LACERS
LA CITY EMPLOYEES' RETIREMENT SYSTEM

Board of Administration Agenda

REGULAR MEETING

TUESDAY, OCTOBER 12, 2021

TIME: 10:00 A.M.

MEETING LOCATION:

In accordance with Government Code Section 54953, subsections (e)(1) and (e)(3), and in light of the State of Emergency proclaimed by the Governor on March 4, 2020 relating to COVID-19 and ongoing concerns that meeting in person would present imminent risks to the health or safety of attendees and/or that the State of Emergency continues to directly impact the ability of members to meet safely in person, the LACERS Board of Administration's October 12, 2021 meeting will be conducted via telephone and/or videoconferencing.

Important Message to the Public

Information to call-in to listen and or participate:
Dial: (669) 254-5252 or (669) 216-1590
Meeting ID# 160 455 8751

Instructions for call-in participants:
1- Dial in and enter Meeting ID
2- Automatically enter virtual "Waiting Room"
3- Automatically enter Meeting
4- During Public Comment, **press *9** to raise hand
5- Staff will call out the last 3-digits of your phone number to make your comment

Information to listen only: Live Board Meetings can be heard at: (213) 621-CITY (Metro), (818) 904-9450 (Valley), (310) 471-CITY (Westside), and (310) 547-CITY (San Pedro Area).

Notice to Paid Representatives

If you are compensated to monitor, attend, or speak at this meeting, City law may require you to register as a lobbyist and report your activity. See Los Angeles Municipal Code §§ 48.01 *et seq*. More information is available at ethics.lacity.org/lobbying. For assistance, please contact the Ethics Commission at (213) 978-1960 or ethics.commission@lacity.org.

Request for Services

As a covered entity under Title II of the Americans with Disabilities Act, the City of Los Angeles does not discriminate on the basis of disability and, upon request, will provide reasonable accommodation to ensure equal access to its programs, services and activities.

Sign Language Interpreters, Communication Access Real-Time Transcription, Assistive Listening Devices, Telecommunication Relay Services (TRS), or other auxiliary aids and/or services may be provided upon request. To ensure availability, you are advised to make your request at least 72 hours prior to the meeting you wish to attend. Due to difficulties in securing Sign Language Interpreters, five or more business days' notice is strongly recommended. For additional information, please contact: Board of Administration Office at ***(213) 855-9348*** and/or email at ***ani.ghoukassian@lacers.org***.

Disclaimer to Participants

Please be advised that all LACERS Board and Committee Meeting proceedings are audio recorded.

CLICK HERE TO ACCESS BOARD REPORTS

I. PUBLIC COMMENTS AND GENERAL PUBLIC COMMENTS ON MATTERS WITHIN THE BOARD'S JURISDICTION AND COMMENTS ON ANY SPECIFIC MATTERS ON THE AGENDA – *THIS WILL BE THE ONLY OPPORTUNITY FOR PUBLIC COMMENT* - **PRESS *9 TO RAISE HAND DURING PUBLIC COMMENT PERIOD**

II. APPROVAL OF MINUTES FOR THE REGULAR MEETING OF SEPTEMBER 14, 2021 AND POSSIBLE BOARD ACTION

III. BOARD PRESIDENT VERBAL REPORT

IV. GENERAL MANAGER VERBAL REPORT

A. REPORT ON DEPARTMENT OPERATIONS

B. UPCOMING AGENDA ITEMS

C. INTRODUCTION OF ELIJAH DITTERSDORF OF MOM'S COMPUTER

V. RECEIVE AND FILE ITEMS

A. ETHICAL CONTRACT COMPLIANCE REPORT NOTIFICATION TO THE BOARD

B. BENEFITS PAYMENTS APPROVED BY GENERAL MANAGER

C. COMMISSIONER SUNG WON SOHN EDUCATION EVALUATION ON CNBC: DELIVERING ALPHA, VIRTUAL; SEPTEMBER 29, 2021

D. GASB 68 AND GASB 75 VALUATIONS BASED ON JUNE 30, 2020 MEASUREMENT DATE FOR EMPLOYER REPORTING AS OF JUNE 30, 2021

E. INVESTMENT CLASSIFICATIONS SALARY COMPENSATION STUDY

VI. BOARD/DEPARTMENT ADMINISTRATION

A. DETERMINATION REGARDING TELECONFERENCING FOR BOARD MEETINGS PURSUANT TO AB 361 AND POSSIBLE BOARD ACTION

VII. INVESTMENTS

A. CHIEF INVESTMENT OFFICER VERBAL REPORT

VIII. LEGAL/LITIGATION

A. BOARD EDUCATION: FIDUCIARY LEADERSHIP IN INVESTMENT CONTRACTING (PART 1)

IX. OTHER BUSINESS

X. NEXT MEETING: The next Regular meeting of the Board is scheduled for Tuesday, October 26, 2021 at 10:00 a.m. at LACERS, 202 West 1st Street, Suite 500, Los Angeles, CA 90012, and/or via telephone and/or videoconferencing. Please continue to view the LACERS website for updated information on public access to Board meetings while response to public health concerns relating to the novel coronavirus continue.

XI. ADJOURNMENT

MINUTES OF THE REGULAR MEETING
BOARD OF ADMINISTRATION
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

In conformity with the Governor's Executive Order N-08-21 (June 11, 2021) and due to the concerns over COVID-19, the LACERS Board of Administration's September 14, 2021, meeting was conducted via telephone and/or videoconferencing.

Agenda of: <u>Oct. 12, 2021</u>

Item No: <u>II</u>

September 14, 2021

10:01 a.m.

PRESENT via Videoconferencing:	President:	Cynthia M. Ruiz
	Vice President:	Sung Won Sohn
	Commissioners:	Annie Chao
		Elizabeth Lee
		Sandra Lee
		Nilza R. Serrano
		Michael R. Wilkinson
	Manager-Secretary:	Neil M. Guglielmo
	Legal Counselor:	Anya Freedman
PRESENT at BPW Session Room:	Executive Assistant:	Ani Ghoukassian

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The Items in the Minutes are numbered to correspond with the Agenda.

I

PUBLIC COMMENTS AND GENERAL PUBLIC COMMENTS ON MATTERS WITHIN THE BOARD'S JURISDICTION AND COMMENTS ON ANY SPECIFIC MATTERS ON THE AGENDA – *THIS WILL BE THE ONLY OPPORTUNITY FOR PUBLIC COMMENT* – **PRESS *9 TO RAISE HAND DURING PUBLIC COMMENT PERIOD** – President Ruiz asked if any persons wanted to make a general public comment to which there was no response.

II

APPROVAL OF MINUTES FOR THE REGULAR MEETING OF AUGUST 10, 2021 AND POSSIBLE BOARD ACTION – Commissioner Serrano moved approval, seconded by Commissioner Elizabeth Lee, and adopted by the following vote: Ayes, Commissioners Chao, Elizabeth Lee, Sandra Lee, Serrano, Wilkinson, Vice President Sohn and President Ruiz -7; Nays, None.

III

BOARD PRESIDENT VERBAL REPORT – President Ruiz congratulated Commissioner Serrano on being a published author of the book “Extraordinary Latinas”.

