions in order to provide pension benefits to their employees. CERL generally vests management of each retirement system in a board of retirement. CERL defines "compensation earnable" by a member, for the purpose of calculating benefits, to mean the average compensation, as determined by the board, for the period under consideration upon the basis of the average number of days ordinarily worked by persons in the same grade or class of positions during the period, and the same rate of pay, subject to certain exceptions. This bill would authorize a retirement system, to the extent it has not defined "grade" in the above-described circumstances, to define "grade" to mean a number of employees considered together because they share similarities in job duties, schedules, unit recruitment requirements, work location, collective bargaining unit, or other logical work-related group or class, as specified. The bill would specify that these provisions shall not become operative in a county until the board of supervisors of that county, by resolution adopted by majority vote, makes the provisions applicable in that county.

(STATUS: Introduced on 02/08/24. Referred to Com. On P.E. & R. on 02/26/24. From committee: Amend, and do pass as amended on 04/17/24. Read second time and amended. Ordered returned to second reading on 04/18/24. Read second time. Ordered to third reading on 04/22/24. Read third time and amended. Ordered to

R-6 Legislative Update Regular Board Meeting 08-19-2024

third reading on 05/20/24. Read third time. Passed. Ordered to the Senate on 05/23/24. In Senate. Read first time. To Com. on RLS. for assignment on 05/24/24. Referred to Com. on L., P.E. & R. on 06/05/24. From committee chair, with author's amendments: Amend, and re-refer to committee. Read second time, amended, and re-referred to Com. on L., P.E. & R. on 06/10/24. In committee: Hearing postponed by committee on 06/13/24. From committee: Amend, and do pass as amended on 06/26/24. Read second time and amended. Ordered to third reading on 06/27/24.)

AB 2301 (Assembly Members Nguyen, Hoover, McCarty, and Flora, Senators Dodd, Niello, and Ashby) – Applies only to Sacramento Area Sewer District

The CERL authorizes a county to establish a retirement system, as specified, in order to provide pension benefits to county, city, and district employees. Under that law, all officers and employees of a district become members of the county's retirement association on the first day of the calendar month after adoption, by specified vote thresholds, of a resolution by the governing body of the district providing for inclusion of the district in the retirement association and, if the county board of supervisors is not the governing body of the district, the board of retirement consents by majority vote.

This bill would enact the Sacramento Area Sewer District Pension Protection Act of 2024, which, on and after the effective date of a resolution of the Board of Retirement of the Sacramento County Employees' Retirement Association consenting to membership by employees of the Sacramento Area Sewer District as described above, would provide that all employees of the county allocated exclusively to the successor entity, would be deemed to be employees of the sewer district and that all duties and obligations in the employment relationship would be assumed by the sewer district. The bill would specify that the sewer district is a "district" for purposes of the County Employees Retirement Law of 1937. The bill would provide that the sewer district would assume the rights, obligations, and status previously occupied by the County of Sacramento with regard to the portion of the county safety plan, which is that portion of the county's defined benefit plan attributed to retirement system members and beneficiaries of the Sacramento Area Sewer District, as specified, to the replacement benefits program, and to all benefit provisions, including optional benefits, within the County Employees Retirement Law of 1937 or the Public Employees' Pension Reform Act of 2013, as those rights exist at the time of the transfer of rights, duties, and obligations to the sewer district. The bill would state that its provisions are severable. This bill would make legislative findings and declarations as to the necessity of a special statute for the County of Sacramento. This bill would declare that it is to take effect immediately as an urgency statute. (STATUS: Introduced on 02/12/24. Referred to Com. On P.E. & R. on 02/26/24. From committee chair, with author's amendments: Amend, and re-refer to Com. on P.E. & R. Read second time and amended on 03/21/24. Re-referred to Com. on P.E. & R. on 04/01/24. From committee: Do pass. To Consent Calendar on 04/03/24. Read second time. Ordered to Consent Calendar on 04/04/24. From Consent Calendar by request of Assembly Member Essayli. To Third Reading on 04/11/24. Read third time. Urgency clause adopted. Passed. Ordered to the Senate on 04/15/24. In Senate. Read first time. To Com. on RLS. for assignment on 04/15/24. Referred to Com. on L., P.E. & R. on 05/01/24. From committee: Do pass. To Consent Calendar on 06/05/24. Read second time. Ordered to Consent Calendar on 06/06/24. Read third time. Urgency clause adopted. Passed. Ordered to the Assembly. In Assembly. Ordered to Engrossing and Enrolling on 06/13/24. Enrolled and presented to the Governor at 4 p.m. on 06/25/24. Signed by the Governor on 07/02/24.)

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AB 2474 (Lackey)

The CERL authorizes counties and districts to establish retirement systems in order to provide pension benefits to their employees and their beneficiaries and prescribes the rights, benefits, and duties of members in this regard. CERL defines compensation and compensation earnable for purposes of its provisions. PEPRA prescribed various limitations on public employees, employers, and retirement systems concerning, among other things, the types of remuneration that may be included in compensation that is applied to pensions.

Under CERL, the board of retirement is required to comply with and give effect to a revocable written authorization signed by a retired member or beneficiary of a retired member, as described, authorizing the treasurer or other entity authorized by the board to deliver the monthly warrant, check, or electronic fund transfer for the retirement allowance or benefit to any specified bank, savings and loan institution, or credit union to be credited to the account of the retired member or survivor of a deceased retired member. This bill would also define "account of the retired member or survivor of a deceased retired member" to include an account held in a living trust or an income-only trust, as specified.

This bill, until January 1, 2028, would additionally authorize the board of retirement for the County of Los Angeles to have the monthly warrant, check, or electronic fund transfer for the retirement allowance or benefit be delivered to a prepaid account, as defined, in accordance with certain procedures. Under CERL, any person entitled to the receipt of benefits may authorize the payment of the benefits to be directly deposited by electronic fund transfer into the person's account at the financial institution of the person's choice, as specified.

This bill, until January 1, 2028, would authorize the board of retirement for the County of Los Angeles to permit a person entitled to receive benefit payments to have them deposited into a prepaid account, as described. This bill would also require the retirement system for the County of Los Angeles, no later than November 30, 2027, to submit a report to specified legislative committees that includes certain information regarding the implementation of these provisions.

Under CERL, any person who has retired may be employed and paid in a position requiring special skills or knowledge for a period of time not to exceed 90 working days or 720 hours, whichever is greater, in any one fiscal year or any other 12-month period designated by the board of supervisors. That law authorizes a county to extend, as specified, that period of time, not to exceed 120 working days or 960 hours, whichever is greater, in any one fiscal year or any other 12-month period, as specified. That law also authorizes other specified retired members to be reemployed and paid in a position requiring special skills or knowledge for a period of time not to exceed 120 working days or 960 hours, whichever is greater, in any one fiscal year. That law further authorizes this employment without reinstatement into the system, termination or suspension of their retirement allowance, or deductions to their salary as contributions to the system.

Under PEPRA, a retired person is prohibited from serving, or being employed by, as specified, a public employer in the same public retirement system from which the retiree receives the benefit without reinstatement from retirement, unless an exception applies. Under PEPRA, one of those exceptions authorizes a retired person to serve without reinstatement if appointed by the appointing power of a public employer during an emergency to prevent stoppage of public business or because the retired person has skills needed to perform work of limited

duration. That law limits those appointments to a total for all employers in that system of 960 hours or other equivalent limit, in a calendar or fiscal year, depending on the administrator of the system.

This bill would prohibit a person who has been retired under CERL from being employed in any capacity thereafter by a county or district of the retirement system unless the person has first been reinstated from retirement or is authorized under CERL or PEPRA. The bill would prohibit a person whose employment without reinstatement is authorized from acquiring service credit or retirement rights under CERL with respect to that employment. The bill would require a retired member employed in violation of specified provisions of CERL and PEPRA to reimburse the retirement system for any allowance received during the period in violation and to pay other related amounts, as specified.

The bill would also require a public employer that employs a retired member in violation of CERL or PEPRA, if the retired member is reinstated, to pay the retirement system an amount of money equal to the employer contributions that would otherwise have been paid, plus interest, for the period of time that the member was employed in violation of these provisions, and to contribute toward reimbursement for reasonable administrative expenses of the system. The bill would further authorize the board of a retirement system under CERL to assess certain fees upon an employer that fails to enroll a retired member without reinstatement, subject to certain procedural and notice requirements.

(STATUS: Introduced on 02/13/24. Referred to Com. on P.E. & R. on 02/26/24. From committee: Amend, and do pass as amended. To Consent Calendar on 04/17/24. Read second time and amended. Ordered returned to second reading on 04/18/24. Read second time. Ordered to Consent Calendar on 04/22/24. Read third time. Passed. Ordered to the Senate. In Senate. Read first time. To Com. on RLS. for assignment on 04/25/24. Referred to Com. on L., P.E. & R. on 05/05/24. From committee chair, with author's amendments: Amend, and re-refer to committee. Read second time, amended, and re-referred to Com. on L., P.E. & R. on 05/28/24. In committee: Hearing postponed by committee on 06/03/24. From committee: Amend, and do pass as amended. To Consent Calendar on 06/12/24. Read second time and amended. Ordered to consent calendar on 06/13/24. Read third time. Passed. Ordered to the Assembly. In Assembly. Concurrence in Senate amendments pending. May be considered on or after June 22 pursuant to Assembly Rule 77 on 06/20/24. Senate amendments concurred in. To Engrossing and Enrolling on 06/27/24. Signed by the Governor on 07/15/24.)

AB 2715 (Boener)

The Ralph M. Brown Act, generally requires that all meetings of a legislative body of a local agency be open and public and that all persons be permitted to attend and participate. Existing law authorizes a legislative body to hold a closed session on, among other things, matters posing a threat to the security of essential public services, as specified. This bill would additionally authorize a legislative body to hold a closed session with other law enforcement or security personnel and to hold a closed session on a threat to critical infrastructure controls or critical infrastructure information, as defined, relating to cybersecurity.

Existing constitutional provisions require that a statute that limits the right of access to the meetings of public bodies or the writings of public officials and agencies be adopted with findings demonstrating the interest protected by the limitation and the need for protecting that interest.

This bill would make legislative findings to that effect.

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The California Constitution requires local agencies, for the purpose of ensuring public access to the meetings of public bodies and the writings of public officials and agencies, to comply with a statutory enactment that amends or enacts laws relating to public records or open meetings and contains findings demonstrating that the enactment furthers the constitutional requirements relating to this purpose. This bill would make legislative findings to that effect.

(STATUS: Introduced on 02/14/24. Referred to Com. on L. GOV. on 03/04/24. In committee: Set, first hearing. Hearing canceled at the request of author on 04/09/24. From committee chair, with author's amendments: Amend, and re-refer to Com. on L. GOV. Read second time and amended on 04/24/24. Re-referred to Com. on L. GOV. on 04/25/24. From committee: Do pass. on 05/01/24. Read second time. Ordered to third reading on 05/02/24. Read third time. Passed. Ordered to the Senate. In Senate. Read first time. To Com. on RLS. for assignment on 05/16/24. Referred to Coms. On L. GOV. and JUD. on 05/29/24. From committee: Do pass and rerefer to Com. on JUD. Re-referred to Com. on JUD. on 06/05/24. From committee: Do pass on 06/26/24. Read second time. Ordered to third reading on 06/27/24.)

AB 3025 (Valencia)

PEPRA generally requires a public retirement system, as defined, to modify its plan or plans to comply with the act. PEPRA, among other things, establishes new defined benefit formulas and caps on pensionable compensation.

The CERL authorizes counties to establish retirement systems pursuant to its provisions in order to provide pension benefits to their employees. CERL generally vests management of each retirement system in a board of retirement. CERL authorizes a board of retirement to correct errors in the calculation of a retired member's monthly allowances or other benefits under CERL in certain circumstances, including if the member caused their final compensation to be improperly increased or otherwise overstated at the time of retirement, and the system applied that overstated amount as the basis for calculating the member's monthly retirement allowance or benefits under CERL, subject to certain limitations.

The PERL also authorizes its board of administration to adjust retirement payments due to errors or omissions, including for cases in which the retirement systems that the benefits of a member or annuitant are, or would be, based on disallowed compensation that conflicts with PEPRA and other specified laws and is thus impermissible.

This bill would require a retirement system established under CERL, upon determining that the compensation reported for a member is disallowed compensation, to require the employer, as defined, to discontinue reporting the disallowed compensation. The bill would require, for an active member, the retirement system to credit all **employer** contributions made on the disallowed compensation against future contributions to the benefit of the employer that reported the disallowed compensation, and return any **member** contribution paid by, or on behalf of, that member, to the member directly and indirectly through the employer that reported the disallowed compensation, except in certain circumstances in which a system has already initiated a process, as defined, to recalculate compensation. The bill would require the system, for a retired member, survivor, or beneficiary whose final compensation was predicated upon the disallowed compensation, to credit the **employer** contributions made on the disallowed compensation against future contributions, to the benefit of the employer that reported the disallowed compensation, to return and member contributions paid by, or on

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behalf of, that member, to the member directly, and to permanently adjust the benefit of the affected retired member, survivor, or beneficiary to reflect the exclusion of the disallowed compensation. The bill would establish other conditions required to be satisfied with respect to a retired member, survivor, or beneficiary when final compensation was predicated upon disallowed compensation, including, among others, requiring a specified payment to be made by the employer that reported contributions on the disallowed compensation to the retired member, survivor, or beneficiary, as appropriate. The bill would authorize a retirement system that has initiated a process prior to January 1, 2024, to permanently adjust the benefit of the affected retired member, survivor, or beneficiary to reflect the exclusion of the disallowed compensation to use that system in lieu of specified provisions that the bill would enact. The bill would also require certain information regarding the relevant retired member, survivor, or beneficiary needed for purposes of these provisions to be kept confidential by the recipient.

This bill would authorize an employer to submit to a retirement system for review a compensation item proposed to be included in an agreement, as specified, on and after January 1, 2025, that is intended to form the basis of a pension benefit calculation and would require the system to provide guidance on the matter. The bill would prescribe a process in this regard. The bill would specify that it does not affect or otherwise alter a party's right to appeal any determination regarding disallowed compensation made by the system after July 30, 2020.

(STATUS: Introduced on 02/16/24. Referred to Com. on P.E. & R. From committee chair, with author's amendments: Amend, and re-refer to Com. on P.E. & R. Read second time and amended on 03/18/24. Re-referred to Com. on P.E. & R. on 03/19/24. From committee: Amend, and do pass as amended on 05/01/24. Read second time and amended. Ordered returned to second reading on 05/02/24. Read second time. Ordered to third reading on 05/06/24. Read third time. Passed. Ordered to the Senate on 05/06/24. In Senate. Read first time. To Com. on RLS. for assignment on 05/21/24. Referred to Coms. On L., P.E. & R. and JUD. on 05/29/24. From committee: Do pass and re-refer to Com. on JUD. Re-referred to Com. on JUD. on 06/12/24. From committee: Amend, and do pass as amended on 06/26/24. Read second time and amended. Ordered to third reading on 06/27/24.)

SB 1189 (Limon)

The CERL authorizes counties to establish retirement systems pursuant to its provisions in order to provide pension benefits to their employees. CERL authorizes the board of retirement to appoint a retirement administrator, chief financial officer, chief operations officer, chief investment officer, and general counsel. This bill would also authorize the board to appoint a chief technology officer.

(STATUS: Introduced on 02/14/24. Referred to Com. on L., P.E. & R. on 02/21/24. From committee: Do pass. Ordered to consent calendar on 04/17/24. Read second time. Ordered to consent calendar on 04/18/24. Read third time. Passed. Ordered to the Assembly on 04/25/24. In Assembly. Read first time. Held at Desk on 04/25/24. Referred to Com. on P.E. & R. on 05/06/24. From committee: Do pass. Ordered to consent calendar on 06/19/24. Read second time. Ordered to consent calendar on 06/20/24. Read third time. Passed. Ordered to the Senate on 06/24/24. In Senate. Ordered to engrossing and enrolling on 06/27/24. Signed by the Governor on 07/15/24.)

Other Bills of Interest

AB 2421 (Low)

The Meyers-Milias-Brown Act, the Ralph C. Dills Act, and provisions relating to judicial employees, public schools, higher education, the San Francisco Bay Area Rapid Transit District, the Santa Cruz Metropolitan Transit District, the Sacramento Regional Transit District, and other public transit employees, prohibits employers from taking certain actions relating to employee organizations. This includes imposing or threatening to impose reprisals on employees, discriminating or threatening to discriminate against employees, or otherwise interfering with, restraining, or coercing employees because of their exercise of their guaranteed rights. Those provisions further prohibit denying to employee organizations the rights guaranteed to them by existing law. This bill would also prohibit a local public agency employer, a state employer, a judicial officer, a public-school employer, a higher education employer, or the district from questioning any employee or employee representative regarding communications made in confidence between an employee and an employee representative in connection with representation relating to any matter within the scope of the recognized employee organization's representation. The bill would provide that communications between an employee and their employee representative would not be confidential if, at any time, the representative was a witness or party to any of the events forming the basis of a potential administrative disciplinary or criminal investigation. (STATUS: Introduced on 02/13/24. Referred to Com. on P.E. & R. on 02/26/24. From committee: Do pass and rerefer to Com. on APPR. Re-referred to Com. on APPR. on 04/03/24. In committee: Set, first hearing. Referred to suspense file on 04/24/24. From committee: Do pass. on 05/16/24. Read second time. Ordered to third reading on 05/20/24. Read third time. Passed. Ordered to the Senate on 05/22/24. In Senate. Read first time. To Com. on RLS. for assignment on 05/23/24. Referred to Coms. On L., P.E. & R. and JUD. on 06/05/24. In committee: Set, first hearing. Hearing canceled at the request of author 06/06/24. From committee chair, with author's amendments: Amend, and re-refer to committee. Read second time, amended, and re-referred to Com. on L., P.E. & R. on 06/17/24. From committee: Do pass and re-refer to Com. on JUD. Re-referred to Com. on JUD. on 06/26/24. From committee: Do pass and re-refer to Com. on APPR. Re-referred to Com. on APPR. on 07/03/24.)

AB 2770 (Members McKinnor, Boerner, Hart, Stephanie Nguyen, and Luz Rivas) – Committee Bill

Teachers' Retirement Law, establishes CalSTRS, and sets forth the provisions for its administration and the delivery of benefits to its members. Existing law authorizes a member to request to purchase additional service credit and to redeposit accumulated retirement contributions returned to the member, as provided. Existing law specifies the basis for the contribution amount, depending on whether the member is or is not employed to perform creditable service subject to coverage by the Defined Benefit Program on the date of the request to purchase additional service credit. Existing law requires additional regular interest to be added to the contributions, as specified, if the member is not employed to perform creditable service subject to coverage by the Defined Benefit Program on the date of the request to purchase additional service credit. This bill would revise that interest calculation. The bill would require the member to sign and return the completed statement of contributions and interest required from CalSTRS to purchase service credit at a specific cost no later than 35 calendar days from the date of the offer. The bill would also require a member to sign and return the completed election to repay accumulated retirement contributions from CalSTRS to redeposit at a specific cost no later than 35 calendar days from the date of the offer.

Existing law authorizes members to request to redeposit all or a portion of specified contributions with regular interest from the date of refund to the date of payment. This bill would instead authorize members to request to redeposit all or a portion of specified contributions with regular interest from the date of refund to the date CalSTRS receives the request to redeposit. This bill would also make various technical changes.

The CERL, prescribes the rights, benefits, and duties of members of the retirement systems established pursuant to its provisions. Existing law provides that participants in certain membership categories may be entitled to special benefits if the injury that causes their disability arises in the course of their employment. Existing law creates a presumption, for purposes of qualification for disability retirement benefits for specified members, that certain injuries, including post-traumatic stress disorder, as defined, arose out of, or in the course of, the member's employment. Existing law authorizes the presumption relating to these injuries to be rebutted by evidence to the contrary, but unless controverted, the applicable governing board of a public retirement system is required to find in accordance with the presumption. Existing law repeals the provisions related to post-traumatic stress disorder on January 1, 2025.

This bill would instead repeal the provisions related to post-traumatic stress disorder on January 1, 2029. Existing law prescribes the procedures the retirement board must follow to pay a member their accumulated contributions, if the service of a member is discontinued other than by death or retirement, including requiring the board to send to the member, a registered or certified letter, return receipt requested, as specified. Existing law also requires the board to attempt to locate a person or estate entitled to payment of a member's accumulated contributions or any other benefit that fails to claim the payment or cannot be located through means that the board in its sound discretion deems reasonable including, but not limited to, a registered or certified letter, return receipt requested, as specified. This bill would remove the return receipt requirements.

The Judges' Retirement Law prescribes retirement benefits for judges, as defined, who were first elected or appointed to judicial office before November 9, 1994. Existing law establishes the Judges' Retirement System II, which provides retirement and other benefits to its members and is administered by CalPERS. Existing law requires a judge who leaves judicial office before accruing at least 5 years of service to be paid the amount of the judge's contributions to the system.

Under the Judges' Retirement System II, a judge is eligible to retire upon attaining both 65 years of age and 20 or more years of service, or upon attaining 70 years of age with a minimum of 5 years of service. Existing law, on and after January 1, 2024, and until January 1, 2029, additionally authorizes a judge who is 60 years of age and has 15 years or more of service or 65 years of age and has 10 years or more of service who is not eligible to retire pursuant to the provisions described above to elect to retire and defer receipt of a monthly allowance, subject to specified formulations. Existing law grants a judge who elects to retire under the provisions operative January 1, 2024, benefits and options given to a judge who elects to retire upon attaining both 65 years of age and 20 or more years of service, or upon attaining 70 years of age with a minimum of 5 years of service, including, among others, requiring the retirement allowance to be increased for the cost of living. Existing law also permits a member of the Judges' Retirement System II to select from various optional settlements for the purpose of structuring their retirement benefits. This bill would make various technical changes to these provisions of the Judges' Retirement Law.

(STATUS: Introduced on 02/15/24. Referred to Com. on L., P.E. & R. on 03/04/24. From committee chair, with author's amendments: Amend, and re-refer to Com. on P.E. & R. Read second time and amended on 03/11/24. Re-referred to Com. On P.E. & R. on 03/12/24. From committee: Do pass and re-refer to Com. on APPR. with recommendation: To Consent Calendar. Re-referred to Com. on APPR. on 04/03/24. From committee: Do pass. To Consent Calendar on 04/17/24. Read second time. Ordered to Consent Calendar on 04/18/24. Read third time. Passed. Ordered to the Senate. In Senate. Read first time. To Com. on RLS. for assignment on 04/25/24. Referred to Com. on L., P.E. & R. on 05/08/24. From committee: Do pass and re-refer to Com. on APPR with recommendation: To Consent Calendar. Re-referred to Com. on APPR. on 06/05/24. From committee: Be ordered to second reading file pursuant to Senate Rule 28.8 and ordered to Consent Calendar on 06/27/24. Read second time. Ordered to Consent Calendar on 06/18/24. Read third time. Passed. Ordered to the

Assembly. In Assembly. Ordered to Engrossing and Enrolling on 06/20/24. Signed by the Governor on 07/15/24.)

SB 962 (Padilla) Applies only to San Diego Unified Port District

PEPRA generally requires a public retirement system, as defined, to modify its pension plan or plans to comply with the act and, among other things, requires a public employer that offers a defined benefit pension plan to provide specified retirement formulas for new members, as defined. PEPRA permits a public employer to adopt a new defined benefit formula, on or after January 1, 2013, that is not consistent with PEPRA, if that formula is determined and certified by the chief actuary and the board of that employer's retirement system to not have a greater risk or greater cost to the sponsoring employer than the defined benefit formula required by PEPRA, and the plan is approved by the Legislature. This bill would approve a specified defined benefit formula applicable to employees of the San Diego Unified Port District. This bill would declare that it is to take effect immediately as an urgency statute.

(STATUS: Introduced; read first time on 01/30/24. Referred to Com. On L., P.E. & R. on 02/14/24. From committee: Do pass as amended on 04/18/24. Read second time and amended. Ordered to third reading on 04/18/24. Read third time and amended. Ordered to second reading on 05/20/24. Read second time. Ordered to third reading on 05/21/24. Read third time. Urgency clause adopted. Passed. Ordered to the Assembly on 05/23/24. In Assembly. Read first time. Held at Desk on 05/24/24. Referred to Com. on P.E. & R. 06/03/24. From committee: Do pass. Ordered to consent calendar 06/19/24. Read second time. Ordered to consent calendar 06/20/24. Read third time. Urgency clause adopted. Passed. Ordered to the Senate 06/26/24. In Senate. Ordered to engrossing and enrolling on 06/27/24. Signed by the Governor on 07/15/24.)

SB 1240 (Alvarado-Gill) – Applies only to El Dorado County Fire Protection District and Diamond Springs Fire Protection District.

The PERL establishes CalPERS, which provides a defined benefit to members of the system based on final compensation, credited service, and age at retirement, subject to certain variations. PERL authorizes any public agency to make its employees members of CalPERS by contract. Under existing law, when a contracting agency is succeeded by another agency, the successor agency may become a contracting agency of PERS. Existing law provides that if the successor agency contracts with PERS, the contract of the former agency shall merge with the contract of the succeeding agency. Existing law authorizes specified successor agencies to provide employees the defined benefit plan or formula that those employees received from their respective contracting agency employer prior to the consolidation.

This bill would authorize a successor agency for the El Dorado County Fire Protection District and the Diamond Springs-El Dorado Fire Protection District to provide employees the defined benefit plan or formula that those employees received from their respective employer prior to the annexation.

This bill would make legislative findings and declarations as to the necessity of a special statute for the County of El Dorado. This bill would declare that it is to take effect immediately as an urgency statute.

(STATUS: Introduced on 02/15/24. Referred to Com. on L., P.E. & R. on 02/29/24. From committee with author's amendments. Read second time and amended. Re-referred to Com. on L., P.E. & R. on 03/21/24. From committee: Do pass and re-refer to Com. on APPR with recommendation: To consent calendar. Re-referred to Com. on APPR. on 04/10/24. From committee: Be ordered to second reading pursuant to Senate Rule 28.8 and ordered to consent calendar on 04/22/24. Read second time. Ordered to consent calendar on 04/23/24. Read third time. Urgency clause adopted. Passed. Ordered to the Assembly. In Assembly. Read first time. Held at Desk on 04/25/24. Referred to Com. on P.E. & R. on 05/06/24. From committee with author's amendments. Read second time and amended. Re-referred to Com. on P.E. & R. on 05/08/24. From committee: Do pass and re-refer to Com. on APPR. with recommendation: To consent calendar. Re-referred to Com. on APPR. on 06/19/24.)

SB 1499 (Glazer)

The Personal Income Tax Law, in modified conformity with federal income tax laws, generally allows various deductions in computing the income that is subject to taxes imposed by that law, including a deduction for qualified retirement contributions. The Consolidated Appropriations Act, 2023, among other things, expanded the deduction for qualified retirement contributions by indexing catch-up limitations for persons 50 years of age or older to inflation, increasing catch-up limits for persons 60 to 63 years of age, inclusive, and increasing contribution limits for simple plans, as defined. This bill would conform state law to the above-referenced changes to federal law. Existing law requires any bill authorizing a new tax expenditure to contain, among other things, specific goals, purposes, and objectives that the tax expenditure will achieve, detailed performance indicators, and data collection requirements. The bill would also include additional information required for any bill authorizing a new tax expenditure. This bill would take effect immediately as a tax levy. (STATUS: Introduced on 02/16/24. Referred to Com. on REV. & TAX. on 02/29/24. From committee with author's amendments. Read second time and amended. Re-referred to Com. on REV. & TAX. on 04/03/24. From committee: Do pass and re-refer to Com. on APPR with recommendation: To consent calendar. Re-referred to Com. on APPR. on 04/10/24. Placed on APPR suspense file on 04/22/24. From committee: Do pass. Read second time. Ordered to third reading on 05/16/24. Ordered to special consent calendar on 05/20/24. Read third time. Passed. Ordered to the Assembly on 05/23/24. In Assembly. Read first time. Held at Desk on 05/24/24. Referred to Com. on REV. & TAX. on 06/03/24.)

Bills that Apply to CalPERS and/or CalSTRS Only

AB 1997 (McKinnor)

Teachers' Retirement Law establishes the CalSTRS and creates the Defined Benefit Program of the State Teachers' Retirement Plan, which provides a defined benefit to members of the program, based on final compensation, creditable service, and age at retirement, subject to certain variations. CalSTRS is administered by the Teachers' Retirement Board. Existing law requires employers and employees to make contributions to the system based on the member's creditable compensation. Existing law defines terms for the purposes of CalSTRS.

Existing law defines "annualized pay rate" to mean the salary or wages, as described, a person could earn during a school term for an assignment if creditable service were performed for that assignment on a full-time basis. Existing law establishes a pay rate when creditable service is not performed on a full-time basis because a member is performing activities pursuant to specified law.

This bill would redefine "annualized pay rate" to mean the salary, as described, a person could earn during a school term in a position subject to membership if creditable service were performed for that position on a full-time basis, to be determined pursuant to a publicly available pay schedule by a prescribed method. The bill, if no annualized pay rate exists for a position subject to membership, would deem all compensation earned in that position "supplemental pay," as prescribed.

Existing law defines "compensation earnable" for these calculations to be the sum of the average annualized pay rate, determined as the quotient obtained when salary or wages, as described, paid in a school year is divided by the service credited for that school year and remuneration that is paid in addition to salary or wages for the school year, as prescribed.

This bill would revise the definition of "compensation earnable" to be the sum of the average annualized pay rate, determined as the quotient obtained when salary earned in a school year is divided by the service credited for that salary and special pay, as prescribed.

Existing law defines "creditable compensation" to mean cash payments from an employer to all persons in the same class of employees for performing creditable service in that position of salary or wages pursuant to contract and remuneration that is paid in addition to salary or wages, as prescribed. Existing law alternatively defines "creditable compensation" for members who are subject to PEPRA, as prescribed.

This bill would repeal both of those provisions and redefine "creditable compensation" to mean cash remuneration that includes base pay and supplemental pay, as prescribed.

Existing law defines "creditable service" to mean specified activities relating to education performed for employers, including specified K-12 employers, community college employers, and charter school employers. This bill would redefine "creditable service" to mean service in a position subject to membership. The bill would for this purpose define "position subject to membership" to mean prescribed positions at various educational institutions. The bill would also include in that definition certain positions in which a member performed creditable service before the operative date of the added definition of "position subject to membership," provided that the same member remains continuously employed to perform service in that position on and after that date.

Existing law establishes alternate definitions for "credited service" for members based on whether they are subject to PEPRA. This bill would instead define "credited service" to mean service for which the required contributions have been paid and service for which required contributions would have been paid in absence of prescribed limits.

Existing law defines "service" to means work performed for compensation in a position subject to coverage under the defined benefit program, except as otherwise specifically provided in existing law, providing the contributions on compensation for that work are not credited to a defined benefit supplement program. This bill would redefine "service" to mean work performed for compensation, except as otherwise specifically provided in existing law.

Existing law establishes a cap on the amount of compensation that is taken into account in computing benefits payable for a member who first joins the program on or after July 1, 1996. This bill would additionally specify a cap for a member subject to PEPRA.

Existing law provides for the computation of service to be credited for service performed before July 1, 1972, or on or after July 1, 1972. This bill would provide for the computation of service to be credited for service performed on or after a date determined by the board as described below. This bill would require the board to determine a date when CalSTRS has the capacity to implement the above-described changes and to post the date on the STRS internet website no later than July 1, 2028. The bill would make those provisions with the changes operative on the date determined by the board, would make the existing provisions inoperative on that same date, and would repeal those existing provisions on July 1, 2028. The bill would provide that the changes are consistent with prescribed principles that support the integrity of the retirement fund. The bill would require the board to adopt regulations to the extent required in order to continue to administer the bill accordingly.

Existing law creates the Teachers' Retirement Fund, which is continuously appropriated for specified purposes, into which certain moneys are deposited, including employee contributions. By making the changes to creditable compensation that affect contributions to the fund, the bill would make an appropriation. (STATUS: Introduced; read first time on 01/30/24. May be heard in committee March 1. Referred to Com. On P.E. & R. on 02/12/24. From committee chair, with author's amendments: Amend, and re-refer to Com. on P.E. & R. Read second time and amended on 03/11/24. Re-referred to Com. on P.E. & R. on 03/12/24. From

committee chair, with author's amendments: Amend, and re-refer to Com. on P.E. & R. Read second time and amended on 04/01/24. Re-referred to Com. on P.E. & R. on 04/02/24. From committee: Do pass and re-refer to Com. on APPR. Re-referred to Com. on APPR. on 04/03/24. In committee: Set, first hearing. Referred to suspense file on 04/17/24. From committee: Do pass on 05/16/24. Read second time. Ordered to third reading on 05/20/24. Read third time. Passed. Ordered to the Senate on 05/21/24. In Senate. Read first time. To Com. on RLS. for assignment on 05/22/24. Referred to Com. on L., P.E. & R. on 05/29/24. From committee: Do pass and re-refer to Com. on APPR. Re-referred to Com. on APPR. on 06/12/24. In committee: Referred to suspense file on 06/24/24.)

SB 1379 (Dodd) – Applies only to Solano County

CalPERS provides pension and other benefits to members of the system and prescribes limitations on the service that retired members may perform, without the member reinstating in the system, for employers that participate in the system. PEPRA also prescribes limitations on the activities of retired members of these retirement systems, which supersede the provisions of CalPERS with which they conflict. Under both CalPERS and PEPRA, a retired member is generally subject to a limit of 960 hours of employment within a calendar or fiscal year, depending on the administrator of the system, for specified employers without reinstating in the system.

This bill would create an exception from the above-described limit for hours worked by a retired person in an appointment by the Solano County Sheriff's Office to perform a function or functions regularly performed by a deputy sheriff, evidence technician, or communications operator, subject to meeting certain requirements. The bill would limit the number of appointments made under these provisions to 20. The bill would repeal these provisions on January 1, 2027. This bill would make legislative findings and declarations as to the necessity of a special statute for the County of Solano. This bill would declare that it is to take effect immediately as an urgency statute.

(STATUS: Introduced on 02/16/24. Referred to Com. On L., P.E. & R. on 02/29/24. April 10 set for first hearing canceled at the request of author. Set for hearing April 24. From committee: Do pass as amended and re-refer to Com. on APPR. on 04/24/24. Read second time and amended. Re-referred to Com. on APPR. on 04/25/24. From committee: Be ordered to second reading pursuant to Senate Rule 28.8. on 05/13/24. Read second time. Ordered to third reading on 05/14/24. Read third time. Urgency clause adopted. Passed. Ordered to the Assembly on 05/21/24. In Assembly. Read first time. Held at Desk on 05/22/24. Referred to Com. on P.E. & R. on 05/28/24. From committee: Do pass as amended and re-refer to Com. on APPR. on 06/19/24. Read second time and amended. Re-referred to Com. on APPR. on 06/20/24.)

Divestment Proposals (CalPERS and CalSTRS Only)

SB 252 (Gonzalez, Stern, Weiner, and Portantino)

Existing law prohibits the boards of the PERS and CalSTRS from making new investments or renewing existing investments of public employee retirement funds in a thermal coal company, as defined. Existing law requires the boards to liquidate investments in thermal coal companies on or before July 1, 2017, and requires the boards, in making a determination to liquidate investments, to constructively engage with thermal coal companies to establish whether the companies are transitioning their business models to adapt to clean energy generation. Existing law provides that it does not require a board to take any action unless the board determines

in good faith that the action is consistent with the board's fiduciary responsibilities established in the California Constitution.

suspension provision inoperative on January 1, 2035. The bill would provide that it does not require a board to conditions materially impact normal market mechanisms for pricing assets, as specified, and would make this suspend the above-described liquidation provision upon a good faith determination by the board that certain take any action unless the board determines in good faith that the action is consistent with the board's fiduciary boards to liquidate investments in a fossil fuel company on or before July 1, 2031. The bill would temporarily investments of public employee retirement funds in a fossil fuel company, as defined. The bill would require the responsibilities established in the California Constitution. This bill would prohibit the boards of the PERS and CalSTRS from making new investments or renewing existing

pursuant to the bill's requirements, as specified. and employees shall be held harmless and be eligible for indemnification in connection with actions taken the Legislature and the Governor, containing specified information, including a list of fossil fuel companies of which the board has liquidated their investments. The bill would provide that board members and other officers This bill would require the boards, commencing February 1, 2025, and annually thereafter, to file a report with

amended and re-refer to Com. on APPR. on 04/19/23. Read second time and amended. Re-referred to Com. on 06/08/23. Set for first hearing canceled at the request of author 06/19/24.) the Assembly. In Assembly. Read first time. Held at Desk on 05/25/23. Referred to Com. on P.E. & R. on reading on 05/18/23. Read second time. Ordered to third reading 05/22/23. Read third time. Passed. Ordered to APPR. on 04/20/23. From committee: Do pass as amended. Read second time and amended. Ordered to second Do pass and re-refer to Com. on JUD. Re-referred to Com. on JUD. on 04/13/23. From committee: Do pass as (STATUS: Introduced on 01/30/23. Referred to Coms. On L., P.E. & R. and JUD. on 02/09/23. From committee:

Attachments:

2024 Tentative Legislative Calendar

Submitted by:

WERS MDS-Approved

Manuel D. Serpa General Counsel

2024 TENTATIVE LEGISLATIVE CALENDAR

COMPILED BY THE OFFICE OF THE SECRETARY OF THE SENATE AND THE OFFICE OF THE ASSEMBLY CHIEF CLERK Revised 11/4/22

	JANUARY									
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JANUARY										
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26	<u>27</u>	<u>28</u>	29	30	31					

Jan. 1 Statutes take effect (Art. IV, Sec. 8(c)).

Legislature Reconvenes (J.R. 51(a)(4)). Jan. 3

Jan. 10 Budget must be submitted by Governor (Art. IV, Sec. 12(a)).

Jan. 12 Last day for policy committees to hear and report to fiscal committees fiscal bills introduced in their house in the ${\bf odd\text{-}numbered\ year}$ (J.R. 61(b)(1)).

Jan. 15 Martin Luther King, Jr. Day.

Jan. 19 Last day for any committee to hear and report to the floor bills introduced in that house in the odd-numbered year (J.R. 61(b)(2)).

Last day to submit bill requests to the Office of Legislative Counsel.

Jan. 31 Last day for each house to pass bills introduced in that house in the odd-numbered year (J.R. 61(b)(3), (Art. IV, Sec. 10(c)).

Feb. 16 Last day for bills to be introduced (J.R. 61(b)(4), (J.R. 54(a)).

Feb. 19 Presidents' Day.

Mar. 21 Spring Recess begins upon adjournment of this day's session (J.R. 51(b)(1)).

Mar. 29 Cesar Chavez Day observed.

Apr. 1 Legislature Reconvenes from Spring Recess (J.R. 51(b)(1)).

Apr. 26 Last day for policy committees to hear and report to fiscal committees fiscal bills introduced in their house (J.R. 61(b)(5)).

May 3 Last day for policy committees to hear and report to the floor non-fiscal bills introduced in their house (J.R. 61(b)(6)).

May 10 Last day for policy committees to meet prior to May 28 (J.R. 61(b)(7)).

May 17 Last day for fiscal committees to hear and report to the floor bills introduced in their house (J.R. 61(b)(8)).

Last day for fiscal committees to meet prior to May 28 (J.R. 61(b)(9)).

May 20-24 Floor Session only. No committees, other than conference or Rules committees, may meet for any purpose (J.R. 61 (b)(10)).

May 24 Last day for each house to pass bills introduced in that house (J.R. 61(b)(11)).

May 27 Memorial Day.

May 28 Committee meetings may resume (J.R. 61(b)(12)).

^{*}Holiday schedule subject to Senate Rules committee approval

2024 TENTATIVE LEGISLATIVE CALENDAR

COMPILED BY THE OFFICE OF THE SECRETARY OF THE SENATE AND THE OFFICE OF THE ASSEMBLY CHIEF CLERK Revised 11/4/22

	JUNE									
S	M	T	W	TH	F	S				
						1				
2	3	4	5	6	7	8				
9	10	11	12	13	14	<u>15</u>				
16	17	18	19	20	21	22				
23	24	25	26	<u>27</u>	28	29				
30										

<u>June 15</u>	Budget Bill must be passed by midnight (Art. IV, Sec. 1)	2(c)(3))
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June 27	Last day for a legislative measure to qualify for the Nov. 5
	General Election ballot (Elections Code Sec. 9040).

JULY								
S	M	T	W	TH	F	S		
	1	2	<u>3</u>	4	5	6		
7	8	9	10	11	12	13		
14	15	16	17	18	19	20		
21	22	23	24	25	26	27		
28	29	30	31					

<u>July 3</u> Last day for **policy committees** to meet and report bills (J.R. 61(b)(13)).

Summer Recess begins upon adjournment provided Budget Bill has been passed (J.R. 51(b)(2)).

July 4 Independence Day.

	AUGUST									
S	M	T	W	TH	F	S				
				1	2	3				
4	<u>5</u>	6	7	8	9	10				
11	12	13	14	15	<u>16</u>	17				
18	<u>19</u>	20	21	22	<u>23</u>	24				
25	26	27	28	29	30	<u>31</u>				

Aug. 5 Legislature Reconvenes from Summer Recess (J.R. 51(b)(2)).

<u>Aug. 19-31</u> Floor Session only. No committees, other than conference and Rules committees, may meet for any purpose (J.R. 61(b)(15)).

Aug. 23 Last day to amend on the floor (J.R. 61(b)(16)).

<u>Aug. 31</u> Last day for each house to pass bills. (Art. IV, Sec. 10(c),

(J.R. 61(b)(17)).

Final Recess begins upon adjournment (J.R. 51(b)(3)).

Jan. 1

IMPORTANT DATES OCCURRING DURING FINAL STUDY RECESS

2024 Sept. 30	Last day for Governor to sign or veto bills passed by the Legislature before Sept. 1 and in the Governor's possession on or after Sept. 1 (Art. IV, Sec. 10(b)(2)).
<u>Nov. 5</u>	General Election
Nov. 30	Adjournment Sine Die at midnight (Art. IV, Sec. 3(a)).
<u>Dec. 2</u>	12 Noon convening of the 2025-26 Regular Session (Art. IV, Sec. 3(a)).
2025	

Statutes take effect (Art. IV, Sec. 8(c)).

Page 2 of 2

^{*}Holiday schedule subject to Senate Rules committee approval



Memorandum

DATE: August 19, 2024

TO: Members of the Board of Retirement FROM: Steve Delaney, Chief Executive Officer

SUBJECT: OCERS TRAVEL POLICY APPROVED CONFERENCES LIST

Written Report

Background/Discussion

At the Board's request, OCERS' executive staff produced a calendar and running list of upcoming OCERS Travel Policy approved conferences and Board education opportunities.