IV

GENERAL MANAGER VERBAL REPORT

A. REPORT ON DEPARTMENT OPERATIONS – Neil M. Guglielmo, General Manager, advised the Board of the following items:

- LACERS presented its report on diversity, equity, and inclusion to the City’s Budget and Finance Committee
- LACERS participated in LA Times Building’s Annual Fire Evacuation Drill on August 26, 2021
- Working with the City’s Department of Disability, LACERS completed the ADA inspection of our Times Building offices and the wheelchair path of travel
- Updates on the 977 Broadway Building construction
- LACERS has worked with Ernst & Young, hired by the City to assist with COVID reimbursement claims
- City Employees COVID-19 Vaccination Stats
- City Active Employee COVID-19 Stats
- Retirement Stats
- Member Communication Stats
- Top 5 Member Inquiries
- LACERS YouTube channel
- Fall Wellness Newsletter mailed to Members
- Estate Planning Webinar on September 8th attended by 184 Members

B. UPCOMING AGENDA ITEMS – Neil M. Guglielmo, General Manager, advised the Board of the following items:

- Assumptions for the June 30, 2021 Retiree Health Actuarial Valuation
- Proposed Revisions to the Marketing Cessation Policy

V

BOARD/DEPARTMENT ADMINISTRATION

A. DESIGNATION OF LOCATION FOR REGULAR LACERS BOARD AND COMMITTEE MEETINGS EFFECTIVE OCTOBER 12, 2021: 200 N. SPRING STREET, ROOM 350, LOS ANGELES, CA 90012 (BOARD OF PUBLIC WORKS ROOM) AND POSSIBLE BOARD ACTION – Commissioner Elizabeth Lee moved approval of the following Resolution:

DESIGNATION OF LOCATION FOR REGULAR LACERS BOARD AND COMMITTEE MEETINGS EFFECTIVE OCTOBER 12, 2021: 200 N. SPRING STREET, ROOM 350, LOS ANGELES, CA 90012 (BOARD OF PUBLIC WORKS ROOM) AND POSSIBLE BOARD ACTION

RESOLUTION 210914-A

WHEREAS, the proposed designation of regular meeting location will aid LACERS in conducting business and provide effective and efficient Plan administration;

WHEREAS, the Ralph M. Brown Act, specifically Government Code Section 54954, subsection (a); states Each legislative body of a local agency, except for advisory committees or standing committees, shall provide, by ordinance, resolution, bylaws, or by whatever other rule is required for the conduct of business by that body, the time and place for holding regular meetings. and,

NOW, THEREFORE, BE IT RESOLVED that the Board hereby adopts the proposed Regular Meeting Location effective immediately, providing the Board of Administration and Committees a Regular Meeting Location.

Which motion was seconded by Commissioner Serrano, and adopted by the following vote: Ayes, Commissioners Chao, Elizabeth Lee, Sandra Lee, Serrano, Wilkinson, Vice President Sohn, and President Ruiz -7; Nays, None.

VI

RECEIVE AND FILE ITEMS

A. MARKETING CESSATION REPORT NOTIFICATION TO THE BOARD – This report was received by the Board and filed.

B. BENEFITS PAYMENTS APPROVED BY GENERAL MANAGER – This report was received by the Board and filed.

C. EDUCATION AND TRAVEL EXPENDITURE REPORT FOR FISCAL YEAR 2020-21 – This report was received by the Board and filed.

D. ANNUAL REPORT ON LACERS EMERGING INVESTMENT MANAGER PROGRAM – Bryan Fujita, Investment Officer III, discussed this report with the Board and the report was then received by the Board and filed.

VII

COMMITTEE REPORT(S)

A. BENEFITS ADMINISTRATION COMMITTEE VERBAL REPORT FOR THE MEETING ON AUGUST 24, 2021 – Commissioner Wilkinson stated that the Committee approved the LACERS 2020 Anthem and Delta Year-End Accounting with Premium Reserve Funding Policy and the Board Rules related to member benefits administration.

VIII

BENEFITS ADMINISTRATION

A. LACERS 2020 ANTHEM AND DELTA YEAR-END ACCOUNTING WITH PREMIUM RESERVE FUNDING POLICY AND POSSIBLE BOARD ACTION – Alex Rabrenovich, Chief Benefits Analyst, presented and discussed this item with the Board for 10 minutes. After discussion, Commissioner Chao moved approval of the following Resolution:

LACERS' PREMIUM SURPLUS FUNDING POLICY

RESOLUTION 210914-B

WHEREAS, the Los Angeles City Employees' Retirement System (LACERS) administers a health and welfare program, which includes health insurance for retired Members and their eligible dependents;

WHEREAS, LACERS may enter into an experience-rated refunding contract with its health insurance carriers which requires year-end accounting after the close of a plan year to reconcile any differences between the amount of premiums paid to the carrier and the amount of claims and expenses associated with providing health coverage;

WHEREAS, should the year-end accounting result in a deficit, LACERS would need to resolve this;

WHEREAS, should the year-end accounting result in a surplus, LACERS would be refunded the excess funds;

WHEREAS, these types of contracts contain an interest-earning Claims Stabilization Fund (CSF), which is required to maintain a certain balance, as directed by the carrier, to fund any deficits that may be found in the year-end accounting;

WHEREAS, surplus premium funds remaining after the transfer of needed funds to the CSF shall be returned to LACERS after approval of the year-end accounting;

WHEREAS, of the surplus funds to be returned to LACERS, staff shall estimate the portions originally funded by medical subsidy dollars and Member monthly allowance deductions;

WHEREAS, the appropriate amount of surplus premium funds attributable to medical subsidies shall be deposited back to account from which the subsidy dollars were originally paid, which currently is LACERS 401(h) account, and the appropriate amount of surplus premium funds attributable to Member monthly allowance deductions shall be deposited in the 115 Trust account;

WHEREAS, LACERS may opt to enter into a self-funded arrangement with a health insurance carrier;

WHEREAS, self-funded arrangements enable LACERS to set premiums and receive premium payments, and utilize these payments to pay associated provider claims costs and administrative expenses;

WHEREAS, should accumulated premiums from self-funded plans be insufficient to cover annual claims costs, LACERS would be responsible for resolving the deficit;

WHEREAS, should accumulated premiums from self-funded plans result in a surplus after annual claims costs and related administrative expenses are paid, LACERS retains the surplus amount within its 115 Trust account;

WHEREAS, a minimum premium reserve balance should always be maintained and recalculated annually to offset possible year-end deficits from self-funded or refunding-contracted plans;

NOW, THEREFORE, BE IT RESOLVED, that the Board of Administration hereby adopts a Premium Reserve Funding policy that 115 Trust accounts holding premium surpluses from self-funded or refunding-contracted plans retain a minimum balance of 15% of each health plan's projected premium cost for the coming year.

Which motion was seconded by Commissioner Serrano, and adopted by the following vote: Ayes, Commissioners Chao, Elizabeth Lee, Sandra Lee, Serrano, Wilkinson, Vice President Sohn, and President Ruiz -7; Nays, None.

IX

RETIREMENT SERVICES

A. BOARD RULES RELATED TO MEMBER AND BENEFITS ADMINISTRATION AND POSSIBLE BOARD ACTION – Commissioner Wilkinson moved approval, seconded by Commissioner Elizabeth Lee, and adopted by the following vote: Ayes, Commissioners Chao, Elizabeth Lee, Sandra Lee, Serrano, Wilkinson, Vice President Sohn, and President Ruiz -7; Nays, None.

X

INVESTMENTS

A. CHIEF INVESTMENT OFFICER VERBAL REPORT – Rod June, Chief Investment Officer, reported on the portfolio value of $23.912 billion as of September 13, 2021. Mr. June discussed the following items:

- U.S., Non-U.S., and Global Passive RFP released last week, deadline is November 9, 2021
- Real Estate Consultant RFP released last week, deadline is November 8, 2021
- Future Agenda Items: Private Equity Implementation Plan, Investor Agenda Letter – 2021 Global Investor Statement to Governments on the Climate Crisis

B. PRESENTATION BY NEPC, LLC OF THE PORTFOLIO PERFORMANCE REVIEW FOR THE QUARTER ENDING JUNE 30, 2021 – Carolyn Smith, Partner with NEPC, presented and discussed this item with the Board for 30 minutes.