Attachment:

- 1. Annual Calendar with Travel Policy Section 10 conferences (dates boxed in red) and scheduled Board and Committee meeting dates
- 2. Legend and details for Travel Policy Section 10 conferences
- 3. Appendix of additional pre-approved conferences and Board education opportunities.

Submitted by:



SD - Approved

Steve Delaney Chief Executive Officer

2024 Calendar

	January								
Su	Мо	Tu	We	Th	Fr	Sa			
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February									
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25	26	27	28	29					

March									
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	September							
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I	22	23	24	25	26	27	28	
	29	30						

	October								
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13	14	15	16	17	18	19			
20	21	22	23	24	25	26			
27	28	29	30	31		·			

	November							
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17	18	19	20	21	22	23		
24	25	26	27	28	29	30		

			Dec	cem	ber					
	Su Mo Tu We Th Fr Sa									
	1	2	3	4	5	6	7			
	8	9	10	11	12	13	14			
I	15	16	17	18	19	20	21			
I	22	23	24	25	26	27	28			
I	29	30	31							
							,			

Federal Holidays 2024

Jan 1	New Year's Day	May 27	Memorial Day	Sep 2	Labor Day	Nov 28	Thanksgiving Day
Jan 15	Martin Luther King Day			Sep 27	Native American Day	Dec 25	Christmas Day
Feb 19	Presidents' Day	Jul 4	Independence Day	Nov 11	Veterans Day		

Federal Holidays
Regular Board Meeting
Disability Committee Meeting
Strategic Planning Workshop
Investment Committee Meeting

Audit Committee Meeting
Building Committee Meeting
Governance Committee Meeting
Personnel Committee Meeting
Informational Update Meeting

Date Start	Date Ends	Conference Org	Conference Name	Location	Notes
1/21/2024	1/22/2024	NCPERS	Pension Comm Summit	Washington DC	
1/22/2024	1/24/2024	NCPERS	Legislative Conference	Washington DC	
1/28/2024	1/30/2024	NAPO	Annual Pension and Benefits Seminar	Las Vegas, NV	
2/24/2024	2/26/2024	NASRA	Winter Meeting	Washington DC	
2/26/2024	2/27/2024	NIRS	Annual Conference	Washington DC	
3/2/2024	3/5/2024	CALAPRS	General Assembly	Rancho Mirage	
5/7/2024	5/10/2024	SACRS	Spring Conference	Santa Barbara, CA	
5/19/2024	5/22/2024	NCPERS	Annual Conference & Exhibition (ACE)	Seattle WA	
6/17/2024	6/19/2024	NCPERS	Chief Officers Summit	Nashville, TN	
7/14/2024	7/17/2024	NAPO	Annual Convention	Nashville, TN	
8/3/2024	8/7/2024	NASRA	Annual Conference	Pittsburgh, PA	
8/18/2024	8/20/2024	NCPERS	Public Pension Funding Forum	Boston, MA	
9/24/2024	9/26/2024	NCPERS	Public Pension HR Summit	Denver, CO	
10/27/2024	10/30/2024	NCPERS	Public Safety Conference	Palm Springs, CA	
11/3/2024	11/6/2024	CRCEA	Contra Costa (CCREA)	Contra Costa	
11/12/2024	11/15/2024	SACRS	Fall Conference	Monterey, CA	
N/A	N/A	NCPERS	FALL Conference	N/A	None in 2024

The following are upcoming conferences and Board education opportunities, pre-approved under the Travel Policy section 12 (highlighted in yellow) and section 14. Note that conferences pre-approved under section 14 AND require overnight accommodations are subject to the limit of three events per year.

March 2024

Date Start	Date Ends	Conference Org	Conference Name	Location	Notes
3/3/2024	3/6/2024	WithIntelligence	Women's Private Equity Summit	Phoenix, AZ	Section 14
			2024 Spring Conference:		
3/4/2024	3/6/2024	CII	Governance as a Guidepost	Washington DC	Section 14
3/6/2024	3/7/2024	IFEBP	Investments Institute	Rancho Mirage	Section 14
3/6/2024	3/7/2024	Pacific Pension Inst (PPI)	2024 Winter Roundtable	Napa, CA	Section 14
			8TH ANNUAL REAL ESTATE WEST		
3/6/2024	3/6/2024	Markets Group	FORUM	San Francisco, CA	Section 14
			2024 Defined Contribution East		
3/10/2024	3/12/2024	P&I	Conference	Orlando, FL	Section 14
			Real Estate Investment Summit	West Palm Beach,	
3/17/2024	3/19/2024	Opal	2024	FL	Section 14
			ESG & Impact Investing Forum	West Palm Beach,	
3/17/2024	3/19/2024	Opal	2024	FL	Section 14
3/18/2024	3/20/2024	Markets Group	ALTSLA	Los Angeles, CA	Section 14
			2024 Editorial Advisory Board		
3/19/2024	3/21/2024	IREI	Meeting – Real Assets Adviser	New Orleans	Section 14
3/21/2024	3/22/2024	PREA	2024 Spring Conference	Nashville, TN	Section 14
3/27/2024	3/29/2024	CALAPRS	Advanced Principals of Pension Governance for Trustees at UCLA	Los Angeles, CA	Section 12

April 2024

Date Start	Date Ends	Conference Org	Conference Name	Location	Notes
			Data and AI Executive Summit		
4/7/2024	4/8/2024	Opal	2024	Atlanta, GA	Section 14
		Investment and	Investment and Wealth		
4/7/2024	4/10/2024	Wealth Inst	Experience 2024	Las Vegas, NV	Section 14
			2024 Spring Editorial Advisory		
			Board Meeting – Institutional		
4/8/2024	4/10/2024	IREI	Real Estate Americas	Charleston, SC	Section 14
			2024 Private Markets		
4/9/2024	4/10/2024	P&I	Conference	Chicago	Section 14
4/9/2024	4/10/2024	SuperReturn	SuperReturn US West	Los Angeles, CA	Section 14
			Investment Strategies and		
4/15/2024	4/19/2024	Wharton	Portfolio Management	Philadelphia	Section 12
			Pension Bridge The Annual		
4/15/2024	4/17/2024	WithIntelligence	2024	Half Moon Bay, CA	Section 14
4/21/2024	4/24/2024	PRISM	2024 PRISM Conference	Austin, TX	Section 14

May 2024

Date Start	Date Ends	Conference Org	Conference Name	Location	Notes
			8TH ANNUAL PACIFIC		
			NORTHWEST INSTITUTIONAL		
5/7/2024	5/7/2024	Markets Group	FORUM	Seattle WA	Section 14
			Trustee Educational Seminar		
5/18/2024	5/19/2024	NCPERS	(TEDS)	Seattle WA	Section 12
			NCPERS Accredited Fiduciary		
5/18/2024	5/19/2024	NCPERS	Program (NAF) Modules 1&2	Seattle WA	Section 12
			NCPERS Accredited Fiduciary		
5/18/2024	5/19/2024	NCPERS	Program (NAF) Modules 3&4	Seattle WA	Section 12
		Institutional	2024 Asia Single Family Office		
5/29/2024	5/29/2024	Investor	Roundtable	Singapore	Section 14

June 2024

Date Start	Date Ends	Conference Org	Conference Name	Location	Notes
			3RD ANNUAL SOUTHERN		
			CALIFORNIA INSTITUTIONAL		
6/4/2024	6/4/2024	Markets Group	FORUM	Los Angeles, CA	Section 14
			2024 Visions, Insights &		
6/5/2024	6/7/2024	IREI	Perspective (VIP) Infrastructure	Washington DC	Section 14
			2024 Sustainable Returns		
6/11/2024	6/12/2024	P&I	Conference	Chicago	Section 14
			Women's Private Credit		
6/11/2024	6/13/2024	WithIntelligence	Summit	Chicago	Section 14
			2024 Retirement Income		
6/18/2024	6/18/2024	P&I	Conference	Chicago	Section 14
6/22/2024	6/23/2024	IFEBP	Trustee Institute: Level 2	Las Vegas, NV	Section 14
			Advanced Trustees and		
6/24/2024	6/26/2024	IFEBP	Administrators Institute	Las Vegas, NV	Section 14
			Trustee Institute: Level 1 (New		
6/24/2024	6/26/2024	IFEBP	Trustees)	Las Vegas, NV	Section 14

July 2024

Date Start	Date Ends	Conference Org	Conference Name	Location	Notes
		Pacific Pension		Amsterdam,	
7/10/2024	7/12/2024	Inst (PPI)	2024 SUMMER ROUNDTABLE	Netherlands	Section 14
7/14/2024	7/17/2024	SACRS	SACRS/UC Berkeley	Berkeley, CA	Section 12
7/22/2024	7/24/2024	Opal	Public Funds Summit East 2024	Newport, RI	Section 14
			Pension Bridge Private Equity		
7/22/2024	7/24/2024	WithIntelligence	Exclusive 2024	Chicago	Section 14

August 2024

Date Start	Date Ends	Conference Org	Conference Name	Location	Notes
			Principles of Pension		
			Governance for Trustees at		
8/26/2024	8/29/2024	CALAPRS	Pepperdine University	Malibu	Section 12

September 2024

Date Start	Date Ends	Conference Org	Conference Name	Location	Notes
			2024 Fall Conference: Brooklyn,		
9/9/2024	9/11/2024	CII	NY	Brooklyn, NY	Section 14
			2024 Fall Editorial Advisory		
			Board Meeting – Institutional		
9/9/2024	9/11/2024	IREI	Real Estate Americas	Half Moon Bay, CA	Section 14
			2024 Influential Women in		
9/12/2024	9/12/2024	P&I	Institutional Investing	Chicago	Section 14
9/24/2024	9/27/2024	CALAPRS	Administrators Institute	Carmel-By-The-Sea	Section 12

October 2024

Date Start	Date Ends	Conference Org	Conference Name	Location	Notes
			Investment Strategies and		
10/14/2024	10/18/2024	Wharton	Portfolio Management	Philadelphia	Section 12
			7TH ANNUAL PRIVATE EQUITY		
10/15/2024	10/16/2024	Markets Group	SAN FRANCISCO FORUM	San Francisco, CA	Section 14
			Pension Bridge Alternatives		
10/16/2024	10/17/2024	WithIntelligence	2024	NY, NY	Section 14
10/21/2024	10/23/2024	Global ARC	21st Annual Global ARC Boston	Boston, MA	Section 14
			34th Annual Institutional		
10/23/2024	10/25/2024	PREA	Investor Conference	Washington DC	Section 14
		Pacific Pension	2024 ASIA PACIFIC		
10/23/2024	10/25/2024	Inst (PPI)	ROUNDTABLE	Hong Kong	Section 14
			NCPERS Accredited Fiduciary		
10/26/2024	10/27/2024	NCPERS	Program (NAF) Modules 1&2	Palm Springs, CA	Section 12
			NCPERS Accredited Fiduciary		
10/26/2024	10/27/2024	NCPERS	Program (NAF) Modules 3&4	Palm Springs, CA	Section 12
			Program for Advanced Trustee		
10/26/2024	10/27/2024	NCPERS	Studies (PATS)	Palm Springs, CA	Section 12

November 2024

Date Start	Date Ends	Conference Org	Conference Name	Location	Notes
			70th Annual Employee Benefits		
11/10/2024	11/13/2024	IFEBP	Conference	San Diego, CA	Section 14
		Inst Limited			
		Partners			
11/12/2024	11/12/2024	Association	ILPA Summit 2024	TBD	Section 14

	11/12/2024	11/12/2024	Markets Group	8TH ANNUAL PRIVATE WEALTH SOUTHERN CALIFORNIA FORUM	Los Angeles, CA	Section 14
Ī				2024 iREOC Annual		
	11/20/2024	11/22/2024	IREI	Membership Meeting	Austin, TX	Section 14

December 2024

Date Start	Date Ends	Conference Org	Conference Name	Location	Notes
12/4/2024	12/6/2024	Opal	CLO Summit 2024	Dana Point, CA	Section 14
			11TH ANNUAL REAL ESTATE		
12/4/2024	12/4/2024	Markets Group	GLOBAL FORUM	NYC	Section 14
			11TH ANNUAL NORTHERN		
			CALIFORNIA INSTITUTIONAL		
12/10/2024	12/11/2024	Markets Group	FORUM	Napa, CA	Section 14

Ad Hoc/No schedule available yet

Global Financial Markets Inst	Ad Hoc	Section 12
	Public Employee Benefits Institute- Not Yet	
IFEBP	Scheduled	Section 14
Inst Shareholder Services Media		
Solutions	No Schedule Available Yet	Section 14



Memorandum

DATE: August 19, 2024

TO: Members of the Board of Retirement FROM: Steve Delany, Chief Executive Officer

SUBJECT: 2024 OCERS STRATEGIC PLANNING WORKSHOP -AGENDA

Written Report

Background/Discussion

The 2024 Annual OCERS Board of Retirement Strategic Planning Workshop will be held in person at the Westin South Coast Plaza on Tuesday, September 10, and Wednesday, September 11, 2024.

The two-day workshop will once again be a balance of administrative and investment topics.

The proposed final agenda is attached. I will work with the Board Chair to coordinate any future changes to the proposed agenda.

Please contact me directly should you have any questions, comments or concerns regarding the agenda or the event.

Submitted by:



SD - Approved

Steve Delaney Chief Executive Officer

Attachment: Strategic Planning Workshop September 10-11 Agenda





ORANGE COUNTY EMPLOYEES RETIREMENT SYSTEM BOARD OF RETIREMENT

2024 STRATEGIC PLANNING WORKSHOP Tuesday, September 10, 2024 8:30 A.M.

> Westin South Coast Plaza 686 Anton Blvd. Costa Mesa, CA 92626

Members of the public who wish to observe and/or participate in the meeting may do so (1) from the Westin South Coast Plaza or (2) via the Zoom app or telephone (information below) from any location.

OCERS 200111 Video/ reference information							
Join Zoom Meeting	Join by Telephone (Audio Only)						
https://ocers.zoom.us/j/85280733838	Dial by your location						

Meeting ID: 852 8073 3838

Passcode: 056378

Go to https://www.zoom.us/download to download Zoom app before meeting Go to https://zoom.us to connect online using any

browser.

+1 669 900 6833 US (San Jose) +1 346 248 7799 US (Houston) +1 253 215 8782 US (Tacoma) +1 312 626 6799 US (Chicago)

+1 929 436 2866 US (New York)

+1 301 715 8592 US (Washington DC)

Meeting ID: 852 8073 3838

Passcode: 056378

A Zoom Meeting Participant Guide is available on OCERS website Board & Committee meetings page





Agenda (Day 1)

Breakfast	7:30 - 8:30
WELCOME & INTRODUCTORY COMMENTS	8:30 - 8:45
Steve Delaney, CEO, OCERS	
STATE OF OCERS- AN OVERVIEW	8:45 - 9:15
Steve Delaney, CEO, OCERS	
FIRESIDE CHAT WITH CHRIS AILMAN	9:15-10:15
Molly Murphy, CIO, OCERS; and Chris Ailman, Founder, Ailman Advisers	
BREAK	10:15 - 10:30
TOTAL PORTFOLIO APPROACH TO PENSION INVESTMENT MANAGEMENT	10:30- 11:30
Molly Murphy, CIO, OCERS; and Steve Novakovic, CAIA, CFA, Managing Direct	cor, CAIA
INVESTMENT BEST PRACTICES	11:30-12:00
Steve McCourt, Meketa	
LUNCH	12:00 - 1:00
KEYNOTE	1:00 - 2:00
TBD	
VISION 2030 – OCERS AND THE LEVERAGING OF TECHNOLOGY	2:00 – 2:30
Steve Delaney, CEO, OCERS	
OCERS FUTURE- AN ACTUARIAL VIEWPOINT	2:30 - 3:00
Steve Delaney, CEO, OCERS, and Todd Tauzer, Segal	
BREAK	3:00 – 3:15
OCERS HEADQUARTER STATUS – THE HEADQUARTERS OF OUR FUTURE	3:15 – 4:00
Brenda Shott, Assistant CEO, OCERS, and Griffin Structures	
WRAP UP	4:00 – 4:15
ADJOURNMENT	
NETWORKING HAPPY HOUR	

Page **2** of **4**



ORANGE COUNTY EMPLOYEES RETIREMENT SYSTEM BOARD OF RETIREMENT

2024 STRATEGIC PLANNING WORKSHOP Wednesday, September 11, 2024 8:30 A.M.

> Westin South Coast Plaza 686 Anton Blvd. Costa Mesa, CA 92626

Members of the public who wish to observe and/or participate in the meeting may do so (1) from the Westin South Coast Plaza or (2) via the Zoom app or telephone (information below) from any location.

OCERS Zoom	Video/	Telecon	ference i	nformation
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Join Zoom Meeting

https://ocers.zoom.us/j/85280733838

Meeting ID: 852 8073 3838

Passcode: 056378

Go to https://www.zoom.us/download to download Zoom app before meeting Go to https://zoom.us to connect online using any

browser.

Join by Telephone (Audio Only)

Dial by your location

+1 669 900 6833 US (San Jose)

+1 346 248 7799 US (Houston)

+1 253 215 8782 US (Tacoma)

+1 929 436 2866 US (New York)

+1 301 715 8592 US (Washington DC)

+1 312 626 6799 US (Chicago)

Meeting ID: 852 8073 3838

Passcode: 056378

A Zoom Meeting Participant Guide is available on OCERS website Board & Committee meetings page





Agenda

BREAKFAST	7:30 - 8:30
WELCOME AND INTRODUCTIONS	8:30 - 8:45
Steve Delaney, CEO, OCERS	
HEARING FROM OUR STAKEHOLDERS	8:45 – 9:30
For more than a decade we have started each workshop by first hearing from our stakeholders.	
FROM INTELLIGENT TO TECHNOLOGIZED: A LONG-TERM INVESTOR PLAYBOOK	9:30 - 10:30
Molly Murphy, CIO, OCERS; and Ashby Monk, PhD, Executive Director, Stanfor Initiative on Long Term Investing, Stanford University	d Research
FIRESIDE CHAT WITH FORMER VICE PRESIDENT DAN QUAYLE	10:30 – 11:30
Molly Murphy, CIO, OCERS; and Dan Quayle, Former Vice President of United	States of America
LUNCH	11:30 - 12:45
MACRO OUTLOOK AND INVESTMENT IMPLICATIONS	12:45 - 1:45
Laura Wirick, Meketa; Mike Krems, Aksia; Rob Kochis, Townsend; and Shanta	Chary, OCERS
INVESTMENT DATA INITIATIVES	1:45 - 2:45
David Beeson, Josephine He, Duc Nguyen, OCERS	
BREAK	2:45 – 3:00
PROPOSED 2025-2027 STRATEGIC PLAN	3:00 - 3:30
Steve Delaney, CEO, and Will Tsao, Director of EPMO, OCERS	
PROPOSED 2025 BUSINESS PLAN	3:30 – 4:15
Steve Delaney, CEO, and OCERS Leadership Team	
8. WRAP UP	4:15 - 4:30
ADJOURNMENT	



Memorandum

DATE: August 19, 2024

TO: Members of the Board of Retirement

FROM: Tracy Bowman, Director of Finance

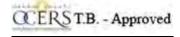
SUBJECT: QUARTERLY TRAVEL AND TRAINING EXPENSE REPORT

Written Report

Background/Discussion

In accordance with OCERS' Travel Policy, the Chief Executive Officer is required to submit a quarterly report to the Board of Retirement on conference attendance and related expenditures incurred by OCERS' Board Members and staff. Attached is the Second Quarter 2024 Travel and Training Expense Report that includes all expenses submitted through June 30, 2024.

Submitted by:



Tracy Bowman
Director of Finance

TRAVEL AND TRAINING EXPENSE REPORT SECOND QUARTER 2024 Submitted Through June 30, 2024**

Name DEWANE Sub Total	Trip OR Class Date	s Trip Name	Destination	Trip Type	Mileage	Reg. Fee	Meals	Airfare	Hotel	Trans.	Misc.	2024 YTD Total Expense	2023 Total*
Sub Total	5/7-5/10/24	SACRS Spring 2024 Conference ¹	Santa Barbara, CA	Training		120.00		-	331.23			451.23	
				·		120.00			331.23	-		451.23	
FREIDENRICH	3/2-3/5/24	CALAPRS General Assembly 2024 & Investment Round Table	Rancho Mirage, CA	Training	-	300.00	-	-	554.66	-		854.66	
	5/7-5/10/24	SACRS Spring 2024 Conference	Santa Barbara, CA	Training	174.20	120.00	2.69	-	707.94	30.00	-	1,034.83	
Sub Total					174.20	420.00	2.69	-	1,262.60	30.00		1,889.49	2,593.30
HIDALGO Sub Tatal								-		-	-		110.95
Sub Total HILTON	1/28-1/30/24	NAPO's 35th Annual Pension & Benefits Seminar	Lea Marea CA	Teologica	22.14	•	4/ /0	185.80	F1/ 04	154.67		936.15	110.95
HILTON	2/24-2/26/24	NASRA 2024 Joint Winter Meeting	Las Vegas, CA Washington, DC	Training Conference	32.16 53.60		46.68 45.28	337.96	516.84 1,247.64	226.19		1,910.67	
	5/7-5/10/24	SACRS Spring 2024 Conference ¹	Santa Barbara, CA	Training	33.00	120.00	45.20	337.90	331.23	220.19		451.23	
	8/18-8/20/24	NCPERS Public Pension Funding Forum	Boston, MA	Conference	-	120.00		455.97	331.23	-		451.23 455.97	
Sub Total	0/10-0/20/24	NCPERS Public Perision Funding Forum	DUSIOII, IVIA	Conterence	85.76	120.00	91.96	979.73	2,095.71	380.86	<u> </u>	3,754.02	11,922.70
LINDHOLM	5/17/24	CALAPRS Trustees Round Table	Online	Training		50.00	71.70		2,070.71	-		50.00	11,722.70
Sub Total						50.00		-	-	-		50.00	
OATES	1/28-1/30/24	NAPO's 35th Annual Pension & Benefits Seminar	Las Vegas, CA	Training			46.68	144.98	284.47	71.73		547.86	
	3/2-3/5/24	CALAPRS General Assembly 2024	Rancho Mirage, CA	Training	150.08	250.00	-	-	554.66	-		954.74	
	4/28-4/30/24	Motley Rice PIC US	Charleston, SC	Training		-	65.23	665.70		157.02		887.95	
	5/7-5/10/24	SACRS Spring 2024 Conference	Santa Barbara, CA	Training	195.64	120.00	-		707.94	30.00		1,053.58	
Sub Total					345.72	370.00	111.91	810.68	1,547.07	258.75		3,444.13	12,354.57
PACKARD	5/7-5/10/24	SACRS Spring 2024 Conference	Santa Barbara, CA	Training	189.61	120.00	-	-	1,061.91	60.00	14.95	1,446.47	
Sub Total	10/21-10/23/24	21st Annual Global ARC	Boston, MA	Training	189.61	275.00			1.061.91	60.00	14.95	275.00 1,721,47	3,753,66
PREVATT	2/24-2/26/24	NASRA 2024 Joint Winter Meeting	Mashington DC	Conference	189.61	395.00	150.20	577.79	1,061.91	190.25		1,/21.4/ 2.165.88	3,/53.66
PREVAIL	3/2-3/5/24		Washington, DC	Conterence Training	162.14	250.00	150.20 98.64	5/1./9	1,247.64 831.99	190.25		2,165.88 1.342.77	
	3/2-3/5/24 4/15-4/17/24	CALAPRS General Assembly 2024 Annual 2024 Pension Bridge	Rancho Mirage, CA Half Moon Bay, CA	Training Training	162.14	250.00	98.64 40.74	445.58	625.63	198.25		1,342.77	
	4/15-4/1//24 5/7-5/10/24	Annual 2024 Pension Bridge SACRS Spring 2024 Conference	Santa Barbara, CA	Training	77.05	120.00	40.74 38.00	445.58	1.076.91	198.25 45.00		1,310.20	
	5/19-5/22/24	NCPERS 2024 Annual Conference Exhibition (ACE)	Seattle, WA	Training	77.05	1.050.00	92.06	482.94	1,076.91	311.07		2,961.18	
	8/3-8/7/24	NASRA 2024 Annual Conference	Pittsburgh, PA	Conference		1,550.00	72.00	692.95	1,023.11	311.07		2,242.95	
Sub Total	0/3-0/1/24	INJUNE 2024 Annual Controlled	Fittsburgh, FA	Controlled	239.19	2,970.00	419.64	2,199.26	4,807.28	744.57		11,379.94	16,520.80
TAGALOA	1/22-1/24/24	NCPERS 2024 Legislative Conference	Washington, DC	Training			57.71	-	1,040.07	103.02		1,200.80	
	1/28-1/30/24	NAPO's 35th Annual Pension & Benefits Seminar	Las Vegas, CA	Training			46.68		536.84	113.51		697.03	
	3/2-3/5/24	CALAPRS General Assembly 2024	Rancho Mirage, CA	Training	142.04	250.00		-	277.33	-		669.37	
	3/20-3/21/24	NASP 2024 Day of Education in Private Equity for Trustees	Marina Del Rey, CA	Training	56.28	85.00		-	542.11	-		683.39	
	4/28-4/30/24	Motley Rice PIC US	Charleston, SC	Training	44.89		-	613.08	-	44.98		702.95	
	5/7-5/10/24	SACRS Spring 2024 Conference ²	Santa Barbara, CA	Training	160.13	120.00	44.33	-	1,780.89	351.73	-	2,457.08	
	5/18-5/22/24	NCPERS Trustee Educational (TEDS) & Conference (ACE)	Seattle, WA	Training		1,550.00	98.57	256.20	1,898.33	114.00	-	3,917.10	
	7/14-7/17/24	SACRS UC Berkeley 2024 Program: System Pricing	Berkeley, CA	Training		3,000.00	-	310.96	-	-	-	3,310.96	
	8/3-8/7/24	NASRA 2024 Annual Conference	Pittsburgh, PA	Conference		1,650.00	-	-	-	-	-	1,650.00	
	8/26/24	CalPERS Pathways for Women Conference 2024	Anaheim, CA	Training		199.00	-	-	-	-	-	199.00	
Sub Total					403.34	6,854.00	247.29	1,180.24	6,075.57	727.24		15,487.68	19,776.09
VALLONE Sub Total	5/7-5/10/24	SACRS Spring 2024 Conference	Santa Barbara, CA	Training	207.70	120.00	99.03		1,061.91		-	1,488.64 1 488.64	1.010.37
BOARD Total					1,645.52	11,419.00	972.52	5,169.91	18,243.28	2,201.42	14.95	39,666.60	68,042.44
DELANEY	1/23/24	IREI 2024 Visions, Insights & Perspectives (VIP) Americas	Carlsbad, CA	Conference	81.07			-		5.00		86.07	
	1/28-1/30/24	NAPO's 35th Annual Pension & Benefits Seminar	Las Vegas, CA	Training			96.46	663.96	90.60	38.90		889.92	
	2/8/24	CALAPRS Administrators Round Table	Online	Training		50.00	-	-		-	-	50.00	
	2/24-2/26/24	NASRA 2024 Joint Winter Meeting	Washington, DC	Conference		-	69.38	666.20	802.82	230.81		1,769.21	
	3/2-3/5/24	CALAPRS General Assembly 2024 & Investment Round Table	Rancho Mirage, CA	Training		300.00	42.85	-		-		342.85	
	3/19/24	CALAPRS Compliance Round Table	Online	Training		50.00		-		-		50.00	
	5/7-5/10/24	SACRS Spring 2024 Conference and CEO & Admin. Forum	Santa Barbara, CA	Training	148.74	270.00	31.69	-	1,134.52	-		1,584.95	
	5/15-5/16/24	Roboyo Conference: All Eyes on Automation USA 2024	Miami, FL	Training		-	193.21	969.20	979.70	147.68	55.08	2,344.87	
	6/17-6/19/24	NCPERS 2024 Chief Officers Summit	Nashville, TN	Training	-	800.00	291.92	633.19	1,397.65	313.46		3,436.22	
	7/14-7/17/24	NAPO's 46th Annual Convention	Nashville, TN	Conference	-	-	-	852.20	-	-		852.20	
	8/3-8/7/24	NASRA 2024 Annual Conference	Pittsburgh, PA	Conference	-	1,550.00	-	817.20	-			2,367.20	
	8/18-8/20/24	NCPERS Public Pension Funding Forum	Boston, MA	Conference	-		-	-	89.65	-		89.65	
C. I. T. I. I.	9/25-9/27/24	CALAPRS Administrators Institute 2024	Carmel-By-The-Sea, CA	Training		2,500.00	705.55			705.00		2,500.00	40.775.17
Sub Total	4/10/24	CALADDC Administrative Assistant Day of Table	Online	Training	229.81	5,520.00	725.51	4,601.95	4,494.94	735.85	55.08		18,670.17
EVENSON	4/10/24	CALAPRS Administrative Assistants Round Table	Online	Training	-	50.00	-	-	-			50.00	
Sub Total	4/26/24	CALAPRS Overview in Retirement Plan Administration	Online	Training	-	100.00 150.00		-				100.00 150.00	
JENIKE						130.00						130.00	
						-	-						9,523.76
Jour (Old)	4/10/24	CALAPRS Administrative Assistants Round Table	Online	Training	-	50.00		-		-	-	50.00	
Sub Total NIH						50.00	-	-	-			50.00	100.00
NIH Sub Total													
NIH	2/26-2/27/24	Gartner CIO Leadership Forum 2024	Phoenix, AZ	Training	12.06	-	40.64	406.34	413.88	183.78	-	1,056.70	
NIH Sub Total	3/2-3/5/24		Rancho Mirage, CA	Training Training	139.36	250.00	42.85	406.34	564.66	15.54	-	1,012.41	
NIH Sub Total	3/2-3/5/24 5/7-5/10/24	Gartner CIO Leadership Forum 2024 CALAPRS General Assembly 2024 SACRS Spring 2024 Conference	Rancho Mirage, CA Santa Barbara, CA	Training Training	139.36 174.20	120.00	42.85 47.69	-	564.66 1,106.91	15.54 139.65	-	1,012.41 1,588.45	
NIH Sub Total SHOTT	3/2-3/5/24	Gartner CIO Leadership Forum 2024 CALAPRS General Assembly 2024	Rancho Mirage, CA	Training	139.36 174.20 12.06	120.00 515.00	42.85 47.69 229.38	- - 1,157.20	564.66 1,106.91 833.39	15.54 139.65 156.13	:	1,012.41 1,588.45 2,903.16	
NIH Sub Total SHOTT	3/2-3/5/24 5/7-5/10/24 6/9-6/12/24	Gartner CIO Leadership Forum 2024 CALAPRS General Assembly 2024 SACRS Spring 2024 Conference GFOA 118th Annual Conference	Rancho Mirage, CA Santa Barbara, CA Orlando, FL	Training Training Conference	139.36 174.20 12.06 337.68	120.00 515.00 885.00	42.85 47.69 229.38 360.56	-	564.66 1,106.91 833.39 2,918.84	15.54 139.65		1,012.41 1,588.45 2,903.16 6,560.72	5,471.50
NIH Sub Total SHOTT	3/2-3/5/24 5/7-5/10/24 6/9-6/12/24 3/2-3/5/24	Gartner CIO Leadership Forum 2024 CALAPRS General Assembly 2024 SACRS Spring 2024 Conference GFOA 118th Annual Conference CALAPRS General Assembly 2024	Rancho Mirage, CA Santa Barbara, CA Orlando, FL Rancho Mirage, CA	Training Training Conference Training	139.36 174.20 12.06	120.00 515.00 885.00 250.00	42.85 47.69 229.38 360.56 42.85	1,157.20 1,563.54	564.66 1,106.91 833.39 2,918.84 554.66	15.54 139.65 156.13 495.10		1,012.41 1,588.45 2,903.16 6,560.72 977.49	5,471.50
NIH Sub Total SHOTT	3/2-3/5/24 5/7-5/10/24 6/9-6/12/24 3/2-3/5/24 3/11-3/13/24	Gartner CIO Leadership Forum 2024 CALAPRS General Assembly 2024 SACRS Spring 2024 Conference GFOA 118th Annual Conference CALAPRS General Assembly 2024 Gartner 2024 NA Data & Analytics Summit	Rancho Mirage, CA Santa Barbara, CA Orlando, FL Rancho Mirage, CA Orlando, FL	Training Training Conference Training Training	139.36 174.20 12.06 337.68	120.00 515.00 885.00 250.00 3,825.00	42.85 47.69 229.38 360.56	1,157.20 1,563.54 - 266.20	564.66 1,106.91 833.39 2,918.84 554.66 765.00	15.54 139.65 156.13 495.10 - 325.17	-	1,012.41 1,588.45 2,903.16 6,560.72 977.49 5,233.70	5,471.50
NIH Sub Total SHOTT Sub Total	3/2-3/5/24 5/7-5/10/24 6/9-6/12/24 3/2-3/5/24 3/11-3/13/24 5/13-5/16/24	Gartner CIO Leadership Forum 2024 CALAPRS General Assembly 2024 SACRS Spring 2024 Conference GFOA 118th Armual Conference CALAPRS General Assembly 2024 CALAPRS General Assembly 2024 Gartner 2024 NA Data & Analytics Summit	Rancho Mirage, CA Santa Barbara, CA Orlando, FL Rancho Mirage, CA Orlando, FL New York, NY	Training Training Conference Training Training Training Training	139.36 174.20 12.06 337.68 129.98	120.00 515.00 885.00 250.00 3,825.00 9,550.00	42.85 47.69 229.38 360.56 42.85	1,157.20 1,563.54	564.66 1,106.91 833.39 2,918.84 554.66	15.54 139.65 156.13 495.10 - 325.17 413.22		1,012.41 1,588.45 2,903.16 6,560.72 977.49 5,233.70 12,011.61	5,471.50
NIH Sub Total SHOTT Sub Total	3/2-3/5/24 5/7-5/10/24 6/9-6/12/24 3/2-3/5/24 3/11-3/13/24	Gartner CIO Leadership Forum 2024 CALAPRS General Assembly 2024 SACRS Spring 2024 Conference GFOA 118th Annual Conference CALAPRS General Assembly 2024 Gartner 2024 NA Data & Analytics Summit	Rancho Mirage, CA Santa Barbara, CA Orlando, FL Rancho Mirage, CA Orlando, FL	Training Training Conference Training Training	139.36 174.20 12.06 337.68	120.00 515.00 885.00 250.00 3,825.00	42.85 47.69 229.38 360.56 42.85	1,157.20 1,563.54 - 266.20	564.66 1,106.91 833.39 2,918.84 554.66 765.00	15.54 139.65 156.13 495.10 - 325.17		1,012.41 1,588.45 2,903.16 6,560.72 977.49 5,233.70	5,471.50

TRAVEL AND TRAINING EXPENSE REPORT SECOND QUARTER 2024 Submitted ThroughJune 30, 2024**

Name	Trip OR Class Dates	Trip Name	Destination	Trip Type	Mileage	Reg. Fee	Meals	Airfare	Hotel	Trans.	Misc.	2024 YTD Total Expense	2023 Total*
BEESON	2/6/24	CalSTRS Visit	Sacramento, CA	Due Diligence	-	-	6.49	339.95	-	146.95	-	493.39	
	3/4-3/7/24	NY 2024 Annual Meeting/Due Diligence	New York, NY	Meeting/Due Diligence			133.12	741.20	1,287.27	294.02		2,455.61	
	5/6-5/8/24	Milken Institute Global Conference	Beverly Hills, CA	Conference/Due Diligence	60.30				1,173.35	135.00		1,368.65	
	6/11/24	California LP Summit	Dana Point, CA	Due Diligence							25.00	25.00	
Sub Total					60.30		139.61	1,081.15	2,460.62	575.97	25.00	4,342.65	5,582.87
CHARY	2/6/24	CalSTRS Visit	Sacramento, CA	Due Diligence		-	-	551.96	-	96.25		648.21	
	4/29-5/1/24	Institutional Investors Allocators: Public Funds Roundtable 2024	Beverly Hills, CA	Due Diligence	72.36				600.98	130.00		803.34	
	5/20-5/22/24	Talking Hedge	Austin, TX	Due Diligence			23.75	362.96	662.66	132.35		1,181.72	
	6/10-6/13/24	Managers Due Diligence Meetings	New York, NY	Meeting/Due Diligence			95.90	1,181.20	_	464.83		1,741.93	
Sub Total					72.36		119.65	2,096.12	1,263.64	823.43		4,375.20	4,595.43
CHEN	3/3-3/6/24	Women's Private Equity Summit 2024	Phoenix, AZ	Due Diligence				464.20	1,348.23	415.14		2,227.57	
	4/9-4/10/24	SuperReturn US West	Universal City, CA	Due Diligence	49.58				305.75	27.00		382.33	
	4/30-5/2/24	Quantum 2024 Annual	Houston, TX	Due Diligence			76.31	639.60	608.09	193.72		1.517.72	
	5/20-5/22/24	Managers Due Diligence Meetings	New York, NY	Meeting/Due Diligence			50.03	886.87	1,389.69	439.74		2,766.33	
Sub Total	0/20 0/22/21	managara and a macanga	TON, IT	meeting but brigation	49.58		126.34	1,990.67	3,651.76	1,075.60		6,893.95	5,926.97
HE	2/6/24	CalSTRS Visit	Sacramento, CA	Due Diligence			14.63	480.08		72.98		567.69	-,
	3/18/24	ALTSLA Conference	Los Angeles, CA	Due Diligence/Conference			11.00	100.00		24.20		24.20	
	4/25/24	Aksia Onsite	San Diego, CA	Due Diligence	91.79	-	-	-	-	24.20		91.79	
	6/10-6/13/24		New York, NY	Meeting/Due Diligence	71./7		151.07	475.20	1,645.92	322.26		2.594.45	
		Managers Due Diligence Meetings			35 51		151.07	475.20	1,045.92			2,094.40	
Sub Total	7/10/24	Tide Spark 2024 Conference	Dana Point, CA	Due Diligence/Conference	35.51 127.30		165.70	955.28	1,645.92	20.00 439.44		55.51 3,333.64	769.45
Sub Total	2/2//24	ILPA Real Assets	Online	Training		000.00	165.70	955.28	1,645.92	439.44	-		769.45
HENANE	3/26/24		Online	Training	-	999.00	-	-	-	-	-	999.00	
	4/26/24	CALAPRS Overview in Retirement Plan Administration	Online	Training		100.00	-	-				100.00	
	5/7-5/10/24	SACRS Spring 2024 Conference	Santa Barbara, CA	Training	170.85	120.00	-	-	751.18	60.00		1,102.03	
	6/5/24	Aksia/Ares Educational Roundtable	Los Angeles, CA	Due Diligence	45.56	-	-	-	-	13.00	-	58.56	
Sub Total					216.41	1,219.00		-	751.18	73.00	-	2,259.59	
HWANG	7/10/24	Tide Spark 2024 Conference	Dana Point, CA	Due Diligence/Conference	15.41	-		-	-	20.00		35.41	
Sub Total					15.41			-	-	20.00		35.41	
JI	3/20-3/21/24	ILPA - Investment Due Diligence	San Francisco, CA	Due Diligence/Conference	-	1,699.00	85.28	195.95	576.01	223.60		2,779.84	
	5/7-5/10/24	SACRS Spring 2024 Conference	Santa Barbara, CA	Training	168.17	120.00	-	-	707.94	30.00	-	1,026.11	
Sub Total					168.17	1,819.00	85.28	195.95	1,283.95	253.60		3,805.95	1,257.84
MEDINA	4/26/24	CALAPRS Overview in Retirement Plan Administration	Online	Training	-	100.00	-	-	-	-		100.00	
	5/7-5/10/24	SACRS Spring 2024 Conference	Santa Barbara, CA	Training	-	120.00	-	-	751.18	60.00		931.18	
Sub Total					-	220.00			751.18	60.00		1,031.18	
MURPHY	2/6/24	CalSTRS Visit	Sacramento, CA	Due Diligence			42.38	551.96	-	20.00		614.34	
	2/27-3/1/24	Managers Due Diligence Meetings	London, England	Due Diligence/Meeting		-	154.72	755.80	1,492.76	381.68		2,784.96	
	3/5-3/8/24	2024 Forbes 30/50 Summit	Abu Dhabi, United Arab Emirates	Due Diligence/Conference		500.00	154.33		3,701.07	72.36		4,427.76	
	4/7-4/13/24	P&I Nordic Pension Tour	Copenhagen, Denmark	Due Dilligence/Conference			82.91	4,981.80	1,365.10	256.56		6,686.37	
	4/29-5/1/24	Institutional Investors Allocators: Public Funds Roundtable 2024	Beverly Hills, CA	Due Diligence	91.79				600.98	130.00		822.77	
	5/5-5/8/24	Milken Institute Global Conference	Beverly Hills, CA	Due Diligence/Conference	-				1,340.95	295.37		1,636.32	
	5/13-5/14/24	General Catalyst AGM	San Francisco, CA	Due Diligence			64.67	416.20	777.48	100.90		1,359.25	
	6/4-6/5/24	FIRCAP LP Meeting	Chicago, IL				65.78	474.45	1,203.69	168.23		1,912.15	
Sub Total	0/4-0/3/24	FIRCAF EF Meeting	Cilicago, IL	Due Diligence/Meeting	91.79	500.00	564.79	7,180.21	10,482.03	1,425.10		20,243.92	8,365.46
NGUYEN, D	5/16/24	Clearlake AGM	Norwalk, CA	Due Diligence	58.29	300.00	46.89	1,100.21	200.14	41.05	-	346.37	0,303.40
Sub Total	3/10/24	Clearlake Adivi	Norwalk, CA	Due Diligence	58.29		46.89		200.14	41.05		346.37	4,387.50
PETERSON	4/9-4/10/24	SuperReturn US West	Universal City, CA	Due Diligence	42.21		40.07		279.09	67.10	-	388 40	4,307.30
FLIERSON	6/24-6/26/24	ILPA and PE Training	Chicago, IL	Due Diligence/Conference	42.21	1.699.00	94.89	582.97	1.103.86	209.93		3.690.65	
Sub Total	0/24-0/20/24	ILPA and PE ITalling	Chicago, IL	Due Diligence/Conference	42.21	1,699.00	94.89	582.97	1,382.95	277.03		4,079.05	1,839.09
TURIAGI	2/24 2/27/24	Doncion Pridgo Drivato Cradit	Carlchad CA	Duo Diligones									1,039.05
TURIAGI	2/26-2/27/24	Pension Bridge Private Credit	Carlsbad, CA	Due Diligence	71.69	-	103.09	-	1,159.55	76.00		1,410.33	
Cub Total	5/13-5/16/24	Ares Firmwide Annual Meeting 2024	Scottdale, AZ	Due Diligence/Meeting	71.00	-	32.15	315.85	1,394.63	118.03	-	1,860.66	1,232.69
Sub Total	Eli Eloio:	Million burget a Child Confessor	D LEW. CA.	0	71.69	-	135.24	315.85	2,554.18	194.03		3,270.99	1,232.69
WALANDER-SARKIN	5/6-5/8/24	Milken Institute Global Conference	Beverly Hills, CA	Conference/Due Diligence	67.67	-	-	-	1,183.71	238.00	-	1,489.38	
	5/26-6/7/24	Paris Due Diligence and Super Return Berlin	Paris & Berlin	Due Diligence	-	-	104.76	4,091.87	2,449.68	716.47	36.44	7,399.22	
	6/23-6/28/24	Constellation AGM Copenhagen	Copenhagen, Denmark	Due Diligence	-	-	99.39	1,681.81	1,403.59	236.54	68.05	3,489.38	
Sub Total					67.67		204.15	5,773.68	5,036.98	1,191.01	104.49	12,377.98	2,605.56
INVESTMENTS Total					1,041.18	5,457.00	1,682.54	20,171.88	31,464.53	6,449.26	129.49	66,395.88	36,562.86
CLARK	4/7/24	Publice Speaking Course	Santa Ana, CA	Training	-	178.75	-	-	-	-	-	178.75	
	4/26/24	CALAPRS Overview in Retirement Plan Administration	Online	Training	-	100.00	-	-	-	-	-	100.00	
	5/13-5/16/24	CAPIO 2024 Annual Conference	Indian Wells, CA	Conference	136.01	675.00	124.71	-	725.31	54.00	-	1,715.03	
	6/20/24	CALAPRS Communications Round Table	San Jose, CA	Training	-	300.00	51.83	563.39		_		915.22	
Sub Total					136.01	1,253.75	176.54	563.39	725.31	54.00		2,909.00	
COBURN	1/21-1/22/24	NCPERS 2024 Pension Communications Summit	Washington, DC	Training	-	400.00	129.74	417.81	1,040.07	279.25	-	2,266.87	
	3/2-3/5/24	CALAPRS General Assembly 2024	Rancho Mirage, CA	Training	137.35	250.00	74.99	-	554.66	-		1,017.00	
	4/26/24	CALAPRS Overview in Retirement Plan Administration	Online	Training		100.00		-		-		100.00	
	5/13-5/16/24	CAPIO 2024 Annual Conference	Indian Wells, CA	Conference	136.68	675.00	149.89	_	725.31	66.00		1,752.88	
	6/20/24	CALAPRS Communications Round Table	San Jose, CA	Training	155.56	300.00	99.00	287.96	275.43	74.50	_	1,036.89	
	7/15-7/16/24	IFEBP Benefit Communication and Technology Institute	Denver, CO	Training	· 1	1,825.00	77.00	376.93	270.40	74.00		2,201.93	
					405.5			3/0.93	1 171 00	****	-		
Cub Tatal	Various	CALAPRS Management Academy: Module 1, 2, & 3	Pasadena, CA	Training	105.86	3,500.00	154.71	1,000.70	1,171.20	190.00		5,121.77	
Sub Total					379.89	7,050.00	608.33	1,082.70	3,766.67	609.75		13,497.34	-
COMMUNICATIONS Total ADDO	3/13/24	CCDA Delian and Draudure Writing	Online	Training	515.90	8,303.75	784.87	1,646.09	4,491.98	663.75		16,406.34	
MUDU		CSDA Policy and Procedure Writing	Online	Training	-	230.00	-	-	-	-		230.00	
	3/19/24	CALAPRS Compliance Round Table	Online	Training		50.00	-	-	-			50.00	
	4/26/24	CALAPRS Overview in Retirement Plan Administration	Online	Training	-	100.00	-	-	-	-		100.00	
	Various	SCCE Creating Inclusive Compliance	Online	Training		49.00						49.00	
Sub Total	various	acce creating inclusive compilative	OTHER	ridining		429.00						429.00	7,107.56