C. PRESENTATION BY NEPC, LLC REGARDING ASSET CLASS POLICY TARGETS AND RANGES AND POSSIBLE BOARD ACTION – Carolyn Smith, Partner with NEPC, presented and discussed this item with the Board for 15 minutes. Commissioner Chao moved approval, seconded by Commissioner Wilkinson, and adopted by the following vote: Ayes, Commissioners Chao, Elizabeth Lee, Sandra Lee, Serrano, Wilkinson, Vice President Sohn and President Ruiz -7; Nays, None.

XI

OTHER BUSINESS – There was no other business.

XII

NEXT MEETING: The next Regular meeting of the Board is scheduled for Tuesday, September 28, 2021, at 10:00 a.m. at Edward R. Roybal BPW Session Room, 200 N. Spring Street, Room 350 City Hall Los Angeles, CA 90012, and/or via telephone and/or videoconferencing. Please continue to view the LACERS website for updated information on public access to Board meetings while response to public health concerns relating to the novel coronavirus continue.

XIII

ADJOURNMENT – There being no further business before the Board, President Ruiz adjourned the Meeting at 11:48 a.m.

Cynthia M. Ruiz
President

Neil M. Guglielmo
Manager-Secretary

LACERS' ETHICAL CONTRACT COMPLIANCE REPORT
NOTIFICATION TO THE BOARD

RESTRICTED SOURCES

The Board's Ethical Contract Compliance Policy was adopted in order to prevent and avoid the appearance of undue influence on the Board or any of its Members in the award of investment- related and other service contracts. Pursuant to this Policy, this notification procedure has been developed to ensure that Board Members and staff are regularly apprised of firms for which there shall be no direct marketing discussions about the contract or the process to award it; or for contracts in consideration of renewal, no discussions regarding the renewal of the existing contract.

Name	Description	Inception	Expiration	Division
Alliant Insurance Services, Inc.	Insurance Brokerage Services	January 1, 2021	December 31, 2023	Administration
K&L Gates LLP	Outside Investment & Real Estate Counsel	N/A	N/A	City Attorneys
Axiom Investors, LLC	Active Growth Non-U.S. Emerging Markets Equities	January 1, 2021	December 31, 2021	Investments
Sapphire Business Solutions	Printing, Mailing, Website, and Graphic Design Services	July 1, 2021	June 30, 2024	Member Services
California Marketing	Printing, Mailing, Website, and Graphic Design Services	July 1, 2021	June 30, 2024	Member Services
Frasco, Inc.	Investigative Services	October 1, 2021	September 30, 2024	Retirement Services
TruView BSI, LLC	Investigative Services	October 1, 2021	September 30, 2024	Retirement Services
The Henson Group, Inc.	Cloud Service Provider	September 23, 2021	December 31, 2022	Systems

Also viewable online here.

ACTIVE RFPs

Description	Respondents	Inception	Expiration	Division
Private Credit Mandate Search	Alcentra Limited, Barings LLC, MB Global Partners, LLC, Backcast Partners Management LLC, BlackRock, Inc., CLSA Capital Partners (HK) Limited, Cross Ocean Adviser LLP, Clearwater Capital Partners (Fiera Capital Corporation), Guggenheim Partners, LLC, Goldman Sachs Asset Management, L.P., Pemberton Capital Advisors LLP, Kayne Anderson Capital Advisors, L.P., Maranon Capital, L.P., Bain Capital Credit, LP, Breakwater Management LP, Carlyle Global Credit Investment Management L.L.C., Crescent Capital Group LP, MV Credit Partners LLP, New Mountain Capital, LLC, Park Square Capital USA LLC, Tor Investment Management (Hong Kong) Limited, AlbaCore Capital LLP, Muzinich & Co., Inc., Kartesia Management S.A., Medalist Partners, LP, NXT Capital Investment Advisers, LLC, Owl Rock Capital Partners, PennantPark Investment Advisers, PIMCO Investments LLC, Deerpath Capital Management, LP, Brightwood Capital Advisors, Magnetar Capital LLC, MC Credit Partners LP, Oaktree Capital Management, L.P., THL Credit Advisors LLC, White Oak Global Advisors, LLC, Benefit Street Partners L.L.C., EntrustPermal / Blue Ocean GP LLC, Willow Tree Credit Partners LP, Monroe Capital LLC, Runway Growth Capital LLC, Stellus Capital Management, LLC	January 1, 2021	December 31, 2023	Investments
Real Estate Consultant		September 8, 2021	November 8, 2021	Investments
Passive U.S., Non-U.S., and Global Index Strategies Search		September 9, 2021	November 9, 2021	Investments

Also viewable online [here].

BENEFIT PAYMENTS APPROVED BY GENERAL MANAGER: ITEM V-B

Pursuant to the authority delegated to the General Manager under Board Rule GMA 1, General Manager Authorization, adopted by the Board of Administration on June 14, 2016, the following benefit payments have been approved by the General Manager:

SERVICE RETIREMENTS

Member Name	Service	Department	Classification
Arikawa, Norman	54	Harbor Dept.	Dept Chief Acct
Blair, John C	51	City Attorney's Office	Deputy City Atty
Smith, Charles W	43	Harbor Dept.	Mech Repair Gen Supvr
Robles, David	39	Harbor Dept.	Sr Systems Analyst
Benjamin, Aprile E	39	Harbor Dept.	Systems Analyst
Pierce, Daniel L	39	PW - Sanitation	Sanitation Wstwater Mgr
Hadnot, Robert George	38	PW - Sanitation	Ref Coll Truck Oper
Guaderrama, Richard Enrique	37	GSD - Fleet Services	Automotive Supervisor
Ramirez, Francisco D	37	PW - Sanitation	Shift Supt W/W Trmt
Esparza, Joann	37	Harbor Dept.	Sr Administrative Clerk
Fricke, Stuart Lee	37	Harbor Dept.	Harbor Engineer
Foley, C John	36	Harbor Dept.	Envirn Affrs Ofc
Lau, Benjamin W	36	PW - Resurf & Reconstr	Field Engineer Aide
Enfiajian, Donna	36	Harbor Dept.	Civil Engrg Assoc
Strouse, Michael P	35	Dept. of Airports	Sr Mgmt Analyst
Faunce, Michael E	35	Dept. of Bldg. & Safety	Sr Build Mech Inspectr
Aubert, Brenda Renee	34	Harbor Dept.	Accounting Rec Supvr
Leymore, Joseph Anthony	34	Police Dept. - Civilian	Sr Police Serv Rep
Aboulhosn, Chaouki M	34	Harbor Dept.	Build Electrcl Engr
Bond, Julie Jan	34	Harbor Dept.	Wharfinger
Harris, Russell T	33	PW - Solid Resource	Ref Coll Truck Oper
Pate, Philip	33	Harbor Dept.	Systems Programmer
Arredondo, Paul	33	Police Dept. - Civilian	Equipmnt Mechanic
Brown, Yolanda M	33	Harbor Dept.	Exec Admin Asst
Carrasco, Victor	33	Police Dept. - Officers	Police Officer
Bickel, David Arthur	33	Harbor Dept.	Pr Constr Inspector
Durden, Seanean Maria	32	Police Dept. - Civilian	Sr Police Serv Rep
Biazevich, Danette M	32	Harbor Dept.	Pr Clerk
Gabriel, Verdy M	32	Harbor Dept.	Electrcl Engrg Assc
Graham, James David	32	PW - Sanitation	Ref Coll Truck Oper
Provinchain, Cheryl M	32	Harbor Dept.	Sr Mgmt Analyst
Brown, Reylindahl G	32	Harbor Dept.	Payroll Supervisor
Santos, Carlos Alberto	32	PW - Sanitation	Sr Env Compliance Insp
White, John Andrew	32	Office of the City Clerk	Legislative Asst
Jenkins, Bradley Steven	31	Harbor Dept.	Pr Constr Inspector
Wong, Haul	31	PW - Sanitation	Envrmntl Engineer