TRAVEL AND TRAINING EXPENSE REPORT SECOND QUARTER 2024 Submitted ThroughJune 30, 2024**

Name	Trip OR Class Dates	Trip Name	Destination	Trip Type	Mileage	Reg. Fee	Meals	Airfare	Hotel	Trans.	Misc.	2024 YTD Total Expense	2023 Total*
BAEK	2/9/24	CALAPRS Attorneys Round Table	Online	Training		50.00	-	-	-	-	-	50.00	
	3/13/24	CSDA Policy and Procedure Writing	Online	Training		230.00		-		-		230.00	
	5/24/24	CALAPRS Attorneys Round Table	Online	Training		50.00						50.00	
	6/25-6/28/24	NAPPA 2024 Legal Education Conference	Fort Lauderdale, FL	Training		990.00		800.21	229.00	-		2,019.21	
Sub Total						1,320.00	-	800.21	229.00	-		2,349.21	1,257.12
CAO	2/9/24	CALAPRS Attorneys Round Table	Online	Training		50.00						50.00	
	3/13/24	CSDA Policy and Procedure Writing	Online	Training		230.00	_		_			230.00	
	5/24/24	CALAPRS Attorneys Round Table	Online	Training		50.00						50.00	
Sub Total	0/2 //21	Oraci no mono y nound navo	O'mino	Truining.		330.00						330.00	5,152.44
GONZALEZ-VERDUGO	3/13/24	CSDA Policy and Procedure Writing	Online	Training		230.00						230.00	
	4/10/24	CALAPRS Administrative Assistants Round Table	Online	Training		50.00						50.00	
	4/26/24	CALAPRS Overview in Retirement Plan Administration	Online	Training		100.00						100.00	
Sub Total	172021	O E T TO O TO TO THE INTERIOR T	CTIMIC .	Trussing		380.00						380.00	945.18
KIM, J	2/9/24	CALAPRS Attorneys Round Table	Online	Training	-	50.00						50.00	
, -	3/13/24	CSDA Policy and Procedure Writing	Online	Training		230.00						230.00	
	5/7-5/10/24	SACRS Spring 2024 Conference	Santa Barbara, CA	Training	136.68	120.00						256.68	
	6/25-6/28/24	NAPPA 2024 Legal Education Conference	Fort Lauderdale, FL	Training	130.00	990.00	140.10	775.50	776.31	297.17		2,979.08	
Sub Total	0/25-0/20/24	NAFFA 2024 Legal Education Conference	FOIT Lauderdale, F.L.	Hailing	136.68	1,390.00	140.10	775.50	776.31	297.17		3,515.76	1,065.62
SERPA	2/9/24	CALAPRS Attorneys Round Table	Online	Training	130.00	50.00	140.10	773.30	770.31	271.17		50.00	1,003.02
SERFA	3/19/24	CALAPRS Compliance Round Table	Online	Training		50.00	-	-	-	-		50.00	
	5/7-5/10/24	SACRS Spring 2024 Conference	Santa Barbara, CA	Training	174.87	120.00	-		1,071.20	45.00		1,411.07	
					1/4.0/		-		1,071.20	45.00			
	5/24/24	CALAPRS Attorneys Round Table	Online	Training		50.00 990.00	97.74	815.20	776.31			50.00 2,705.49	
C. I. T. I. I	6/25-6/28/24	NAPPA 2024 Legal Education Conference	Fort Lauderdale, FL	Training	474.07					26.24			2.745.20
Sub Total	2/0/24	CALADDC Allerance Dound Told	Online	Teologica	174.87	1,260.00	97.74	815.20	1,847.51	71.24		4,266.56	3,745.30
SINGLETON	2/9/24	CALAPRS Attorneys Round Table	Online	Training		50.00	-	-	-	-		50.00	
Sub Total	3/13/24	CSDA Policy and Procedure Writing	Online	Training	-	230.00 280.00	-	-	-		_	230.00 280.00	269.59
LEGAL Total					311.55	5,389.00	237.84	2,390.91	2,852.82	368.41	-	280.00 11,550.53	19,542.81
ARDELEANU	4/26/24	CALAPRS Overview in Retirement Plan Administration	Online	Training		100.00	237.04	2,370.71	2,002.02	300.41	-	100.00	17,342.01
ARDELEANO					-	100.00	-	207.00	1.540.40				
Sub Total	5/7-5/9/24	CEM 2024 Conference	Denver, CO	Training	-	100.00	85.88 85.88	387.29 387.29	1,549.68 1,549.68	200.80 200.80	-	2,223.65 2,323.65	
CORTEZ	2/15/24	CALAPRS Benefits Round Table	Online	Wastelan.		50.00	85.88	387.29	1,549.68	200.80	•	2,323.65	•
Sub Total	2/15/24	CALAPRS Benefits Round Table	Unline	Training		50.00		-		-	-	50.00	50.00
HORST	4/10/24	CALADDO A Indicator Analysis Donat Table	Online	Testata	-	50.00	-	-		-		50.00	50.00
Sub Total	4/1U/24	CALAPRS Administrative Assistants Round Table	Unline	Training		50.00						50.00	50.00
IBARRA	Various	LEAN Six Sigma Black Belt	Online	Training	-	1,499.00	-	-		-		1,499.00	50.00
Sub Total	Vallous	LEAN SIX SIGNIA BIACK BEIL	Offilite	ITallilly	-	1,499.00		-		-		1,499.00	
LAMBERSON	5/7-5/10/24	SACRS Spring 2024 Conference	Santa Barbara, CA	Training	180.23	120.00	4.35	-	1,126.77	90.00		1,521.35	-
Sub Total	3/7-3/10/24	SACKS Spring 2024 Contention	Salita Balbala, CA	Halling	180.23	120.00	4.35	-	1,126.77	90.00		1,521.35	
LOPEZ, R	4/26/24	CALAPRS Overview in Retirement Plan Administration	Online	Training	100.20	100.00	1.00		1,120.77	70.00		100.00	
Sub Total	4720/24	CALAI NO OVCIVICW III NCIIICIICII I I III Administration	Offinic	Training		100.00						100.00	50.00
MALDONADO						100.00						100.00	55.55
Sub Total													50.00
SHARMA-RAMKISHUN													
Sub Total												-	50.00
VARGAS													
Sub Total												-	1,792.81
WARKENTINE	Various	LEAN Six Sigma Black Belt	Online	Training		799.00							
Sub Total												799.00	
MEMBER SERVICES Total						799.00				-		799.00 799.00	
BARKER					180.23	799.00 2,718.00	90.23	387.29	2,676.45	290.80		799.00	2,042.81
Sub Total					180.23	799.00 2,718.00	90.23	387.29	2,676.45	290.80			2,042.81
					180.23	799.00 2,718.00 -	90.23	387.29	2,676.45	290.80		799.00	2,042.81
	2/5/24	GFOA Correctly Calculating Net Investment in Capital Assets	Online	Training	180.23	799.00 2,718.00 - - 35.00	90.23	387.29	2,676.45	290.80		799.00	
	2/5/24 4/30/24	GFOA Correctly Calculating Net Investment in Capital Assets GFOA Harnessing Efficiency Utilizing Robots in the Finance Office	Online Online	Training Training	-	2,718.00	90.23		2,676.45	290.80		799.00 6,343.00 -	
BOWMAN	4/30/24	GFOA Harnessing Efficiency Utilizing Robots in the Finance Office	Online	Training	-	2,718.00 - - 35.00 35.00	90.23		2,676.45	290.80		799.00 6,343.00 - - 35.00 35.00	
					-	2,718.00 - - 35.00	90.23		2,676.45	290.80		799.00 6,343.00 - - - 35.00	
BOWMAN	4/30/24 10/27-10/30/24	GFOA Harnessing Efficiency Utilizing Robots in the Finance Office P2F2 Annual Conference 2024	Online	Training Training		2,718.00 - - 35.00 35.00 925.00	90.23			290.80		799.00 6,343.00 - - 35.00 35.00 925.00	135.00
BOWMAN Sub Total	4/30/24	GFOA Harnessing Efficiency Utilizing Robots in the Finance Office	Online Indianapolis, IN	Training		2,718.00 - - 35.00 35.00 925.00 995.00	90.23			- 290.80 		799.00 6,343.00 - - 35.00 35.00 925.00 995.00	135.00
BOWMAN Sub Total DURIGON Sub Total	4/30/24 10/27-10/30/24	GFOA Harnessing Efficiency Utilizing Robots in the Finance Office P2F2 Annual Conference 2024 CALAPRS Accountants Round Table	Online Indianapolis, IN	Training Training		2,718.00 - - 35.00 35.00 925.00 995.00 50.00 3,500.00						799.00 6,343.00 - - - 35.00 35.00 975.00 995.00 50.00 4,890.07	135.00 3,115.20
BOWMAN Sub Total DURIGON	4/30/24 10/27-10/30/24 4/5/24	GFOA Harnessing Efficiency Utilizing Robots in the Finance Office P2F2 Annual Conference 2024	Online Indianapolis, IN	Training Training Training	-	2,718.00 - - 35.00 35.00 925.00 995.00 50.00						799.00 6,343.00 35.00 35.00 925.00 995.00 50.00	135.00 3,115.20
BOWMAN Sub Total DURIGON Sub Total GUERRERO	4/30/24 10/27-10/30/24 4/5/24	GFOA Harnessing Efficiency Utilizing Robots in the Finance Office P2F2 Annual Conference 2024 CALAPRS Accountants Round Table	Online Indianapolis, IN	Training Training Training Training		2,718.00 - - 35.00 35.00 925.00 995.00 50.00 3,500.00					· · ·	799.00 6,343.00 - - - 35.00 35.00 975.00 995.00 50.00 4,890.07	135.00 3,115.20
BOWMAN Sub Total DURIGON Sub Total GUERRERO Sub Total	4/30/24 10/27-10/30/24 4/5/24 Various	GFOA Harnessing Efficiency Utilizing Robots in the Finance Office P2F2 Annual Conference 2024 CALAPRS Accountants Round Table CALAPRS Management Academy: Module 1, 2, & 3	Online Indianapolis, IN Online Pasadena, CA	Training Training Training	72.36	2,718.00 - 35.00 35.00 925.00 995.00 50.00 50.00 3,500.00 3,500.00	- - - - - - 56.51 56.51		- - - - - - 1,156.20 1,156.20	- - - - - 105.00	· · ·	799.00 6,343.00 35.00 35.00 925.00 995.00 50.00 4,890.07 4,890.07	135.00 3,115.20
BOWMAN Sub Total DURIGON Sub Total GUERRERO Sub Total KANG	4/30/24 10/27-10/30/24 4/5/24 Various	GFOA Harnessing Efficiency Utilizing Robots in the Finance Office P2F2 Annual Conference 2024 CALAPRS Accountants Round Table CALAPRS Management Academy: Module 1, 2, & 3	Online Indianapolis, IN Online Pasadena, CA	Training Training Training Training	72.36 72.36 69.01	2,718.00 - 35.00 35.00 925.00 995.00 50.00 50.00 3,500.00 3,500.00			1,156.20 693.72	- - - - - 105.00 105.00	-	799.00 6,343.00 35.00 35.00 972.00 995.00 50.00 50.00 4,890.07 4,890.07	135.00 3,115.20 50.00
BOWMAN Sub Total DURIGON Sub Total GUERRERO Sub Total KANG Sub Total LAM Sub Total	4/30/24 10/27-10/30/24 4/5/24 Various	GFOA Harnessing Efficiency Utilizing Robots in the Finance Office P2F2 Annual Conference 2024 CALAPRS Accountants Round Table CALAPRS Management Academy: Module 1, 2, & 3	Online Indianapolis, IN Online Pasadena, CA	Training Training Training Training	72.36 72.36 69.01	2,718.00 - 35.00 35.00 925.00 995.00 50.00 50.00 3,500.00 3,500.00			1,156.20 693.72	- - - - - 105.00 105.00	-	799.00 6,343.00 35.00 35.00 972.00 995.00 50.00 50.00 4,890.07 4,890.07	3,115.20 50.00
BOWMAN Sub Total DURIGON Sub Total GUERRERO Sub Total KANG Sub Total LAM Sub Total	4/30/24 10/27-10/30/24 4/5/24 Various Various	GFOA Harnessing Efficiency Utilizing Robots in the Finance Office P2F2 Annual Cordreence 2024 CALAPRS Accountants Round Table CALAPRS Management Academy: Module 1, 2, & 3 CALAPRS Management Academy: Module 1, 2, & 3	Online Indianapolis, IN Online Pasadena, CA	Training Training Training Training Training Training	72.36 72.36 69.01	2,718.00 - 35.00 35.00 925.00 995.00 50.00 50.00 3,500.00 3,500.00			1,156.20 693.72	- - - - - 105.00 105.00	-	799.00 6,343.00 	135.00 3,115.20 50.00
BOWMAN Sub Total DURIGON Sub Total GUERRERO Sub Total KANG Sub Total LAM Sub Total LAM Sub Total Sub Total LAW Sub Total LAW Sub Total LAW Sub Total LAW Sub Total	4/30/24 10/27-10/30/24 4/5/24 Various	GFOA Harnessing Efficiency Utilizing Robots in the Finance Office P2F2 Annual Conference 2024 CALAPRS Accountants Round Table CALAPRS Management Academy: Module 1, 2, & 3	Online Indianapolis, IN Online Pasadena, CA Pasadena, CA	Training Training Training Training	72.36 72.36 69.01	2,718.00 - 35.00 35.00 925.00 50.00 50.00 3,500.00 3,500.00 3,500.00			1,156.20 693.72	- - - - - 105.00 105.00	-	799.00 6,343.00	135.00 3,115.20 50.00
BOWMAN Sub Total DURIGON Sub Total GUERRERO Sub Total KANG Sub Total LAM Sub Total NGUYEN, T Sub Total	4/30/24 10/27-10/30/24 4/5/24 Various Various	GFOA Harnessing Efficiency Utilizing Robots in the Finance Office P2F2 Annual Cordreence 2024 CALAPRS Accountants Round Table CALAPRS Management Academy: Module 1, 2, & 3 CALAPRS Management Academy: Module 1, 2, & 3	Online Indianapolis, IN Online Pasadena, CA Pasadena, CA	Training Training Training Training Training Training	72.36 72.36 69.01	2,718.00 - 35.00 35.00 35.00 925.00 50.00 3,500.00 3,500.00 3,500.00 - 100.00 100.00 199.00			1,156.20 693.72	- - - - - 105.00 105.00	-	799.00 6,343.00 35.00 35.00 925.00 995.00 50.00 4,890.07 4,414.60 4,414.60 1100.00 1190.00	3,115.20 3,115.20 50.00 - 185.00
BOWMAN Sub Total DURIGON Sub Total GUERRERO Sub Total KANG Sub Total LAM Sub Total NGUYEN, T Sub Total REYES Sub Total	4/30/24 10/27-10/30/24 4/5/24 Various Various	GFOA Harnessing Efficiency Utilizing Robots in the Finance Office P2F2 Annual Corference 2024 CALAPRS Accountants Round Table CALAPRS Management Academy: Module 1, 2, & 3 CALAPRS Management Academy: Module 1, 2, & 3 CALAPRS Management Academy: Module 1, 2, & 3	Online Indianapolis, IN Online Pasadena, CA Pasadena, CA Online	Training Training Training Training Training Training Training	72.36 72.36 69.01 69.01	2,718.00 35.00 35.00 925.00 995.00 50.00 3,500.00 3,500.00 3,500.00 1,500.00	56.51 56.51 56.87 56.87		1,156,20 1,156,20 693,72 693,72	105.00 105.00 95.00 95.00	-	799.00 6,343.00	3,115.20 50.00 - 185.00 100.00
BOWMAN Sub Total DURIGON Sub Total GUERRERO Sub Total KANG Sub Total LAM Sub Total NGUYEN, T Sub Total REYES Sub Total	4/30/24 10/27-10/30/24 4/5/24 Various Various 4/26/24 8/26/24	GFOA Harnessing Efficiency Utilizing Robots in the Finance Office P2F2 Annual Cordreence 2024 CALAPRS Accountants Round Table CALAPRS Management Academy: Module 1, 2, & 3 CALAPRS Management Academy: Module 1, 2, & 3 CALAPRS Overview in Refirement Plan Administration CALAPRS Pathways for Women Conference 2024	Online Indianapolis, IN Online Pasadena, CA Pasadena, CA Online Anaheim, CA	Training Training Training Training Training Training Training Training Training	72.36 72.36 69.01	2,718.00 35.00 35.00 975.00 995.00 50.00 3,500.00 3,500.00 3,500.00 100.00 199.00 199.00			1,156.20 693.72	- - - - - 105.00 105.00	-	799.00 6,343.00	3,115.20 3,115.20 50.00 - 185.00
BOWMAN Sub Total DURIGON Sub Total GUERRERO Sub Total KANG Sub Total LAM Sub Total NGUYEN, T Sub Total REYES Sub Total	4/30/24 10/27-10/30/24 4/5/24 Various Various	GFOA Harnessing Efficiency Utilizing Robots in the Finance Office P2F2 Annual Corference 2024 CALAPRS Accountants Round Table CALAPRS Management Academy: Module 1, 2, & 3 CALAPRS Management Academy: Module 1, 2, & 3 CALAPRS Management Academy: Module 1, 2, & 3	Online Indianapolis, IN Online Pasadena, CA Pasadena, CA Online	Training Training Training Training Training Training Training	72.36 72.36 69.01 69.01	2718.00 35.00 35.00 925.00 995.00 50.00 50.00 3.500.00 3.500.00 3.500.00 199.00 199.00 199.00	56.51 56.51 56.87 56.87		1,156,20 1,156,20 693,72 693,72	105.00 105.00 95.00 95.00	-	799.00 6,343.00	135.00 3,115.20 50.00 - 185.00 100.00 - 2,573.47 6,158.67
BOWMAN Sub Total DURIGON Sub Total GUERRERO Sub Total KANG Sub Total LAM Sub Total NGUYEN, T Sub Total REVES Sub Total REVES Sub Total REVES	4/30/24 10/27-10/30/24 4/5/24 Various Various 4/26/24 8/26/24	GFOA Harnessing Efficiency Utilizing Robots in the Finance Office P2F2 Annual Cordreence 2024 CALAPRS Accountants Round Table CALAPRS Management Academy: Module 1, 2, & 3 CALAPRS Management Academy: Module 1, 2, & 3 CALAPRS Overview in Refirement Plan Administration CALAPRS Pathways for Women Conference 2024	Online Indianapolis, IN Online Pasadena, CA Pasadena, CA Online Anaheim, CA	Training Training Training Training Training Training Training Training Training	72.36 72.36 72.36 69.01 69.01	2,718.00 35.00 35.00 975.00 995.00 50.00 3,500.00 3,500.00 3,500.00 100.00 199.00 199.00	56.51 56.51 56.87 56.87		1,156,20 1,156,20 693,72 693,72	105.00 105.00 95.00 95.00	-	799.00 6,343.00	135.00 3,115.20 50.00 - 185.00 100.00 - 2,573.47 6,158.67
BOWMAN Sub Total DURIGON Sub Total GUERRERO Sub Total KANG Sub Total LAM Sub Total LAM Sub Total NGUYEN, T Sub Total REYES Sub Total	4/30/24 10/27-10/30/24 4/5/24 Various Various 4/26/24 8/26/24	GFOA Harnessing Efficiency Utilizing Robots in the Finance Office P2F2 Annual Cordreence 2024 CALAPRS Accountants Round Table CALAPRS Management Academy: Module 1, 2, & 3 CALAPRS Management Academy: Module 1, 2, & 3 CALAPRS Overview in Refirement Plan Administration CALAPRS Pathways for Women Conference 2024	Online Indianapolis, IN Online Pasadena, CA Pasadena, CA Online Anaheim, CA	Training Training Training Training Training Training Training Training Training	72.36 72.36 72.36 69.01 69.01	2718.00 35.00 35.00 925.00 995.00 50.00 50.00 3.500.00 3.500.00 3.500.00 199.00 199.00 199.00	56.51 56.51 56.87 56.87		1,156,20 1,156,20 693,72 693,72 	105.00 105.00 95.00 95.00	-	799.00 6,343.00 35.00 35.00 925.00 50.00 50.00 4,890.07 4,414.60 4,414.60 100.00 1199.00 1199.00 110,648.67 120.00 120.00	3,115.20 50.00 - 185.00 100.00
BOWMAN Sub Total DURIGON Sub Total GUERRERO Sub Total KANG Sub Total LAM Sub Total LAM Sub Total REYES Sub Total REYES Sub Total REYES Sub Total REYES Sub Total BRAYBOY	4/30/24 10/27-10/30/24 4/5/24 Various Various 4/26/24 8/26/24	GFOA Harnessing Efficiency Utilizing Robots in the Finance Office P2F2 Annual Conference 2024 CALAPRS Accountants Round Table CALAPRS Management Academy: Module 1, 2, & 3 CALAPRS Management Academy: Module 1, 2, & 3 CALAPRS Management Academy: Module 1, 2, & 3 CALAPRS Derview in Refirement Plan Administration CalPERS Pathways for Women Conference 2024 SACRS Spring 2024 Conference	Online Indianapolis, IN Online Pasadena, CA Pasadena, CA Online Anahelm, CA Santa Barbara, CA	Training	72.36 72.36 72.36 69.01 69.01	2718.00 35.00 925.00 925.00 50.00 50.00 50.00 3,500.00 3,500.00 3,500.00 3,500.00 100.00 199.00 199.00 120.00	56.51 56.51 56.87 56.87		1,156,20 1,156,20 693,72 693,72 	105.00 105.00 95.00 95.00	-	799.00 6,343.00	135.00 3,115.20 50.00 - 185.00 100.00 - 2,573.47 6,158.67
BOWMAN Sub Total DURIGON Sub Total GUERRERO Sub I I I I I I I I I I I I I I I I I I I	4/30/24 10/27-10/30/24 4/5/24 Various Various 4/26/24 8/26/24	GFOA Harnessing Efficiency Utilizing Robots in the Finance Office P2F2 Annual Conference 2024 CALAPRS Accountants Round Table CALAPRS Management Academy: Module 1, 2, & 3 CALAPRS Management Academy: Module 1, 2, & 3 CALAPRS Management Academy: Module 1, 2, & 3 CALAPRS Derview in Refirement Plan Administration CalPERS Pathways for Women Conference 2024 SACRS Spring 2024 Conference	Online Indianapolis, IN Online Pasadena, CA Pasadena, CA Online Anahelm, CA Santa Barbara, CA	Training	72.36 72.36 72.36 69.01 69.01	2,718.00 35.00 35.00 925.00 995.00 50.00 3,500.00 3,500.00 100.00 100.00 199.00 120.00 120.00	56.51 56.51 56.87 56.87		1,156,20 1,156,20 693,72 693,72 	105.00 105.00 95.00 95.00	-	799.00 6,343.00 35.00 35.00 925.00 50.00 50.00 4,890.07 4,414.60 4,414.60 100.00 1199.00 1199.00 110,648.67 120.00 120.00	135.00 3,115.20 50.00 - 185.00 100.00 - 2,573.47 6,158.67
BOWMAN Sub Total DURIGON Sub Total GUERRERO Sub Total KANG Sub Total LAM Sub Total NGUYEN, T Sub Total REYES Sub Total REYES Sub Total FINANCE Total FINANCE Total FINANCE Total Sub Total CONTROL Sub Total CONTROL Sub Total CONTROL Sub Total Sub Total CONTROL Sub Total Sub Total Sub Total Sub Total LOPEZ, V Sub Total	4/30/24 10/27-10/30/24 4/5/24 Various Various 4/26/24 8/26/24 5/7-5/10/24	GFOA Hamessing Efficiency Utilizing Robots in the Finance Office P2F2 Annual Corference 2024 CALAPRS Accountants Round Table CALAPRS Management Academy: Module 1, 2, 8, 3 CALAPRS Management Academy: Module 1, 2, 8, 3 CALAPRS Overview in Refirement Plan Administration CalPERS Pathways for Women Conference 2024 SACRS Spring 2024 Conference SACRS Spring 2024 Conference	Online Indianapolis, IN Online Pasadena, CA Pasadena, CA Online Anahelm, CA Santa Barbara, CA Santa Barbara, CA	Training	72.36 72.36 69.01 69.01 	2,718.00 35.00 35.00 925.00 995.00 50.00 3,500.00 3,500.00 100.00 100.00 199.00 120.00 120.00	56.51 56.51 56.87 56.87			105.00 105.00 95.00 95.00	-	799.00 6,343.00	135.00 3,115.20 50.00 - 185.00 100.00 - 2,573.47 6,158.67

TRAVEL AND TRAINING EXPENSE REPORT SECOND QUARTER 2024 Submitted ThroughJune 30, 2024**

Name	Trip OR Class Dates	Trip Name	Destination	Trip Type	Mileage	Reg. Fee	Meals	Airfare	Hotel	Trans.	Misc.	2024 YTD Total Expense	2023 Total*
RODRIGUEZ						-	-	-	-				
Sub Total								-		-			120.00
DISABILITY Total					290.11	290.00	-	-	2,253.54	90.00		2,923.65	4,388.26
ABRAHAMSON	4/15-4/18/24	Workhuman Live 2024	Austin, TX	Training		1,346.25	150.19	344.96	1,019.70	98.97		2,960.07	
	4/26/24	CALAPRS Overview in Retirement Plan Administration	Online	Training	-	100.00	-	-	-	-		100.00	
Sub Total					-	1,446.25	150.19	344.96	1,019.70	98.97		3,060.07	3,406.52
GUNSOLLEY	5/7-5/10/24	SACRS Spring 2024 Conference	Santa Barbara, CA	Training		120.00	-	-	-			120.00	
Sub Total						120.00		-				120.00	2,411.72
HOCKLESS	5/7-5/10/24	SACRS Spring 2024 Conference	Santa Barbara, CA	Training	176.21	-	-	-	737.94			914.15	
	6/23-6/26/24	SHRM Annual Conference & Expo 2024	Chicago, IL	Conference		2,095.00	172.34	672.96	1,310.20	220.28		4,470.78	
Sub Total					176.21	2,095.00	172.34	672.96	2,048.14	220.28		5,384.93	3,268.12
NGUYEN, J	3/21/24	The Essentials of HR Law	Online	Training		199.00		-				199.00	
	4/26/24	CALAPRS Overview in Retirement Plan Administration	Online	Training		100.00						100.00	
Sub Total						299.00						299.00	749.00
WOZNIUK	3/21/24	The Essentials of HR Law	Online	Training		199.00						199.00	
WOZINIOR	4/2-4/3/24	Fundamentals of Project Management	Anaheim. CA	Training		599.00				-		599.00	
Sub Total	4/2-4/3/24	runuamentais oi Project management	Alidielli, CA	Hailing		798.00						798.00	469.00
HUMAN RESOURCES Total					176.21	4,758.25	322.53	1,017.92	3,067.84	319.25		9,662.00	10,304.36
ADVIENTO	1/30-2/2/24	CSMFO 2024 Annual Conference	Anaheim, CA	Conference	170.21	885.00	322.33	1,017.72	3,007.04	25.00	-	910.00	10,304.30
ADVIENTO	3/11/24	IIA 2024 General Audit Management Conference	Online	Conference		1,575.00	-			25.00		1,575.00	
							-	-					
	4/17/24	Ethics for California CPAs	Online	Training		54.50	-	-	-	-	-	54.50	
	4/18/24	IIA 2024 Analytics, Automation & Al Conference	Online	Conference	-	599.00	-	-	-	-		599.00	
	7/15/24	IIA 2024 International Conference	Online	Conference		1,495.00	-	-	-	-		1,495.00	
	10/21/24	IIA 2024 Ignite: Emerging Leaders Conference	Online	Conference		1,395.00	-		-	-		1,395.00	
Sub Total						6,003.50				25.00		6,028.50	6,663.00
DAVEY	5/9-5/10/24	IIA Scanning the Future: AI Empowerment, Redefining Fraud	Fountain Valley, CA	Training		249.00	-	-				249.00	
Sub Total						249.00						249.00	2,654.00
HONG								-					
Sub Total													1,454.00
KIM, D	1/30-2/2/24	CSMFO 2024 Annual Conference	Anaheim, CA	Conference		635.00				25.00		660.00	
, =	4/21-4/24/24	Association of Public Pension Fund Auditors Conference	Chicago, IL	Conference		600.00	87.07	552.20	642.36	183.08		2,064.71	
	5/4/24	2024 CISA SuperReview	Online	Training		596.96	07.07	332.20	042.30	103.00		596.96	
							19.01		1.207.35	90.31			
	5/7-5/10/24	SACRS Spring 2024 Conference	Santa Barbara, CA	Training		120.00						1,436.67	
Sub Total	7/15-7/17/24	IIA International Conference & Chief Audit Executive Stream	Washington, DC	Conference	-	2,290.00 4.241.96	122.89 228.97	557.95 1,110.15	1,294.00 3,143.71	170.77 469.16	-	4,435.61 9.193.95	6.042.01
INTERNAL AUDIT Total					-	10,494.46	228.97	1,110.15	3,143.71	469.16		9,193.95 15,471.45	16,813.01
					-	10,494.40							10,013.01
EAKIN Sub Total	6/3-6/5/24	Gartner 2024 Security & Risk Management Summit	National Harbor, MD	Training		-	133.62 133.62	1,040.20	1,074.45 1.074.45	63.76 63.76		2,312.03 2,312.03	2.967.21
					-	-		1,040.20		63.76			2,967.21
GOSSARD	6/3-6/5/24	Gartner 2024 Security & Risk Management Summit	National Harbor, MD	Training		3,825.00	116.03 116.03	811.20	1,039.80		-	5,792.03	5.566.21
Sub Total						3,825.00		811.20	1,039.80	-		5,792.03	5,566.21
SANCHEZ	6/3-6/5/24	Gartner 2024 Security & Risk Management Summit	National Harbor, MD	Training	20.82	3,825.00	74.68	786.96	1,195.74	184.20	-	6,087.40	
Sub Total					20.82	3,825.00	74.68	786.96	1,195.74	184.20	-	6,087.40	0.500.40
INFORMATION SECURITY Total					20.82	7,650.00	324.33	2,638.36	3,309.99	247.96		14,191.46	8,533.42
BARRIERE	1/17/24	ISSA-LA Rogue Al Injection into the Enterprise	Los Angeles, CA	Training	-	17.85	-	-	-	-		17.85	
	4/22-4/24/24	ISACA 2024 LA Spring Conference	Universal City, CA	Conference	25.46	750.00	-	-	-	52.80		828.26	
	6/8/24	ISACA 2024 Annual General Meeting	City of Industry, CA	Training		35.00	-	-	-	-		35.00	
	6/27/24	OC Cyber	Anaheim, CA	Training		-	-	-		18.00		18.00	
Sub Total					25.46	802.85				70.80		899.11	2,139.41
FELIX					-	-	-	-		-	-	-	
Sub Total						-		-		-			1,662.74
LARA	4/21-4/24/24	2024 PRISM Conference	Austin, TX	Training		1,599.00	-	457.96	1,340.16	-	-	3,397.12	
Sub Total				, i	-	1,599.00		457.96	1,340.16			3,397.12	7,924.11
NANDI					-	-	-	-	-				
Sub Total							-	-	-				4,217.87
SADOSKI													
Sub Total													179.00
ZAJZON	4/21-4/24/24	2024 PRISM Conference	Austin, TX	Training		1.599.00		192.01	1.384.98	128.04		3,304.03	
	TAIF31F31	EUE I I MOM OUTIGIGE	r month, 170	rraining									2.540.96
Sub Total					-	1,599,00 1		192,01 1	1.384.98 1	128 04 1		3.304.03	
Sub Total INFORMATION TECHNOLOGY Total					25.46	1,599.00 4.000.85		192.01 649.97	1,384.98 2,725.14	128.04 198.84	-	3,304.03 7.600.26	18.664.09

Footnotes

¹ Mr. Dewane and Mr. Hilton were unable to attend the SACRS conference, hotel expense reflects cancellation fee.

² Ms. Tagaloa was overcharged for her hotel due to a change in reservation for the SACRS conference. A refund has been requested.

^{*} Prior year totals only presented for 2024 active staff & Board members. Totals include online training.

^{**} Excludes non-training expenses such as misc. meals, mileage, strategic planning and tuition reimbursement.



Memorandum

DATE: August 19, 2024

TO: Members of the Board of Retirement

FROM: Tracy Bowman, Director of Finance

SUBJECT: SECOND QUARTER 2024 BUDGET TO ACTUALS REPORT

Written Report

Highlights

Second Quarter Target: 50% Used /50% Remaining

	Actuals to Date	Amended Budget		Amended Budget maining (\$)	Amended Budget Remaining (%)
Administrative Expenses					
Personnel Costs	\$ 12,206,461	\$ 26,100,690	\$	13,894,229	53.2 %
Services and Supplies	6,308,959	17,126,568		10,817,609	63.2 %
Capital Expenditures	415,854	5,925,000		5,509,146	93.0 %
Grand Total	\$ 18,931,274	\$ 49,152,258	\$	30,220,984	61.5 %

Background/Discussion

The Board of Retirement approved OCERS' Administrative Budget for Fiscal Year 2024 (FY24) on November 13, 2023, for \$48,293,043 to fund administrative expenses, excluding the addition of any new staff positions. Due to the number of positions being requested, the Personnel Committee directed staff to bifurcate the approval of the additional 2024 staff positions from the proposed FY24 Administrative Budget to allow further discussion of the 2024 Staffing Plan. Subsequently, on December 11, 2023, the Board of Retirement approved OCERS' Revised Staffing Plan and Budget Amendment which increased the total FY24 administrative budget by \$859,215 from \$48,293,043 to \$49,152,258.

OCERS' budgeting authority, which is regulated by California Government Code Sections 31580.2 and 31596.1, includes a provision that limits the OCERS' budget for administrative expenses to twenty-one hundredths of one percent of the accrued actuarial liability of the retirement system. This provision (commonly referred to as the 21-basis points test) excludes investment related costs and expenditures for computer software, hardware, and related technology consulting services. The approved FY24 amended administrative budget represents 11.22 basis points of the projected actuarial accrued liability.

The Chief Executive Officer, or the Assistant CEO, has the authority to transfer funds within the three broad categories of the budget: 1) Personnel Costs, 2) Services and Supplies, and 3) Capital Expenditures. Funds may not be transferred from one broad category to another without approval from the Board of Retirement.

@Bcl@481a7751 1 of 5

Administrative Summary

For the six months ended June 30, 2024, year-to-date actual administrative expenses were \$18,931,274 or 38.5% of the \$49,152,258 amended administrative budget and below the 50% target set for the end of the second quarter amended budget by approximately \$5.6 million. A summary of all administrative expenses and explanations of significant variances are below:

	Actual to Date	Am	ended Budget		ended Budget emaining (\$)	Amended Budget Used (%)	Amended Prorated Budget*		ver)/Under nded Prorated Budget
Administrative Expenses Personnel Costs	\$ 12,206,461	Ś	26,100,690	Ś	13,894,229	46.99/	\$ 13,050,352	\$	843,891
Services and Supplies	\$ 12,200,401	Ģ	26,100,690	Ģ	15,654,225	40.8 %	\$ 15,050,552	Ģ	645,651
• •	FOC (30		1 150 000		C42 272	44.1.0/	F7F 000		CO 272
Building Property Management and Maintenance	506,628		1,150,000		643,372	44.1%	575,000		68,372
Due Diligence Expenses	55,243		100,000		44,757	55.2 %	50,000		(5,243)
Equipment - Rent and Leases	21,368		50,000		28,632	42.7 %	25,000		3,632
Equipment and Software	388,207		1,297,100		908,893	29.9 %	648,550		260,343
Infrastructure	842,195		2,758,926		1,916,731	30.5 %	1,379,463		537,268
Legal Services	522,767		1,135,000		612,233	46.1 %	567,500		44,733
Meetings and Related Costs	22,544		74,300		51,756	30.3 %	37,150		14,606
Memberships	68,592		124,475		55,883	55.1 %	62,238		(6,354)
Office Supplies	27,746		126,500		98,754	21.9 %	63,250		35,504
Postage and Delivery Costs	67,760		151,300		83,540	44.8 %	75,650		7,890
Printing Cost	42,303		115,000		72,697	36.8 %	57,500		15,197
Professional Services	3,210,555		8,913,945		5,703,390	36.0 %	4,456,973		1,246,418
Subscriptions and Periodicals	27,381		53,050		25,669	51.6 %	26,525		(856)
Telephone and Internet	154,240		420,300		266,060	36.7 %	210,150		55,910
Training and Related Costs	351,430		656,672		305,242	53.5 %	328,336		(23,094)
Total Services and Supplies	6,308,959		17,126,568		10,817,609	36.8 %	8,563,285		2,254,326
Administrative Expense - Subtotal	18,515,420		43,227,258		24,711,838	42.8 %	21,613,637		3,098,217
Capital Expenditures**	415,854		5,925,000		5,509,146	7.0 %	2,962,500		2,546,646
Grand Total	\$ 18,931,274	\$	49,152,258	\$	30,220,984	38.5 %	\$ 24,576,137	\$	5,644,863

^{*}Prorated budget represents 50% (6 months/12 months) of annual amended budget.

Personnel Costs

Personnel Costs as of June 30, 2024, were approximately \$12.2 million or 46.8% of the annual amended budget for this category, under the prorated amended budget by \$843,891. Although these costs are slightly under budget, they include annual lump sum payments made during the first quarter, including the annual Optional Benefit Plan (OBP) payments of \$190,000 and incentive compensation awards for eligible investment team members totalling approximately \$408,000. Personnel costs also reflect an increase in annual leave of \$123,000 due to higher annual leave balances of OCERS' employees at the end of the second quarter than at the beginning of the year. Personnel costs are closely monitored and are expected to be within budget for the year.

Services and Supplies

 $[\]hbox{*}\hbox{$\sf Capital expenditures represent purchase of assets to be amortized in future periods.}$

Expenditures for services and supplies were approximately \$6.3 million or 36.8% of the annual amended budget for this category. The variance of \$2,254,326 between the prorated amended budget and year-to-date actuals in this category is primarily due to the following (note: budget differences that are under budget and less than \$5,000 have been deemed immaterial and are excluded from the discussion below):

- Building Property Management and Maintenance costs utilized 44.1% of the annual amended budget, under the prorated amended budget by \$68,372. The lower-than-expected cost is primarily due to the timing of funding requests from OCERS property manager for operating expenses through the second quarter. Maintenance costs do not occur evenly and will fluctuate throughout the year. This category is expected to remain within budget.
- Due Diligence Expenses are at 55.2% of the annual amended budget and higher than the prorated amended budget by \$5,243. Most of the investment team travel is included in this category. The investment team has increased their travel to investment conferences and meetings with investment managers from the prior year and more travel is expected as the year progresses. Although this category is currently over the prorated amended budget, it is expected to remain within budget for the year.
- Equipment and Software expense utilized 29.9% of the annual amended budget, and lower than the prorated amended budget by \$260,343. This category includes funding for computers and related hardware which are purchased on an as-needed basis, information security solutions and investment-related software and equipment. Also included in this category is funding for a test automation solution that is a planned project for this year.
- Infrastructure costs are at 30.5% of the annual amended budget resulting in an unused prorated amended budget of \$537,268. This category encompasses the various platforms and cloud-based software subscriptions in use at OCERS. The lower than budgeted costs are due to the timing of maintenance agreement renewals, which renew throughout the year, as well as various costs associated with software and hardware support services that are utilized on an as-needed basis. The maintenance of the pension administration system is also included in this category, which represents over a third of the budget of this category.
- Legal Services are at 46.1% of the annual amended budget and are lower than the prorated amended budget by \$44,733. Legal services for investments, litigation and tax counsel are utilized on an asneeded basis. Investment legal services are lower than the prorated amended budget by approximately \$84,000 through the second quarter. General board, tax counsel and outside counsel services, and other litigation costs, including settlements, are over the prorated amended budget by approximately \$39,000. Total legal fees are not anticipated to exceed the budget for the year and will be monitored throughout the year.
- Meetings and Related Costs are at 30.3% of the annual amended budget and below the prorated amended budget by \$14,606. The budget for this category includes board and committee-related meetings that have incurred less than expected costs as of the second quarter.
- Memberships expense is at 55.1% of the annual amended budget and above the prorated amended budget by \$6,354. Several annual memberships renew in the first quarter of the year. This difference continues to diminish as the year continues and is expected to remain within budget for the year.
- Office Supplies are at 21.9% of the annual amended budget and under the prorated amended budget by \$35,504. This category includes funding for office supplies, furniture and ergonomic items, as well

- as promotional items. All of these items are purchased on an as-needed basis which has been less than expected.
- Postage and Delivery Costs are at 44.8% of the annual amended budget and under the prorated amended budget by \$7,890. Postage is incurred on an as-needed basis and as of the end of the second quarter, consists primarily of the mailing of two quarterly newsletters (Winter and Spring 2024).
- Printing Cost is at 36.8% of the annual amended budget and under the prorated amended budget by \$15,197. The budget for this category includes printing costs for the quarterly newsletters, annual comprehensive financial report and brochures. The costs incurred as of the end of the second quarter include the printing of two quarterly newsletters (Winter and Spring 2024), which were higher than anticipated. This category will be closely monitored throughout the year.
- Professional Services utilized 36.0% of the annual amended budget and are lower than the prorated amended budget by \$1,246,418. As of the end of the second quarter many departments are under budget for professional services. Consulting and professional services are used on an as needed basis which results in costs fluctuating throughout the year. Some professional services budgeted for the year include pension administration project oversight and consulting, robotic process automation development and deployment, the master repository project and compensation study. Contracts have been executed on several of these initiatives and the projects are underway. This category is expected to be within budget for the year.
- Subscriptions and Periodicals are at 51.6% of the annual amended budget and over the prorated amended budget by \$856. Most subscriptions and periodicals have annual renewals which occur at different times throughout the year. This category is not expected to be over budget for the year.
- Telephone and Internet expenditures were at 36.7% of the annual amended budget, under the
 prorated amended budget by \$55,910. As of the end of the second quarter, both internet and
 telephone services were less than expected, primarily due to the transition away from analog
 telephone lines and internet services coming in less than budgeted.
- Training and Related Costs are at 53.5% of the annual amended budget and higher than the prorated amended budget by \$23,094. Training costs continue to trend higher with the growth of the OCERS team. Board members and team members are attending more in-person conferences. Many team members have taken the opportunity to attend the CALAPRS roundtable events for their functional areas, and several team members are attending the CALAPRS Management Academy in 2024. Several Learning and Organizational Development (LOD) training programs have taken place during the first half of the year, including executive and director coaching, the Leadership Edge Program for OCERS mid-level leaders, the summer offsite for all supervisory team members, business case development and the ongoing efforts of OCERS' diversity, equity, and inclusion program. The training budget will be closely monitored over the remaining portion of the year and is not expected to be over budget for the year.

Capital Expenditures

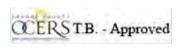
Capital Expenditures incurred as of the end of the second quarter are \$415,854 or 7.0% of the annual amended budget, under the prorated amended budget by \$2,546,646. All these expenditures relate to the initial phase of the development of the headquarters building which includes program management and related legal services. The total amount budgeted for the year for the headquarter building is \$5.1 million. Other capital expenditures

budgeted include \$475,000 for other building and property improvements, \$300,000 for building space planning, and \$50,000 for the data center server virtual replacement rolled over from the prior year.

Conclusion:

As of the end of the second quarter, the Administrative amended budget based on actuals is at 38.5% of the annual amended budget. As actual administrative expenses are under the annual amended budget, OCERS complies with the 21-basis point test.

Submitted by:



Tracy Bowman, Director of Finance Director of Finance

@Bcl@481a7751 5 of 5



Memorandum

DATE: August 19, 2024

TO: Members of the Board of Retirement

FROM: Tracy Bowman, Director of Finance

SUBJECT: SECOND QUARTER UNAUDITED FINANCIAL STATEMENTS FOR THE SIX MONTHS ENDED JUNE 30,

2024

Written Report

Background/Discussion

The attached financial statements reflect the unaudited financial activity for the six months ended June 30, 2024. These statements are unaudited and are not the official financial statements of OCERS. The following statements represent a review of the progress to date for the second quarter of 2024. The official financial statements of OCERS are included in the Annual Comprehensive Financial Report (ACFR) for the year ended December 31, 2023, which is available on our website, www.ocers.org.

Summary

Statement of Fiduciary Net Position (Unaudited)

As of June 30, 2024, the net position restricted for pension, other postemployment benefits and employer is \$23.6 billion, an increase of \$2.2 billion, or 10.4%, from June 30, 2023. The change is a result of an increase in total assets of \$2.3 billion, offset by an increase in total liabilities of \$85.5 million as described below:

The \$2.3 billion increase in total assets can be attributed to increases of \$1.1 billion in total cash and short-term investments, \$30.7 million in total receivables and \$1.2 billion in total investments at fair value, offset by a decrease of \$1.9 million in capital assets.

The increase of \$1.1 billion in total cash and short-term investments consists of a \$1.2 billion increase in cash and cash equivalents due to the timing of investing employee and employer contributions received during the quarter and an increase of \$733.3 million in the new futures overlay account at the end of the quarter. This increase was offset by a \$83 million decrease in securities lending collateral driven by a decrease in demand in the securities lending program for OCERS' U.S. corporate bond and equity positions.

The increase of \$30.7 million in total receivables consists of a \$24.2 million increase in contributions attributed to the County of Orange opting to not participate in the FY 2023-2024 contribution prepayment program resulting in a higher accrual for contributions earned, but not yet received.

Total investments at fair value increased \$1.2 billion, or 5.6% from June 30, 2023 to June 30, 2024. The total portfolio reported a net return of 11.5% for the one-year period ending June 30, 2024, compared to a net return of 6.7% for the same one-year period ending June 30, 2023. Over the past year, economic growth persisted

robustly, indicating the economy remains healthy with all asset classes increasing as of June 30, 2024 when compared to June 30, 2023. However, high interest rates presented challenges for asset classes more sensitive to interest rate increases. Global public equity increased by \$363.4 million, private equity increased by \$310.9 million, income strategies increased by \$179.6 million, real assets increased by \$127.7 million, risk mitigation increased by \$109.6 million and unique strategies increased by \$106.2 million. Global public equity posted a 20.2% return over the one-year period which surpassed the benchmark of 18.4% with U.S. large-cap stocks outperforming small-cap stocks. Private equity yielded a return of 5.3% and reported fewer transactions amid the prevailing higher interest rate environment. Income strategies achieved a return of 5.9% with public fixed income lagging behind the private market which is largely influenced by tighter financial conditions that support higher base rates. Real assets achieved a return of 1.8% with real estate continuing to underperform the overall portfolio reflecting uncertainties in outlook and growth amid a higher interest rate and easing inflation environment. Risk mitigation reported a return of 3.3% attributed to its design to safeguard the portfolio during market downturns; however, it underperformed compared to the strong performance of the market. Unique strategies achieved a 10.9% return driven by strong performance from a general partner stake investment.

The decrease in capital assets of \$1.9 million from the prior year represents depreciation expense, which is primarily attributed to the Pension Administration System Solution (PASS).

Total liabilities increased \$85.5 million, or 13.8%, from June 30, 2023 to June 30 2024, primarily due to securities purchased which increased \$67.9 million related to the timing of securities purchased, as well as retiree payroll payable, which increased \$88.7 million due to the timing of when the July 1 payroll was paid out in 2023 compared to 2024; July 1 fell on a Saturday in 2023, so retiree payroll was paid out on June 30 which led to a smaller liability compared to 2024, where July 1 fell on a Monday. These increases were offset by a decrease of \$83 million in obligations under securities lending program, as mentioned earlier.

Statement of Changes in Fiduciary Net Position (Unaudited)

The ending net position restricted for pension, other postemployment benefits and employer as of June 30, 2024, increased by \$2.2 billion or 10.4%, when compared to the same period ending June 30, 2023.

Total additions to fiduciary net position increased 5.6% or \$102.6 million from the previous year. Net investment income for the six months ended June 30, 2024, was \$1.4 billion versus \$1.3 billion for the six months ended June 30, 2023, an increase of \$64.4 million or 5%. The increase can be attributed to dividends, interest, and other investment income which increased \$103.1 million. The increase was offset by a decrease in net appreciation in fair value of investments, which decreased \$26.1 million from the prior year mainly due to realized losses in financial futures and currency hedging. The second quarter in 2024 reported a year-to-date net return of 6.5%, compared to a year-to-date net return of 6.4% for the second quarter in 2023. Total investment fees and expenses increased by \$12.5 million in June 2024 primarily due to a \$16.6 million increase in total investment management fees offset by a decrease of \$4.4 million in other fund expenses, which includes indirect flow-through investment expenses in limited partner structures. Security lending rebate fees increased \$1.2 million due to increases in the "risk free rate," such as the Federal Funds Target Range or Overnight Bank Funding Rate (OBFR), that are used to negotiate rebates to borrowers.

Total contributions increased \$38.2 million over the prior year due to employer contributions, which increased \$28.7 million, and employee contributions, which increased \$9.4 million. These increases can be attributed to increases in contribution rates.

Total deductions from fiduciary net position increased 5.5%, or \$35.1 million, from the previous year. Participant benefits increased by \$31.1 million, which is expected due to the continued growth in member pension benefit payments, both in the total number of OCERS' retired members receiving a pension benefit and an increase in the average benefit received. In June 2024, there were 21,332 payees with an average benefit payment of \$4,982 compared to 20,853 payees with an average benefit payment of \$4,842 in June 2023.

Other Supporting Schedules

In addition to the basic financial statements for the six months ended June 30, 2024, the following supporting schedules are provided for additional information pertaining to OCERS:

- Total Plan Reserves
- Schedule of Contributions
- Schedule of Investment Expenses
- Schedule of Administrative Expenses
- Administrative Expense Compared to Projected Actuarial Accrued Liability

Submitted by:

CERSTB. - Approved

Tracy Bowman
Director of Finance



Orange County Employees Retirement System

Unaudited Financial Statements
For the Six Months Ended June 30, 2024

Orange County Employees Retirement System

Unaudited Financial Statements For the Six Months Ended June 30, 2024

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Statement of Fiduciary Net Position (Unaudited)

As of June 30, 2024

(with summarized comparative amounts as of June 30, 2023) (Dollars in Thousands)

	Pension Trust Fund	Health Care Fund- County	Health Care Fund- OCFA	Custodial Fund - OCTA	Total Funds	Comparative Totals 2023
Assets						
Cash and Short-Term Investments						
Cash and Cash Equivalents	\$1,338,170	\$ 27,793	\$ 6,308	\$ 274	\$1,372,545	\$ 214,500
Securities Lending Collateral	176,001	3,655	830		180,486	263,472
Total Cash and Short-Term Investments	1,514,171	31,448	7,138	274	1,553,031	477,972
Receivables						
Investment Income	20,818	432	98	-	21,348	17,005
Securities Sales	136,550	2,836	644	-	140,030	135,467
Contributions	42,271	-	-	-	42,271	18,052
Foreign Currency Forward Contracts	173	4	1	-	178	3,669
Other Receivables	8,411	175	40		8,626	7,565
Total Receivables	208,223	3,447	783	-	212,453	181,758
Investments at Fair Value						
Global Public Equity	10,002,002	207,733	47,151	14,828	10,271,714	9,908,313
Private Equity	3,639,215	75,583	17,156	-	3,731,954	3,421,079
Income Strategies	3,308,528	68,715	15,597	5,510	3,398,350	3,218,797
Real Assets	3,022,079	62,766	14,247	-	3,099,092	2,971,364
Risk Mitigation	1,819,692	37,793	8,578	-	1,866,063	1,756,450
Unique Strategies	179,058	3,719	844		183,621	77,408
Total Investments at Fair Value	21,970,574	456,309	103,573	20,338	22,550,794	21,353,411
Capital Assets, Net	6,083				6,083	<u>7,975</u>
Total Assets	23,699,051	491,204	111,494	20,612	24,322,361	22,021,116
Liabilities						
Obligations Under Securities Lending Program	176,001	3,655	830	-	180,486	263,471
Securities Purchased	294,205	6,110	1,387	-	301,702	233,770
Unearned Contributions	80,874	-	-	-	80,874	75,847
Foreign Currency Forward Contracts	851	18	4	-	873	6
Retiree Payroll Payable	104,431	4,614	705	-	109,750	21,062
Other	31,590	656	149		32,395	26,401
Total Liabilities	687,952	<u>15,053</u>	3,075		<u>706,080</u>	620,557
Net Position Restricted for Pension, Other Postemployment Benefits and Employer	<u>\$23,011,099</u>	<u>\$ 476,151</u>	<u>\$ 108,419</u>	\$ 20,612	<u>\$23,616,281</u>	<u>\$21,400,559</u>

Statement of Changes in Fiduciary Net Position (Unaudited)

For the Six Months Ended June 30, 2024

(with summarized comparative amounts for the Six Months Ended June 30, 2023) (Dollars in Thousands)

	Pension Trust Fund	Health Care Fund- County	Health Care Fund- OCFA	Custodial Fund - OCTA	Total Funds	Comparative Totals 2023
Additions						
Contributions						
Employer	\$ 396,398	\$ -	\$ 29,311	\$ -	\$ 425,709	\$ 397,015
Employee	146,293	-	-	-	146,293	136,913
Employer OPEB Contributions				493	493	341_
Total Contributions	542,691	-	29,311	493	572,495	534,269
Investment Income						
Net Appreciation in Fair Value of Investments	1,199,740	26,676	4,959	1,502	1,232,877	1,258,982
Dividends, Interest, & Other Investment Income	218,336	4,535	1,029	12	223,912	120,814
Securities Lending Income						
Gross Earnings	6,524	136	31	-	6,691	5,558
Less: Borrower Rebates and Bank Charges	(6,099)	(127)	(29)		(6,255)	(5,077)
Net Securities Lending Income	425	9	2		436	481
Total Investment Income	1,418,501	31,220	5,990	1,514	1,457,225	1,380,277
Investment Fees and Expenses	(93,624)	(1,944)	(441)	(1)	(96,010)	(83,476)
Net Investment Income	1,324,877	29,276	5,549	1,513	1,361,215	1,296,801
Total Additions	1,867,568	29,276	34,860	2,006	1,933,710	1,831,070
Deductions						
Participant Benefits	627,319	17,951	3,810	-	649,080	617,943
Death Benefits	1,198	-	-	-	1,198	343
Member Withdrawals and Refunds	9,920	-	-	-	9,920	7,782
Employer OPEB Payments	-	-	-	847	847	751
Administrative Expenses	15,461	12	10	11	15,494	14,659
Total Deductions	653,898	17,963	3,820	858	676,539	641,478
Net Increase	1,213,670	11,313	31,040	1,148	1,257,171	1,189,592
Net Position Restricted For Pension, Other Postemployment Benefits and Employer, Beginning of Year	21,797,429	464,838	77,379	19,464	_22,359,110	20,210,967
Ending Net Position Restricted For Pension, Other Postemployment Benefits and Employer	<u>\$ 23,011,099</u>	<u>\$ 476,151</u>	<u>\$ 108,419</u>	\$ 20,612	<u>\$23,616,281</u>	<u>\$ 21,400,559</u>

Total Plan Reserves

For the Six Months Ended June 30, 2024

(with summarized comparative amounts for the Six Months Ended June 30, 2023)
(Dollars in Thousands)

	2024		2023
Pension Reserve	\$ 13,948,063	\$	13,150,307
Employee Contribution Reserve	3,955,294		3,771,711
Employer Contribution Reserve	2,877,616		2,701,069
Annuity Reserve	3,071,627		2,845,838
Health Care Reserve	584,570		539,357
Custodial Fund Reserve	20,612		18,669
County Investment Account (POB Proceeds) Reserve	150,393		144,683
OCSD UAAL Deferred Reserve	16,025		14,398
Contra Account and Actuarial Deferred Return	(1,007,919)	_	(1,785,473)
Total Net Position Restricted for Pension, Other Postemployment Benefits and Employer	\$ 23,616,281	\$	21,400,559

Schedule of Contributions

For the Six Months Ended June 30, 2024

(with summarized comparative amounts for the Six Months Ended June 30, 2023 (Dollars in Thousands)

	2024		2023		
	Employee	Employer	Employee	Employer	
Pension Trust Fund Contributions					
County of Orange	\$ 108,487	\$ 306,586	\$102,071	\$ 297,008	
Orange County Fire Authority	16,257	41,555 ¹	15,292	42,797 ¹	
Orange County Superior Court of California	8,535	23,063	7,674	22,665	
Orange County Transportation Authority	6,396	16,785	5,848	17,271	
Orange County Sanitation District	4,671	4,638	4,194	4,351	
Orange County Employees Retirement System	774	2,510	675	2,277	
UCI - Medical Center and Campus	-	1,433 ²	-	1,539 ²	
City of San Juan Capistrano	325	1,104	302	1,145	
Transportation Corridor Agencies	441	498	487	425	
Orange County Department of Education	-	160 ²	-	157 ²	
Orange County Cemetery District	98	127	96	143	
Orange County Local Agency Formation Commission	26	102	27	119	
Orange County In-Home Supportive Services Public Authority	88	105	77	101	
Children and Families Commission of Orange County	98	130	86	135	
Orange County Public Law Library	86	65	84	64	
Orange County Mosquito and Vector Control District	11				
Contributions Before Prepaid Discount	146,293	398,861	136,913	390,197	
Prepaid Employer Contributions Discount		(2,463)		(18,709)	
Total Pension Trust Fund Contributions	146,293	396,398	136,913	371,488	
Health Care Fund - OCFA Contributions	-	29,311	-	25,527	
Custodial Fund - OCTA OPEB Contributions		493		341	
Total Contributions	<u>\$ 146,293</u>	<u>\$ 426,202</u>	<u>\$ 136,913</u>	\$ 397,356	

¹Unfunded actuarial accrued liability payments were made in 2024 for \$7.5 million and 2023 for \$6.5 million by the Orange County Fire Authority.

² Unfunded actuarial accrued liability payments have been made in accordance with a separate 20-year level dollar payment schedule to include liabilities for employee benefits related to past service credit.

Schedule of Investment Expenses

For the Six Months Ended June 30, 2024

(with summarized comparative amounts for the Six Months Ended June 30, 2023)
(Dollars in Thousands)

		2024		2023
Investment Management Fees*				
Global Public Equity	\$	6,890	\$	5,957
Income Strategies		8,618		7,411
Real Assets		23,546		16,741
Private Equity		26,511		20,877
Risk Mitigation		4,958		4,690
Unique Strategies		2,306		577
Short-Term Investments		66		74
Total Investment Management Fees		72,895	_	56,327
Other Fund Expenses ¹		18,801	_	23,166
Other Investment Expenses				
Consulting/Research Fees		1,171		1,122
Investment Department Expenses		2,661		2,321
Legal Services		166		238
Custodian Services		290		290
Investment Service Providers		25		10
Total Other Investment Expenses		4,313	_	3,981
Security Lending Activity				
Security Lending Fees		95		121
Rebate Fees		6,160		4,956
Total Security Lending Activity	_	6,255	_	5,077
Custodial Fund - OCTA Investment Fees and Expenses		1	_	2
Total Investment Expenses	\$	102,265	\$	88,553

^{*} Does not include undisclosed fees deducted at source.

¹ These costs include, but are not limited to, foreign income tax and other indirect flow-through investment expenses such as organizational expenses in limited partnership structures.

Schedule of Administrative Expenses

For the Six Months Ended June 30, 2024

(with summarized comparative amounts for the Six Months Ended June 30, 2023)
(Dollars in Thousands)

	20)24	2	023
Pension Trust Fund Administrative Expenses				
Expenses Subject to the Statutory Limit				
Personnel Services				
Employee Salaries and Benefits	\$	9,897	\$	8,769
Board Members' Allowance		5		6
Total Personnel Services		9,902		8,775
Office Operating Expenses				
Depreciation/Amortization		1,260		1,344
Professional Services		1,502		1,866
General Office and Administrative Expenses		1,558		1,350
Rent/Leased Real Property		528		400
Total Office Operating Expenses		4,848		4,960
Total Expenses Subject to the Statutory Limit		14,750		13,735
Expenses Not Subject to the Statutory Limit				
Information Technology Professional Services		365		294
Information Security Professional Services		42		52
Finance Software Professional Services		2		6
Actuarial Fees		171		95
Equipment/Software		131		444
Total Expenses Not Subject to the Statutory Limit		711		891
Total Pension Trust Fund Administrative Expenses		15,461		14,626
Health Care Fund - County Administrative Expenses		12		12
Health Care Fund - OCFA Administrative Expenses		10		10
Custodial Fund - OCTA Administrative Expenses		11		11
Total Administrative Expenses	\$	15,494	\$	14,659

Administrative Expense Compared to Projected Actuarial Accrued Liability

For the Six Months Ended June 30, 2024

(Dollars in Thousands)

Projected Actuarial Accrued Liability (AAL) as of 12/31/23	\$ 26,477,040
Maximum Allowed for Administrative Expense (AAL * 0.21%)	55,602
Actual Administrative Expense ¹	14,750
Excess of Allowed Over Actual Expense	\$ 40,852
Actual Administrative Expense for the six months ended 6/30/24 as a Percentage of Projected Actuarial Accrued Liability as of 12/31/23	0.06%
Actual Administrative Expense for the six months ended 6/30/23 as a Percentage of Projected Actuarial Accrued Liability as of 12/31/22	0.05%
¹ Administrative Expense Reconciliation	
Administrative Expense per Statement of Changes in Fiduciary Net Position	\$ 15,461
Less: Administrative Expense Not Considered per CERL Section 31596.1	 (711)
Administrative Expense Allowable Under CERL Section 31580.2	\$ 14,750



Memorandum

DATE: August 19, 2024

TO: Members of the Board of Retirement

FROM: Steve Delaney, Chief Executive Officer

SUBJECT: OCERS BY THE NUMBERS (2024 EDITION)

Written Report

Background/Discussion

Attached is the 2024 edition of OCERS by the Numbers, based on the December 31, 2023 actuarial valuation.

OCERS has been producing this general informational document since 2009, with the majority of the statistical data drawn from each year's completed valuation report.

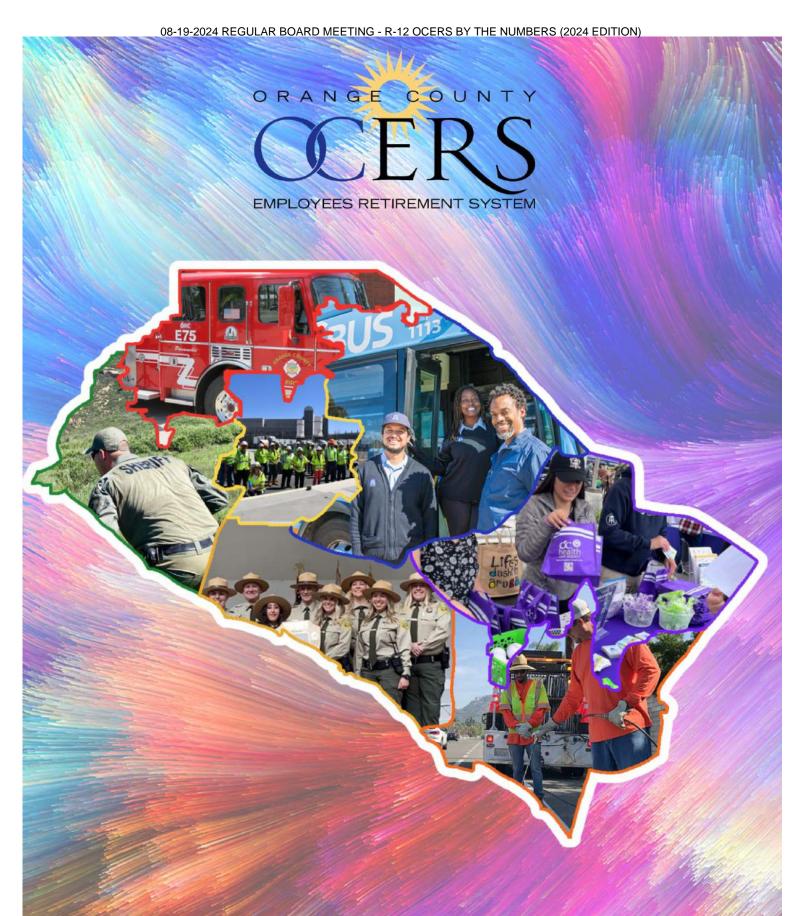
This document provides all stakeholders, no matter their point of view as to public pensions, with data based facts regarding the OCERS plan.

Approved by:



SD - Approved

Steve Delaney Chief Executive Officer



2024 Edition of OCERS by the Numbers
(As of the December 31, 2023 actuarial valuation)

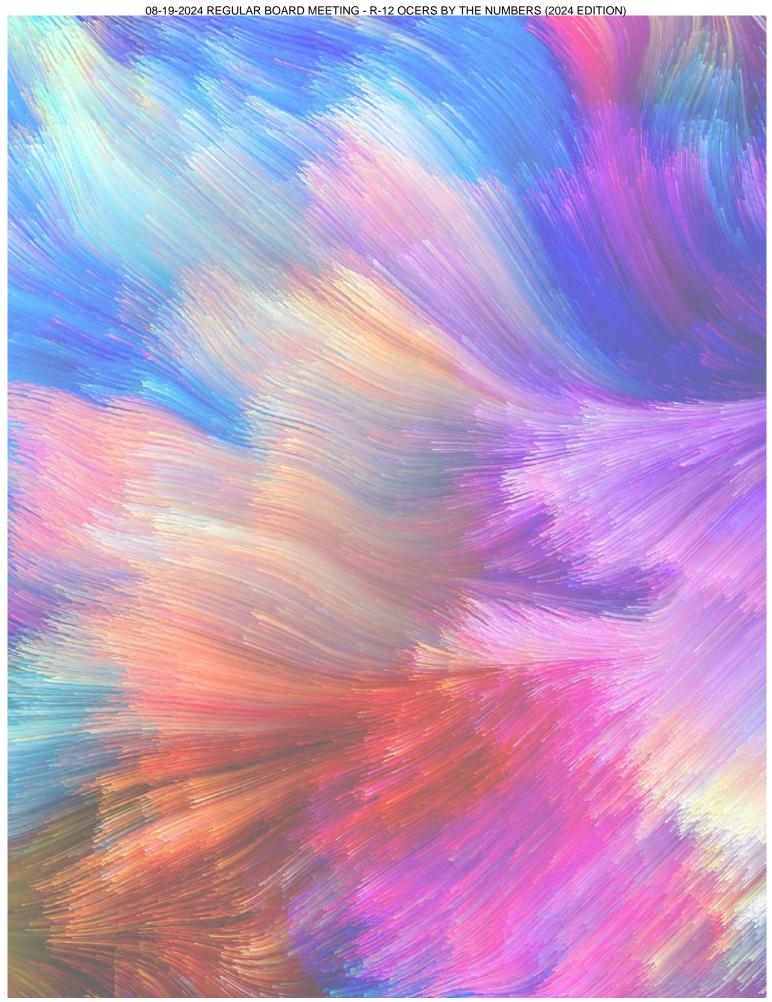


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Our Members Tell Our Story

OCERS members do not receive Social Security benefits for their years of service in our community, so they depend on us to help them achieve a measure of financial security in retirement.

OCERS partners with 13 active participating employers to provide pension benefits for retirees and their beneficiaries. Our members include many different public servants, including deputy sheriffs, firefighters, probation officers, physicians, secretaries, and bus drivers.

\$1,200 bn. paid in pension benefits annually (as of Dec. 31, 2023)

\$4,093 average monthly allowance for retired General members (excludes DRO's and beneficiaries)

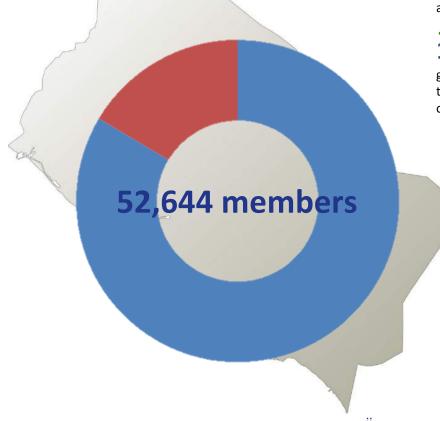
\$7,277 average monthly allowance for retired Safety members (excludes DRO's and beneficiaries)

\$4,866 average monthly allowance for General members who retired with service retirement in 2023

\$8,069 average monthly allowance for Safety members who retired with service retirement in 2023

39% of all retirees who receive a monthly allowance receive less than \$3,000

15% of all retirees receive a pension greater than \$100,000 annually; they are typically attorneys, department heads, and other professionals



20% Safety members

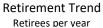
80% General members

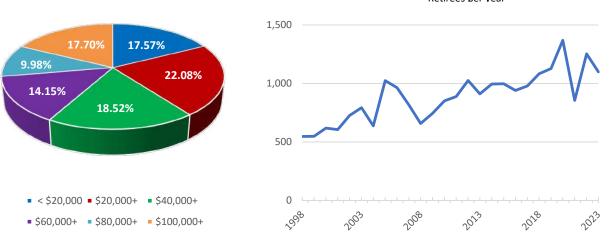
OCERS Pension Quick Facts

As of December 31, 2023

Quick Facts (For more details on retirees see pages 16–33)													
Members & Employers	31, ; active & mem	inactive	retirees, b	283 eneficiaries vivors	20 Participating Employers	52,644 total membership							
Pension Averages	\$4,093 monthly allowance for all General members and payees	\$7,277 monthly allowance for all Safety members and payees	average years of service for General members who retired in 2023	average years of service for Safety members who retired in 2023	61 years old average age at retirement for General members who retired in 2023	54 years old average age at retirement for Safety members who retired in 2023							







FUNDING STATUS:

As of December 31, 2023 OCERS is approximately 82.63% funded based on the valuation value of assets of \$22.14 billion in trust fund assets. The unfunded liability is estimated at \$4.7 billion. (The Segal Group, Inc.)

CONTRIBUTION SOURCES:

Every dollar paid to OCERS pensioners comes from three sources:*

OCERS active members – 14¢ Employers – 33¢ Investment Earnings – 53¢

* Source: OCERS income to trust fund over last 26 years

08-19-2024 REGULAR BOARD MEETING - R-12 OCERS BY THE NUMBERS (2024 EDITION)

Orange County Employees Retirement System

As of December 31, 2023

Demographics

OCERS Active Participating Employers

- 1. City of San Juan Capistrano
- 2. County of Orange
- 3. Orange County Cemetery District
- 4. Orange County Children and Families Commission (First 5)
- 5. Orange County Employees Retirement System
- 6. Orange County Fire Authority
- 7. Orange County In-Home Supportive Services Public Authority
- 8. Orange County Local Agency Formation Commission
- 9. Orange County Public Law Library
- 10. Orange County Sanitation District
- 11. Orange County Superior Court
- 12. Orange County Transportation Authority
- 13. Transportation Corridor Agencies

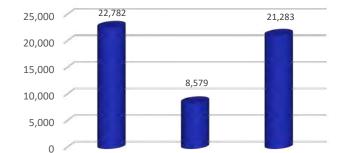
Members and Payees by Benefit Types



^{*} DRO: A court order dividing a pension benefit due to a divorce or legal separation.

OCERS Inactive Participating Employers

- 1. Capistrano Beach Sanitary District
- 2. City of Rancho Santa Margarita
- 3. Cypress Recreation and Park District
- 4. Orange County Department of Education
- 5. Orange County Mosquito and Vector Control District
- 6. University of California, Irvine Medical Center
- 7. University of California, Irvine Campus



Deferred

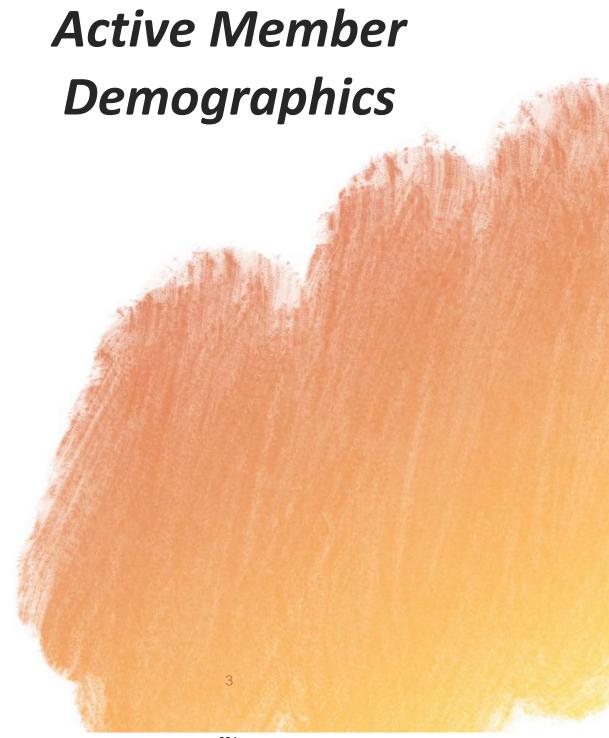
Active

Count of Active, Deferred and Payee by Status As of December 31, 2023

	General	Safety	Total
Active	18,805	3,977	22,782
Deferred	8,014	565	8,579
Payee	16,967	4,316	21,283
Total	43,786	8,858	52,644
Active Members per Payee	1.11	0.92	1.07

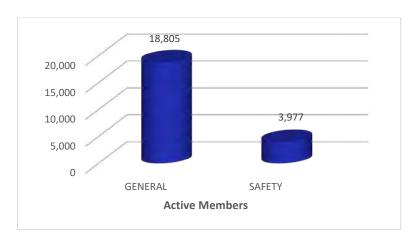
Demographics

Payees



Count of Active Members by Status
As of December 31, 2023

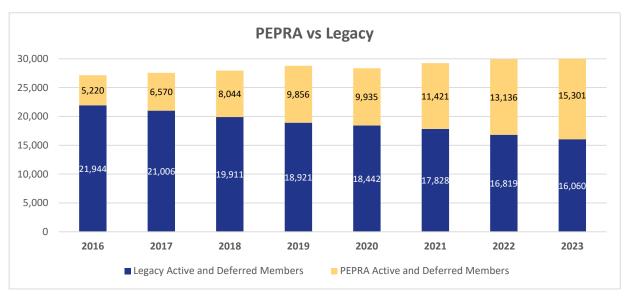
	General	Safety	Total Count
Active	18,805	3,977	22,782



Count and Percentage of PEPRA to Legacy Members

	2016	2017	2018	2019	2020	2021	2022	2023
Legacy Active and Deferred Members	21,944	21,006	19,911	18,921	18,442	17,828	16,819	16,060
PEPRA Active and Deferred Members	5,220	6,570	8,044	9,856	9,935	11,421	13,136	15,301
Total	27,164	27,576	27,955	28,777	28,377	29,249	29,955	31,361
Percentage of PEPRA to Legacy Members	19%	24%	29%	34%	35%	39%	44%	49%

PEPRA Members are new Public Employees hired on or after January 1, 2013



Count of Active Members by Plans and by Employers As of December 31, 2023 Retirement Plans

Employers	А	В	H 2.5% @ 55	I 2.7% @ 55	J 2.7% @ 55	N 2% @ 55	P 1.62% @ 65	S 2% @ 57	T PEPRA 1.62% @ 67	W PEPRA 1.62% @ 65	U PEPRA 2.5% @ 67	F Probation Safety 3% @ 50	F Safety 3% @ 50	R Safety 3% @ 55	V PEPRA Probation Safety 2.7% @ 57	V PEPRA Safety 2.7% @ 57	TOTAL
City of SJC				1	12			9		2	31						55
Local Agency Formation Comm.					2				3								5
Cemetery District						13					11						24
Children & Families					4						10						14
OCFA					74	36					215		485	159		591	1,560
IHSS Public Authority		5									21						26
Public Law Library			11								3						14
OCERS					34				44		35						113
Superior Court					688		14				757						1,459
ОСТА	1	692									571						1,264
Orange County		442		5	5,745		138		6,838		1,671	477	631	393	122	1,119	17,581
Sanitation District		52	191								365						608
Transportation Corridor Agencies						18					41						59
TOTAL:	1	1,191	202	6	6,559	67	152	9	6,885	2	3,731	477	1,116	552	122	1,710	22,782

Plan Formulas

Eligible to retire for plans A – S (Legacy plans for public employees hired before Jan 1, 2013 including reciprocity) if:	12 month i	Tier 1 measuring period	Tier 2 (hired on or after Sep 21, 1979 36 month measuring period				
- 50 years old and has 10 or more years of <i>eligible service</i>	General	Α	В	Other General Members			
		G	н	2.5% @ 55			
		1	J	2.7% @ 55			
- Safety member has 20 years or more of <i>eligible service at any age</i>		M	N	2% @ 55			
		0	Р	1.62% @ 65			
- 70 years old			S	2% @ 57			
- General member has 30 years or more of eligible service at any age	Safety	С	D	2% @ 50			
		E	F	3% @ 50			
Eligible to retire for PEPRA compliant/alternative plans T and W if: - 50 years old and has 10 or more years of <i>eligible service</i>		Q	R	3% @ 55			
- 70 years old	New Public Employees hired on or after Jan 1, 2013						

General

Safety

T & W 1.62% @ 65

2.5% @ 67

2.7% @ 57

Eligible to retire for PEPRA plan U if:

- 52 years old and has 5 or more years of *eligible service*

- 70 years old

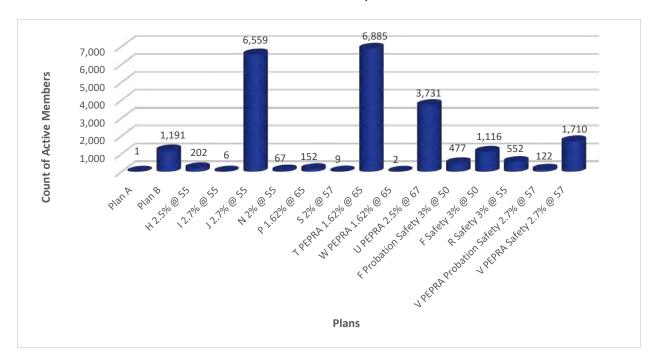
Eligible to retire for PEPRA Safety plan V if:

- 50 years old and has 5 or more years of *eligible service*
- 70 years old

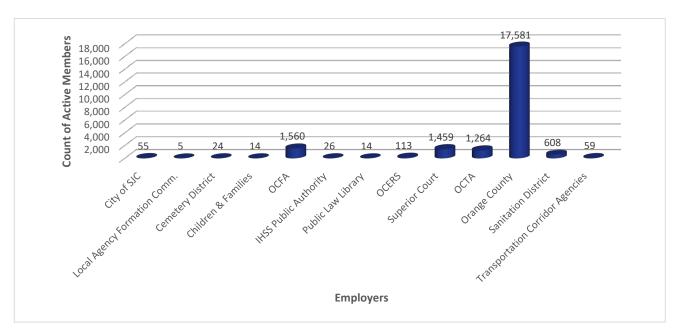
Eligible Service = current service + incoming reciprocal service

Active	Mem	ber [Demo	grap	hi	CS
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Count of Active Members by Plans As of December 31, 2023



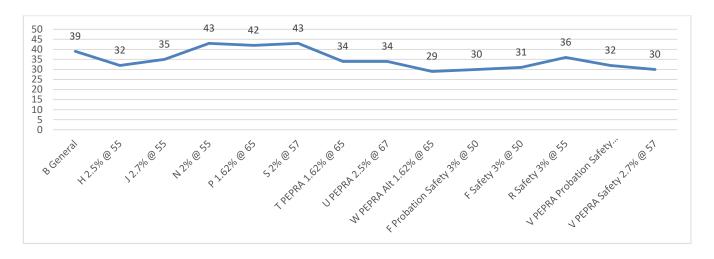
Count of Active Members by Employers As of December 31, 2023



Active Member Demographics

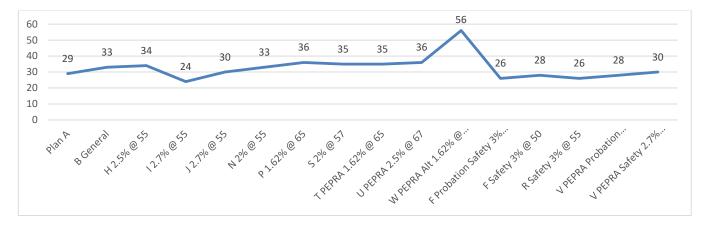
Average Entry Age of Active Members With Reciprocity by Plan Formula As of December 31, 2023

WITH RECIPROCITY	B General	H 2.5% @ 55	J 2.7% @ 55	N 2% @ 55	P 1.62% @ 65	S 2% @ 57	T PEPRA 1.62% @ 65	U PEPRA 2.5% @ 67	W PEPRA Alt 1.62% @ 65	F Probation Safety 3% @ 50	F Safety 3% @ 50	R Safety 3% @ 55	V PEPRA Probation Safety 2.7% @ 57	V PEPRA Safety 2.7% @ 57	AVERAGE ENTRY AGE
Average Entry Age by Plan	39	32	35	43	42	43	34	34	29	30	31	36	32	30	34



Average Entry Age of Active Members Without Reciprocity by Plan Formula As of December 31, 2023

WITHOUT RECIPROCITY	Plan A	B General	H 2.5% @ 55	I 2.7% @ 55	J 2.7% @ 55	N 2% @ 55	P 1.62% @ 65	S 2% @ 57	T PEPRA 1.62% @ 65	U PEPRA 2.5% @ 67	W PEPRA Alt 1.62% @ 65	F Probation Safety 3% @ 50	F Safety 3% @ 50	R Safety 3% @ 55	V PEPRA Probation Safety 2.7% @ 57	V PEPRA Safety 2.7% @ 57	AVERAGE ENTRY AGE
Average Entry Age by Plan	29	33	34	24	30	33	36	35	35	36	56	26	28	26	28	30	32