Poosti, Ali	31	PW - Sanitation	Pr Civil Engineer
Ochoa, Orlando Ovidio	31	Police Dept. - Civilian	Sr Detention Officer
Truong, Richard Hien	31	Office of the City Clerk	Info System Mgr
Garcia, Joseph Lopez	31	PW - Sanitation	Ref Coll Truck Oper
Lim, Angel P	31	Harbor Dept.	Sr Structural Engineer
Abeyta, Christoph	31	PW - Solid Resource	Ref Coll Truck Oper
Roberts, Lisa Michelle	30	Harbor Dept.	Civil Engrg Assoc
Smith, Deanna N	30	Dept. of Airports	Workers Comp Claims Ast
Galassi, Romano V	30	PW - Engineering	Civil Engrg Assoc
Riggs, Casey Ryan	30	ITA	Info Sys Oper Mgr
Rosales, Sergio	30	Harbor Dept.	Port Maintenance Supv
Gastelum, Lori H	30	Harbor Dept.	Exec Admin Asst
Burton, Anna M	30	Harbor Dept.	Emergncy Mgt Coord
Meksavanh, Somvang	30	Dept. of Airports	Environmental Spec
Bernard, Erl	30	Fire Dept. - Civilian	Heavy Duty Equip Mech
Honesto, Daniel R	30	GSD - Bldg. Fac Mgmt.	Custodian
Huang, Yolanda Deguzman	30	Fire & Police Pensions	Dept Chief Acct
Delatorre, Denise	29	Harbor Dept.	Secretary
Choi, Kuokfai	29	PW - Sanitation	Laboratory Tech
Poozhikala, Pious Joseph	28	Harbor Dept.	Sr Accountant
Peng, Ching W	28	PW - Sanitation	Sr Env Compliance Insp
Yin, Eddy Li Li	27	Police Dept. - Civilian	Pr Property Officer
Flores, Uthai Tina	26	PW - St. Maint.	Administrative Clerk
Soohoo, Lorean	25	Police Dept. - Civilian	Management Analyst
Ewing, Vincent J	25	PW - St. Maint.	Truck Operator
Hall, Gilbert Dennis	24	PW - Solid Resource	Ref Coll Truck Oper
Munoz, Luis	23	PW - Sanitation	Maintenance Laborer
Barfield, Jeff Lavell	23	Dept. of Transportation	Parkg Mtr Tech Spv
Sugahara, Susan H	23	Personnel Dept.	Sr Personnel Analyst
Brackett, Isabel Abata Revi	23	Police Dept. - Civilian	Sr Administrative Clerk
Quiocho, Josefina Torres	22	Controller's Office	Sr Accountant
Haywood, Terrell M	21	Dept. of Airports	Security Officer
Ruiz, Rafael	21	PW - Resurf & Reconstr	St Svcs Worker
Eckstein, Marc	20	Fire Dept. - Civilian	Chief Physician
Reyes, Robert	20	Dept. of Rec. & Parks	Light Equip Operator
Perez, Antonio	20	Council - As Needed	Council Aide
Gordon, Derrick Peter	20	PW - Sanitation	Plumber
Mendez, Marcos Frank	20	Dept. of Bldg. & Safety	Build Mech Inspector
Shaw, Gary R	19	Dept. of Airports	Custodian Airport
Martinez, Guillermo A	19	PW - Sanitation	Maintenance Laborer
Gyiraszi, Sarah C	19	LACERS	Sr Mgmt Analyst
Torres, Henry	18	Harbor Dept.	Maintenance Laborer
Dukes, Chris Derrick	18	GSD - Materials Mgmt.	Warehouse & T/R Wkr
Reed, Michael D	16	Dept. of Airports	Custodian Airport
Han, Josephine	16	PW - St. Improv	Civil Engineer

Villasenor, Elvia	15	Harbor Dept.	Gardener Caretaker
Hines, Michlyn M	15	Zoo Dept.	Pr Animal Keeper
Hightower, Wilbur B	15	Harbor Dept.	Security Officer
Cumbess, Mark F	14	Harbor Dept.	Plumber
Cipolla, Annie C	13	Library Dept.	Sr Librarian
Ferrell, Kevin Wayne	13	Harbor Dept.	Roofer
Cook, Melissa A	10	Dept. of Bldg. & Safety	Sr Admin Clerk
Easter, Shenita Lyn	10	Police Dept. - Civilian	Police Service Rep
Walls, Gerald J	9	Dept. of Rec. & Parks	Special Prog Asst
Barrios, Eric	8	Dept. of Rec. & Parks	Asst Park Svcs Attnd
David, Arlene Yvette	7	Zoo Dept.	Admin Clerk
Martin, Daryl R	7	Harbor Dept.	Electrician Supv
Mena, Maria T	6	Dept. of Rec. & Parks	Special Prog Asst
Lepone, Raymond M	6	Harbor Dept.	Real Estate Ofcr
Anguiano, Zenaida	6	Dept. of Rec. & Parks	Recreation Asst
Bailey, Lawrence Douglas	5	PW - Resurf & Reconstr	Heavy Duty Truck Oper
Allevato, Judy S	5	Zoo Dept.	Pr Public Rel Rep
Azucena, Mario	5	ITA	City Atty Sys Anlyst
Lopez, Jesus A	4	Dept. of Transportation	Crossing Guard
Herrera, Armida C	4	EWDD	Youth Emplmt Spec
Cole, Winston Fredson	3	Dept. of Bldg. & Safety	Struct Engr Assoc

Pursuant to the authority delegated to the General Manager under Board Rule GMA 1, General Manager Authorization, adopted by the Board of Administration on June 14, 2016, the following benefit payments have been approved by the General Manager:

Approved Death Benefit Payments

Deceased	Beneficiary/Payee
TIER 1	
Retired	
Adkins, Lebertha	Barbara Johnson for the payment of the Accrued But Unpaid Continuance Allowance
	Gentry Adkins for the payment of the Accrued But Unpaid Continuance Allowance
Aguallo, Della	Robert Aguayo for the payment of the Accrued But Unpaid Continuance Allowance
Avers, Eileen E	Joanne Mordechai for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Baldridge, Thelma R	Baldridge Family Trust for the payment of the Accrued But Unpaid Continuance Allowance
Barker, Nancy J	David T Barker for the payment of the Accrued But Unpaid Continuance Allowance
Baydaline, Boris A	Nicholai Baydaline for the payment of the DRO Lump Sum

Beastrom, Mason M	Charlene Doris Beastrom for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Benitez, Martha E	Bryan M Carlson for the payment of the Accrued But Unpaid Continuance Allowance
Bennett, Ruth E	Richard D Bennett for the payment of the Accrued But Unpaid Continuance Allowance
Brown, Cal A	Francisco T. Brown for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Buising, Erlinda Laurente	Armando B Buising for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance Mark Andrew L Buising for the payment of the Burial Allowance Mikhail Angelo L Buising for the payment of the Burial Allowance
Calvert, Eula M	Samuel Calvert for the payment of the Accrued But Unpaid Continuance Allowance
Cardona, Jessie	Katherine Rabatin for the payment of the Burial Allowance

Carey, Dorsan	Latasha Felishe Carey for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance Unused Contributions
Carter, Dorothy J	Jason L. Carter for the payment of the Accrued But Unpaid Continuance Allowance
Clingerman, Kenneth A	Gloria Ann Clingerman for the payment of the Accrued But Unpaid Disability Retirement Allowance Burial Allowance
Connor Dominguez, Billie M	The Connor Dominguez Family Trust for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Cowdin, William G	Margaret Anne Kenney for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Cox, Angela	Garry Lynn Durrell for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Diaz, Marcella	Elaine Dominguez for the payment of the Accrued But Unpaid Continuance Allowance Laura Alonso for the payment of the Accrued But Unpaid Continuance Allowance Lorraine Vargas for the payment of the Accrued But Unpaid Continuance Allowance Rudy Diaz for the payment of the Accrued But Unpaid Continuance Allowance