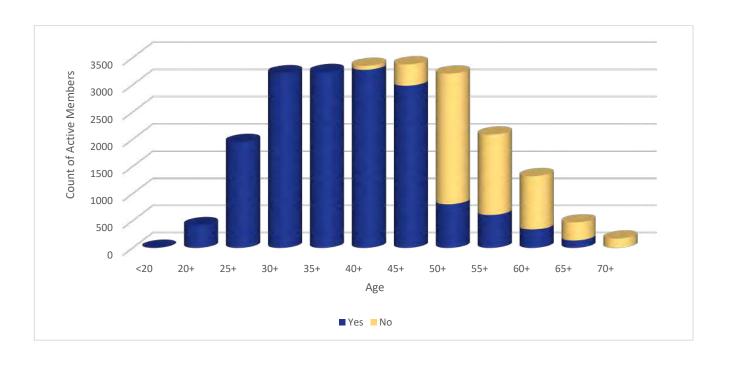


Active Member Demographics

Count of Active Members Eligible to Retire by Age Groups As of December 31, 2023

Age Groups

Eligible to Retire	< 20	20+	25+	30+	35+	40+	45+	50+	55+	60+	65+	70+	TOTAL
No	1	416	1,949	3,213	3,235	3,275	2,984	803	607	338	136		16,957
Yes						73	391	2,403	1,477	981	332	168	5,825
													22,782



Active Members – Eligible to Retire by Employers As of December 31, 2023

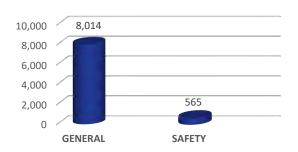
Plans	Plan A		H 2.5% @ 55		J 2.7% @ 55	N 2% @ 55	P 1.62% @ 65	S 2% @ 57	T PEPRA 1.62% @ 65		F Probation Safety 3% @ 50		R Safety 3% @ 55	V PEPRA Probation Safety 2.7% @ 57	TOTAL ELIGIBLE TO RETIRE	% ELIGIBLE TO RETIRE
City of SJC				1	8			5							14	25%
Local Agency Formation Comm.					2										2	40%
Cemetery District						8				1					9	38%
Children & Families					1					2					3	21%
OCFA					48	18				3		289	29		387	25%
IHSS Public Authority		4													4	15%
Public Law Library			9												9	64%
OCERS					19				2	1					22	19%
Superior Court					394		10			9					413	28%
OCTA	1	472													473	37%
Orange County		256		5	3,146		58		99	35	320	361	39	1	4,331	25%
Sanitation District		16	117							13					146	24%
Transportation Corridor Agencies						10				2					12	20%
TOTAL ELIGIBLE TO RETIRE:	1	748	126	6	3,618	36	68	5	101	66	320	650	68	1	5,825	26%
% ELIGIBLE BY PLAN NAME:	100%	63%	62%	100%	55%	54%	45%	56%	1%	2%	67%	58%	12%	1%		_

(Percentages rounded)

Deferred Member Demographics

Count of Deferred Members by Status As of December 31, 2023

	General	Safety	Total Count
Deferred	8,014	565	8,579

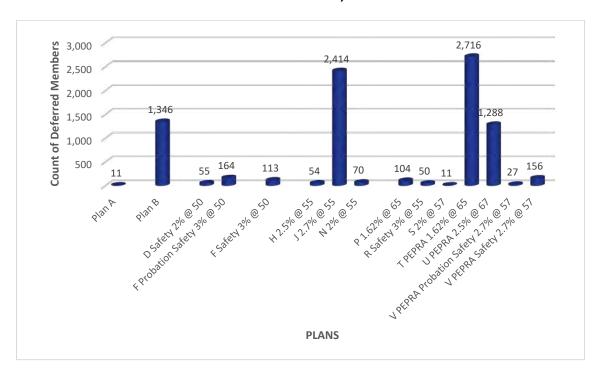


Count of Deferred Members by Plans and by Employers As of December 31, 2023

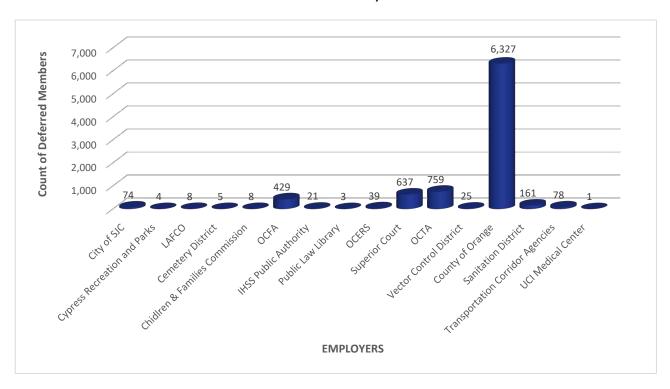
Retirement Plans

								Retirein	ent Plans							
	Pla n A	B General	H 2.5 % @ 55	J 2.7% @ 55	N 2% @ 55	P 1.62 % @ 65	S 2% @ 57	T PEPRA 1.62% @ 67	U PEPRA 2.5% @ 67	D Safety 2% @ 50	F Probation Safety 3% @ 50	F Safety 3% @ 50	R Safety 3% @ 55	V PEPRA Probation Safety 2.7% @ 57	V PEPRA Safety 2.7% @ 57	TOTAL
City of SJC		4		36			11		23							74
Cypress Recreation and Parks		4														4
LAFCO				3		2		3								8
Cemetery District					2				3							5
Children & Families Commission				2					6							8
OCFA		6		85	30				172	2		32	14		88	429
IHSS Public Authority		3							18							21
Public Law Library		1	2													3
OCERS				19				12	8							39
Superior Court		15		266		15		310	31							637
OCTA	2	496							261							759
Vector Control District		25														25
County of Orange	7	740		2,003		87		2,391	670	53	164	81	36	27	68	6,327
Sanitation District	1	40	52						68							161
TCA		12			38				28							78
UCI Medical Center	1															1
TOTAL:	11	1,346	54	2,414	70	104	11	2,716	1,288	55	164	113	50	27	156	8,579

Count of Deferred Members by Plans As of December 31, 2023



Count of Deferred Members by Employers As of December 31, 2023

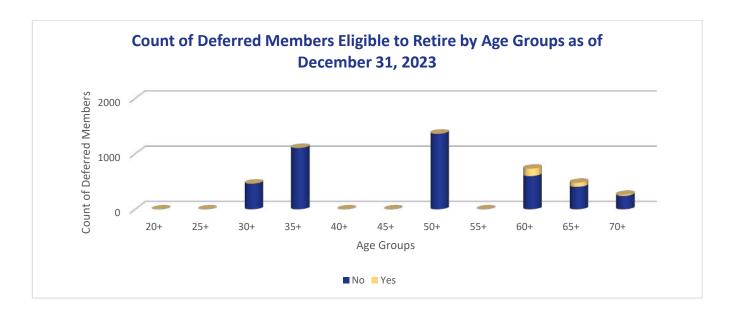


Deferred Member Demographics

Count of Deferred Members Eligible to Retire by Age Groups As of December 31, 2023

Age Groups

Eligible to Retire	20+	25+	30+	35+	40+	45+	50+	55+	60+	65+	70+	Total
No	69	465	1,109	1,376	1,569	1,365	1,009	602	408	244		8,216
Yes						2	55	134	72	19	81	363
												8,579



Count of Deferred Members - Eligible to Retire by Employers As of December 31, 2023

Employers	Plan A	Plan B	H 2.5% @ 55	J 2.7% @ 55	N 2% @ 55	P 1.62% @ 65	T PEPRA 1.62% @ 65	U PEPRA 2.5% @ 67	D Safety 2% @ 50	F Probation Safety 3% @ 50	F Safety 3% @ 50	R Safety 3% @ 55		% ELIGIBLE TO RETIRE
City of San Juan Capistrano		1		3				1					5	7%
Cypress Recreation and Parks		1											1	25%
Local Agency Formation Comm. (LAFCO)													0	0%
O.C. Cemetery District													0	0%
O.C. Children & Families Commission													0	0%
O.C. Fire Authority		1		8	2						2		13	3%
O.C. IHSS Public Authority								1					1	5%
O.C. Law Library													0	0%
O.C. Retirement System				2									2	5%
O.C. Superior Court		2		21			1	1					25	4%
O.C. Transportation Authority (OCTA)	1	61						2					64	8%
O.C. Vector Control District		6											6	24%
Orange County	5	84		101		4	12	4	3	10	3	1	227	4%
Sanitation District	1	5	6										12	7%
Transportation Corridor Agencies					6								6	8%
UCI Medical Center (bi- weekly)	1												1	100%
TOTAL ELIGIBLE TO RETIRE:	8	161	6	135	8	4	13	9	3	10	5	1	363	4%
% ELIGIBLE BY PLAN NAME:	73%	12%	11%	6%	11%	4%	0%	1%	5%	6%	4%	2%	4%	

Plan Formulas

Eligible Service = current service + incoming reciprocal service

Eligible to retire for plans A – S (Legacy plans for public employees hired		Tier 1	Tier 2 (hire	ed on or after Sep 21, 1979)
before Jan 1, 2013 including reciprocity) if:	12 month	measuring period	36 month	measuring period
- 50 years old and has 10 or more years of <i>eligible service</i>	General	G	н	2.5% @ 55
		1	J	2.7% @ 55
- Safety member has 20 years or more of <i>eligible service at any age</i>		M	N	2% @ 55
		0	P	1.62% @ 65
- 70 years old			S	2% @ 57
		Α	В	Other General Members
- General member has 30 years or more of <i>eligible service at any age</i>	Safety	С	D	2% @ 50
, , , , , , , , , , , , , , , , , , , ,	•	E	F	3% @ 50
Eligible to retire for PEPRA compliant/alternative plans T & W if:		Q	R	3% @ 55
- 50 years old and has 10 or more years of <i>eligible service</i>				
- 70 years old	New Publi	ic Employees hired o	on or after Ja	n 1, 2013
Eligible to retire for PEPRA plan U if:				
- 52 years old and has 5 or more years of <i>eligible service</i>	General		T & W	1.62% @ 65
- 70 years old			U	2.5% @ 67
Eligible to retire for PEPRA Safety plan V if:				
- 50 years old and has 5 or more years of <i>eligible service</i>	Safety		V	2.7% @ 57

Deferred Member Demographics

Retiree & Beneficiary Demographics (Payees)

Retiree & Beneficiary Demographics

All benefit recipients as of December 31, 2023

For Retired General members with service and disability retirements: 14,755
 For General member survivors and other payees: 2,212
 For Safety members with service and disability retirements: 3,627
 For Safety member survivors and other payees: 689

 Total Benefit Recipients: 21,283

Average age at retirement for members who retired with a service retirement in 2023

For General members: 60.77 years old
 For Safety members: 54.21 years old

Average years of service for members who retired with a service retirement in 2023

For General members: 23.40For Safety members: 21.93

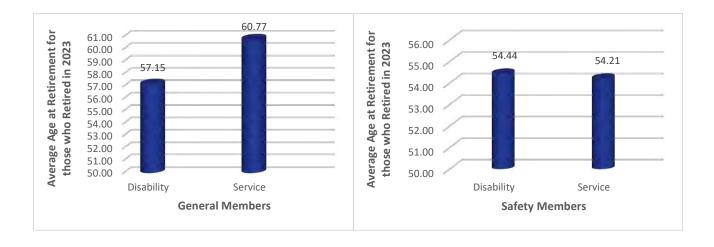
Average years of service for all General and Safety members who retired with service and disability retirements as of December 31, 2023: 23.04

Average Years Into Retirement of Currently Retired Members As of December 31, 2023

		SE	RVICE	
		General	Safety	Safety
each			2%	3%
ary District	Count:	3		
	Years:	14.48		
City of San Juan	Count:	139		
Capistrano	Years:	12.20		
press Recreation	Count:	17		
and Parks	Years:	15.73		
Department Of	Count:	12		
Education	Years:	21.06		
Local Agency rmation Comm.	Count:	5		
(LAFCO)	Years:	11.02		
Cemetery District	Count:	7		
-	Years:	8.42		
Children & Families	Count:	10		
Commission	Years:	9.87		
	Count:	220	49	496
OCFA	Years:	10.02	20.65	10.47
IHSS Public	Count:	4		
Authority	Years:	4.92		
	Count:	11		
ublic Law Library	Years:	10.39		
	Count:	51		
OCERS	Years:	10.25		
	Count:	1,124		
Superior Court	Years:	10.14		
	Count:	1,123		
ОСТА	Years:	11.01		
/ector Control	Count:	41		
District	Years:	11.58		
	Count:	10,382	447	1,878
Orange County	Years:	12.37	19.37	9.34
Rancho Santa	Count:	1		3.3-7
Margarita	Years:	7.71		
. 0	Count:	522		
nitation District	Years:	10.30		
Tues a sub - \$1	Count:	66		
ransportation rridor Agencies	Years:	9.48		
	Count:	9.48		
JCI (monthly)	Years:	20.04		
UCI Medical nter (bi-weekly)	Count:	133		
one (at weekiy)	Years:	25.22 13,884	496	2,374
OTAL:	Count:			

Average Age at Retirement by Employer and Benefit Type For Those That Retired With An Effective Retirement Date in 2023

		General	
	Disability	Service	Average
City of San Juan Capistrano	61.61	56.73	58.36
OCFA		61.77	61.77
OCERS		65.20	65.20
Superior Court		60.91	60.91
OCTA		63.17	63.17
Orange County	55.66	60.49	60.49
Sanitation District		59.36	59.36
Transportation Corridor Agencies		59.59	59.59
AVERAGE:	57.15	60.77	60.74

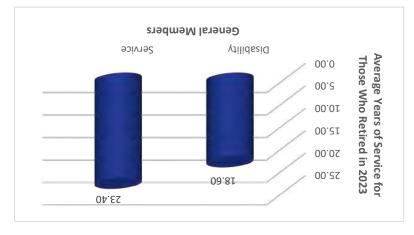


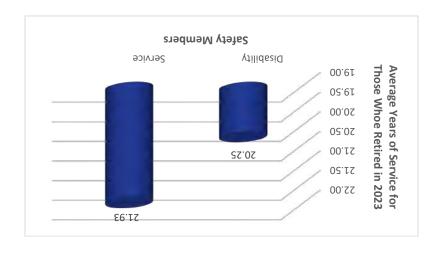
Average Age at Retirement for Service and Disability Retirements Combined Over Last 10 Years

Year Ended December 31	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
General	60.79	59.37	59.44	60.79	61.3	61.14	61.01	60.47	59.93	58.96
Safety	54.06	53.51	53.58	55.09	55.15	54.53	53.86	53.47	54.35	54.33

Average Years of Service at Retirement by Employer and Benefit Type For Those That Retired With an Effective Retirement Date in 2023

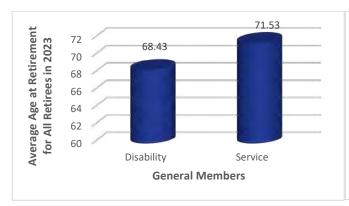
	21.93	20.25		23.40	18.60	
			88.81	88.81		tation Corridor Agencies
			9Z.ZZ	92.25		n District
46.04	87.22	91.81	72.24	23.79	87.12	of Orange
			21.42	21.42		
			02.52	23.50		. Court
			69.9 <u>t</u>	69.91		
£7.14	20.61	17.22	20.91	16.02		
			77.4 <u>2</u>	15.68	60.6	onstrigeS neul ne
Total	Service	VillidssiQ	lstoT	Service	VilidssiD	ousor
	Yaeled			General		





Average Age of All Retirees by Employer and Benefit Type As of December 31, 2023

		General	
	Disability	Service	Average
Capistrano Beach Sanitary District		77.44	77.44
City of San Juan Capistrano	65.39	70.30	70.10
Cypress Recreation and Parks		72.63	72.63
Department of Education		82.23	82.23
Local Agency Formation Comm. (LAFCO)		67.91	67.91
DC Cemetery District		72.92	72.92
OC Children & Families Commission		69.08	69.08
OC Fire Authority (OCFA)	65.50	67.83	67.70
OC IHSS Public Authority	76.40	64.08	66.54
OC Law Library		73.18	73.18
OCERS	75.69	70.38	70.96
OC Superior Court	65.88	69.29	69.24
OC Transportation Authority (OCTA)	69.03	72.01	71.45
OC Vector Control District		73.37	73.37
Orange County	68.01	71.78	71.59
ancho Santa Margarita		78.95	78.95
anitation District	69.09	69.13	69.13
ransportation Corridor Agencies		70.32	70.32
JCI (monthly)	72.62	76.93	76.62
JCI Medical Center (bi-weekly)	82.47	82.79	82.77
Average	68.43	71.53	71.35





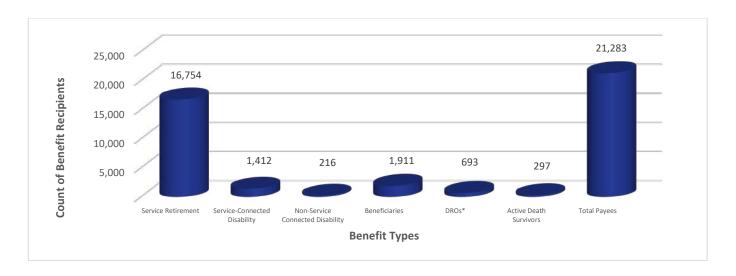
Benefit Recipients by Employers and Plans As of December 31, 2023

	Plan A	Plan B	G 2.5 % @ 55	H 2.5% @ 55	I 2.7% @ 55	J 2.7% @ 55	N 2% @ 55	P 1.6 2% @ 65	S 2% @ 57	T PEPR A 1.62 % @ 67	U PEPRA 2.5% @ 67	C Safety 2% @ 50	D Safety 2% @ 50	E Probation Safety 3% @ 50	F Probation Safety 3% @ 50	E Safety 3% @ 50	F Safety 3% @ 50	R Safety 3% @ 55	V PEPRA Safety 2.7% @ 57	TOTAL
Capistrano Beach Sanitary District		3																		3
City of SJC	19	43			4	89			4		5									164
Cypress Recreation and Parks	9	12																		21
Department of Education	14																			14
LAFCO		1				4														5
Cemetery District	3	3					8													14
Children & Families Commission	1				2	9														12
OC Fire Authority	6	38			16	179	5				5	27	69			16	866	10	5	1,242
IHSS Public Authority		4									1									5
Public Law Library		3		8																11
OCERS	2	12			1	41					2									58
Superior Court	53	59			146	952		1		4										1,215
OCTA	346	1,262									8									1,616
Vector Control District	15	33																		48
County of Orange	2,294	2,232			959	7,084		19		36	20	492	330	45	453	276	1,660	31	36	15,967
Rancho Santa Margarita				1																1
Sanitation District	67	72	30	460							5									634
Transportatio n Corridor Agencies	4	10					56				3									73
UCI (monthly)	14	1																		15
UCI Medical Center (bi- weekly)	165																			165
TOTAL:	3,012	3,788	30	469	1,128	8,358	69	20	4	40	49	519	399	45	453	292	2,526	41	41	21,283

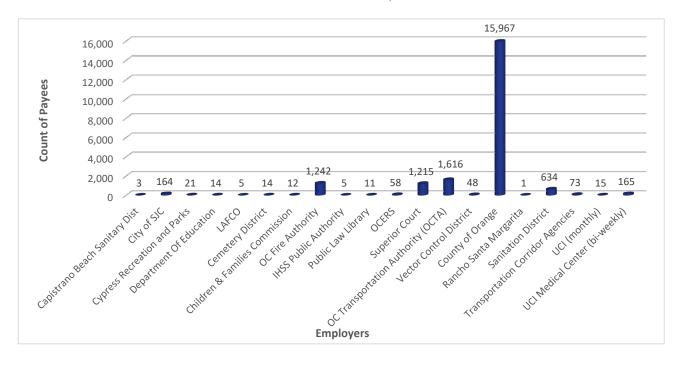
Benefit Recipients by Benefit Types As of December 31, 2023

Service Retirement	Service- Connected Disability	Non-Service Connected Disability	Beneficiaries	DROs*	Active Death Survivors	Total Payees
16,754	1,412	216	1,911	693	297	21,283

^{*} DRO: A court order dividing a pension benefit due to a divorce or legal separation.

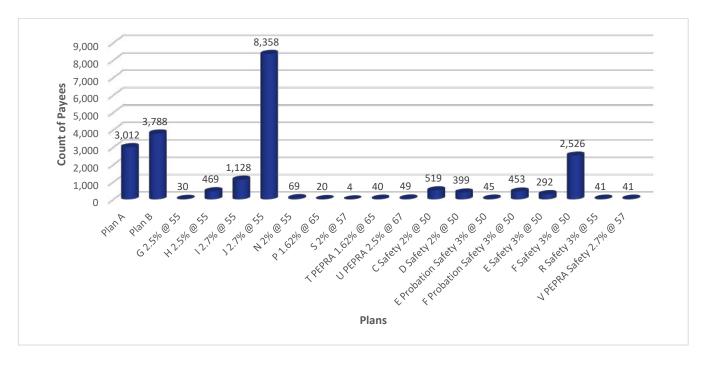


Benefit Recipients by Employers As of December 31, 2023



Retiree & Beneficiary Demographics

Benefit Recipients by Plans As of December 31, 2023



Benefit Recipients by Payment Options December 31, 2023

Monthly Benefit	Unmodified	Option 1	Option 2	Option 3	Option 4	DRO Benefit	Annuity Only	Total Payees
\$0001-0500	631	1	23	2	2	81	12	752
\$0500-1,000	1,184	2	53	1	3	131		1,374
\$1,000-1,500	1,413		50	2	4	115		1,584
\$1,500-2,000	1,411	1	34	2	1	90		1,539
\$2,000-2,500	1,388	1	38	6	9	83		1,525
\$2,500-3,000	1,546	1	25		7	46		1,625
\$3,000-3,500	1,399		18	2	6	50		1,475
\$3,500-4,000	1,273	1	24	2	7	39		1,346
\$4,000-4,500	1,059		10	2	12	19		1,102
\$4,500-5,000	964		17	1	13	12		1,007
\$5,000-5,500	919		19	1	9	8		956
\$5,500-6,000	868		15	1	10	7		901
\$6,000-6,500	699		11	1	4	5		720
\$6,500-7,000	653	1	7		8	2		671
\$7,000+	4,583	2	59	2	56	4		4,706
Total	19,990	10	403	25	151	692	12	21,283
Percentage	93.92%	0.05%	1.89%	0.12%	0.71%	3.25%	0.06%	100.00%

Definition of Payment Options

Unmodified: This option provides the maximum lifetime retirement allowance with a 60 percent continuance to an

eligible spouse, qualified domestic partner or eligible child for service retirement and 100 percent for

service-connected disability retirement.

Option 1: Cash refund annuity. This option provides a reduced lifetime monthly allowance and a refund of any of the remaining member's contributions to the designated beneficiary.

Option 2: A 100 percent joint and survivor annuity. This option provides a reduced lifetime monthly allowance with the same monthly allowance to the designated beneficiary for the remainder of his or her lifetime.

Option 3: A 50 percent joint and survivor annuity. This option provides a reduced lifetime monthly allowance with 50 percent of the monthly allowance to the designated beneficiary for the remainder of his or her lifetime.

Option 4: This option allows multiple lifetime monthly allowances to designated beneficiaries and varying payment

percentages if approved in advance by the Retirement Board.

DRO Benefit: Domestic Relations Order Benefit. This is a court order allocating a portion of a retired member's pension

to an ex-spouse or domestic partner.

Annuity Only: This payment option provides the actuarial equivalent of the member's accumulated contributions at the

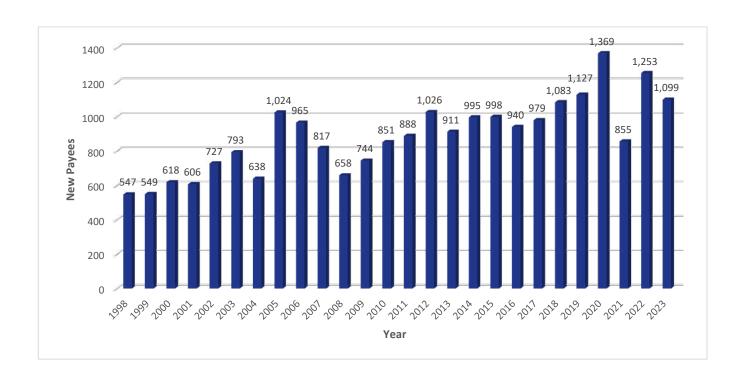
time of retirement and is used for very specific situations usually related to disability retirement payments

and reciprocity.

Retiree & Beneficiary Demographics

Number of New Payees by Calendar Year

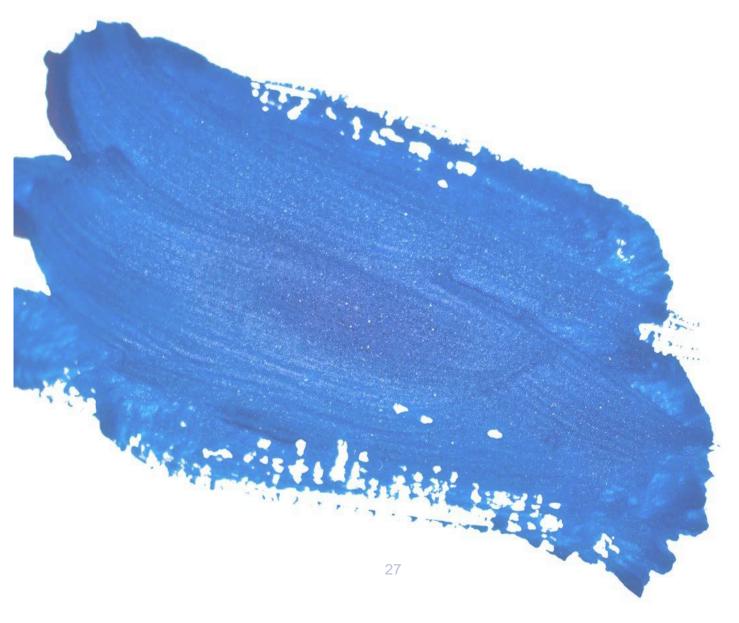
1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
547	549	618	606	727	793	638	1,024	965	817	658	744	851	888
2012	2 2013	2014	2015	2016	20:	17 2	2018	2019	2020	2021	L 20)22	2023



Payees' Residences by Region & State As of December 31, 2023



Foreign Countries & US To	erritories	44
North Central		280
Northeast		288
Northwest		976
Southeast		1,409
Southwest		17,955
Total Count of Payees		20,952*
	* Payees with multiple benefits are cou	ınted only once.
Total Annual Benefits Paid in California	\$930,662,709.62	16,193
Total Annual Benefits Paid in Orange County	\$667,020,590.12	10,938



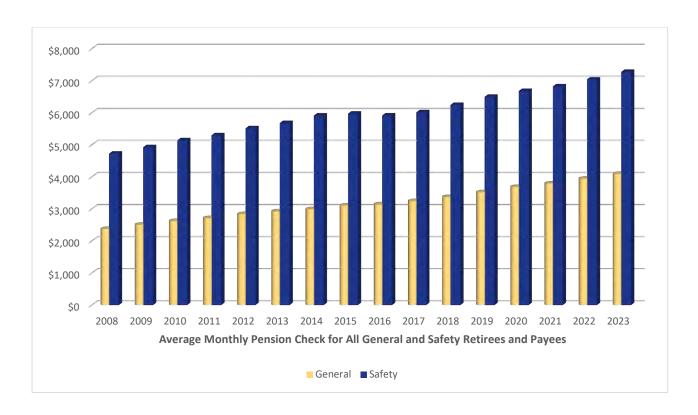
Benefits as of December 31, 2023

Average benefit

- For all General member retirees and other payees \$4,092.69 monthly; \$49,112.24 annually
- For all Safety member retirees and other payees \$7,276.80 monthly; \$87,321.65 annually
- For all General and Safety retirees and payees combined \$4,738.40 monthly; \$56,860.77 annually
- For all General and Safety retirees only \$5,072.15 monthly; \$60,865.81 annually

Average monthly pension check for all General and Safety retirees and payees

Years Ended Dec. 31	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
General	\$2,373	\$2,508	\$2,621	\$2,714	\$2,836	\$2,924	\$2,991	\$3,103	\$3,142	\$3,244	\$3,372	\$3,520	\$3,686	\$3,791	\$4,207	\$4,093
Safety	\$4,724	\$4,926	\$5,141	\$5,297	\$5,516	\$5,679	\$5,914	\$5,974	\$5,917	\$6,017	\$6,245	\$6,499	\$6,680	\$6,825	\$7,690	\$7,277
Total Payees	11,778	12,243	12,762	13,289	13,947	14,505	15,169	15,810	16,369	16,947	17,674	18,420	19,419	19,826	17,899	21,283

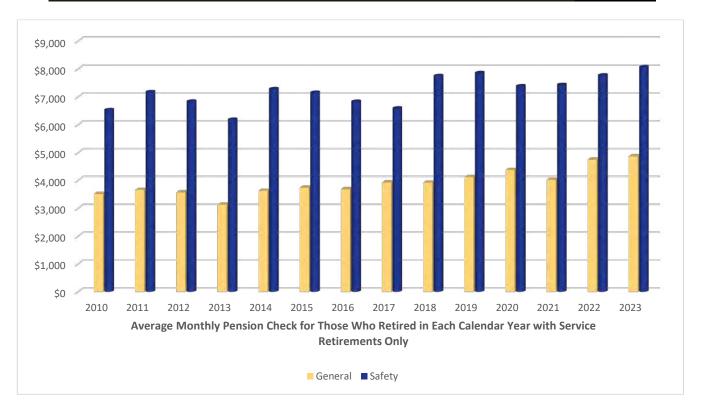


Average benefit for General and Safety members with a service retirement (no disabilities) that retired in 2023

- For General members \$4,866.26 monthly; \$58,395.09 annually
- For Safety members \$8,068.82 monthly; \$96,825.81 annually

Average monthly pension check for those who retired in each calendar year with service retirements only

Years Ended Dec. 31	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
General	\$3,518	\$3,660	\$3,570	\$3,132	\$3,632	\$3,744	\$3,689	\$3,934	\$3,922	\$4,118	\$4,380	\$4,028	\$4,751	\$4,866
Safety	\$6,528	\$7,169	\$6,832	\$6,187	\$7,281	\$7,146	\$6,827	\$6,586	\$7,752	\$7,854	\$7,380	\$7,432	\$7,772	\$8,069



History of OCERS' Cost-of-Living Adjustments

OCERS annually adjusts the benefit allowances relative to the increase or decrease in the Consumer Price Index (CPI).* This adjustment, known as a Cost-of-Living Adjustment (COLA), is effective April 1st of each year. To determine the change in CPI, OCERS' actuary compares the Bureau of Labor Statistics' annual average CPI for all urban consumers for the Los Angeles-Long Beach-Anaheim area for each of the past two years and derives the percentage change between the two. The increase or decrease in the CPI is rounded to the nearest one-half of one percent. The maximum COLA of 3% shall be granted on every retirement allowance, optional death allowance, or annual death allowance payable to or on account of any member of the system.

For years in which the CPI exceeds 3%, the excess amount is banked and drawn from for future years when the CPI is less than 3%.

Date Granted	Actual CPI Rate	CPI Rounded	Max COLA Rate	COLA Granted
4/1/2023	7.45	7.5	3	3
4/1/2022	3.83	4.0	3	3
4/1/2021	1.62	1.5	3	1.5
4/1/2020	3.07	3	3	3
4/1/2019	3.81	4	3	3
4/1/2018	2.79	3	3	3
4/1/2017	1.89	2	3	2
4/1/2016	0.91	1	3	1
4/1/2015	1.35	1.5	3	1.5
4/1/2014	1.08	1	3	1
4/1/2013	2.04	2	3	2
4/1/2012	2.67	2.5	3	2.5
4/1/2011	1.20	1	3	1
4/1/2010	-0.80	-1	3	0/-1**
4/1/2009	3.53	3.5	3	3
4/1/2008	3.30	3.5	3	3
4/1/2007	4.26	4.5	3	3
4/1/2006	4.45	4.5	3	3
4/1/2005	3.31	3.5	3	3
4/1/2004	2.63	2.5	3	2.5
4/1/2003	2.76	3	3	3
4/1/2002	3.32	3.5	3	3
4/1/2001	3.31	3.5	3	3
4/1/2000	2.34	2.5	3	2.5
4/1/1999	1.44	1.5	3	1.5
4/1/1998	1.58	1.5	3	1.5

^{*} Per Government Code Section 318780.1

^{* * 2009} saw a unique scenario, a -1% CPI reflecting economic deflation in that year. For new retirees as of April 1, 2010, 0% was determined to be a COLA "floor", as no benefit will ever be reduced. For longer retired members however, who had accumulated a COLA bank as of 2010, that bank was reduced by -1%.

Schedule of Average Monthly Pension Benefit Payments for Service Retirements by Years of Service

2014 - 2023

	Years of	Service					
Retirement Effective Dates	0-5	5-10	10-15	15-20	20-25	25-30	30 & Over
PERIOD 1/1/14 –12/31/14							
Average Monthly Pension Benefits	\$421	\$1,152	\$1,925	\$3,188	\$4,117	\$6,444	\$6,719
Average Monthly "Final Average Salary"	\$8,176	\$6,955	\$6,301	\$6,961	\$7,003	\$8,463	\$7,349
Number of Retired Members	23	45	146	96	143	192	138
PERIOD 1/1/15 –12/31/15							
Average Monthly Pension Benefits	\$582	\$1,263	\$1,755	\$2,850	\$3,895	\$5,679	\$7,235
Average Monthly "Final Average Salary"	\$8,802	\$6,888	\$5,970	\$6,673	\$6,800	\$7,893	\$8,352
Number of Retired Members	22	63	128	119	110	200	182
PERIOD 1/1/16 –12/31/16							
Average Monthly Pension Benefits	\$427	\$1,244	\$2,135	\$2,886	\$4,272	\$5,549	\$6,782
Average Monthly "Final Average Salary"	\$8,298	\$6,907	\$6,911	\$6,580	\$7,383	\$7,651	\$7,762
Number of Retired Members	24	56	121	120	113	195	163
PERIOD 1/1/17 –12/31/17							
Average Monthly Pension Benefits	\$541	\$1,215	\$2,073	\$3,062	\$4,513	\$5,851	\$7,069
Average Monthly "Final Average Salary"	\$7,952	\$6,800	\$6,844	\$6,810	\$7,743	\$7,975	\$7,931
Number of Retired Members	21	47	122	147	112	190	153
PERIOD 1/1/18 –12/31/18							
Average Monthly Pension Benefits	\$554	\$1,190	\$1,943	\$2,879	\$4,681	\$6,074	\$7,439
Average Monthly "Final Average Salary"	\$10,584	\$7,287	\$6,904	\$6,859	\$8,134	\$8,246	\$8,561
Number of Retired Members	23	62	125	144	127	205	208
PERIOD 1/1/19 –12/31/19							
Average Monthly Pension Benefits	\$367	\$1,424	\$2,332	\$3,073	\$4,831	\$6,475	\$7,324
Average Monthly "Final Average Salary"	\$7,568	\$8,243	\$7,509	\$6,985	\$8,088	\$8,591	\$8,249
Number of Retired Members	31	54	121	150	135	249	191
PERIOD 1/1/20 -12/31/20							
Average Monthly Pension Benefits	\$536	\$1,475	\$2,149	\$3,422	\$4,697	\$6,151	\$6,825
Average Monthly "Final Average Salary"	\$9,267	\$8,556	\$6,784	\$7,473	\$8,046	\$8,340	\$7,917
Number of Retired Members	29	59	128	166	237	281	288
PERIOD 1/1/21 -12/31/21							
Average Monthly Pension Benefits	\$540	\$1,524	\$2,361	\$3,532	\$5,406	\$6,602	\$7,219
Average Monthly "Final Average Salary"	\$9,897	\$8,823	\$7,781	\$7,749	\$9,348	\$8,941	\$8,377
Number of Retired Members	27	53	87	102	142	112	128
PERIOD 1/1/22 –12/31/22							
Average Monthly Pension Benefits	\$644	\$1,545	\$2,631	\$3,798	\$5,690	\$7,481	\$8,077
Average Monthly "Final Average Salary"	\$10,744	\$9,289	\$8,820	\$8,432	\$9,473	\$10,023	\$9,238
Number of Retired Members	33	91	117	127	226	210	224
PERIOD 1/1/23 –12/31/23							<u> </u>
Average Monthly Pension Benefits	\$421	\$1,584	\$2,815	\$3,837	\$5,083	\$7,496	\$7,399
Average Monthly "Final Average Salary"	\$10,111	\$9,737	\$9,149	\$8,347	\$8,452	\$10,150	\$8,439
Number of Retired Members	29	60	61	114	188	181	210

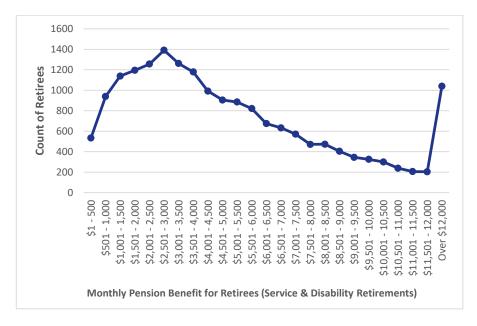
Schedule of Median Monthly Pension Benefit Payments for Service Retirements by Years of Service

2014 – 2023

Years of Service							
Retirement Effective Dates	0-5	5-10	10-15	15-20	20-25	25-30	30 & Over
PERIOD 1/1/14 -12/31/14							
Median Monthly Pension Benefits	\$289	\$830	\$1,448	\$2,627	\$3,721	\$6,451	\$5,720
Median "Final Average Salary"	\$8,646	\$4,876	\$5,188	\$5,990	\$6,265	\$8,561	\$6,319
Number of Retired Members	23	45	146	96	143	192	138
PERIOD 1/1/15 –12/31/15							
Median Monthly Pension Benefits	\$426	\$914	\$1,640	\$2,514	\$3,511	\$5,241	\$5,965
Median "Final Average Salary"	\$7,350	\$4,979	\$4,926	\$5,999	\$5,924	\$7,379	\$6,869
Number of Retired Members	22	63	128	119	110	200	182
PERIOD 1/1/16 –12/31/16							
Median Monthly Pension Benefits	\$339	\$980	\$1,878	\$2,563	\$3,933	\$5,080	\$6,198
Median "Final Average Salary"	\$9,412	\$5,885	\$6,015	\$5,707	\$6,714	\$7,314	\$7,020
Number of Retired Members	24	56	121	120	113	195	163
PERIOD 1/1/17 –12/31/17							
Median Monthly Pension Benefits	\$393	\$843	\$1,703	\$2,574	\$3,845	\$5,404	\$6,333
Median "Final Average Salary"	\$8,043	\$4,996	\$5,560	\$5,946	\$6,842	\$7,673	\$7,058
Number of Retired Members	21	47	122	147	112	190	153
PERIOD 1/1/18 –12/31/18							
Median Monthly Pension Benefits	\$584	\$876	\$1,807	\$2,489	\$4,367	\$5,284	\$6,335
Median "Final Average Salary"	\$10,653	\$6,447	\$5,795	\$5,709	\$7,430	\$7,255	\$7,151
Number of Retired Members	23	62	125	144	127	205	208
PERIOD 1/1/19 –12/31/19							
Median Monthly Pension Benefits	\$349	\$1,108	\$1,956	\$2,715	\$4,141	\$5,591	\$6,524
Median "Final Average Salary"	\$6,738	\$7,434	\$6,459	\$6,068	\$7,308	\$7,328	\$7,430
Number of Retired Members	31	54	121	150	135	249	191
PERIOD 1/1/20 –12/31/20							
Median Monthly Pension Benefits	\$411	\$1,169	\$1,713	\$2,799	\$3,944	\$5,508	\$5,916
Median "Final Average Salary"	\$7,754	\$8,310	\$5,501	\$6,241	\$6,845	\$7,328	\$6,860
Number of Retired Members	29	59	128	166	237	281	288
PERIOD 1/1/21 –12/31/21							
Median Monthly Pension Benefits	\$447	\$1,295	\$1,940	\$2,868	\$4,751	\$5,930	\$6,397
Median "Final Average Salary"	\$8,984	\$8,490	\$6,440	\$6,740	\$7,753	\$8,273	\$7,445
Number of Retired Members	27	53	87	102	142	112	128
PERIOD 1/1/22 –12/31/22							
Median Monthly Pension Benefits	\$631	\$1,429	\$2,468	\$3,466	\$5,204	\$6,590	\$7,255
Median "Final Average Salary"	\$10,051	\$9,881	\$7,753	\$7,491	\$8,653	\$8,954	\$8,088
Number of Retired Members	33	91	117	127	226	210	224
PERIOD 1/1/23 –12/31/23							
Median Monthly Pension Benefits	\$315	\$1,373	\$2,314	\$3,057	\$4,641	\$6,668	\$6,539
Median "Final Average Salary"	\$9,305	\$9,282	\$7,809	\$6,865	\$7,472	\$9,338	\$4,257
Number of Retired Members	29	60	61	114	188	181	210

Schedule of Monthly Pension Benefit for Retirees (Service and Disability Retirements) As of December 31, 2023

Monthly Benefit	Number of Retirees
\$1 - 500	533
\$501 - 1,000	939
\$1,001 - 1,500	1,119
\$1,501 - 2,000	1,195
\$2,001 - 2,500	1,256
\$2,501 - 3,000	1,391
\$3,001 - 3,500	1,262
\$3,501 - 4,000	1,179
\$4,001 - 4,500	992
\$4,501 - 5,000	905
\$5,001 - 5,500	885
\$5,501 - 6,000	821
\$6,001 - 6,500	674
\$6,501 - 7,000	633
\$7,001 - 7,500	571
\$7,501 - 8,000	471
\$8,001 - 8,500	473
\$8,501 - 9,000	404
\$9,001 - 9,500	345
\$9,501 - 10,000	325
\$10,001 - 10,500	300
\$10,501 - 11,000	239
\$11,001 - 11,500	206
\$11,501 - 12,000	204
Over \$12,000	1,040
Total	18,382



The OCERS Fund



Funding Sources for Benefits

(OCERS' net additions for the period 1998 - 2023)



Employee Contributions

This is the money active employees pay into the fund for future benefits

Net Investment Income

This includes earnings from stocks, bonds, alternatives, real estate and other investments, minus fees.

Employer Contributions

This is the money paid to OCERS from employers for pension benefits.

A common misunderstanding with regard to public pension retirement benefits is that they are funded solely out of the taxpayers' pocket.

That is not true.

We have illustrated here a dollar going out the door in a benefit payment from OCERS to one of our retirees. What were the source funds for that dollar?

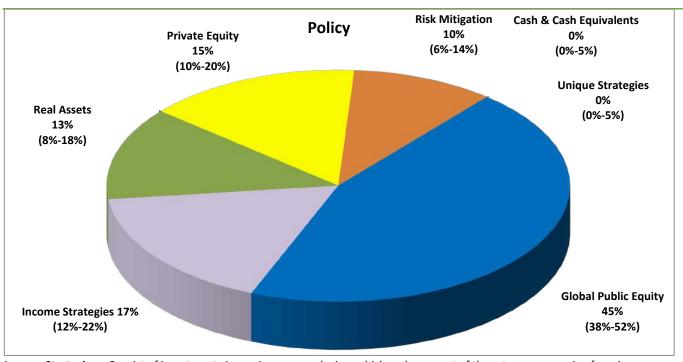
The first portion of that dollar, at 53 cents, represents earnings achieved by the OCERS investment portfolio. The OCERS Board of Trustees takes the contributions OCERS receives from both employees and employers and invests those contributions on behalf of our approximately 53,000 members. OCERS grows those "seed" contributions through careful investments to an amount likely larger than an individual employee might have done solely on his or her own.

The next largest portion of that benefit dollar, at 33 cents, comes from employer contributions, such as those paid by the County of Orange, the City of San Juan Capistrano, the Public Law Library, and other public employers within Orange County. You might ask if those aren't local taxpayer dollars then, but the answer would be no. Many of those 33 cents do come from Orange County taxpayers, without a doubt, but some might just as well be paid from various federal government grant programs or other sources. Interestingly, that figure of 33 cents paid by the employers would be even larger were it not for the fact that some OCERS employees assist in paying the employer obligation.

Despite what is sometimes reported in the press, the hard-working employees of the County of Orange and our other participating employers are contributing their own dollars to the retirement plan as well. The final portion of the benefit dollar in the amount of 14 cents represents the deduction taken directly from the paychecks of OCERS' members. In addition, as noted in the prior paragraph, several employee groups pay a portion of the employer contribution out of their own pockets to further help fund their own retirement benefit. One example of this additional payment is found with the County of Orange, which some years ago contracted with labor groups to have certain employees pay a portion of the employer contribution in what is commonly termed a "reverse pick up.

Fund Performance

Asset Allocation Policy for 2023



Income Strategies – Consist of investments in any income-producing vehicles where most of the returns are coming from income. These investments include a number of sub-asset classes such as public and private debt and royalties.

Global Public Equity – A stock or any other security representing an ownership interest. (Domestic – U.S.; Global – U.S. and developed countries outside the U.S.; International – developed countries outside of the U.S.; Emerging Markets – countries that are less economically developed).

Private Equity – Private equity includes investments in venture capital, buyouts, secondaries and special situations including distressed debt. These assets are illiquid and valuations are not marked to market on a daily basis. Valuations for private equity investments are based on estimates of fair value in accordance with industry standards.

Real Asset – Investments in physical or tangible assets that have a value due to their substance and properties. Real assets consist of both private and public securities, and include both equity and debt-oriented investments. Real assets include a number of sub-asset classes including agriculture, energy, timber, infrastructure, and real estate.

Risk Mitigation – investments aimed at protecting OCERS' portfolio during severe equity market downturns with a secondary objective of producing an uncorrelated positive real return in the long-term.

Unique Strategies – An investment that can have characteristics representative of any asset class, wholly or blended. These investments are designed to achieve rates of return consistent with or in excess of the actuarial expected rate of return with low correlation to other portfolio holdings. Often these investments are private, and valuations may be based on estimates of fair value in accordance with industry standards.

Asset Allocation Policy

After experiencing a 7.84% decline in 2022 amidst a broad market sell-off following seven interest rate hikes by the Fed (from 0.25% to 4.5%), OCERS' portfolio rebounded in 2023, finishing the year with an 11.44% gain net of fees. OCERS ranked in the 49th percentile among pension plans in its peer group for the year and in the top 13th, 34th and 33rd percentile over the 3-, 5-, and 10-year periods. The portfolio closed the year with a market value of \$22.3 billion, up from \$20.4 billion in 2022. As of December 31st, 2023, the portfolio delivered annualized returns of 6.18%, 8.81%, and 6.91% over the 3-, 5-, and 10-year periods, respectively. The policy benchmark achieved returns of 6.19%, 8.51%, and 7.07% over the same periods.

Overall, 2023 proved robust for public equities, driven by better-than-expected corporate earnings, the continued strength of the U.S. consumer due to a strong labor market, and moderating inflation. Within OCERS' portfolio, Global Public Equity led with a return of 22.89%, outperforming the MSCI ACWI IMI benchmark return of 21.58%. OCERS' private real assets portfolio returned an impressive 12.23% during the year as energy and infrastructure assets benefitted from the higher inflationary environment. OCERS' real estate portfolio struggled in 2023 declining 10.46% as the higher interest rates caused real estate cap rates to increase. This resulted in real estate valuations declining in 2023. OCERS' private equity portfolio returned 2.47% during 2023.

OCERS' strong performance in 2023 underscores the investment team's dedication to a strategy emphasizing diversified exposure to long-term, rewarding risk factors. It also highlights the importance of maintaining strategic allocation despite short-term market volatility.

¹InvestorForce peer rankings are for defined benefit public funds over \$1 billion in assets.

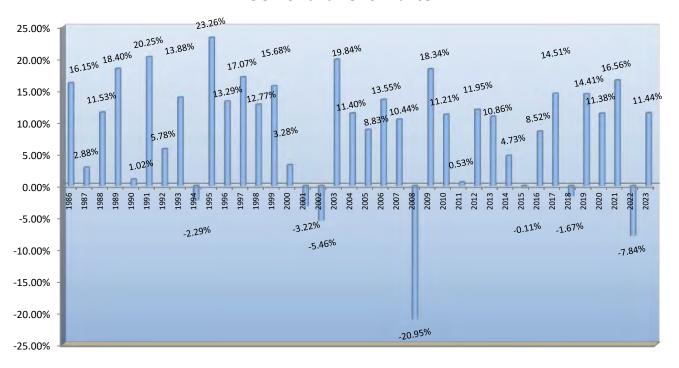
OCERS' Fund Performance by Calendar Years 1987 – 2023

As of Dec. 31	Return	Assumed Rate of Return
1987	2.88%	7.25%
1988	11.53%	7.25%
1989	18.40%	7.50%
1990	1.02%	7.50%
1991	20.25%	8.00%
1992	5.78%	8.00%
1993	13.88%	8.00%
1994	-2.29%	8.00%
1995	23.26%	8.00%
1996	13.29%	8.00%
1997	17.07%	8.00%
1998	12.77%	8.00%
1999	15.68%	8.00%
2000	3.28%	8.00%
2001	-3.22%	8.00%
2002	-5.46%	8.00%
2003	19.84%	7.50%
2001	11.40%	7.75%

As of Dec. 31	Return	Assumed Rate of Return
2005	8.83%	7.75%
2006	13.55%	7.75%
2007*	10.44%	7.75%
2008	-20.95%	7.75%
2009	18.34%	7.75%
2010	11.21%	7.75%
2011	.53%	7.75%
2012	11.95%	7.25%
2013	10.86%	7.25%
2014	4.73%	7.25%
2015	-0.11%	7.25%
2016	8.52%	7.25%
2017	14.51%	7.00%
2018	-1.67%	7.00%
2019	14.41%	7.00%
2020	11.38%	7.00%
2021	16.56%	7.00%
2022	-7.84%	7.00%
2023	11.44%	7.00%

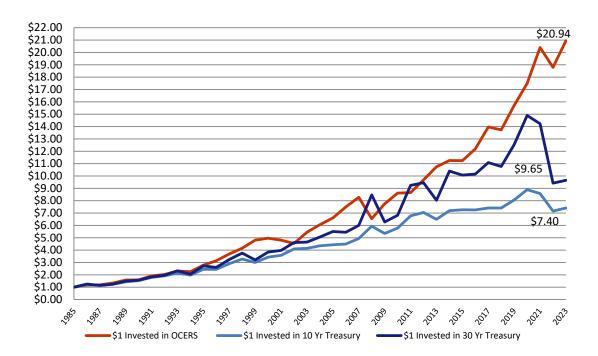
^{*}As of 2007, returns are presented net of fees.

OCERS Fund Performance



Growth of a Dollar in OCERS Compared to Treasury Bonds 1985 – 2023

	\$1 Invested in OCERS	\$1 Invested in 10 Yr Treasury	\$1 Invested in 30 Yr Treasury
1985	\$1.00	\$1.00	\$1.00
1986	\$1.16	\$1.20	\$1.25
1987	\$1.19	\$1.16	\$1.15
1988	\$1.33	\$1.23	\$1.24
1989	\$1.58	\$1.44	\$1.49
1990	\$1.59	\$1.53	\$1.56
1991	\$1.91	\$1.80	\$1.84
1992	\$2.03	\$1.91	\$1.96
1993	\$2.31	\$2.14	\$2.32
1994	\$2.25	\$1.97	\$2.04
1995	\$2.78	\$2.44	\$2.72
1996	\$3.15	\$2.44	\$2.60
1997	\$3.68	\$2.90	\$3.24
1998	\$4.16	\$3.27	\$3.76
1999	\$4.81	\$3.00	\$3.20
2000	\$4.96	\$3.43	\$3.84
2001	\$4.80	\$3.57	\$3.97
2002	\$4.54	\$4.09	\$4.61
2003	\$5.44	\$4.15	\$4.65
2004	\$6.06	\$4.35	\$5.06
2005	\$6.60	\$4.44	\$5.50
2006	\$7.49	\$4.50	\$5.44
2007	\$8.27	\$4.94	\$5.99
2008	\$6.54	\$5.94	\$8.47
2009	\$7.74	\$5.35	\$6.27
2010	\$8.61	\$5.78	\$6.82
2011	\$8.65	\$6.76	\$9.24
2012	\$9.69	\$7.05	\$9.46
2013	\$10.74	\$6.50	\$8.04
2014	\$11.25	\$7.19	\$10.40
2015	\$11.24	\$7.26	\$10.07
2016	\$12.19	\$7.25	\$10.15
2017	\$13.96	\$7.40	\$11.08
2018	\$13.73	\$7.40	\$10.77
2019	\$15.71	\$8.06	\$12.54
2020	\$17.50	\$8.89	\$14.90
2021	\$20.39	\$8.58	\$14.23
2022	\$18.79	\$7.15	\$9.42
2023	\$20.94	\$7.40	\$9. 65



Revenue

Member and Employer Contributions and Investment Income and Losses to Pension Trust

Year	Member Contributions	Employer Contributions (Cash Payments Only to Pension Trust)	Employer Contributions from POB Funds*	Investment Income (Losses)
1998	\$50,557,000	\$17,977,000	\$42,020,000	\$493,491,000
1999	\$55,693,000	\$17,591,000	\$47,129,000	\$685,178,000
2000	\$61,179,000	\$15,561,000	\$48,555,000	\$45,284,000
2001	\$68,635,000	\$12,060,000	\$41,319,000	(\$149,858,000)
2002	\$77,917,000	\$13,289,000	\$65,180,000	(\$269,188,000)
2003	\$81,581,000	\$124,243,000	\$26,209,000	\$789,086,000
2004	\$81,931,000	\$194,430,000	\$3,579,000	\$569,000,000
2005	\$107,544,000	\$226,130,000	\$9,675,000	\$461,980,000
2006	\$137,582,000	\$277,368,000	\$11,000,000	\$830,200,000
2007	\$159,476,000	\$326,736,000	\$11,000,000	\$784,961,000
2008	\$172,291,000	\$360,365,000	\$12,600,000	(\$1,596,776,000)
2009	\$171,928,000	\$338,387,000	\$34,900,000	\$1,064,855,000
2010	\$177,929,000	\$372,437,000	\$11,000,000	\$888,542,000
2011	\$183,820,000	\$387,585,000	\$11,000,000	\$50,456,000
2012	\$191,215,000	\$406,521,000	\$5,500,000	\$1,004,770,000
2013	\$209,301,000	\$427,095,000	\$5,000,000	\$1,152,647,000
2014	\$232,656,000	\$625,520,000	\$5,000,000	\$499,195,000
2015	\$249,271,000	\$571,298,000	\$0	(\$10,873,000)
2016	\$258,297,000	\$567,196,000	\$0	\$1,061,243,000
2017	\$262,294,000	\$572,104,000	\$0	\$1,939,635,000
2018	\$270,070,000	\$580,905,000	\$0	(\$324,628,000)
2019	\$279,373,000	\$653,793,000	\$0	\$2,183,808,000
2020	\$279,384,000	\$659,807,000	\$5,000,000	\$2,173,184,000
2021	\$271,334,000	\$698,791,000	\$15,077,000	\$3,222,065,000
2022	\$269,999,000	\$719,691,000	\$14,462,000	(\$2,058,590,000)
2023	\$277,455,000	\$749,776,000	\$10,000,000	\$2,325,481,000



^{*} In September 1994, the County of Orange issued \$320 million in Pension Obligation Bonds (POB's) of which \$318.3 million in proceeds were paid to OCERS to fund the County's portion of the Unfunded Actuarial Accrued Liability (UAAL). For accounting purposes, OCERS maintains the proceeds for the POBs in the County Investment Account. OCERS and the County of Orange, a single participating district, entered into an agreement which provided an offsetting credit based upon an amount actuarially determined to deplete the County Investment Account over the then remaining UAAL amortization period. The County determines annually how the account will be applied to contribution requirements.

Fund Status 41

Fund Status

OCERS' independent actuary, Segal Consulting, performed an actuarial valuation as of December 31, 2023 and determined that OCERS' funding ratio of actuarial assets to the actuarial accrued liability is 82.63%, which increased from the prior's year's funded status of 81.51%. (See *The Evolution of OCERS UAAL* at ocers.org)

OCERS' Funded Status by Calendar Years 1988 – 2023

(Dollars in thousands)

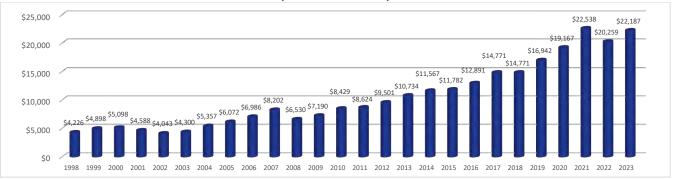
		, , , ,	Total Unfunded		
Actuarial		Actuarial Accrued	Actuarial Accrued		
Valuation Date Dec. 31	Valuation Value of Assets (VVA) (a)	Liability (AAL) (b)	Liability (UAAL) (b) - (a)	Funded Ratio (a) / (b)	Investment Returns/(Losses)
2023	\$22,135,285	\$26,788,041	\$4,652,756	82.63%**	11.44%
2022	\$20,691,659	\$25,386,669	\$4,695,010	81.51%	-7.84%
2021	\$19,488,761	\$24,016,073	\$4,527,312	81.15%	16.56%
2020	\$17,525,117	\$22,904,975	\$5,379,858	76.51%	11.38%
2019	\$16,036,869	\$21,916,730	\$5,879,861	73.17%	14.41%
2018	\$14,994,420	\$20,703,349	\$5,708,929	72.43%	-1.67%
2017	\$14,197,125	\$19,635,427	\$5,438,302	72.30%	14.51%
2016	\$13,102,978	\$17,933,461	\$4,830,483	73.06%	8.52%
2015	\$12,228,009	\$17,050,357	\$4,822,348	71.72%	-0.11%
2014	\$11,449,911	\$16,413,124	\$4,963,213	69.76%	4.73%
2013	\$10,417,125	\$15,785,042	\$5,367,917	65.99%	10.86%
2012	\$9,469,208	\$15,144,888	\$5,675,680	62.52%	11.95%
2011	\$9,064,355	\$13,522,978	\$4,458,623	67.03%	0.53%
2010	\$8,672,592	\$12,425,873	\$3,753,281	69.79%	11.21%
2009	\$8,154,687	\$11,858,578	\$3,703,891	68.77%	18.34%
2008	\$7,748,380	\$10,860,715	\$3,112,335	71.34%	-20.95%
2007*	\$7,288,900	\$9,838,686	\$2,549,786	74.08%	10.44%
2006	\$6,466,085	\$8,765,045	\$2,298,960	73.77%	13.55%
2005	\$5,786,617	\$8,089,627	\$2,303,010	71.53%	8.83%
2004	\$5,245,821	\$7,403,972	\$2,158,151	70.85%	11.40%
2003	\$4,790,099	\$6,099,433	\$1,309,334	78.53%	19.84%
2002	\$4,695,675	\$5,673,754	\$978,079	82.76%	-5.46%
2001	\$4,586,844	\$4,843,899	\$257,055	94.69%	-3.22%
2000	\$4,497,362	\$4,335,025	(\$162,337)	103.74%	3.28%
1999	\$3,931,744	\$4,017,279	\$85,535	97.87%	15.70%
1998	\$3,504,708	\$3,682,686	\$177,978	95.17%	12.77%
1997	\$3,128,132	\$3,332,967	\$204,835	93.85%	17.07%
1996	\$2,675,632	\$2,851,894	\$176,262	93.82%	13.29%
1995	\$2,434,406	\$2,633,884	\$199,478	92.43%	23.26%
1994	\$2,177,673	\$2,550,059	\$372,386	85.40%	-2.29%
1993	\$2,024,447	\$2,305,019	\$280,572	87.83%	13.88%
1992	\$1,807,319	\$2,140,081	\$332,763	84.45%	5.78%
1991	\$1,567,131	\$1,763,894	\$196,763	88.84%	20.25%
1990	\$1,297,575	\$1,840,915	\$543,340	70.49%	1.02%
1989	\$1,136,210	\$1,651,988	\$515,778	68.78%	18.40%
1988 *^a of 2007, reduces	\$985,030	\$1,453,858	\$468,828	67.75%	11.53%

^{*}As of 2007, returns are presented net of fees

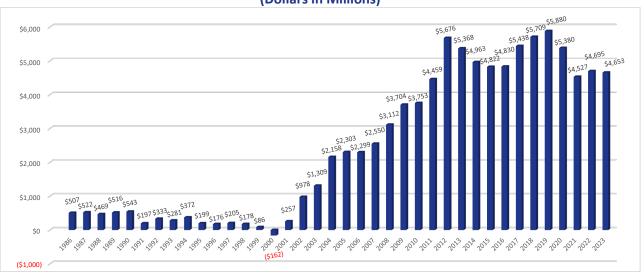
^{**} Note: On a market value basis OCERS' funded status is 80.76%

Growth of System Net Investments at Fair Value

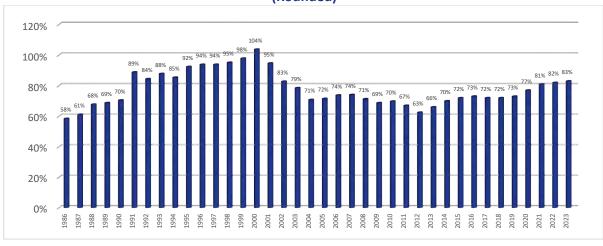
(Dollars in Millions)



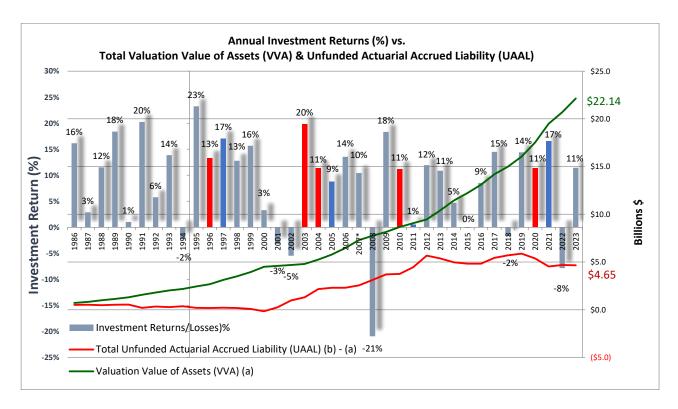
Unfunded Actuarial Accrued Liabilities (UAAL) (Dollars in Millions)



Funded Ratio by Calendar Years (Rounded)



Fund Status 43



This chart demonstrates how positive earnings in most years will cause the Unfunded Actuarial Accrued Liability (UAAL) to decrease. Interestingly this chart also illustrates how the UAAL can grow larger even when the pension fund's investment portfolio returns are positive.

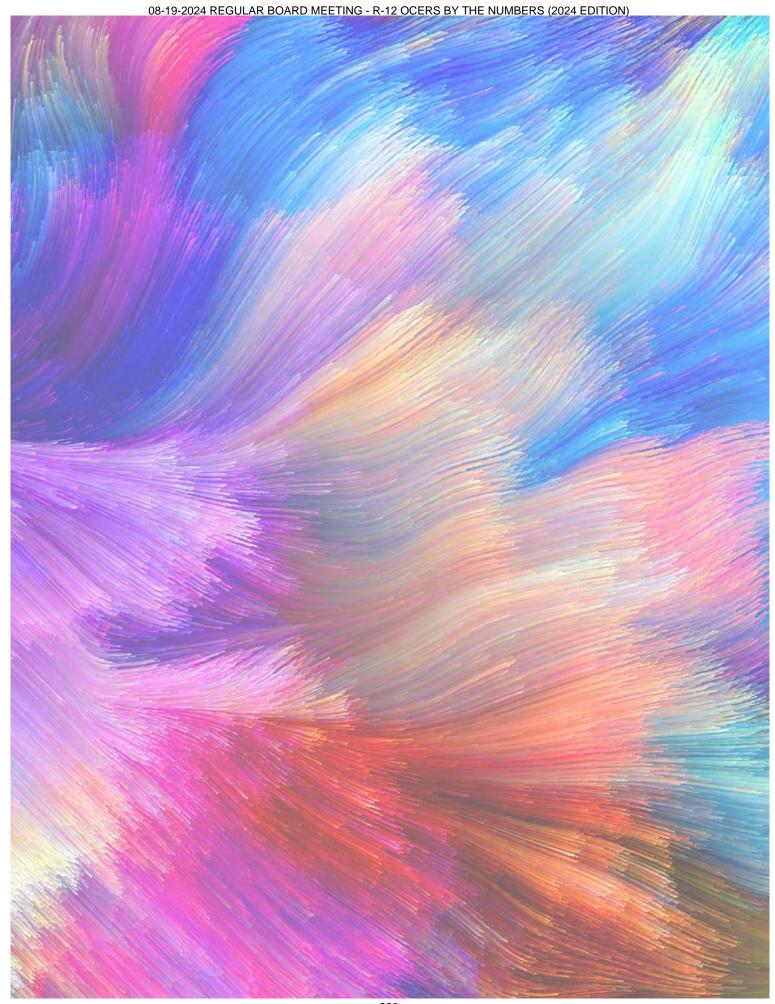
First, we need a definition for the UAAL. It simply means that the value of the retirement benefits promised by employers is larger than the actual dollars the retirement system has on hand. The difference between the two is called the UAAL. Having a UAAL is not a bad thing, a retirement system does not need to have in the bank today every benefit dollar that will ever be paid out in the coming 10, 20, 30 years or more. It is much like a parent saving for his or her child's college education. All the dollars required to pay that future obligation do not need to be in the parent's bank account today. In fact, the parent is planning on including the returns from sound investments to help meet that future obligation.

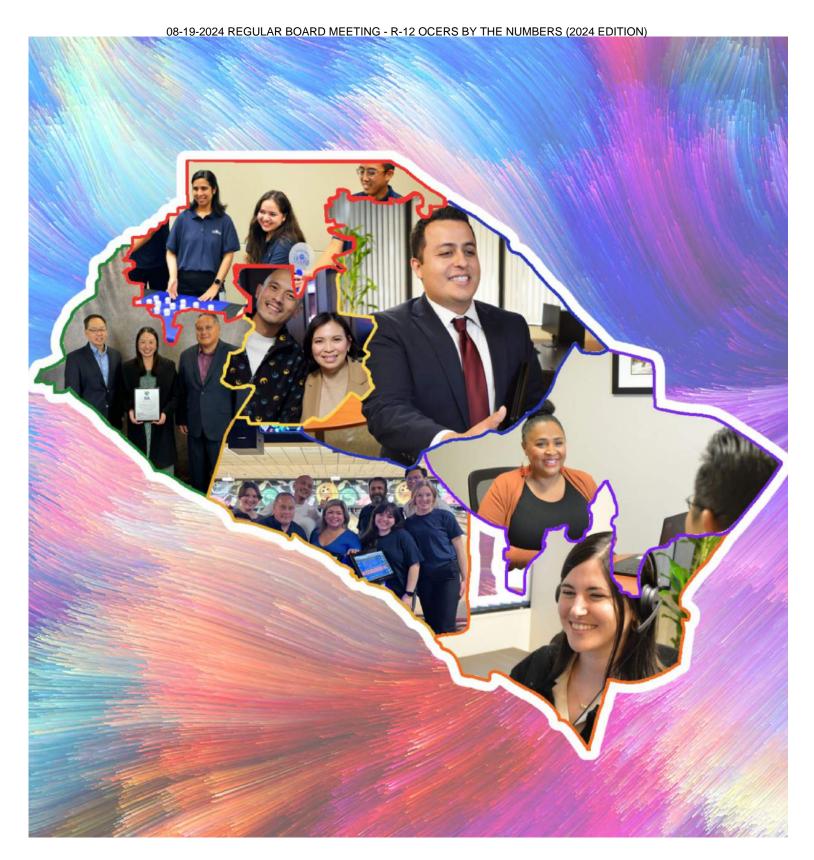
OCERS has a plan in place to pay off the UAAL in 20-year increments. That plan includes an expectation that the OCERS portfolio will earn on average 7.00% each calendar year, while each employer and individual member in turn continues to pay the monthly contribution required of them by OCERS' actuary. It's good to note here that no OCERS employer or individual OCERS member has ever failed to make the annual actuarially required contribution to the OCERS retirement system.

While it is fairly easy to understand that when the portfolio does not earn its expected 7.00% in a year, that will cause the UAAL to grow, how is it possible for the UAAL to grow even in years where the portfolio earnings are at least positive? Note the chart above. The blue bars indicate how much OCERS earned on its investment portfolio each calendar year. The green line measuring total assets held in the portfolio is doing well and growing strongly because of those many good years. The red line tracks the rise and fall of the UAAL. The few red bars indicate when the portfolio actually lost money. In those years with the red bars, as you would expect, you can see an uptick in the UAAL as measured by the red line. But back to our basic question, how is it that even in some good years you can see a rise in the UAAL as tracked by that red line?

Two basic reasons – in some years, such as 2011, even though the earnings bar is blue, it is barely blue. Positive returns yes, but since it was not enough to meet the earnings expectation in that year, there was an uptick in the UAAL. The other cause can occur when there is a change made to a basic assumption. 2012 is a good example of that – a strong blue bar representing a 12% return; easily beating our then expected 7.75%. However, in that same year of 2012 we lowered what we assumed could be earned in future years from 7.75% to 7.25% so the UAAL rose. If a parent saving for their child's college education is expecting to earn 7.75% on their savings account suddenly learns the bank is only crediting 7.25% in the future, the parent won't have enough dollars in that account when the child finally reaches the big day. So too with OCERS, by lowering its assumed earnings rate for future years in 2012 the red line had to tick upward despite the good earnings in that year to account for the fact that OCERS had to anticipate fewer future dollars would be gained from investment earnings.

Fund Status







Orange County Employees Retirement System

P.O. Box 1229 Santa Ana, CA 92702 714.558.6200

www.ocers.org



Memorandum

DATE: August 19, 2024

TO: Members of the Board of Retirement

FROM: Steve Delaney, Chief Executive Officer

SUBJECT: THE EVOLUTION OF OCERS UAAL (2024 EDITION)

The Evolution of the UAAL document has been produced annually since 2009 to assist our members and the public to better understand how unfunded liabilities can develop over time, and how public pension systems such as OCERS manager the long term in order to pay for those liabilities.

Revised in August of each year following the release of the annual actuarial valuation, this 2024 edition is based on the Actuarial Valuation of December 31, 2023.

Submitted by:



SD - Approved

Steve Delaney Chief Executive Officer



The Evolution of OCERS Unfunded Actuarial Accrued Liability

Steve Delaney, CEO

December 31, 2023 Valuation

The Evolution of OCERS Unfunded Actuarial Accrued Liability

The Orange County Employees Retirement System (OCERS) is a public pension plan providing a defined benefit life-time pension to many of Orange County's diverse community of public servants – from firefighters and deputy sheriffs to bus drivers and court clerks.

OCERS conducts an annual valuation of the OCERS Trust Fund to determine its current economic status. In the most recent valuation, for the period ending December 31, 2023, the system's professional actuary (The Segal Group) calculated the Unfunded Actuarial Accrued Liability (UAAL) of the fund to be approximately \$4.65 billion. At the start of the millennium, as of December 31, 2000, there was no UAAL at all, the system being more than 100% funded. The drivers and components that contributed to the evolution of OCERS' current UAAL are the subjects of this paper.

WHAT IS AN UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL)?

UAAL is the difference between the actuarial accrued liability and the actuarial value of assets accumulated to finance a public pension. In simpler terms, if you compare the cost of OCERS' pension promises with the value of OCERS' assets, the promises currently exceed the assets. That shortfall is OCERS' Unfunded Actuarial Accrued Liability.

Assuming no change in the underlying pension benefit formulas, a fully funded pension system with no UAAL (as was the case for OCERS in 2000), generally means that all of the actuary's assumptions as to the cost of benefits and growth of liabilities have been met, and the present value of the system's accumulated assets are sufficient to pay out all of the pension promises to our members.

But how does a public pension plan accrue the necessary funds for paying out benefits, and how can that process lead to a gap between the amount of assets held, and the present value of those future benefits?

A pension system's approach to building its assets in order to pay future benefits is not unlike the approach taken by many families saving for their children's college education. If you expect your child's education is going to cost \$100,000 eighteen years from now, you have three basic options:

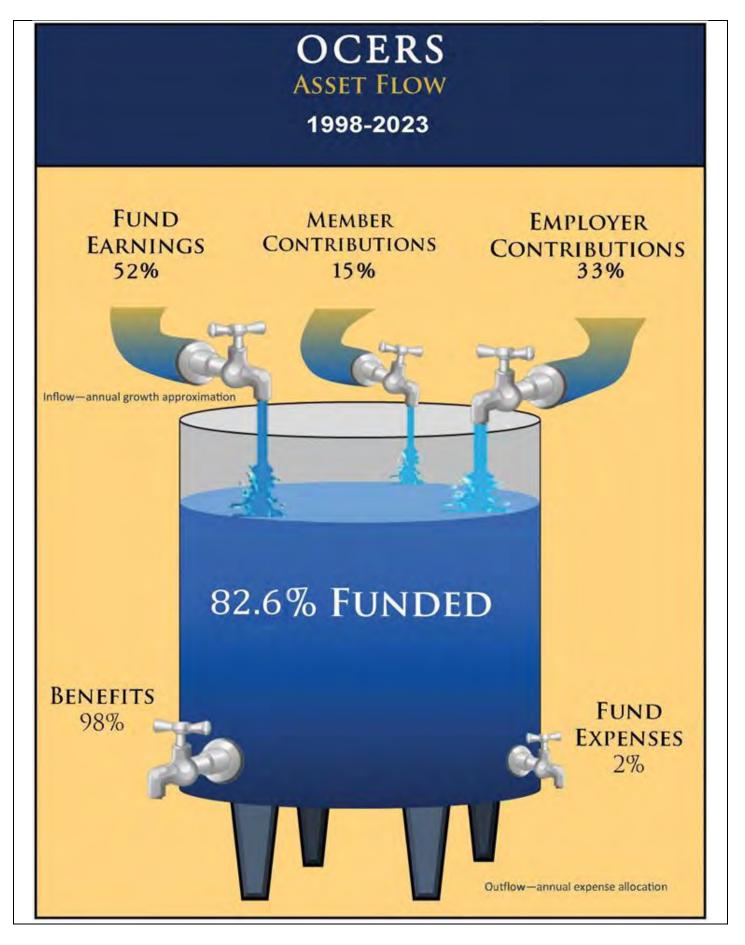
- (1) You could deposit a single lump sum amount representing the present value of that future cost into a savings account, similar to an endowment or trust, calculated to grow with sufficient earnings to total \$100,000.
- (2) You could save over time, depositing a certain percent of the salary you earn each year into an account and again assume that sufficient interest earnings will accrue to fully fund the cost when the big day arrives.
- (3) You could wait until the child turns 18 and pull from your available resources at that time to pay the entire \$100,000 in a single payment.

Public pension plans face similar choices in determining the best method for accruing sufficient resources to fund a member's benefit at retirement. Like most American families, the majority of public pension plan systems choose Option 2 and pay a level percent of salary each year, in order to gradually grow the amount needed to fund future retirements.

Determining how much to contribute each year is a primary challenge for any public pension system. For that reason, public pension plans use the expertise of a professional actuary to assist in planning the funding of those retirement benefits over the long term, allowing investment earnings on the contributions to fund the majority of the pension costs. In Orange County those investment earnings provide the largest portion of retirement benefits being paid, greatly reducing the cost to Orange County's employees and taxpayers in providing public services to our community.

The job of a pension plan actuary includes estimating (or assuming) how much money should be contributed each year so the plan will have enough funds to pay the benefits promised by the plan throughout the lifetime of the member. The year-to-year stream of contributions should be as smooth and consistent as possible to avoid wreaking havoc on the budget of the employer.

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The graphic on page 3 shows a snapshot of OCERS' funded status as of December 31, 2023, while the representation of cash inflows and outflows reflect the period of 1998 through 2023.

HOW DID OCERS' CURRENT UAAL DEVELOP?

The long-term cost of retiree benefits is based on a host of variables, the future values of which are unknown. Many different events can cause a UAAL to develop or even disappear. While actuaries try to pin down these variables through the use of best or at least reasonable assumptions and professional methodologies, the unexpected should be expected to occur.

There are six assumptions in particular that have the greatest impact on the actuary's estimates of plan funding:

- 1. The assumed rate of return on investments
- 2. The rate of increase in salaries for actives and the change in cost-of-living-adjustment (COLA) for retirees
- 3. Member mortality
- 4. The age at which members choose to retire
- 5. How many members become disabled
- 6. How many members terminate their service earlier than anticipated

Finally, there are two other events that can have great impact on plan funding, events the actuaries can't anticipate:

- (1) plan changes, that is, when a benefit formula is changed in some unanticipated manner by the employer, and
- (2) differing actual experience, that is, when actual experience indicates that previous assumptions must be modified to reflect a more current reality. A key example here is life expectancy, which with the continued advances in medicine challenges actuaries in being able to accurately project average life expectancies in the coming decades.

Either of those two events will generally have an "unfunded" impact on the cost of the system, though savings can occur as well, as in fact happened in the period of 2009 through 2012 with a slowing in projected salary increases due to the challenging economic times.

First, a summary history of OCERS' UAAL as well as the plan's funded status:

(In 000's)

Actuarial Valuation Date	Valuation Value	Total Unfunded Actuarial	Funded Ratio
December 31	of Plan Assets	Accrued Liability (UAAL)	runded Katio
1985	\$613,863	\$462,121	57.05%
1986	\$713,506	\$507,409	58.44%
1987	\$821,884	\$522,098	61.16%
1988	\$985,030	\$468,828	67.75%
1989	\$1,136,210	\$515,778	68.78%
1990	\$1,297,575	\$543,340	70.49%
1991	\$1,576,131	\$196,763	88.84%
1992	\$1,807,319	\$332,763	84.45%
1993	\$2,024,447	\$280,572	87.83%
1994	\$2,177,673	\$372,386	85.40%
1995	\$2,434,406	\$199,478	92.43%
1996	\$2,675,632	\$176,262	93.82%
1997	\$3,128,132	\$204,835	93.85%
1998	\$3,504,708	\$177,978	95.17%
1999	\$3,931,744	\$85,535	97.87%
2000	\$4,497,362	(\$162,337)	103.74%
2002	\$4,695,675	\$978,079	82.76%
2003	\$4,790,099	\$1,309,334	78.53%
2004	\$5,245,821	\$2,158,151	70.85%
2005	\$5,786,617	\$2,303,010	71.53%
2006	\$6,470,000	\$2,298,960	73.77%

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Actuarial Valuation Date December 31	Valuation Value of Plan Assets	Total Unfunded Actuarial Accrued Liability (UAAL)	Funded Ratio
2007	\$7,288,900	\$2,549,786	74.08%
2008	\$7,748,380	\$3,112,335	71.34%
2009	\$8,154,687	\$3,703,891	68.77%
2010	\$8,672,592	\$3,753,281	69.79%
2011	\$9,064,355	\$4,458,623	67.03%
2012	\$9,469,208	\$5,675,680	62.52%
2013	\$10,417,125	\$5,367,917	65.99%
2014	\$11,449,911	\$4,963,213	69.76%
2015	\$12,228,009	\$4,822,348	71.72%
2016	\$13,102,978	\$4,830,483	73.06%
2017	\$14,197,125	\$5,438,302	72.30%
2018	\$14,994,420	\$5,708,929	72.43%
2019	\$16,036,953	\$5,879,861	73.17%
2020	\$17,525,117	\$5,379,858	76.51%
2021	\$19,488,761	\$4,527,312	81.15%
2022	\$20,691,659	\$4,695,010	81.51%
2023	\$22,135,285	\$4,652,756	82.63%

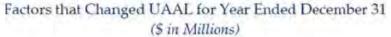
As shown in the table above, the annual calculation of OCERS' UAAL can swing dramatically from year to year, such as **1990-91** when the UAAL shrank from \$543 million to \$196 million, a reduction of nearly 40% in a single year due primarily to the remarkable earnings of that year (1991: 20.25%); or **2002-03** when the UAAL grew from \$978 million to \$1.3 billion, an increase of approximately 30% reflecting both assumption and benefit changes the year before, as well as the delayed recognition of some heavy investment losses incurred in the three prior years.

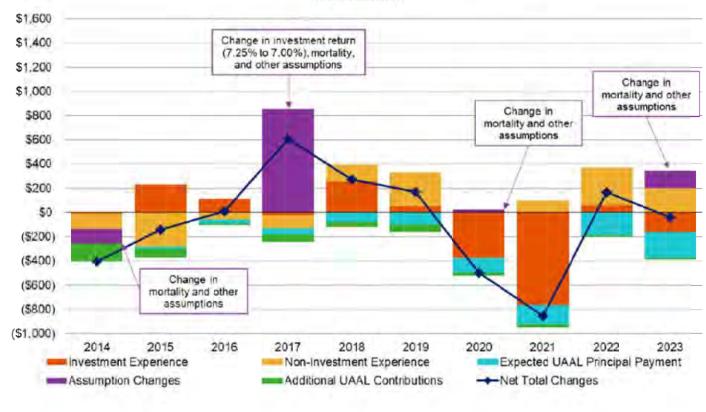
FACTORS THAT CHANGED THE UAAL

The bar chart that follows on the next page illustrates on a single chart some of the same historical factors that have caused changes in OCERS' UAAL amounts since 2000 as reported in this document. Among the factors that have had a negative impact (i.e., increase in OCERS' UAAL) are reductions in the investment rate assumption, improvement in mortality, and certain periods of unfavorable investment experience such as during the Great Recession. Of course, such negatives are somewhat offset by positive factors (i.e., decrease in OCERS' UAAL) such as smaller salary increases received by active members and smaller cost-of-living increases received by retirees and beneficiaries than those expected under the actuarial assumptions. And of course, good investment returns such as 2017, 2019, and 2021 when the fund returned more than double the assumed rate of 7%.

It is important to note that OCERS has taken significant strides in risk management over this same time period resulting in long-term plan sustainability. This includes strengthening of assumptions, particularly the expected return discount rate, and adopting a funding policy that eliminates negative amortization and promotes intergenerational equity. These changes may result in higher UAAL and associated contributions in the short term, but in the medium to long term avoid both deferring contributions and unmanaged growth in the UAAL. Such decisions are essential for OCERS' fiscal health in the many decades to come.

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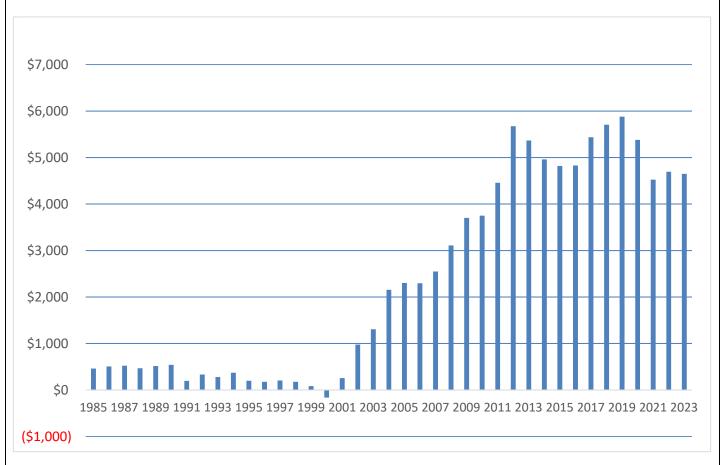




A VISUAL REVIEW OF THE UAAL HISTORY

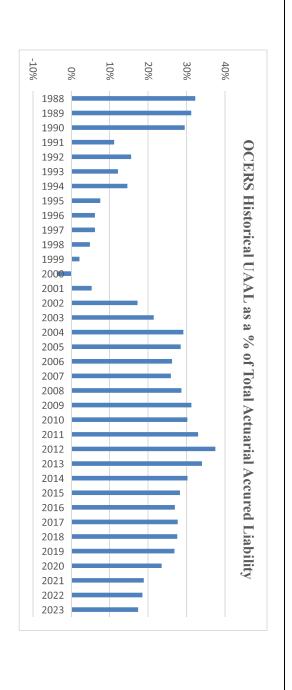
Two different approaches to viewing the UAAL in context of the OCERS Fund are displayed in the following tables. In the first table the historical amount of UAAL is displayed, reflecting the growth of the UAAL in total dollars. Identifying trends and determining how best to address the cautionary tale being shared is an important task of any decision maker when it comes to pension design.

OCERS Total UAAL (Dollars in Millions)



In the following table, the UAAL is now reflected as a percentage of the total actuarial accrued liability, both funded and unfunded, to put it into perspective. This is an important point to keep in mind as the OCERS plan continues to mature over time. Note for example that while the total UAAL increased in 2010 by approximately \$50 million dollars, the funded ratio of the plan actually improved, as the total assets available to pay the plan's liabilities increased at an even faster rate.