Dominguez, Ramon R.	The Connor Dominguez Family Trust for the payment of the Accrued But Unpaid Continuance Allowance
Downen, Marie S	Margaret E Downen for the payment of the Accrued But Unpaid Survivorship (Retirement) Allowance
Eisenberg, Lawrence Michael	The Lawrence Michael Eisenberg Trust for the payment of the Burial Allowance
Fehrmann, Klaus R	Fehrmann Family Trust C/O Hildegard for the payment of the Accrued But Unpaid Service Retirement Allowance
German, Louis	Sylvia O German for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Ghattas, Amin K	Gamal B Ghattas for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Gilkey, Wallace	Christopher Jon Gilkey for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance

Gomez, Chris John	Christina Gomez for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance Unused Contributions
Gomez, Lillian Perez	Elizabeth Gwen Perez for the payment of the Accrued But Unpaid Continuance Allowance
Greenawalt, Robert O	Robert O Greenawalt Trust for the payment of the Accrued But Unpaid Vested Retirement Allowance Burial Allowance
Guerrero, Maria	Jose N Obando for the payment of the Accrued But Unpaid Survivorship (Disability) Allowance
Gunderson, Soon Joo	Paul Gunderson for the payment of the Burial Allowance
Gutierrez, Esequiel	Cecilia Lorraine Gutierrez for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Hagner, Frederick Dennis	Merri C Crockett for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Haywood, Sandra Marie	Kim J Hardy for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance Sabrina Carter for the payment of the Burial Allowance

Hee, David T	Monica Siu Fun Wolthers for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Hernandez, Rodolfo	Theresa Hernandez for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Herron, Louis	Brandon Herron for the payment of the Accrued But Unpaid Disability Retirement Allowance Burial Allowance
Hodo, Louis	Montorie Hodo for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Hoogesteger, Lucille F	Sharyl Rose for the payment of the Accrued But Unpaid Continuance Allowance
Ige, James M	Jane M Dutro for the payment of the Burial Allowance
Jones, Georgia L	Sheila R. Foster for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Kehl, Gordon E	Janice Kehl for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance

Kenton, Marguerite	Linda Oaks-Garcia for the payment of the Accrued But Unpaid Continuance Allowance
King, Lonnie L	Vernell V. King for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Larkin, Elbert	Brenda D Larkin for the payment of the Accrued But Unpaid Disability Retirement Allowance Burial Allowance
Lind, William D	Joseph Alexander Lind for the payment of the Accrued But Unpaid Service Retirement Allowance Unused Contributions
Martinez, Pablo P	Pablo Martinez for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Maxwell, Keith A	Susan K Maxwell for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Michalowski, Cecelia A M	Melanie Glynn for the payment of the Accrued But Unpaid Vested Retirement Allowance Burial Allowance Unused Contributions
Morro, Henry	Homer F Morro for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance

Musick, Marvin C	Julia A Brown for the payment of the Burial Allowance
Myers, Timothy J	Sandra H. Myers for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance Unused Contributions
Otell, Margaret Ann	James Otell for the payment of the Burial Allowance
Perez, Gilbert T	Norma Marie Perez for the payment of the Accrued But Unpaid Service Retirement Allowance
Radzwion, Evelyn Ruth	Janet Wilson for the payment of the Accrued But Unpaid Disability Continuance Allowance
Rincon, Jose F	Erica Campos for the payment of the Burial Allowance
Rodriguez, Jose A	Nellie E Rodriguez for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Rush, David C	Darian Rush for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance Helen Watkins for the payment of the Accrued But Unpaid Service Retirement Allowance

Russo, Evelyn J	Gerard Jude Russo for the payment of the Accrued But Unpaid Continuance Allowance Robert Anthony Moulder for the payment of the Accrued But Unpaid Continuance Allowance
Schoonover, Robert L	Kathy Ann Lee for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Scotland, Claudia A	Jamie Scotland for the payment of the Accrued But Unpaid Survivorship (Vested) Allowance
Selmer, Doris R	Anne Joseph for the payment of the Accrued But Unpaid Continuance Allowance
Shibuya, Takasato	Greggory T Shibuya for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Smith, Cecil	Daudi Sanghe for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance Tama Smith for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Speed, Iris A	Christie Samantha Speed for the payment of the Accrued But Unpaid Continuance Allowance Shannon Speed for the payment of the Accrued But Unpaid Service Retirement Allowance

Streeter, Howard	Eleanor Streeter for the payment of the Accrued But Unpaid Disability Retirement Allowance
	Zelda A Udell for the payment of the Burial Allowance
Takei, Toshihiko	Kazuko Takei for the payment of the Accrued But Unpaid Service Retirement Allowance
	Susan E Green for the payment of the Burial Allowance
Tanimoto, Shikuo	Tanimoto Living Trust for the payment of the Accrued But Unpaid Service Retirement Allowance
Tinawin, Eva E	Presentacion T James for the payment of the Burial Allowance
Toda, Akira	Kathryn Uyemura for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Valenzuela, Albert F	Cecilia C Valenzuela for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Vane, Lydia E	Loreen Hall for the payment of the Accrued But Unpaid Continuance Allowance
	Patricia Tanksley for the payment of the Accrued But Unpaid Continuance Allowance

Washington, Craig	Beverly A Barbee for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance Unused Contributions
Watson, Earlene	George Lee for the payment of the Burial Allowance Unused Contributions
Willey, Catherine	Catherine M Willey Survivors Trust for the payment of the Accrued But Unpaid Continuance Allowance
Wong, Frank M	Wan Chin Liew for the payment of the Accrued But Unpaid Larger Annuity Allowance Accrued But Unpaid Service Retirement Allowance Burial Allowance

TIER 3
NONE

Pursuant to the authority delegated to the General Manager under Board Rule GMA 1, General Manager Authorization, adopted by the Board of Administration on June 14, 2016, the following benefit payments have been approved by the General Manager:

Approved Death Benefit Payments

Deceased	Beneficiary/Payee
TIER 1	
Active	
Alviso, Mariflor (Deceased Active)	Francis Darren Fagar Alviso for the payment of the Vested Retirement Survivorship Allowance
Angeles, Val C (Deceased Active)	Emily C Simon for the payment of the Accumulated Contributions
Anker, Judy A (Deceased Active)	Scott Edward Anker for the payment of the Accumulated Contributions
Arevalo, Adolfo H (Deceased Active)	Rosa Linda Gonzalez for the payment of the Limited Pension
Colmenares, Roberto I (Deceased Active)	Sonia Colmenares for the payment of the Survivor Contributions Death Refund
Ferrer, George Ballestero (Deceased Active)	Rowena A Ferrer for the payment of the Accumulated Contributions
Gardner, Littleton Turner (Deceased Active)	Annette Gardner for the payment of the Survivor Contributions Death Refund

Gardner, Telish (Deceased Active)	Terry Telish Gardner for the payment of the Accumulated Contributions
Gordon Jr, Howard (Deceased Active)	Howard Gordon III for the payment of the Accumulated Contributions
Greer, Michael Dean (Deceased Active)	Ricky Greer for the payment of the Accumulated Contributions Sherry Clements for the payment of the Accumulated Contributions
Haldeman, John A (Deceased Active)	Max Ian Haldeman for the payment of the Limited Pension
Jackson, Kelvin (Deceased Active)	Kelvin Jackson for the payment of the Accumulated Contributions
Martinez, Juan C (Deceased Active)	Nelson Samuel Martinez for the payment of the Accumulated Contributions
Miles, Rayford J (Deceased Active)	Kalynn M Miles for the payment of the Accumulated Contributions

TIER 3

Ruiz, Eduardo Alfredo (Deceased Active)	Liliana G Castro for the payment of the Limited Pension

Stinnett, Edwin Ray (Deceased Active)	Isabel Stinnett for the payment of the Limited Pension

Disclaimer: The names of members who are deceased may appear more than once due to multiple beneficiaries being paid at different times.