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CONCLUSION

variability of life and its vagaries. OCERS is designed specifically to allow time to exercise its smoothing effect on the costs associated with the recognizing that in 2023 our average member retired with approximately 23 years of service (both general and safety). durable trends in experience. Because public pension plans such as OCERS take a very long view of the time horizon, experience. Rather, actuarial assumptions are typically changed only following careful assessment of ongoing and make their assumptions. They do not often adjust their assumptions in response to year-to-year fluctuations in actual experience) often change and have a major impact on the system's future costs. Actuaries use long economic cycles to As this review has shown, both past experience and assumptions (that try to predict the future using that past

years, composed of the many smaller decisions made year after year, and determining the course of the UAAL time. Once the initial event is priced into the cost of the plan, then it is the plan as a whole that gets valued in future individual life choices that will impact the ultimate cost, either positively or negatively, over a very long period of ultimate cost might truly be? Not really. The OCERS plan is large and complex, with over 50,000 members making available at the time to prepare that projection. Can we track that specific change in the plan design to see what the that benefit adjustment be \$365 million? Not likely. But it was an estimate developed using the best assumptions liabilities to be paid out, and creating an immediate increase in the UAAL of \$365 million. Will the ultimate cost of number of key benefit formulas were changed by the employer, leading to a change in the projection regarding future prove different from actual experience. An example of this was the increase in benefits that occurred in 2004, when a cannot show what the specific long-term impact of that same event may be in later years should the initial assumption on future liability projections using the assumptions adopted by the OCERS Board as of that measurement date. It keep in mind that the actuary can only show from one year to the next what the initial impact a given event may have While this document tracks the evolution of the OCERS UAAL as it has developed especially since the year 2000,

surpluses will be captured in improved assumptions and appropriate contribution rates over time, ensuring a secure financial foundation for the promises made to Orange County's public servants. will include both positive (as was the case most recently in 2016) and negative (such as in 2008) amounts in the short annually based upon actual experience. Under a well-structured plan with conservative assumptions, the deviations such as the fixed amount of your home mortgage but is a fluid estimate that will both rise and fall as it is revised based on many different inputs and assumptions that are all subject to refinement. The UAAL is not an absolute number No matter how one looks at the UAAL, it is important to keep certain points in mind. The UAAL is only an estimate but tend to smooth to the actuary's assumed assumptions over time. The causes of transitory shortfalls and

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YEAR BY YEAR REVIEW: It is current history that has raised the most questions from both employers, members and the public who want to better understand how the current UAAL has evolved over the past couple of decades. In the following pages the data used in calculating the UAAL from calendar year 2000 when OCERS last had a surplus, through 2023, is presented in table format, with commentary on the events of each year that had primary impact on determining if the UAAL rose or fell for that given year.

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Development of UAAL/(Surplus) for Year Ended December 31, 2000

1.	UAAL at beginning of year		\$85,534,716
2.	Total normal cost at middle of year		
3.	Amortization Payment		(6,752,601)
4.	Interest		<u>11,403,640</u>
5.	Expected UAAL		\$90,185,755
6.	Actuarial (gain)/loss and other changes		
	a. Gain on investment	\$(286,267,436)	
	b. Loss on salary increases	24,584,670	
	c. Loss on new retirees	29,186,796	
	d. Gain on mortality	(28,835,682)	
	e. Other experience (gain)/loss	8,809,049	
	f. Benefit improvements		
	g. Change in actuarial assumptions		
	h. Total changes		(252,522,603)
7.	(Surplus) at the end of the year		\$(162,336,848)

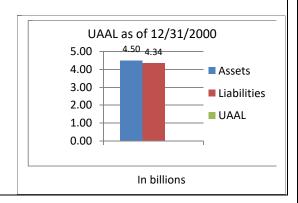
IMPACTING EVENTS

Calendar year 2000 is a key year, and emblematic of how public pension systems are designed to smooth out the highs and lows of plan costs over time, OCERS moves from a UAAL of \$85 million at the start of the year to a surplus of \$162 million as the year comes to a close.

There were no significant changes in Plan provisions in calendar year 2000.

Though total fund returns for 2000 were only 3.28% that exceeded the policy benchmark and ranked OCERS in the top quartile of the Callan Public Employer Database. Altogether the recognition of past and current smoothed earnings lowered the UAAL by over \$286 million.

The actuarial value of assets passed the actuarial value of liabilities in 2000, and the Plan was 103.7% funded at the end of the calendar year.



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Development of UAAL/(Surplus) for Year Ended December 31, 2001

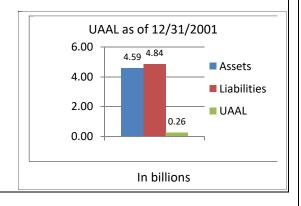
1.	(Surplus) at beginning of year		\$(162,336,848)
2.	Total normal cost at middle of year		
3.	Amortization Payment		(11,193,795)
4.	Interest		<u>7,117,033</u>
5.	Expected UAAL		\$(158,260,086)
6.	Actuarial (gain)/loss and other changes		
	a. Loss on investment	\$221,191,812	
	b. Loss on salary increases	40,447,786	
	c. Loss on new retirees	48,490,180	
	d. Other experience (gain)/loss	19,791,339	
	e. Change in actuarial assumptions	(34,094,126)	
	f. Impact of 3%@50 for Law	119,488,767	
	Enforcement (Safety)		
	g. Total changes		<u>415,315,758</u>
7.	UAAL at the end of the year		\$257,055,672

IMPACTING EVENTS

While not significant, changes to the assumed withdrawal rates, the assumed termination rates, the assumed service-connected disability rates and the assumed retirement rates taken together actually lowered future liabilities by approximately \$34 million.

The change in the retirement benefit for Law Enforcement (safety) members to a 3% per year of service benefit payable at age 50 increased future liability by approximately \$119 million.

The OCERS portfolio experienced a loss of -3.24% in calendar year 2001, with an earnings assumption of 8%. That loss, though smoothed led to an increase of the UAAL by \$221 million.



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Development of UAAL for Year Ended December 31, 2002

1.	UAAL at beginning of year		\$257,055,672
2.	Total normal cost at middle of year		
3.	Amortization Payment		12,123,329
4.	Interest		27,502,107
5.	Expected UAAL		\$296,681,108
6.	Actuarial (gain)/loss and other changes		
	a. Loss on investment	\$220,329,452	
	b. Loss on salary increases	91,886,000	
	c. Loss on new retirees	82,392,000	
	d. Other experience (gain)/loss	48,763,0690	
	e. Change in actuarial assumptions	148,339,453	
	f. Impact of 3%@50 for Firefighters;	89,688,449	
	Probation become Safety under the		
	2%@50 formula retro; 3%@50 fwd.		
	g. Total changes		<u>\$681,398,423</u>
7.	UAAL at the end of the year		\$ 978,079,531

IMPACTING EVENTS

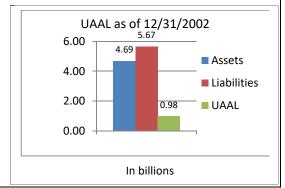
OCERS experienced negative returns in 2002 as did much of the market. A loss of -5.46%, when the assumption was for earnings of 8% led to an effective hit of -13.46% on the funding position of the plan. Even with smoothing in place, more than \$220 million in losses were applied to the UAAL.

With the market having been down for a couple of years in a row, the OCERS Board revisited its earnings assumption and lowered the portfolio's assumed rate of return from 8% annual to 7.5%. That change in earnings assumption indicated there would be lower investment earnings to offset plan costs. Taken together with a lowering of the assumption for future salary increases (when salaries don't grow as fast as anticipated, fewer contributions than anticipated will be flowing to the system) from 5.5% to 4.5% annually, led to a \$148 million increase in the UAAL.

On the benefit side, the formula for firefighters was improved to 3% of final average salary at age 50.

Effective June 28, 2002 Probation Services Unit employees became safety members and started accruing benefits in the 2%@50 retirement plan formula. Tier 1 employees hired prior to July 15, 1977 and who remained continuously employed thru June 28, 2002, had their general member service retroactively upgraded to the safety

plan formula. Tier 2 employees with seven (7) or more years of service, had 90% of their general member service upgraded to the safety plan formula. Tier 2 employees with less than seven (7) years of service, had 80% of their general member service upgraded to the safety plan formula. The County of Orange Probation department paid for the plan upgrade of service as did the employees by paying a 2% share of employer cost. Additionally, all of the Tier 2 employees were given an opportunity to pay the employee and employer contributions necessary to upgrade the remainder of their general service into the safety plan formula.



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Development of UAAL for Year Ended December 31, 2003

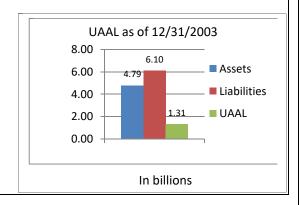
1.	UAAL at beginning of year		\$ 978,079,531
3.	Total normal cost at middle of year		
4.	Amortization Payment		(58,355,527)
5.	Interest (7.5%)		<u>78,359,367</u>
6.	Expected UAAL		\$ 998,083,371
7.	Actuarial (gain)/loss and other changes		
	a. Loss on investment	\$ 287,828,001	
	b. Gain on salary increases	(103,234,000)	
	c. Loss on new retirees	119,420,000	
	d. Other experience (gain)/loss	4,898,374	
	e. Change in actuarial assumptions		
	f. Impact of new formula for City of San	2,337,899	
	Juan Capistrano, and City of Rancho		
	Santa Margarita		
	g. Total changes		<u>311,250,274</u>
8.	UAAL at the end of the year		\$1,309,333,645

IMPACTING EVENTS

Despite a great year for the market, with the OCERS portfolio returning 19.84% in 2003, that wasn't enough to offset the smoothed losses of prior years continuing to be recognized in the valuation, with the UAAL growing by over \$287 million on that basis alone.

Even with the lower salary growth assumption adopted in the previous year, member salaries did not grow as fast as anticipated, so while fewer contributions came in, that was offset by lower growth in pension liabilities, leading to a reduction in the UAAL of \$103 million.

The cities of San Juan Capistrano and Rancho Santa Margarita adopted improved benefit formulas for their general service members, 2.7%@55 for San Juan Capistrano, and 2.5%@55 for Rancho Santa Margarita.



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Development of UAAL for Year Ended December 31, 2004

1.	UAAL at beginning of year		\$1,309,334,000
2.	Changes in methods and procedures		106,630,000
3.	Total normal cost at middle of year		188,163,000
4.	Actual employer/member contributions		(279,940,000)
5.	Interest		<u>102,756,000</u>
6.	Expected UAAL		\$1,426,943,000
7.	Actuarial (gain)/loss and other changes		
	a. Gain on investment	\$(50,536,000)	
	b. Other experience (gain)/loss	19,372,000	
	c. Benefit improvements	365,409,000	
	d. Change in actuarial assumptions	579,681,000	
	e. Change to 3.5% inflation assumption	33,129,000	
	and Entry Age Normal funding		
	method		
	f. Change in investment return	(<u>215,487,000)</u>	
	g. Total changes		<u>731,208,000</u>
8.	UAAL at the end of the year		\$2,158,151,000

IMPACTING EVENTS

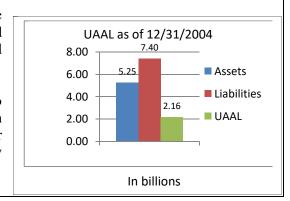
Two major events occurred in 2004, a change in actuarial services from Towers Perrin to The Segal Group led to a review and change in actuarial methods, procedures, and assumptions. There were also several retirement benefit formula improvements

Moving from one actuary to another is an uncommon event The change in valuation methods and procedures between Towers Perrin and The Segal Group led to an increase in the UAAL of \$107 million. 2004 is the only year you will find the "Changes in Methods and Procedures" line entry capturing the impact of that change in this document.

In addition to reflecting a change in methods and procedures, the 2004 valuation also includes a number of basic actuarial assumption changes regarding future salary increases, rates of withdrawal at termination, and rates of retirement. Those changes added an additional \$580 million to the UAAL.

An improvement in benefits as Probation members adopted the 3%@50 formula, Orange County Sanitation District adopted 2.5%@55, and The County of Orange general members adopted 2.7%@55, increased the UAAL by \$365 million.

A gain for the fund was the recognition that the current portfolio composition would earn an assumed rate of return of 7.75%, an increase over the previous 7.5%. That assumption that greater earnings would assist in offsetting costs lowered the UAAL by \$215 million.



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Development of UAAL for Year Ended December 31, 2005

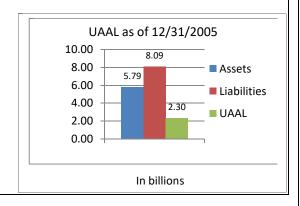
1.	UAAL at beginning of year		\$2,158,151,000
2.	Total normal cost at middle of year		297,420,000
3.	Actual employer/member contributions		(345,111,000)
4.	Interest		<u>165,409,000</u>
5.	Expected UAAL		\$2,275,869,000
6.	Actuarial (gain)/loss and other changes		
	a. Gain on investment	\$(39,536,000)	
	b. Loss on salary increases	16,544,000	
	c. Change in methodology used to	(15,335,000)	
	calculate benefits for deferred vested		
	members		
	d. Other experience (gain)/loss	65,468,000	
	e. Benefit improvements		
	f. Change in actuarial assumptions		
	g. Total changes		<u>27,141,000</u>
7.	UAAL at the end of the year		\$2,303,010,000

IMPACTING EVENTS

2005 is an example of how over the long term a defined benefit plan experiencing a period of rising costs can correct itself and move to a more stable norm. Though the UAAL rose just over \$27 million in 2005, which was smaller as a percentage than the positive rise in the overall size of the portfolio, causing the funded status of the plan to improve from 70.85% at the start of the year, to 71.53% by the end of the year.

A positive return on the OCERS portfolio of 8.83%, exceeding the assumed earnings rate of 7.75%, allowed for application of a portion (after smoothing) of those investment gains to offset some larger losses where the economic and demographic experience through 2005 was negatively different from the actuarial assumptions.

A change in actuarial methodology used in calculating benefits for deferred vested members with reciprocal service led to a reduction in the UAAL of \$15 million.



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Development of UAAL for Year Ended December 31, 2006

1.	UAAL at beginning of year		\$2,303,010,000
2.	Total normal cost at middle of year		300,072,000
3.	Actual employer/member contributions		(425,950,000)
4.	Interest		<u>173,606,000</u>
5.	Expected UAAL		\$2,350,738,000
6.	Actuarial (gain)/loss and other changes		
	a. Gain on investment	\$(112,612,000)	
	b. Loss on salary increases	21,679,000	
	c. Other experience (gain)/loss	39,155,000	
	d. Benefit improvements		
	e. Change in actuarial assumptions		
	f. Total changes		(51,778,000)
7.	UAAL at the end of the year		\$2,298,960,000

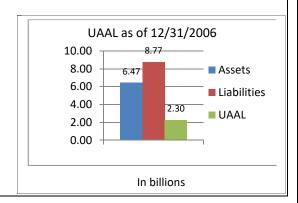
IMPACTING EVENTS

2006 is another example, like that of 2005, of how over the long term a defined benefit plan can correct itself and move to a more stable norm. In 2006 the UAAL dropped in relatively modest terms, by approximately \$5 million. Overall however the funded status of the plan again improved, moving from 71.53% at the start of the year, to 73.77% by the end of the year. At the same time the aggregate employer contribution rate (the average of the County of Orange and all special districts combined) decreased from 24.27% of payroll to 24.01%. In turn, the aggregate employee's contribution rate similarly decreased from 10.39% of payroll to 10.36%.

Much of the positive movement in 2006 can be attributed to the 13.55% positive portfolio returns, exceeding the assumed earnings rate of 7.75%, allowing for application of a portion (after smoothing) of those investment gains towards the existing UAAL.

There were no benefit plan changes or any actuarial assumption changes in 2006.

The City of Rancho Santa Margarita did withdraw from OCERS in 2006 in order to move to CalPERS. There were no retirees with service earned with the City of Rancho Santa Margarita, so no long term pension liabilities were left behind with the OCERS plan upon the City's departure.



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Development of UAAL for Year Ended December 31, 2007

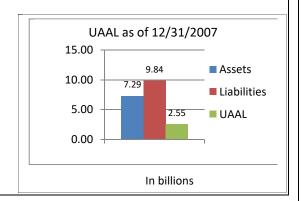
1.	UAAL at beginning of year		\$2,298,960,000
2.	Total normal cost at middle of year		324,706,000
3.	Actual employer/member contributions		(486,212,000)
4.	Interest		<u>171,911,000</u>
5.	Expected UAAL		\$2,309,365,000
6.	Actuarial (gain)/loss and other changes		
	a. Gain on investment	\$(176,681,000)	
	b. Loss on salary increases	136,417,000	
	c. Other experience (gain)/loss	43,538,000	
	d. Benefit improvements		
	e. Change in actuarial assumptions	237,147,000	
	f. Total changes		<u>240,421,000</u>
7.	UAAL at the end of the year		\$2,549,786,000

IMPACTING EVENTS

2007 saw a positive return on the OCERS portfolio of 10.75%, exceeding the assumed earnings rate of 7.75%, allowing for application of a portion (after smoothing) of those investment gains to offset some large changes in the actuarial assumptions.

Coming out of a triennial Actuarial Experience Study, analyzing the period of January 1, 2005 through December 31, 2007, a number of actuarial assumptions were changed in the areas of mortality, termination of membership, rates of retirement, salary growth, and annual payoffs, leading to an increase in the UAAL of approximately \$237 million.

A benefit change for the Cemetery District, moving to a 2% of final average salary at age 55 for future service only, was too negligible to have an impact on plan funding.



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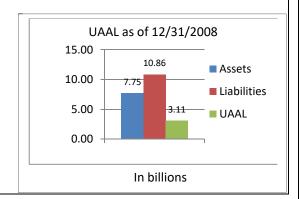
Development of UAAL for Year Ended December 31, 2008

1.	UAAL at beginning of year		\$2,549,786,000
2.	Changes in methods and procedures		
3.	Total normal cost at middle of year		361,097,000
4.	Actual employer/member contributions		(532,656,000)
5.	Interest		<u>190,961,000</u>
6.	Expected UAAL		\$2,569,188,000
7.	Actuarial (gain)/loss and other changes		
	a. Loss on investment	\$257,752,000	
	b. Loss on salary increases	97,561,000	
	c. Loss on new retirements	54,911,000	
	d. Other experience (gain)/loss	17,159,000	
	e. Benefit improvements		
	f. Change in actuarial assumptions	115,764,000	
	g. Total changes		<u>543,147,000</u>
8.	UAAL at the end of the year		\$3,112,335,000

IMPACTING EVENTS

2008 saw massive losses in the market by public pension systems across the country, with the Dow Jones Industrial Average (DJIA) down by -33.8%, the worst single year decline since the Great Depression. OCERS did remarkably well, declining by only -20.71%. Yet, even with smoothing of gains and losses in place, that decline led to a loss of \$257.7 million that had to be recognized in the calculation of the 2008 UAAL.

Changes in service retirement rates for General members under improved benefit formulas required a change in actuarial assumptions, leading to an increase in the UAAL of \$115.7 million.



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Development of UAAL for Year Ended December 31, 2009

1.	UAAL at beginning of year		\$3,112,335,000
2.	Inclusion of Additional Premium Pay Items		228,051,000
3	ADJUSTED UAAL for beginning of year		3,340,386,000
4.	Changes in methods and procedures		
5.	Total normal cost at middle of year		396,025,000
6.	Actual employer/member contributions		(545,215,000)
7.	Interest		<u>253,099,000</u>
8.	Expected UAAL		\$3,444,295,000
9.	Actuarial (gain)/loss and other changes		
	a. Loss on investment	\$322,523,000	
	b. Gain on lower than expected salary	(77,858,000)	
	increases		
	c. Other experience (gain)/loss	14,931,000	
	d. Benefit improvements		
	e. Change in actuarial assumptions		
	f. Total changes		<u>259,596,000</u>
8.	UAAL at the end of the year		\$3,703,891,000

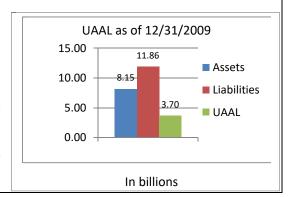
IMPACTING EVENTS

A major challenge for the 2009 valuation was the discovery, and inclusion of a pre-existing liability. The impact of "premium pay" [uniform allowance, bilingual requirements, etc.] on final compensation earnable had been underreported to the actuary since 2004. With proper reporting, the recognition of a liability that had been present, but unvalued, added an additional \$228 million to the adjusted beginning UAAL figure for the year.

Despite increasing assets (on a market value) by over \$1 billion in calendar year 2009, an 18.54% return, OCERS actually takes a loss on investments in 2009, in the amount of \$322,523,000. Because OCERS smooths both gains and losses, only \$120,722,000 of the gains in 2009 were recognized, while \$444,350,000 of deferred losses had to be recognized in turn flowing out of the prior year 2008. Because there were some remaining gains to be recognized from prior years still being smoothed in as well, the actual calculation for the Loss on Investment in 2009 looked like this:

2005 \$ 3,887,000 2006 64,826,000 2007 47,222,000 2008 (444,350,000) 2009 120,722,000 TOTAL \$(207,693,000)

The difference between the loss of \$207.7 million from smoothing and the actual loss of \$322.5 million recognized in the valuation was due to investment income that was not generated as the value of assets used in the valuation at the start of the year was actually more than the market value by about \$1.5 billion.



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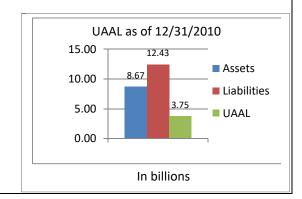
Development of UAAL for Year Ended December 31, 2010

1.	UAAL at beginning of year		\$3,703,891,000
2.	Changes in methods and procedures		
3.	Total normal cost at middle of year		389,458,000
4.	Actual employer/member contributions		(565,242,000)
5.	Interest		280,240,000
6.	Expected UAAL		\$3,808,347,000
7.	Actuarial (gain)/loss and other changes		
	a. Loss on investment	\$224,044,000	
	b. Gain on lower than expected salary	(215,936,000)	
	increases		
	c. Loss on new retirements		
	d. Other experience (gain)/loss	(63,174,000)	
	e. Benefit improvements		
	f. Change in actuarial assumptions		
	g. Total changes		(55,066,000)
8.	UAAL at the end of the year		\$3,753,281,000

IMPACTING EVENTS

With continued economic stress, many of OCERS employers delayed filling vacancies, did not provide any cost-of-living adjustments to current salaries, and some even experienced wage reductions, combining to provide a large gain of more than \$215 million in savings as future liabilities did not rise as quickly as the actuary assumed would be the case under normal market conditions.

Overall the system UAAL did increase by approximately \$50 million, primarily due to lower than expected investment returns. While the system actually earned 11.74%, more than the assumed rate, due to smoothing, the ongoing recognition of losses coming out of 2008 continued to hold down any possible gain on investments. Still, this was an interesting year as even with a smoothed loss of \$224 million, the funded ratio of the plan, that is total assets compared to total liabilities actually improved, moving from 68.77% the year prior to 69.79% at the end of 2010.



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Development of UAAL for Year Ended December 31, 2011

1.	UAAL at beginning of year		\$3,753,281,000
2.	Changes in methods and procedures		
3.	Total normal cost at middle of year		385,008,000
4.	Actual employer/member contributions		(598,271,000)
5.	Interest		<u>282,615,000</u>
6.	Expected UAAL		\$3,822,633,000
7.	Actuarial (gain)/loss and other changes		
	a. Loss on investment	\$388,935,000	
	b. Gain on lower than expected salary	(174,558,000)	
	increases		
	c. Full-Time equivalent salary reporting	73,448,000	
	adjustment for part time employees		
	d. Retiree continuance form code change	42,619,000	
	e. Reclassify some active members as	(6,295,000)	
	deferred		
	f. Loss on new retirements		
	g. Other experience (gain)/loss	(52,001,000)	
	h. Benefit improvements		
	i. Change in actuarial assumptions	363,842,000	
	j. Total changes		<u>635,990,000</u>
8.	UAAL at the end of the year		\$4,458,623,000

IMPACTING EVENTS

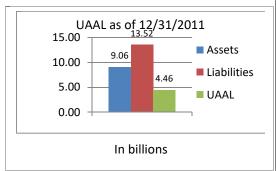
Every three years OCERS performs an experience study to determine how closely the actuary's assumptions are hewing to actual experience. The 2011 valuation was impacted by a number of assumption changes that flowed from the December 31, 2010 experience study, increasing the UAAL by \$363,842,000. Those changes included (1) higher liability from recognition that General service retirees and all General and Safety beneficiaries were living longer than assumed, and (2) slightly higher individual salary increases, (3) offset to some degree by expectation of later service retirements, (4) fewer disability retirements, (5) more terminations and (6) slightly lower annual payoffs.

A very important change in an economic assumption also occurred, with the introduction of a 0.25% across the Board salary increase assumption. Though in the short term many OCERS employers have continued with layoffs, delayed hires, and reductions in overall salary payroll, the long term projection by the actuary is that

salaries will increase. With the addition of this assumption, there is now a consideration that over long periods of time wage inflation will be higher than price inflation by 0.25% per year.

A major IT software conversion project also led OCERS to further refine the data reported to the actuary. Three of those data refinements had an impact on this year's UAAL as well:

Determining that full-time equivalent salaries (calculated by adjusting actual pensionable salaries with earnable salaries during those pay periods when the member is not working full-time)



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would more accurately reflect likely final compensation used to determine retirement benefits. That clarification added \$73,448,000.		
Confirming those retirees who have spouses eligible for a continued benefit following the member's death added \$42,619,000.		
Confirming that some members who had been classified as active and therefore still accruing a liability, were in fact deferred and had reduced the UAAL by \$6,295,000.		

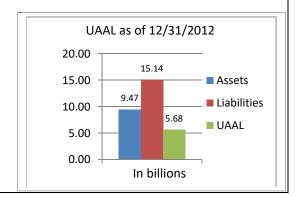
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Development of UAAL for Year Ended December 31, 2012

1.	UAAL at beginning of year		\$4,458,623,000
2.	Changes in methods and procedures		
3.	Total normal cost at middle of year		410,258,000
4.	Actual employer/member contributions		(627,964,000)
5.	Interest		<u>337,107,000</u>
6.	Expected UAAL		\$4,578,024,000
7.	Actuarial (gain)/loss and other changes		
	a. Loss on investment	\$387,808,000	
	b. Gain on lower than expected salary	(244,750,000)	
	increases		
	c. Loss on new retirements		
	d. Other experience (gain)/loss	19,979,000	
	e. Benefit improvements		
	f. Change in actuarial assumptions	934,619,000	
	g. Total changes		<u>1,097,656,000</u>
8.	UAAL at the end of the year		\$5,675,680,000

IMPACTING EVENTS

The 2012 valuation was impacted by economic assumption changes that flowed from the December 31, 2012 Review of Economic Actuarial Assumptions, increasing the UAAL by \$934,619,000. Those changes included (1) decreasing the net investment return assumption from 7.75% per annum to 7.25% per annum, (2) decreasing the inflation assumption from 3.50% per annum to 3.25% per annum, and (3) increasing the current real "across the board" salary increase assumption from 0.25% to 0.50%. The \$934,619,000 fully represents the effect of the change in earnings assumptions, as the cost impact of the other two (decrease inflation, increase salary assumptions) had a canceling effect on one another.



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Development of UAAL for Year Ended December 31, 2013

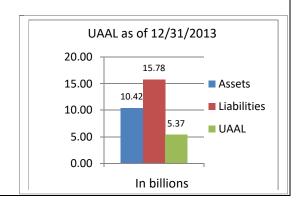
1.	UAAL at beginning of year		\$5,675,680,000
2.	Changes in methods and procedures		
3.	Total normal cost at middle of year		457,762,000
4.	Actual employer/member contributions		(667,788,000)
5.	Interest		403,873,000
6.	Expected UAAL		\$5,869,527,000
7.	Actuarial (gain)/loss and other changes		
	a. Gain on investment	\$(176,930,000)	
	b. Gain on lower than expected salary	(294,326,000)	
	increases		
	c. Loss on new retirements		
	d. Other experience (gain)/loss	(30,354,000)	
	e. Benefit improvements		
	f. Change in actuarial assumptions		
	g. Total changes		<u>(501,610,000)</u>
8.	UAAL at the end of the year		\$5,367,917,000

IMPACTING EVENTS

The UAAL decreased in 2013 to \$5,367,917,000. The decrease in unfunded liability is mainly due to higher than expected investment returns of \$176 million (after smoothing), and lower than expected salary increases saving another \$294 million. When salary growth is less than anticipated there is less payroll as a basis for spreading cost, but more importantly, for the UAAL, that lower salary growth means lower future earned benefit liabilities.

Through the end of 2017, there is an additional \$262 million in deferred investment gains still to be recognized, which represents about 2% of the market value of assets. As noted in the introduction to this study, delaying the full recognition of such gains (or losses) allows for more stability in contribution rates. Were the full \$262 million in deferred gains to be immediately recognized, OCERS funded ratio would rise from 65.99% to 67.65%.

Beginning with the December 31, 2013 valuation, OCERS began to include in the valuation report the decrease (or increase) in the UAAL by employer rate group (as found on pages 128 and 129 of the 2013 valuation). As of December 31, 2013, \$3,872,000,000 of the UAAL is charged to general member service while the remaining \$1,495,000,000 is related to safety member service.



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Development of UAAL for Year Ended December 31, 2014

1.	UAAL at beginning of year		\$5,367,917,000
2.	Changes in methods and procedures		
3.	Total normal cost at middle of year		454,221,000
4.	Expected employer/member contributions		(829,361,000)
5.	Interest		<u>376,931,000</u>
6.	Expected UAAL		\$5,369,708,000
7.	Actuarial (gain)/loss and other changes		
	a. Gain from add'l UAAL contributions	\$(151,485,000)	
	b. Loss from actual contributions less	89,407,000	
	than expected		
	c. Gain from investment return	(9,570,000)	
	d. Gain from lower than expected salary	(125,746,000)	
	increases		
	e. Gain from lower than expected COLA	(153,484,000)	
	increases		
	f. Other experience (gain)/loss	66,554,000	
	g. Benefit improvements		
	h. Change in actuarial assumptions	(122,171,000)	`
	i. Total changes		(406,495,000)
8.	UAAL at the end of the year		\$4,963,213,000

IMPACTING EVENTS

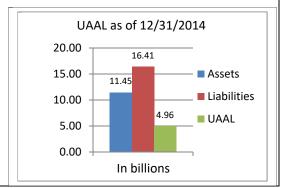
As in 2013, the UAAL once again decreased in 2014 to \$4,963,213,000. A small investment gain of \$9,570,000 was attributed to the fund recognizing prior year gains despite actually earning less than the assumed earnings rate of 7.25%. Additional factors contributing to the decrease in the UAAL included lower than expected salary increases, saving \$125 million - when salary growth is less than anticipated there is less payroll as a basis for spreading cost, but more importantly, for the UAAL, that lower salary growth means lower future earned benefit liabilities. A \$153,484,000 gain accrued due to low inflation as only 1.0% was statutorily granted in 2014 for retiree COLAs, despite the actuary having assumed a possible 3% (the maximum allowable) COLA when setting contribution rates.

The loss of \$66,554,000 noted in the general category of "other experience" was primarily driven by more retirements than had been anticipated.

Beginning with the December 31, 2013 valuation, OCERS began to include in the valuation report the decrease

(or increase) in the UAAL by employer rate group (as found on pages 139 and 140 of the 2014 valuation). As of December 31, 2014, \$3,365,137,000 of the UAAL accrued from general member service while the remaining \$1,598,076,000 accrued from safety member service.

A series of actuarial assumption changes led to a \$122,701,000 reduction in the UAAL, with a net change to mortality (improved for safety members, but offset by a reduction among general members) comprising approximately \$33,000,000 of that reduction.



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Development of UAAL for Year Ended December 31, 2015

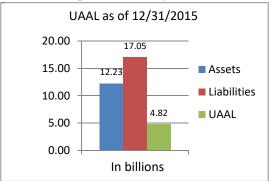
1.	UAAL at beginning of year		\$4,963,213,000
2.	Changes in methods and procedures		
3.	Total normal cost at middle of year		455,105,000
4.	Expected employer/member contributions		(822,863,000)
5.	Interest		347,804,000
6.	Expected UAAL		\$4,943,259,000
7.	Actuarial (gain)/loss and other changes		
	a. Gain from add'l UAAL contributions	(\$69,852,000)	
	b. Loss from actual contributions less	44,960,000	
	than expected	220 120 000	
	c. Loss from investment return	229,138,000	
	e. Gain from lower than expected COLA increases	(119,367,000)	
	f. Gain from lower than expected salary increases	(282,696,000)	
	g. Loss from higher than expected retirement experience increases	62,070,000	
	h. Other experience (gain)/loss	14,836,000	
	i. Total changes		(120,911,000)
8.	UAAL at the end of the year		\$4,822,348,000

IMPACTING EVENTS

For the third year in a row, OCERS UAAL has decreased at a faster rate than would be expected if all assumptions were met. The UAAL at December 31, 2015 was \$140,865 million lower than at the end of 2014 despite having net investment returns of -0.45%. Due to the smoothing of investment gains/losses over five years, the UAAL increased in 2015 by \$229 million for earning less than assumed, but a deferred loss on investments of \$680 million will be added to the UAAL over the next four years.

The current year's recognition of investment losses were offset by other gains which netted to a lower UAAL at the end of the year. The primary contributing factor for the decrease is actual salary increases being lower than assumed. As discussed in previous years, when salary growth is less than anticipated there is less payroll as a basis for spreading cost, but more importantly, for the UAAL, that lower salary growth means lower future earned benefit liabilities. In 2015, lower than expected salary growth resulted in lowering the UAAL by \$283 million.

Another factor that contributed to the decline in UAAL was having lower than expected COLA increases in benefit payments. Low inflation is still being experienced and as such, the Board granted retirees a 1.5% COLA in 2015 instead of the assumed maximum allowable COLA of 3%. This resulted in a reduction in the UAAL of \$119 million. Lastly, additional UAAL contributions were made by OCFA and OC Sanitation District which contributed to a \$70 million decrease in UAAL.



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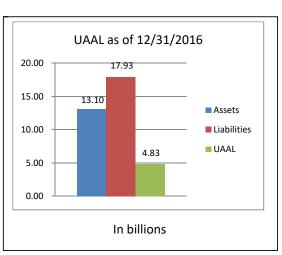
Development of UAAL for Year Ended December 31, 2016

1.	UAAL at beginning of year		\$4,822,348,000
2.	Total normal cost at middle of year		442,698,000
3.	Expected employer/member contributions		(807,757,000)
4.	Interest		330,501,000
5.	Expected UAAL		\$4,787,284,000
6.	Actuarial (gain)/loss and other changes		
	a. Gain from add'l UAAL contributions	(\$13,654,000)	
	b. Loss from actual contributions less	5,142,000	
	than expected		
	c. Loss from investment return	113,103,000	
	d. Gain from lower than expected COLA	(186,039,000)	
	increases		
	e. Loss from higher than expected salary	204,603,000	
	increases		
	f. Loss from higher than expected		
	retirement experience increases		
	g. Other experience (gain)/loss	12,631,000	
	h. Total changes		43,199,000
7.	UAAL at the end of the year		\$4,830,483,000

IMPACTING EVENTS

Following three years of successive declines in the amount of OCERS UAAL, the December 31, 2016 valuation found the UAAL grew slightly by approximately \$8 million in the last year. The UAAL growth occurred despite the portfolio earning 8.7% or \$1,010 million which was higher than the assumed rate of return of 7.25% or \$840 million. The resulting \$170 million gain on investments for the current year, however, is not recognized immediately. Instead, it is "smoothed" into the actuarial valuation evenly over five years (20% each year). Smoothing of investment gains/losses is one of the actuarial levers used by pension systems to help reduce "cost shocks" by averaging investment performance over a period of time. By utilizing a five year smoothing method for investment gains/losses, employers are not faced with volatile contribution rates and they are able to budget for cost impacts due to investment performance over time.

The greater than assumed earnings achieved in 2016 does play a positive role in controlling system costs, even with the rise in the UAAL for the current year. By recognizing 20% of the \$170 million in gains, or \$34 million, in the current year, the amount of deferred investment losses from prior years was reduced. This will continue to be the case for the next four years as the remaining investment gains from 2016 are recognized in future valuations. For example, in the 2015 valuation, there were \$169 million of net deferred losses related to investment performance between 2012 and 2015 that were scheduled to be recognized in the 2017 valuation.



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2016 Continued

Now, when adding in the smoothed gains from 2016, the scheduled net deferred losses to be recognized in the 2017 valuation are reduced to \$135 million, a reduction of \$34 million.

The future reduction in the recognition of deferred losses for 2017 through 2020 as a result of the 2016 investment gains can be seen when comparing the schedule on page 5 of the 2016 valuation with page 5 of the 2015 valuation.

The schedule above outlines many of the additional events that ultimately impacted the change in the UAAL as of December 31, 2016 when compared to the prior year.

Some employers made additional contributions to pay down their UAAL, resulting in the \$13 million reduction. (line 6a)

Despite having earned \$170 million more on our investments in 2016 than anticipated, the total smoothed gains and losses over the past five years led to the \$113 million total smoothed loss that was recognized this year. (line 6c)

Inflation continues to run below the 3% annual cost of living allowance (COLA) assumption that is built into the valuation of retiree benefits. A 2% COLA was granted to retirees in 2016, which from an actuarial perspective reduced the UAAL by \$186 million. The \$186 million reduction represents the additional benefits related to COLA that would have otherwise been paid had inflation reached the assumed rate of 3%. (line 6d)

Finally, after having lagged assumptions for several years, salary increases in 2016 began to catch up in a significant way, exceeding the annual assumed projection of salary increases and adding an additional \$204 million to the UAAL. (line 6e)

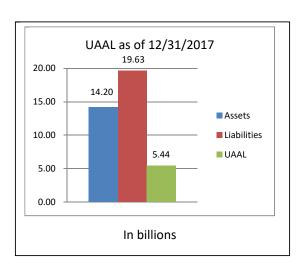
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Development of UAAL for Year Ended December 31, 2017

1.	UAAL at beginning of year		\$4,830,483,000
2.	Additional UAAL Contributions from Children and Families and Law Library to pay-off UAAL		(3,800,000)
3.	UAAL at beginning of year after reflecting additional UAAL contributions from Children and Families and Law Library to pay-off UAAL		4,826,683,000
4.	Total normal cost at middle of year		468,525,000
5.	Expected employer and member contributions		(854,874,000)
6.	Interest		336,342,000
7.	Expected UAAL		4,776,676,000
8.	Actuarial (gain)/loss and other changes:		4,776,676,000
	a. Gain from additional UAAL	(36,348,000)	
	b. Loss from actual contributions less than expected	37,726,000	
	c. Gain from investment return	(24,401,000)	
	d. Gain from lower than expected COLA increases	(95,796,000)	
	e. Gain from higher than expected salary increases	(66,399,000)	
	f. Other experience loss	17,348,000	
	g. Gain from asset transfer from O.C. Sanitation District UAAL Deferred Account	(24,042,000)	
	h. Changes in actuarial assumptions	853,538,000	
	Total Changes	, ,	661,626,000
9.	UAAL at the end of the year		\$5,438,302,000

IMPACTING EVENTS

2017 is an excellent example of the challenges that any public pension system faces in the short term. The OCERS investment portfolio earned more than double that had been assumed, returning 14.74% or approximately \$1.9 billion, and yet despite that the UAAL increased by nearly \$608 million, decreasing the funded level of the system on a valuation value of assets basis from 73.1% to 72.3%. Despite those great earnings, two things were balancing out those great returns, and Items 8(c) and (h) combined tell the story of what occurred:



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Item 8 (c) shows that even with all those additional dollars flowing into the pension investment portfolio, only \$24,401,000 was available to help lower the UAAL in the current valuation. First, that is because the system only recognizes one-fifth of any investment gain or loss in a given year, in a process called "smoothing" to help ensure our employers don't face the volatility of wildly fluctuating contribution rates which would be the case were the entire investment gain or loss be immediately included with each year's valuation. Second, the system had losses from prior years that were still being recognized or "smoothed" and offset a portion of those gains.

Still, even \$24 million is a reduction to the UAAL. Now we move to Item 8(h) that tells the rest of the story.

Item 8(h) shows that the impact of updating the assumptions the OCERS Board of Trustees puts in place to help guide how much has to be saved in order to have the resources necessary to meet the pension promises made and those assumptions must be updated from time to time to reflect actual experience, and changing those assumptions can have a major financial impact. In 2017 the OCERS Board of Trustees recognized two primary challenges to the then current assumptions – the first and most impactful of those was mortality, our members are simply living longer than had been assumed in earlier years. And by living longer, the system needs more dollars than earlier anticipated in order to pay those additional benefits. Second, the financial markets have changed over time, especially after the Great Recession, and the recognition that finding solid, risk balanced investment opportunities would be challenging in the coming years, led the Board of Trustees to lower what it assumes it will earn on the investment portfolio from 7.25% to 7.0%.

The change in the mortality assumption alone added approximately \$753 million to the UAAL. The change in the earnings assumption, offset by a reduction in the inflation assumption (from 3.00% to 2.75%) together with some other more minor changes to other assumptions such as the cost of living, added nearly \$100 million more. Taken all together, the changes to the actuarial assumptions add more than \$853 million to the UAAL.

A couple of other numbers to take note of –

Item 8(a) reflects the growing number of OCERS employers who have paid in additional dollars to the fund in order to lessen the cost of any UAAL attached to their particular employees. With OCERS now charging 7 cents in interest for every dollar in UAAL attributed to an employer, paying that liability down faster than under the current 20-year amortization plan can make a lot of financial sense.

Item 8(b) reflects the interest cost of the 18-month delay from the time that OCERS' actuary completes an annual valuation, and the date that an employer and members must first begin paying the increased contribution rate. A necessary expense to allow employers the time to plan and budget for salary and pension expenses. Also, there is a contribution loss when the employer's annual payroll grows at less than what is assumed in the valuation.

Item 8(d) reflects the savings gained by the fact that with lower inflation, OCERS only paid a 2% cost-of-living adjustment to our retired member's benefits, though we actuarially budget for a 3% COLA that is possible under OCERS plan provisions."