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM (LACERS)
TRAVEL/CONFERENCE EVALUATION REPORT

Name of Attendee: Sung Won Sohn	
Title of Conference/Seminar: Delivering alpha	
Location: Zoom	No. of Education Hours: 8
Event Sponsor: CNBC	Date(s) Held: 9-29-21

Report for:

- ☐ Travel
- ☒ Conference/Seminar Attendance Only

I. Nature/Purpose of Travel (if applicable):

Online meeting

II. Significant Information Gained:

A lot of good information from experts in each field of investment

III. Benefits to LACERS:

Improving investment performance

IV. Additional Comments:

It was great. I would like to attend again next year.

SUBMIT TO THE LACERS COMMISSION EXECUTIVE ASSISTANT, 202 W. FIRST STREET, SUITE 500
WITHIN 30 DAYS AFTER ATTENDING THE CONFERENCE/SEMINAR

LACERS
LOS ANGELES CITY EMPLOYEES'
RETIREMENT SYSTEM

REPORT TO BOARD OF ADMINISTRATION **MEETING: OCTOBER 12, 2021**
From: Neil M. Guglielmo, General Manager **ITEM: V – D**

SUBJECT: **GASB 68 AND GASB 75 ACTUARIAL VALUATIONS BASED ON JUNE 30, 2020 MEASUREMENT DATE, FOR EMPLOYER REPORTING AS OF JUNE 30, 2021**

ACTION: ☐ CLOSED: ☐ CONSENT: ☐ RECEIVE & FILE: ☒

Recommendation

That the Board receive and file the attached GASB 68 and GASB 75 Actuarial Valuation Reports For Employer Reporting as of June 30, 2021 (Attachments 1 and 2).

Executive Summary

The Governmental Accounting Standards Board (GASB) requires pension plan sponsors to report certain pension information in their financial statements for fiscal periods beginning on or after June 2014. The attached valuation reports prepared by LACERS' independent actuary, Segal Consulting (Segal), based on June 30, 2020 LACERS actuarial valuations, provide proportionate share of necessary pension information needed by the City, Department of the Airports, and Harbor Department for their financial statements as of June 30, 2021. LACERS' external auditor, Moss Adams, has conducted audit procedures and issued unmodified opinions on the allocation schedules presented in the GASB 68 and GASB 75 valuation reports (Attachment 3).

Discussion

Accounting standards in financial reporting on pension liabilities of governmental pension plans and their sponsors were issued in 2012 and 2015 by GASB, an accounting standard setting body. GASB Statement No. 67 (GASB 67) and GASB Statement No. 74 (GASB 74) are financial reporting requirements of the plan (LACERS) for its pension benefits and other post-employment benefits (OPEB), while GASB Statement No. 68 (GASB 68) and GASB Statement No. 75 (GASB 75) are financial reporting requirements of the plan sponsor (the City) for the LACERS pension benefits and OPEB. Segal presented the GASB 67 and GASB 74 valuations to the Board on November 10, 2020 together with the annual retirement and health actuarial valuations as of June 30, 2020.

The attached GASB 68 and GASB 75 valuations were prepared by Segal to provide the proportional share of net pension liability and net OPEB liability along with other information required to report in the June 30, 2021 financial statements for the City, Department of Airports, and Harbor Department.

Key findings from the Segal valuation reports based on the June 30, 2020 measurement date include:

- The Net Pension Liability (NPL), which is the difference between the Total Pension Liability (TPL) and the Retirement Plan Fiduciary Net Position, increased from $5.98 billion to $7.59 billion, mainly due to lower market return compared to the assumed rate of return used in previous valuation, assumption changes, as well higher-than-expected salary increases for active employees. The $7.59 billion NPL is allocated based on retirement contributions to LACERS, and will be reflected in the plan sponsors' Statement of Net Position/balance sheet as of June 30, 2021, as follows:

City	Airports	Harbor	Total
$6.29 billion	$1.02 billion	$279 million	$7.59 billion

- Similarly, the Net OPEB Liability (NOL), which is the difference between the Total OPEB Liability (TOL) and the OPEB Plan Fiduciary Net Position, increased from $522.2 million to $635.3 million due to lower market return compared to the assumed rate of return used in previous valuation, assumption changes made based on triennial experience study, offset to some degree by favorable premium renewal experience. The $635.3 million NOL also is allocated based on OPEB contributions to LACERS, and will be reflected in the plan sponsors' Statement of Net Position/balance sheet as of June 30, 2021, as follows:

City	Airports	Harbor	Total
$531.2 million	$81.1 million	$23 million	$635.3 million

The Plan Fiduciary Net Position is equal to the market value of plan assets and therefore, the NPL/NOL measure is very similar to the Unfunded Actuarial Accrued Liability (UAAL) calculated on a market value basis. The NPL/NOL reflects all investment gains and losses as of the measurement date. This is different from the UAAL calculated on an actuarial value of assets basis in the funding valuation that reflects investment gains and losses over a seven-year period. NPL/NOL amounts were reported in LACERS June 30, 2020 financial statements as a note disclosure, pursuant to the GASB 67 and GASB 74.

Staff will be available for any questions the Board may have.

Prepared By: Rahoof "Wally" Oyewole, Departmental Chief Accountant

NMG/TB:ro

Attachments: 1) GASB 68 Actuarial Valuation for June 30, 2021 Employer Reporting Issued by Segal
2) GASB 75 Actuarial Valuation for June 30, 2021 Employer Reporting Issued by Segal
3) Moss Adams Independent Auditor's Reports

BOARD Meeting: 10/12/21
Item: V - D
Attachment 1

Los Angeles City Employees' Retirement System (LACERS)

Governmental Accounting Standards Board Statement 68 (GAS 68)

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

Segal

180 Howard Street, Suite 1100
San Francisco, CA 94105-6147
segalco.com
T 415.263.8200

June 16, 2021

Board of Administration
Los Angeles City Employees' Retirement System
202 W. 1st Street, Suite 500
Los Angeles, CA 90012-4401

Dear Board Members:

We are pleased to submit this Governmental Accounting Standards (GAS) 68 Actuarial Valuation based on a June 30, 2020 measurement date for employer reporting as of June 30, 2021. It contains various information that will need to be disclosed in order for the three employer categories in LACERS (i.e., the City, Airports, and Harbor) to comply with GAS 68.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist the sponsors in preparing their financial report for their liabilities associated with the LACERS pension plan. The census and financial information on which our calculations were based was provided by LACERS. That assistance is gratefully acknowledged.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and changes in plan provisions or applicable law.

The actuarial calculations were completed under the supervision of Andy Yeung, ASA, MAAA, FCA, Enrolled Actuary. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in the actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and expectations for LACERS.

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

Sincerely,

Segal

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

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

JY/jl

Table of Contents

Section 1: Actuarial Valuation Summary

Purpose and basis

This report has been prepared by Segal to present certain disclosure information required by Governmental Accounting Standards (GAS) 68 for employer reporting as of June 30, 2021. The results used in preparing this GAS 68 report are comparable to those used in preparing the Governmental Accounting Standards (GAS) 67 report for the Plan based on a reporting date and a measurement date as of June 30, 2020. This valuation is based on:

- The benefit provisions of the Pension Plan, as administered by the Board of Administration;
- The characteristics of covered active members, inactive vested members, and retired members and beneficiaries as of June 30, 2020, provided by LACERS;
- The assets of the Plan as of June 30, 2020, provided by LACERS;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board for the June 30, 2020 valuation; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc. that the Board has adopted for the June 30, 2020 valuation.

General observations on GAS 68 actuarial valuation

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

Highlights of the valuation

1. For this report, the reporting dates for the employer are June 30, 2021 and 2020. The NPL was measured as of June 30, 2020 and 2019 and determined based upon the results of the actuarial valuations as of June 30, 2020 and 2019, respectively. The Plan's Fiduciary Net Position (plan assets) and the TPL were valued as of the measurement dates. Consistent with the provisions of GAS 68, the assets and liabilities measured as of June 30, 2020 and 2019 were not adjusted or rolled forward to the June 30, 2021 and 2020 reporting dates, respectively.
2. The NPL increased from $5.98 billion as of June 30, 2019 to $7.59 billion as of June 30, 2020 mainly due to (a) the return on the market value of retirement plan assets of 2.05%[1] during 2019/2020 that was less than the assumption of 7.25% used in the June 30, 2019 valuation (that loss was about $0.78 billion), (b) changes in the actuarial assumptions (that increase was about $0.53 billion), and (c) higher than expected salary increases for continuing active members (that loss was about $0.31 billion). Changes in these values during the last two fiscal years ending June 30, 2019 and June 30, 2020 can be found in *Section 2, Schedule of changes in Net Pension Liability* on page 19.
3. There was an increase in the total employer pension expense from $846.4 million calculated last year to $999.0 million calculated this year. The primary causes of the increase were the unfavorable return on the market value of assets for the year ended June 30, 2020 and the changes in actuarial assumptions.
4. The discount rates used to determine the TPLs and NPLs as of June 30, 2020 and 2019 were 7.00% and 7.25%, respectively, following the same assumption used by the System in the pension funding valuations as of the same dates. The detailed calculations used in the derivation of the discount rate of 7.00% used in the calculation of the TPL and NPL as of June 30, 2020 can be found in *Section 3, Appendix A*. Various other information that is required to be disclosed can be found throughout *Section 2*.
5. The NPLs for the three employer categories in LACERS (i.e., the City, Airports, and Harbor) as of June 30, 2019 and June 30, 2020 are allocated based on the actual employer contributions made during 2018/2019 and 2019/2020, respectively. The steps we used for the allocation are as follows:
   a. First calculate the ratio of the employer category's contributions to the total contributions.
   b. Then multiply this ratio by the NPL to determine the employer category's proportionate share of the NPL. The NPL allocation can be found in *Section 2, Determination of proportionate share* on pages 23 and 24.
6. Results shown in this report exclude any employer contributions made after the measurement date of June 30, 2020. The employer should consult with their auditor to determine the deferred outflow that should be created for these contributions.

[1] Net of investment expenses only.

7. It is important to note that this actuarial valuation is based on plan assets as of June 30, 2020. Due to the COVID-19 pandemic, market conditions have changed significantly since the onset of the Public Health Emergency. The plan's funded status does not reflect short-term fluctuations of the market, but rather is based on the market values on the last day of the plan year. Moreover, this actuarial valuation does not include any possible short-term or long-term impacts on mortality of the covered population that may emerge after June 30, 2020. While it is impossible to determine how the pandemic will affect market conditions and other demographic experience of the plan in future valuations, Segal is available to prepare projections of potential outcomes upon request.

Summary of key valuation results[1]

Reporting Date for Employer under GAS 68		June 30, 2021[2]	June 30, 2020[3]
Measurement Date for Employer under GAS 68		**June 30, 2020**	**June 30, 2019**
Disclosure elements for fiscal year ending June 30:	• Service cost[4]	$374,967,243	$370,409,073
	• Total Pension Liability	22,527,195,295	20,793,421,143
	• Plan's Fiduciary Net Position	14,932,404,300	14,815,592,841
	• Net Pension Liability	7,594,790,995	5,977,828,302
	• Pension expense	999,039,971	846,434,692
Schedule of contributions for fiscal year ending June 30:	• Actuarially determined contributions	$553,118,173	$478,716,953
	• Actual contributions	553,118,173	478,716,953
	• Contribution deficiency/(excess)	0	0
Demographic data for plan year ending June 30:	• Number of retired members and beneficiaries	20,423	20,034
	• Number of inactive vested members[5]	9,207	8,588
	• Number of active members	27,490	26,632
Key assumptions as of June 30:	• Investment rate of return	7.00%	7.25%
	• Inflation rate	2.75%	3.00%
	• Projected salary increases[6]	Ranges from 9.95% to 4.25%, based on years of service	Ranges from 10.00% to 3.90%, based on years of service

[1] The assets and liabilities throughout this report are for the Retirement Plan only, and exclude amounts for the Health, Family Death Benefit and Larger Annuity Plans.

[2] The reporting date and measurement date for the Plan are June 30, 2020.

[3] The reporting date and measurement date for the Plan are June 30, 2019.

[4] The service cost is based on the previous year's valuation, meaning the June 30, 2020 and June 30, 2019 measurement date values are based on the valuations as of June 30, 2019 and June 30, 2018, respectively. Both service costs have been calculated using the actuarial assumptions shown in the June 30, 2019 measurement date column, as there had been no changes in the actuarial assumptions between the June 30, 2018 and June 30, 2019 valuations.

[5] Includes terminated members due a refund of employee contributions.

[6] Includes inflation at 2.75% (3.00% for June 30, 2019 measurement date) plus real across the board salary increase of 0.50%, plus merit and promotion increases.

Important information about actuarial valuations

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

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

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

Section 1: Actuarial Valuation Summary

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

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

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

Section 2: GAS 68 Information

General information about the pension plan

Plan Description

Plan administration. The Los Angeles City Employees' Retirement System (LACERS) was established by City Charter in 1937. LACERS is a single employer public employee retirement system whose main function is to provide retirement benefits to the civilian employees of the City of Los Angeles.

Under the provisions of the City Charter, the Board of Administration (the "Board") has the responsibility and authority to administer the Plan and to invest its assets. The Board members serve as trustees and must act in the exclusive interest of the Plan's members and beneficiaries. The Board has seven members: four members, one of whom shall be a retired member of the system, shall be appointed by the Mayor subject to the approval of the Council; two members shall be active employee members of the system elected by the active employee members; one shall be a retired member of the system elected by the retired members of the system.

Plan membership. At June 30, 2020, pension plan membership consisted of the following:

Retired members or beneficiaries currently receiving benefits	20,423
Inactive vested members entitled to but not yet receiving benefits[1]	9,207
Active members	27,490
Total	**57,120**

[1] Includes terminated members due a refund of employee contributions.

Benefits provided. LACERS provides service retirement, disability, death and survivor benefits to eligible retirees and beneficiaries. Employees of the City become members of LACERS on the first day of employment in a position with the City in which the employee is not excluded from membership. Members employed prior to July 1, 2013 are designated as Tier 1. All Tier 1 Airport Peace Officers (including certain fire fighters) appointed to their positions before January 7, 2018 who elected to remain at LACERS after January 6, 2018, and who paid their mandatory additional contribution of $5,700 to LACERS before January 8, 2019, or prior to their retirement date, whichever was earlier, are designated as Tier 1 Enhanced. Those employed on or after February 21, 2016 are designated as Tier 3 (unless a specific exception applies to the employee, providing a right to Tier 1 status).

Tier 1 and Tier 1 Enhanced members are eligible to retire for service with a normal retirement benefit once they attain the age of 70, or the age of 60 with 10 or more years of continuous City service, or the age of 55 with 30 or more years of City service. Tier 3 members are eligible to retire for service with a normal retirement benefit at 1.50% of final average monthly compensation per year of service credit once they attain the age of 60 with 10 years of service (but with less than 30 years of service), including 5 years of continuous City service, or at 2.00% of final average monthly compensation per year of service credit once they attain the age of 60 with 30 years of service, including 5 years of continuous City service.