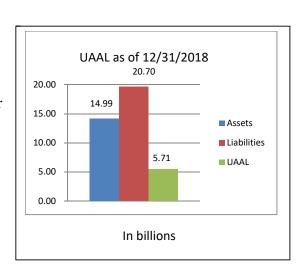
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Development of UAAL for Year Ended December 31, 2018

1.	UAAL at beginning of year		\$5,438,302,000
2.	Total Normal Cost at middle of the year		508,322,000
3.	Expected employer and member contributions		(961,688,000)
4.	Interest		372,542,000
5.	Expected Unfunded Accrued Liability at end of year		5,357,478,000
6.	Changes due to:		
	a. Investment losses (on value of assets)	255,908,000	
	b. Difference in actual versus expected contributions (including loss from phase-in)	120,939,000	
	c. Additional UAAL payments from Cypress Parks and Recreation and OCFA and anticipated payments from DOE and U.C.I.	(27,674,000)	
	d. Transfer from O.C. Sanitation District UAAL Deferred Account	(14,589,000)	
	e. Difference in actual versus expected salary increases	(71,908,000)	
	f. Difference in actual versus expected COLA increases	24,279,000	
	g. Other experience loss	64,496,000	
	Total Changes		351,451,000
	UAAL at the end of the year		\$5,708,929,000

IMPACTING EVENTS

Comparing the earnings of the OCERS investment portfolio in 2017 (14.79%) to the losses incurred in 2018 (-2.46%) is an instructive snapshot of the type of market volatility that pension funds must plan for and adjust over the decades and decades of both the service and eventual retirement of our members. A swing in contribution rates based just on the returns in 2017 and losses in 2018 would make planning and budgeting for this important component of our participating employers salary benefit package extremely difficult.



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Such volatility demonstrates why OCERS staff routinely encourage our members and other stakeholders to not focus unduly on short term investment results, but instead look to short term investment results, but instead look to the long term fund accomplishments. In addition, there are tools used by actuaries at the Board's approval to assist in appropriate budgeting for pension expenses as they occur in a volatile market.

"Smoothing" is one such tool. By spreading the differences between actual market returns and OCERS expected market returns (which is presently 7% per year) over a five year period, the impact of year-over-year short term volatility is dampened. Reflected in item 6(a) we see the actuary recognizing one-fifth of the large loss suffered in 2018, offsetting part of that loss by one-fifth of the gains made in 2017, as well as portions of gains and losses still remaining to be recognized from 2016, 2015 and the final one-fifth from 2014.

Taken as a whole, OCERS still has a net deferred investment loss of \$644.7 million to be smoothed over the coming four years. Again demonstrating the volatility that comes naturally from any investment plan, OCERS by contrast had \$455.4 million in net deferred investment gains at the end of 2017.

Another tool that has been used by the actuary, at the direction of the OCERS Board of Retirement, is to phase in, over a three year period the cost impact of implementing more conservative plan assumptions. When the Board concurred in 2017 with the actuary's findings that members are living longer, and therefore, our assumptions regarding mortality had to be lengthened, there was an immediate cost impact. The Board, however, chose to assist our participating employers in better planning and budgeting for that increase by directing the cost to be phased in over a three year period. That modified cost impact is partially reflected in item 6(b).

Other items that had an impact on the UAAL include:

Item 6(e), while salaries did not grow as quickly as assumed, which would cause a decrease in expected contributions, greater savings were accrued because liabilities flowing from those assumed salary increases never accrued. That led to an actual reduction in the UAAL of nearly \$72 million.

Item 6(f) COLA for 2018 came in at 3% which was greater than the assumed 2.7% COLA amount adding an additional \$24,279,000.00 to the UAAL.

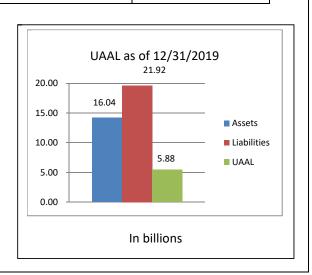
Item 6(g) covers a number of impacts such as member retiring earlier than assumed, more deaths than assumed, and other such variances.

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evelo	pment of UAAL for Year Ended December 31,	2019	
1.	UAAL at beginning of year		\$5,708,929,000
2.	Total Normal Cost at middle of the year		516,408,000
3a.	Expected employer and member contributions		(1,002,599,000)
b.	Additional UAAL contributions from O.C. Sanitation District and TCA		(20,143,000)
4.	Interest		387,158,000
5.	Expected Unfunded Accrued Liability at end of year		\$5,589,753,000
6.	Changes due to:		
	a. Investment losses (on value of assets)	\$50,514,000	
	b. Difference in actual versus expected contributions (including loss from phase-in)	125,415,000	
	c. Additional UAAL payments from Vector Control and O.C.F.A. and anticipated payments from DOE and U.C.I.	(23,327,000)	
	d. Transfer from O.C. Sanitation District UAAL Deferred Account	(18,631,000)	
	e. Difference in actual versus expected salary increases	(52,716,000)	
	f. Difference in actual versus expected COLA increases	131,220,000	
	g. Other experience loss	77,633,000	
	Total Changes		\$290,108,000
	UAAL at the end of the year		\$5,879,861,000

IMPACTING EVENTS

On a market value basis, 2019 was a very strong year as the actual market return of 14.79% was well in excess of the 7.00% assumed by the actuary in the valuation. However, on a smoothed basis, a portion of the superior return from 2019 was utilized to offset the deferred investment losses carried over from the 2018 valuation which resulted in the system recognizing a net \$50.5 million in investment losses in this year's valuation.



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However, the system has built up a sizeable \$479.2 million in deferred investment gains which can be used to
either mitigate investment losses after December 31, 2019 and/or to offset other increases in UAAL.
Besides investment losses on a smoothed basis, the system has \$131.2 million in losses from higher actual versus
expected COLA increases paid to retirees. Even though a maximum COLA of up to 3% was adopted by the
employers for all retirees, only a 2.75% COLA was assumed in the valuation based on a lower expectation of
future change in consumer prices by the actuary.

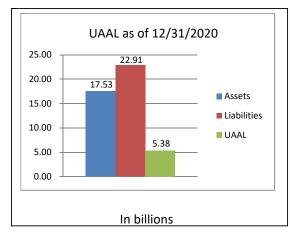
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Develo	opment of UAAL for Year Ended December 31, 2020		
1.	UAAL at beginning of year		\$5,879,861,000
2.	Normal Cost at middle of year		529,849,000
3.	Expected employer and member contributions		(1,050,381,000)
4.	Interest		397,256,000
5.	Expected UAAL at end of year		\$5,756,585,000
6.	Changes due to:		
	a. Investment gains (after smoothing)	\$(370,675,000)	
	b. Additional UAAL contributions from OCFA and anticipated payments from DOE and UCI	(25,295,000)	
	c. Difference in actual versus expected contributions	110,129,000	
	d. Difference in actual versus expected salary increases	(62,291,000)	
	e. Effect of higher than expected COLA increases in 2020	34,044,000	
	f. Effect of lower than expected COLA increases in 2021	(157,888,000)	
	g. Changes in actuarial assumptions	24,273,000	
	h. Effect of reallocating present value benefits between NC and AAL	(37,783,000)	
	i. Other experience loss	108,759,000	
	Total Changes		\$(376,727,000
	UAAL at the end of the year		\$5,379,858,000

IMPACTING EVENTS

With a rate of return on the Market Value of Assets of 12.01% for calendar year 2020, the OCERS funding position continues to improve.

Because of the actuarial practice of smoothing investment gains and losses over a five year period, OCERS' actuary only credited OCERS with a rate of return of 9.31% on the Valuation Value of Assets at the end of 2020 including the recognition of prior year investment gains and losses, against an expected return of 7%. With a number of recent



years, including 2020 exceeding the OCERS expected return of 7%, the fund now has a positive "unrecognized return" of \$969+ million. That is a large cushion of positive dollars waiting to be blended

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into the "actuarial value" of the OCERS fund over the next four years. That cushion will play an important part in helping OCERS reach a projected fully funded status - that is a payoff of all unfunded liabilities, by the end of calendar year 2032. That cushion will play an important part in helping OCERS reach a projected fully funded status - that is a payoff of all unfunded liabilities, by the end of calendar year 2032, if all the actuarial assumptions were to be met. Further, if the system were to earn 14% instead of 7% in 2021, it will allow OCERS to reach full funding two years earlier. Another positive as noted in the list of impactful events above, was the payment of more than \$25 million in additional dollars by an OCERS participating employer to speed the payoff of their unfunded liability, a sound fiscal decision similar to the efforts taken by a number of OCERS' participating employers over the past several years. The Orange County Fire Authority (OCFA) has been paying additional dollars since 2013 when the OCFA Board approved an "Expedited Pension UAAL Payment Plan." Since that time, OCFA has paid a total of \$142.5 million in additional payments toward its UAAL, and has saved well in excess of \$46.8 million in interest charges through the end of 2021. At this rate, depending upon whether OCFA continues this program of accelerated funding, OCFA will have paid off its unfunded liability (UAAL) sometime between 2025 and 2027.

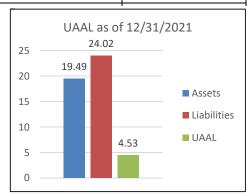
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Devel	opment of UAAL for Year Ended December 31, 2021	_	
1.	UAAL at beginning of year		\$5,379,858,000
2.	Normal Cost at middle of year		528,397,000
3.	Expected employer and member contributions		(1,046,511,000)
4.	Interest		360,203,000
5.	Expected UAAL at end of year		\$5,221,947,000
6.	Changes due to:		
	a. Difference in actual versus expected contributions	\$56,468,000	
	b. Additional UAAL contributions from OCFA and SJC, and anticipated payments from DOE and UCI	(25,536,000)	
	c. Investment gains (after smoothing)	(767,019,000)	
	d. Difference in actual versus expected salary increases	(87,162,000)	
	e. Higher than expected COLA increases in 2022	148,830,000	
	f. Other gains	(20,216,000)	
	Total Changes		\$(694,635,000)
7.	UAAL at the end of the year		\$4,527,312,000

IMPACTING EVENTS

There was significant reduction in the UAAL in 2021, dropping by nearly \$700 million. Three primary events influenced the amount of that reduction as reflected in the table on this page.

First and foremost, an investment gain of \$767 million was actuarially recognized. While the OCERS portfolio actually earned more than that, recall that we "smooth" gains and losses over five years, with only one-fifth of 2021's gains in particular being applied, as well as gains and losses from the prior four years.



2021 saw high inflation, so the Cost of Living Adjustment (COLA) for the year came in at 3%. Our actuarial projections had expected 2.75%. That additional percentage of COLA added nearly \$149 million to the UAAL. OCERS reviews it's assumptions every three years. The next "Triennial" study which will look at this assumption and others will occur next year, in the summer of 2023.

Finally, it appears our employers delayed hiring of new staff in 2021, leading to slower growth in salaries than had been projected. Interestingly that slow growth had both positive and negative impacts on the overall UAAL. Lower than expected salaries had the negative impact of lowering the amount of contributions paid, which increased the UAAL by more than \$56 million. At the same time however, those lower salaries meant total future pension liabilities did not grow as fast as expected, reducing the UAAL by more than \$87 million.

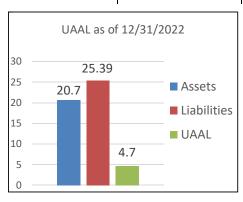
Revised August 21, 2024 - 37 -

Deve	elopment of UAAL for Year Ended December 31, 2022		
1.	UAAL at beginning of year		\$4,527,312,000
2.	Normal Cost at middle of year		544,838,000
3.	Expected employer and member contributions		(1,024,377,000)
4.	Interest		295,662,000
5.	Expected UAAL at end of year		\$4,343,435,000
6.	Changes due to:		
	a. Difference in actual versus expected contributions	\$(1,399,000)	
	b. Additional UAAL contributions from certain individual employers	(16,510,000)	
	c. Investment losses (after smoothing)	59,849,000	
	d. Difference in actual versus expected salary increases	27,467,000	
	e. Higher than expected COLA increases in 2023	261,281,000	
	f. Other losses	20,887,000	
	Total Changes		\$351,575,000
7.	UAAL at the end of the year		\$4,695,010,000

IMPACTING EVENTS

There was an increase in the UAAL in 2022 of about \$168 million. Three primary events influenced the amount of that increase as reflected in the table on this page.

First, an investment loss of \$60 million after asset smoothing. While the OCERS portfolio loss exceeded that amount during 2022, recall that we "smooth" gains and losses over five years, with only one-fifth of 2022's losses in particular being applied, as well as gains and losses from the prior four years.



2022 saw continuation of high inflation (7.5% when rounded to the nearest 0.5%), so the Cost of Living Adjustment (COLA) to be granted on April 1, 2023 equals 3%. Our actuarial projections had expected 2.75%. That additional 0.25% percentage of COLA to be granted on April 1, 2023 when combined with the addition to the COLA Bank (that equals the difference between the 7.5% inflation and the 3% COLA granted) added nearly \$261 million to the UAAL. OCERS reviews its assumptions used in the valuation every three years. The next "Triennial" study which will look at this assumption and others will occur in the summer of 2023.

Finally, there was \$27 million in actuarial loss as the actual salary increases during 2022 came in slightly higher than those expected by the long term actuarial assumptions.

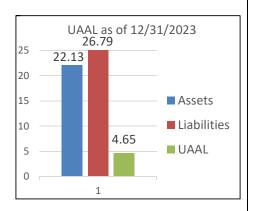
Revised August 21, 2024 - 38 -

Dev	elopment of UAAL for Year Ended December 31, 2023		
1.	UAAL at beginning of year		\$4,695,010,000
2.	Normal Cost at middle of year		554,786,000
3.	Expected employer and member contributions		(1,079,004,000)
4.	Interest		312,639,000
5.	Expected UAAL at end of year		\$4,483,430,000
6.	Changes due to:		
	a. Investment return greater than expected, after asset smoothing	\$(158,556,000)	
	b. Actual contributions less than expected under funding policy	38,941,000	
	c. Additional UAAL contributions from OCFA, and scheduled payments from DOE and U.C.I.	(17,643,000)	
	d. Individual salary increases greater than expected	84,355,000	
	e. COLA increases greater than expected in 2024	14,660,000	
	f. Other net experience (gain)/loss	62,601,000	
	g. Changes in actuarial assumptions	144,967,000	
	Total Changes		\$169,325,000
7.	UAAL at the end of the year		\$4,652,756,000

IMPACTING EVENTS

There was a slight decrease overall in the UAAL of about \$42 million in 2023 after accounting for the scheduled payment of employer contributions to amortize the UAAL. There were several offsetting factors that netted out to the \$42 million decrease as reflected in the table on this page.

First, an investment gain of \$159 million after asset smoothing. While the OCERS portfolio gain exceeded that amount during 2023, recall that we "smooth" gains and losses over five years, with only one-fifth of 2023's gains in particular being applied, as well as gains and losses from the prior four years.



The most recent "Triennial" Experience Study was performed by Segal in the summer of 2023, and the changes to the actuarial assumptions recommended by Segal were adopted by the Board of Retirement for the December 31, 2023 valuation. These assumption changes, including slight changes in retirement, termination, disability, mortality, and salary increase assumptions resulted in an increase of \$145 million in the UAAL. OCERS reviews its assumptions used in the valuation every three years.

There was \$84 million in actuarial loss as the actual salary increases during 2023 came in somewhat higher than those expected by the long-term actuarial assumptions. Finally, there were other differences between actual and expected actuarial experience as listed in the table above.

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Memorandum

DATE: August 19, 2024

TO: Members, Board of Retirement

FROM: Suzanne Jenike, Assistant CEO, External Operations

SUBJECT: 2024 EMPLOYER AND EMPLOYEE CONTRIBUTIONS MATRIX

Written Report

Background/Discussion

On an annual basis, I provide the Board with an updated contribution comparison matrix showing the various contribution rate provisions paid by employers and employees across several rate groups and plans. This document is intended to provide a high-level overview of the rates, ownership of the funds once they are sent to OCERS, as well as some of the pick-up arrangements that the OCERS Employers have bargained for with their employees.

Submitted by:



S. J. – APPROVED

Suzanne Jenike Assistant CEO, External Operations

R-14 2024 Employer and Employee Contributions Matrix Regular Board Meeting 08-19-2024

1 of 1

2024 LEGACY CONTRIBUTION COMPARISON MATRIX

		ates are based on age at entry. For the purpose of	•	-		that rate group.		Employer Owned			loyee Owned Employee Paid		
Th	he number o	f members in each plan/rate group are estimates o	and the contribution	information was taken fro	m pay period 15, 2024				loyer Paid Intributions		oloyee Paid Ontributions		
	Α	В	С	D	E	F	G	н	I	J	К	L	
	Number of Members	Tier, Plan and Rate Group	Rep Units	Description	Net Employer Costs = (ER + EE P/U) - REV P/U	Employer Contribution Rate	Employee Contribution Rate	Pick up Rates Eff	Pick up Rates Eff	EE Rate	EE Reverse Pickup Rate (Reduces ER Cost)	Net Employe Costs	
		Rate Group #1 - General Members; County Only;	Non-OCTA: - Avg	Age = 32				(.1 ER P/U *)	(.2 ER P/U (varies) *				
6		Tier 2 - Plan B - 1.667%@57 1/2 - 3 year MP	EW	Eligibility Worker Unit	13.87%	13.87%	9.27%	0.00%	0.00%	9.27%	0.00%	9.27%	
		Rate Group #1 - IHSS - Avg Age = 38											
6	5	Tier 2 - Plan B - 1.667%@57 1/2 - 3 year MP			13.87%	13.87%	10.31%	0.00%	0.00%	10.31%	0.00%	10.31%	
		Rate Group #2 - General Members 2.7@55 Non-C	OCFA. County only	imited barg units, see disc	laimer - Avg Age = 32								
6	805	Tier 2 - Plan J - 2.7%@55 - 3 year MP			36.85%	41.71%	13.19%	0.00%	0.00%	13.19%	4.856%	18.05%	
6	15	Tier 2 - Plan P - 1.62%@65 - 3 year MP	MA	OCMA Member	33.31%	33.31%	8.53%	0.00%	0.00%	8.53%	0.000%	8.53%	
6	6	Tier 2 - Plan J - 2.7%@55 - 3 year MP	МВ	OCMA Member	36.85%	41.71%	13.19%	0.00%	0.00%	13.19%	4.856%	18.05%	
6	19	Tier 2 - Plan J - 2.7%@55 - 3 year MP	AT	Attorney	36.85%	41.71%	13.19%	0.00%	0.00%	13.19%	4.856%	18.05%	
6	144	Tier 2 - Plan J - 2.7%@55 - 3 year MP	550		36.85%	41.71%	13.19%	0.00%	0.00%	13.19%	4.856%	18.05%	
6	3	Tier 2 - Plan P - 1.62%@65 - 3 year MP	SSO	Sheriff Special Officer	33.31%	33.31%	8.53%	0.00%	0.00%	8.53%	0.000%	8.53%	
6	86	Tier 2 - Plan J - 2.7%@55 - 3 year MP	E2 E3	Elected Officials	36.85%	41.71%	13.19%	0.00%	0.00%	13.19%	4.856%	18.05%	
6	4	Tier 1 - Plan I - 2.7%@55 - 1 year MP		OCEA represented	36.85%	41.71%	13.75%	0.00%	0.00%	13.75%	4.856%	18.61%	
6	4087	Tier 2 - Plan J - 2.7%@55 - 3 year MP	CL, CS, GE, CP HP, SM, OS		36.85%	41.71%	13.19%	0.00%	0.00%	13.19%	4.856%	18.05%	
6	113	Tier 2 - Plan P - 1.62%@65 - 3 year MP	, ,		33.31%	33.31%	8.53%	0.00%	0.00%	8.53%	0.000%	8.53%	
6	1	Tier 1 - Plan I - 2.7%@55 - 1 year MP		Creft and Diant	37.85%	41.71%	13.75%	0.00%	0.00%	13.75%	3.856%	17.61%	
6	24	Tier 2 - Plan J - 2.7%@55 - 3 year MP	СР	Craft and Plant IUOE Members	36.85%	41.71%	13.19%	0.00%	0.00%	13.19%	4.856%	18.05%	
6	4	Tier 2 - Plan P - 1.62%@65 - 3 year MP			33.31%	33.31%	8.53%	0.00%	0.00%	8.53%	0.000%	8.53%	
6	17	Tier 2 - Plan J - 2.7%@55 - 3 year MP	GM		38.05%	41.71%	13.19%	0.00%	0.00%	13.19%	3.656%	16.85%	
6	19	Tier 2 - Plan J - 2.7%@55 - 3 year MP	GS		38.05%	41.71%	13.19%	0.00%	0.00%	13.19%	3.656%	16.85%	
		Rate Group #2 - Superior Court - Avg Age = 33											
6	122	Tier 2 - Plan J - 2.7%@55 - 3 year MP	AX, CX, E5		38.71%	41.71%	13.43%	0.00%	0.00%	13.43%	3.00%	16.43%	
6	14	Tier 2 - Plan J - 2.7%@55 - 3 year MP	E6		41.71%	41.71%	13.43%	0.00%	0.00%	13.43%	0.00%	13.43%	
6	481	Tier 2 - Plan J - 2.7%@55 - 3 year MP	CC, SS, SG		36.71%	41.71%	13.43%	0.00%	0.00%	13.43%	5.00%	18.43%	
6	23	Tier 2 - Plan J - 2.7%@55 - 3 year MP	CI		36.71%	41.71%	13.43%	0.00%	0.00%	13.43%	5.00%	18.43%	
6	14	Tier 2 - Plan P - 1.62%@65 - 3 year MP	AX,CC,CX,SG		33.31%	33.31%	8.69%	0.00%	0.00%	8.69%	0.00%	8.69%	
		Rate Group #2 - SJC - Avg Age = 36			T	I			l			_	
6		Tier 1 - Plan I - 2.7%@55 - 1 year MP	_		41.71%	41.71%	14.00%	0.00%	0.00%	14.00%	0.00%	14.00%	
6		Tier 2 - Plan J - 2.7%@55 - 3 year MP			41.71%	41.71%	13.43%	0.00%	0.00%	13.43%	0.00%	13.43%	
6	8	Tier 2 - Plan S - 2%@57 - 3 year MP	1		43.11%	43.11%	11.94%	0.00%	0.00%	11.94%	0.00%	11.94%	
6	1	Tier 2 - Plan W -1.62%@65 - 3 year MP			34.96%	34.96%	6.5%	0.00%	0.00%	6.51%	0.00%	6.51%	

2024 LEGACY CONTRIBUTION COMPARISON MATRIX

	Contribution r	rates are based on age at entry. For the purpose of t	this information th	e contribution rate reflecte	d is the average age for	that rate group.		Employer Owned	Emp	oloyee Owne	ed	
	The number o	f members in each plan/rate group are estimates a	nd the contribution	n information was taken fro	om pay period 15, 2024	· .			oloyer Paid ontributions		loyee Paid ntributions	
	Α	В	С	D	E	F	G	н	ı	J	К	L
	Number of Members	Tier, Plan and Rate Group	Rep Units	Description	Net Employer Costs = (ER + EE P/U) - REV P/U	Employer Contribution Rate	Employee Contribution Rate	Pick up Rates Eff	Pick up Rates Eff	EE Rate	EE Reverse Pickup Rate (Reduces ER Cost)	Net Employee Costs
0.18%	17	Tier 2 - Plan J - 2.7%@55 - 3 year MP	EO, MR		40.49%	40.49%	13.93%	(.1 ER P/U *) 0.00%	(.2 ER P/U (varies) * 0.00%	13.93%	0.00%	13.93%
		Rate Group #2 - Children & Families Comm. (futur	e service) - Avg A	ge = 33								
0.04%	4	Tier 2 - Plan J - 2.7%@55 - 3 year MP	E9, MX		15.05%	19.36%	13.43%	0.00%	0.00%	13.43%	4.31%	17.74%
		Rate Group #2 - LAFCO (future service) - Avg Age =	= 33		<u>'</u>					_		
0.01%	1	Tier 2 - Plan J - 2.7%@55 - 3 year MP	E9		47.20%	41.71%	13.43%	5.11%	4.18%	13.43%	3.80%	7.94%
		Rate Group #3 - Sanitation - Avg Age = 34			,						<u>'</u>	
1.90%	181	Tier 2 - Plan H - 2.5%@55 - 3 year MP			16.86%	13.36%	13.35%	0.00%	3.50%	13.35%	0.00%	9.85%
0.54%	52	Tier 2 - Plan B - 1.667%@57 1/2 - 3 year MP			12.81%	12.81%	10.01%	0.00%	0.00%	10.01%	0.00%	10.01%
		Rate Group #5 - OCTA - Avg Age = 36	_							<u> </u>	<u>'</u>	
0.01%	1	Tier 1 - Plan A - 2%@57 - 1 year MP	со		30.43%	30.43%	7.61%	0.00%	0.00%	7.61%	0.00%	7.61%
6.86%	655	Tier 2 - Plan B - 1.667%@57 1/2 - 3 year MP	CO, MN, TCU, NONE		30.43%	30.43%	10.19%	0.00%	0.00%	10.19%	0.00%	10.19%
		Rate Group #6 - Probation - Avg Age = 27										
0.03%	3	Tier 2 - Plan F - 3%@50 - 3 year MP - Mgmt	E8	Executive	59.13%	59.13%	17.42%	0.00%	0.00%	17.42%	0.00%	17.42%
0.87%	83	Tier 2 - Plan F - 3%@50 - 3 year MP - Mgmt	PM		59.13%	59.13%	17.42%	0.00%	0.00%	17.42%	0.00%	17.42%
0.26%	25	Tier 2 - Plan F - 3%@50 - 3 year MP - Mgmt	MP	Probation Services	59.13%	59.13%	17.42%	0.00%	0.00%	17.42%	0.00%	17.42%
3.63%	346	Tier 2 - Plan F - 3%@50 - 3 year MP - Officer	PS	Probation Services	59.13%	59.13%	17.42%	0.00%	0.00%	17.42%	0.00%	17.42%
		Rate Group #7 - County Law Enforcement - Avg Ag	ge = 27									
5.44%	519	Tier 2 - Plan F - 3%@50 - 3 year MP - Sheriff	PO/SP	New Hires After	64.12%	64.12%	18.22%	0.00%	0.00%	18.22%	0.00%	18.22%
3.97%	379	Tier 2 - Plan R - 3%@55 - 3 year MP - Sheriff	PO/3P	4/9/2010	62.24%	62.24%	17.19%	0.00%	0.00%	17.19%	0.00%	17.19%
0.88%	84	Tier 2 - Plan F - 3%@50 - 3 year MP - Sheriff	ML, EB	Law Enforce/Mgmt	64.12%	64.12%	18.22%	0.00%	0.00%	18.22%	0.00%	18.22%
0.01%	1	Tier 2 - Plan R - 3%@50 - 3 year MP - Sheriff	ML	Law Enforce/Mgmt	62.24%	62.24%	17.19%	0.00%	0.00%	17.19%	0.00%	17.19%
		Rate Group #8 - Fire Authority Safety - Avg Age =	30								,	
1.48%	141	Tier 2 - Plan F - 3%@50 - 3 year MP	FF, T3	Fire Fighter Engineer 14.5%	38.89%	38.89%	17.71%	0.00%	0.00%	17.71%	0.00%	17.71%
2.88%	275	Tier 2 - Plan F - 3%@50 - 3 year MP	T1	Fire Fighter Engineer 14.5%	40.89%	38.89%	17.71%	0.00%	2.00%	17.71%	0.00%	15.71%
0.49%	47	Tier 2 - Plan F - 3%@50 - 3 year MP	E3, M1	Full Rate	38.89%	38.89%	17.71%	0.00%	0.00%	17.71%	0.00%	17.71%
1.68%	160	Tier 2 - Plan R - 3%@55 - 3 year MP	T5, M5, E5	New hires After 7/1/2012 - 14.5%	39.44%	39.44%	17.60%	0.00%	0.00%	17.60%	0.00%	17.60%
		Rate Group #9 - TCA (retroactive upgrade) - Avg A	ge = 39									
0.19%	18	Tier 2 - Plan N - 2%@55 - 3 year MP			13.95%	13.95%	11.15%	0.00%	0.00%	11.15%	0.00%	11.15%
		Rate Group #10 - Fire Authority General - Avg Age	= 33									
0.63%	60	Tier 2 - Plan J - 2.7%@55 - 3 year MP	E2, G2, M2, S2		25.49%	25.49%	13.37%	0.00%	0.00%	13.37%	0.00%	13.37%

2024 LEGACY CONTRIBUTION COMPARISON MATRIX

C	Contribution r	ates are based on age at entry. For the purpose of t	his information th	e contribution rate reflected	l is the average age for	that rate group.		Employer Owned	Em	Employee Owned			
7	The number o	f members in each plan/rate group are estimates ar	nd the contribution	n information was taken fro	m pay period 15, 2024			Employer Paid EE Contributions		Employee Paid EE Contributions			
	A	В	С	D	E	F	G	н	ı	J	к	L	
	Number of Members	Tier, Plan and Rate Group	Rep Units	Description	Net Employer Costs = (ER + EE P/U) - REV P/U	Employer Contribution Rate	Employee Contribution Rate	Pick up Rates Eff	Pick up Rates Eff	EE Rate	EE Reverse Pickup Rate (Reduces ER Cost)	Net Employee Costs	
			•					(.1 ER P/U *)	(.2 ER P/U (varies) *		•		
0.35%	33	Tier 2 - Plan N - 2.0%@55 - 3 year MP	E4, G4, M4, S4	New Hires After 7/1/2012	27.72%	27.72%	10.74%	0.00%	0.00%	10.74%	0.00%	10.74%	
0.04%	4	Tier 2 - Plan J - 2.7%@55 - 3 year MP	SE	General Members .2 ER pickup over Flat Rate	38.86%	25.49%	13.37%	0.00%	13.37%	13.37%	0.00%	0.00%	
_		Rate Group #11 - Cemetery District (future service) - Avg Age = 31										
0.13%	12	Tier 2 - Plan N - 2%@55 - 3 year MP	E9, ZC		15.12%	15.12%	9.67%	0.00%	0.00%	9.67%	0.00%	9.67%	
_		Rate Group #12 - OCPLL (future service) - Avg Age	= 42										
0.10%	10	Tier 2 - Plan H - 2.5%@55 - 3 year MP	MY, ZL		11.74%	13.49%	15.22%	0.00%	0.00%	15.22%	1.75%	16.97%	

100.00% 9543

Note: The total employee contribution can have several components. There can be an employer pick up component where the employer can pay some or all of the employee's normal contributions under two different sections of the '37 Act (31581.1 & 31581.2). There is also a reverse pick up that is in addition to the regular normal employee contributions. The reverse pick up is always paid by the employee and goes into the employee contribution balance.

Disclaimers: The information contained in this document is intended to be informational only. All of OCERS members may not be reflected and in some cases the pick up amounts are estimates.

*31581.1 & 31581.2 contribution percentages are calculated by the Employer and have not been validated by OCERS staff.

Tier 1 employees must have entered OCERS membership on or before September 21, 1979

2024 PEPRA CONTRIBUTION COMPARISON MATRIX

	Contribution r	ates are based on age at entry. For the purp	ose of this informa	tion the contribution rate	reflected is the average	age for that ra	te group.	Employer Owned	Em	nployee Owned		
	The number o	f members in each plan/rate group are estim	nates and the conti	ibution information was t	aken from pay period 1	5, 2024.			ployer Paid ontributions		oyee Paid ntributions	
	Α	В	С	D	E	F	G	н	ı	J	К	L
	Number of Members	Tier, Plan and Rate Group	Rep Units	Description	Net Employer Costs = (ER + EE P/U) - REV P/U	Employer Contribution Rate	Employee Contribution Rate	Pick up Rates Eff	Pick up Rates	EE Rate	Pickup Rate (Reduces ER Cost)	Net Employee Costs
				1				(.1 ER P/U *)	(.2 ER P/U (varies) *			
_		Rate Group #1 - General Members; Orange	County; Non-OC1	A, County Only - Avg Age	= 32							
.0.70%	1369	Tier 2 - Plan U - 2.5%@67 - 3 year MP	EW	Eligibility Worker Unit	13.64%	13.64%	9.42%	0.00%	0.00%	9.42%	0.00%	9.42%
0.58%	74	Tier 2 - Plan U - 2.5%@67 - 3 year MP	PO	Deputy Sheriff Trainee	13.64%	13.64%	9.42%	0.00%	0.00%	9.42%	0.00%	9.42%
		Rate Group #1 - IHSS - Avg Age = 38										
0.18%	23	Tier 2 - Plan U - 2.5%@67 - 3 year MP			13.64%	13.64%	10.47%	0.00%	0.00%	10.47%	0.00%	10.47%
		Rate Group #2 - General members non-OC	CFA. County only li	mited barg units, see disc	laimer - Avg Age = 32							
3.51%	449	Tier 2 - Plan T - 1.62%@65 - 3 year MP	MA	OCMA Member	34.43%	34.43%	6.82%	0.00%	0.00%	6.82%	0.000%	6.82%
0.27%	35	Tier 2 - Plan T - 1.62%@65 - 3 year MP	MB	OCMA Member	34.43%	34.43%	6.82%	0.00%	0.00%	6.82%	0.000%	6.82%
2.67%	341	Tier 2 - Plan U - 2.5%@67 - 3 year MP	AT, AY	Attorney Attorneys Group	36.38%	36.38%	8.73%	0.00%	0.00%	8.73%	0.000%	8.73%
0.46%	59	Tier 2 - Plan T - 1.62%@65 - 3 year MP	so	Sheriff Special Officer	34.43%	34.43%	6.82%	0.00%	0.00%	6.82%	0.000%	6.82%
0.07%	9	Tier 2 - Plan T - 1.62%@65 - 3 year MP	E2,E3		34.43%	34.43%	6.82%	0.00%	0.00%	6.82%	0.000%	6.82%
8.21%	6166	Tier 2 - Plan T - 1.62%@65 - 3 year MP	CL, CS, GE HP, SM, OS	OCEA represented	34.43%	34.43%	6.82%	0.00%	0.00%	6.82%	0.000%	6.82%
0.63%	81	Tier 2 - Plan T - 1.62%@65 - 3 year MP	СР		34.43%	34.43%	6.82%	0.00%	0.00%	6.82%	0.000%	6.82%
0.12%	15	Tier 2 - Plan T - 1.62%@65 - 3 year MP	GM		34.43%	34.43%	6.82%	0.00%	0.00%	6.82%	0.000%	6.82%
0.31%	40	Tier 2 - Plan T - 1.62%@65 - 3 year MP	GS		34.43%	34.43%	6.82%	0.00%	0.00%	6.82%	0.000%	6.82%
_		Rate Group #2 - Superior Court - Avg Age =	: 33									
5.23%	669	Tier 2 - Plan U - 1.62%@65 - 3 year MP	CC, E6,SG		36.38%	36.38%	8.89%	0.00%	0.00%	8.89%	0.00%	8.89%
0.77%	99	Tier 2 - Plan U - 1.62%@65 - 3 year MP	AX,CX,E5		36.38%	36.38%	8.89%	0.00%	0.00%	8.89%	0.00%	8.89%
0.42%	54	Tier 2 - Plan U - 1.62%@65 - 3 year MP	CI,SS,EC		36.38%	36.38%	8.89%	0.00%	0.00%	8.89%	0.00%	8.89%
		Rate Group #2 - SJC - Avg Age = 36										
0.27%	34	Tier 2 - Plan U - 2.5%@67 - 3 year MP			36.38%	36.38%	9.37%	0.00%	0.00%	9.37%	0.00%	9.37%
		Rate Group #2 - OCERS Mgmt - Avg Age = 3	35									
0.30%	39	Tier 2 - Plan U - 2.5%@67 - 3 year MP	EO, MR		35.16%	35.16%	9.20%	0.00%	0.00%	9.20%	0.00%	9.20%
		Rate Group #2 - Children & Families Comm	n Avg Age = 33									
0.09%	12	Tier 2 - Plan U - 2.5%@67 - 3 year MP	CF, MX		14.03%	14.03%	8.89%	0.00%	0.00%	8.89%	0.00%	8.89%
_		Rate Group #2 - LAFCO - Avg Age = 33										
0.02%	2	Tier 2 - Plan T - 1.62%@65 - 3 year MP	MY		34.43%	34.43%	6.94%	0.00%	0.00%	6.94%	0.00%	6.94%
		Rate Group #3 - Sanitation - Avg Age = 34		·								
2.99%	383	Tier 2 - Plan U - 2.5%@67 - 3 year MP	N/A		9.97%	9.97%	9.29%	0.00%	0.00%	9.29%	0.00%	9.29%
_		Rate Group #5 - OCTA - Avg Age = 36										
5.07%	649	Tier 2 - Plan U - 2.5%@67 - 3 year MP	CO, MN NONE, TCU		30.00%	30.00%	11.02%	0.00%	0.00%	11.02%	0.00%	11.02%
		Rate Group #6 - Probation - Avg Age = 27	•							•		

2024 PEPRA CONTRIBUTION COMPARISON MATRIX

Employer Employee Owned Contribution rates are based on age at entry. For the purpose of this information the contribution rate reflected is the average age for that rate group. Owned The number of members in each plan/rate group are estimates and the contribution information was taken from pay period 15, 2024. **Employer Paid Employee Paid EE Contributions EE Contributions** Employer Number Net Employee **EE Reverse** Net Pick up EE Pick up Tier, Plan and Rate Group **Rep Units** Description Contribution Contribution **Employee Employer Costs Pickup Rate** Rates Eff Rate Rates Members = (ER + EE P/U) - REV P/U Rate Rate educes ER Cost Costs (.1 ER P/U *) (.2 ER P/U (varies) * Tier 2 - Plan V - 2.7%@67 - 3 year MP **Probation Services** 52.59% 52.59% 15.58% 0.00% 15.58% 0.00% 15.58% PS 0.00% Rate Group #7 - County Law Enforcement - Avg Age = 27 1202 Tier 2 - Plan V - 2.7%@67 - 3 year MP PO 55.93% 55.93% 16.94% 0.00% 0.00% 16.94% 0.00% 16.94% Rate Group #8 - Fire Authority Safety - Avg Age = 30 Tier 2 - Plan V - 2.7%@67 - 3 year MP F7. C7 Fire Chief 28.85% 28.85% 16.08% 0.00% 0.00% 16.08% 0.00% 16.08% Rate Group #9 - TCA (retroactive upgrade) - Avg Age = 39 0.34% 44 Tier 2 - Plan U - 2.5%@67 - 3 year MP N/A 10.79% 10.79% 10.13% 0.00% 0.00% 10.13% 0.00% 10.13% Rate Group #10 - Fire Authority General - Avg Age = 33 179 Tier 2 - Plan U - 2.5%@67 - 3 year MP 20.48% 20.48% 9.45% 0.00% 0.00% 9.45% 0.00% 9.45% 1 40% G6 Tier 2 - Plan U - 2.5%@67 - 3 year MP 20.48% 20.48% 9.45% 0.00% 9.45% 0.17% 22 M6 Admin Mgmt 0.00% 9.45% 0.00% Tier 2 - Plan U - 2.5%@67 - 3 year MP **S6** 20 48% 20 48% 9 45% 0.00% 0.00% 9.45% 0.00% 9.45% 0.09% 11 Supervisory Rate Group #11 - Cemetery District - Avg Age = 31 9.79% 0.09% 11 Tier 2 - Plan U - 2.5%@67 - 3 year MP ZC 14.49% 14.49% 9.79% 0.00% 0.00% 9.79% 0.00% Rate Group #12 - OCPLL - Avg Age = 42 Tier 2 - Plan U - 2.5%@67 - 3 year MP 10.48% 10.60% 12.35% 0.03% 4 ZL, E9 8.73% 10.60% 0.00% 0.00% 1.75%

Note: The total employee contribution can have several components. There can be an employer pick up component where the employer can pay some or all of the employee's normal contributions under two different sections of the '37 Act (31581.1 & 31581.2). There is also a reverse pick up that is in addition to the regular normal employee contributions. The reverse pick up is always paid by the employee and goes into the employee contribution balance.

Disclaimers: The information contained in this document is intended to be informational only. All of OCERS members may not be reflected and in some cases the pick up amounts are estimates.

*31581.1 & 31581.2 contribution percentages are calculated by the Employer and have not been validated by OCERS staff.

Tier 1 employees must have entered OCERS membership on or before September 21, 1979

100.00%

12789



Memorandum

DATE: August 19, 2024

TO: Members of the Board of Retirement FROM: Steve Delaney, Chief Executive Officer

SUBJECT: TENNESSEE CONSOLIDATED RETIREMENT SYSTEM VISIT REPORT

Written Report

In June 2024, following the conclusion of the NCPERS (National Conference of Public Employee Retirement Systems) Chief Executive I had the privilege of touring the Tennessee Consolidated Retirement System (TCRS) headquarters office, located in Nashville, Tennessee, with Jamie Wayman, TCRS Executive Officer serving as my guide.

History

The TCRS was established in 1972 with the consolidation of seven separate retirement systems for public employees. Today, TCRS administers two defined benefit (DB) pension plans, the State Employees, Teachers, and Higher Education Employees Pension Plan (SETHEEPP), and the Political Subdivisions Pension Plan (PSPP). Covering more than 200,000 members and providing services to more than 600 employers, TCRS is governed by a 20-member board (nine ex-officio trustees, nine member representative trustees, and two retired member trustees).

Today

Some key elements of interest - TCRS is a division within the Tennessee State Department of the Treasury, not dissimilar to OCERS' situation prior to the bankruptcy. The TCRS Board of Retirement is independent of the Treasury, but the CEO has reporting responsibilities to both the Tennessee State Treasurer as well as to the TCRS Board of Retirement. Administrative staff are TCRS direct employees, but the investment team are Treasury employees investing ALL state funds which include TCRS portfolio \$70 billion fund as a subset of that total.

I noted in our discussions that the TCRS retirement formula is very straight forward, few if any adjustments to Final Average Salary being necessary, which is a major difference when compared to OCERS.

In recent years TCRS was looking to expand the ability of TCRS members to receive one on one in person counseling throughout the State of Tennessee. At the time the only locale for in person counseling was at the TCRS headquarters office in Nashville. Working with EFL, the same private sector benefit provider used by the County of Orange, TCRS contracted to open counseling centers around the state, staffed by EFL employees. The expansion was so successful that TCRS has discontinued and mothballed their own counseling program at the headquarters office. Members can no longer come to the TCRS headquarters office and request a counseling session.

The TCRS staff are presently working from home 100% of their time. The TCRS team is using this opportunity to consolidate TCRS from three floors in a multi rise office tower in downtown Nashville, to a single floor in that same building. The plan is for the staff to return using a 3/2 hybrid schedule, and rather than have specific offices assigned, all will participate in a "hoteling" approach to the use of office space. Interestingly, this applied to my host, TCRS CEO Jamie Wayman as well as to his entire staff. He too will be hoteling, sharing his executive office with others on days when he is working from home.

My thanks to the TCRS team for their kind welcoming of my visit.

Submitted by:



Steve Delaney Chief Executive Officer