Tier 1 and 3 members are eligible to retire for disability once they have 5 or more years of continuous service. Tier 1 Enhanced members are eligible to retire for service-connected disability without a service requirement, and once they have 5 or more years of continuous service for a nonservice-connected disability.

Under the Tier 1 formula, the monthly service retirement allowance at normal retirement age is 2.16% of final average monthly compensation per year of service credit. Under the Tier 1 Enhanced formula, the monthly service retirement allowance at normal retirement age is 2.30% of final average monthly compensation per year of service credit. Reduced retirement allowances are available for early retirement for Tier 1 and Tier 1 Enhanced members reaching age 55 with 10 or more years of continuous City service, or with 30 or more years of City service at any age. The Tier 1 and Tier 1 Enhanced early retirement reduction factors, for retirement below age 60, are as follows:

Age	Factor
45	0.6250
46	0.6550
47	0.6850
48	0.7150
49	0.7450
50	0.7750
51	0.8050
52	0.8350
53	0.8650
54	0.8950
55	0.9250
56	0.9400
57	0.9550
58	0.9700
59	0.9850
60	1.0000

Under the Tier 3 formula, the monthly service retirement allowance at normal retirement age is 2.00% of final average monthly compensation per year of service credit. Reduced retirement allowances are available for early retirement for Tier 3 members prior to reaching age 60 with 30 years of service, including 5 years of continuous City service. The Tier 3 early retirement reduction factors, for retirement below age 60, are as follows:

Age	Factor
45	0.6250
46	0.6550
47	0.6850
48	0.7150
49	0.7450
50	0.7750
51	0.8050
52	0.8350
53	0.8650
54	0.8950
55 - 60	1.0000

Tier 3 members are eligible to retire with an enhanced retirement benefit at 2.00% of final average monthly compensation per year of service credit once they attain the age of 63 with 10 years of service (but with less than 30 years of service), including 5 years of continuous City service, or at 2.10% of final average monthly compensation per year of service credit once they attain the age of 63 with 30 years of service, including 5 years of continuous City service.

Under Tier 1 and Tier 1 Enhanced, pension benefits are calculated based on the highest average salary earned during a 12-month period (including base salary plus regularly assigned pensionable bonuses or premium pay). Under Tier 3, pension benefits are calculated based on the highest average salary earned during a 36-month period (limited to base salary and any items of compensation that are designated as pension based). The IRC Section 401(a)(17) compensation limit applies to all employees who began membership in LACERS after June 30, 1996.

For Tier 1 and Tier 1 Enhanced members, the maximum monthly retirement allowance is 100% of the final average monthly compensation. For Tier 3 members, the maximum monthly retirement allowance is 80% of the final average monthly compensation, except when the benefit is based solely on the annuity component funded by the member’s contributions.

In lieu of the service retirement allowance under the Tier 1, Tier 1 Enhanced, and Tier 3 formulas (“unmodified option”), the member may choose an optional retirement allowance. The unmodified option provides the highest monthly benefit and a 50% continuance to an eligible surviving spouse or domestic partner for Tier 1, Tier 1 Enhanced, and Tier 3 members. The optional retirement allowances require a reduction in the unmodified option amount in order to allow the member the ability to provide various benefits to a surviving spouse, domestic partner, or named beneficiary.

LACERS provides annual cost-of-living adjustments (COLAs) to all retirees. The cost-of-living adjustments are made each July 1 based on the percentage change in the average of the Consumer Price Index for the Los Angeles-Long Beach-Anaheim Area --All Items For All Urban Consumers. It is capped at 3.0% for Tier 1 and Tier 1 Enhanced, and at 2.0% for Tier 3.

The City of Los Angeles contributes to the retirement plan based upon actuarially determined contribution rates adopted by the Board of Administration. Employer contribution rates are adopted annually based upon recommendations received from LACERS' actuary after the completion of the annual actuarial valuation. The combined employer contribution rate as of June 30, 2020 was 24.36% of compensation.[1]

All members are required to make contributions to LACERS regardless of the tier in which they are included. Currently, all Tier 1 members contribute at 11.0% or 11.5% of compensation, and all Tier 1 Enhanced and Tier 3 members contribute at 11.0% of compensation.

[1] Based on the June 30, 2018 funding valuation which established funding requirements for fiscal year 2019/2020. The schedule of contributions in Section 2 of this report provides details on how this rate was calculated

Net Pension Liability

The components of the Net Pension Liability were as follows:

Reporting Date for Employer under GAS 68	June 30, 2021	June 30, 2020
Measurement Date for Employer under GAS 68	**June 30, 2020**	**June 30, 2019**
Total Pension Liability	$22,527,195,295	$20,793,421,143
Plan's Fiduciary Net Position	-14,932,404,300	-14,815,592,841
Net Pension Liability	**$7,594,790,995**	**$5,977,828,302**
Plan's Fiduciary Net Position as a percentage of the Total Pension Liability	66.29%	71.25%

The NPL was measured as of June 30, 2020 and 2019. The Plan's Fiduciary Net Position was valued as of the measurement date, while the TPL was determined based upon the results of the actuarial valuations as of June 30, 2020 and 2019, respectively.

Plan provisions. The plan provisions used in the measurement of the NPL as of June 30, 2020 and 2019 are the same as those used in the LACERS funding valuations as of June 30, 2020 and 2019, respectively.

Actuarial assumptions. The TPL as of June 30, 2020 was determined by an actuarial valuation as of June 30, 2020. The actuarial assumptions used in the June 30, 2020 valuation were based on the results of an experience study for the period from July 1, 2016 through June 30, 2019. They are the same as the assumptions used in the June 30, 2020 funding actuarial valuation for LACERS. In particular, the following actuarial assumptions were applied to all periods included in the measurement:

Inflation:	2.75%
Salary increases:	Ranges from 9.95% to 4.25% based on years of service, including inflation
Investment rate of return:	7.00%, net of pension plan investment expense and including inflation
Other assumptions:	Same as those used in the June 30, 2020 actuarial valuation

Section 2: GAS 68 Information

The TPL as of June 30, 2019 was determined by an actuarial valuation as of June 30, 2019. The actuarial assumptions used in the June 30, 2019 valuation were based on the results of an experience study for the period from July 1, 2014 through June 30, 2017 and the June 30, 2017 review of economic actuarial assumptions. They are the same as the assumptions used in the June 30, 2019 funding actuarial valuation for LACERS. The assumptions are outlined in Section 3 of this report. In particular, the following actuarial assumptions were applied to all periods included in the measurement:

Inflation:	3.00%
Salary increases:	Ranges from 10.00% to 3.90% based on years of service, including inflation
Investment rate of return:	7.25%, net of pension plan investment expense and including inflation
Other assumptions:	Same as those used in the June 30, 2019 actuarial valuation

Determination of discount rate and investment rates of return

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation and subtracting expected investment expenses and a risk margin. The target allocation and projected arithmetic real rates of return for each major asset class, after deducting inflation but before deducting investment expenses, are summarized in the following table. These values were used in the derivation of the long-term expected investment rate of return assumption that was used in the actuarial valuation as of June 30, 2020. This information is subject to change every three years based on the actuarial experience study.

Asset Class	Target Allocation	Long-Term Expected Arithmetic Real Rate of Return
Large Cap U.S. Equity	15.01%	5.54%
Small/Mid Cap U.S. Equity	3.99%	6.25%
Developed International Large Cap Equity	17.01%	6.61%
Developed International Small Cap Equity	2.97%	6.90%
Emerging International Large Cap Equity	5.67%	8.74%
Emerging International Small Cap Equity	1.35%	10.63%
Core Bonds	13.75%	1.19%
High Yield Bonds	2.00%	3.14%
Bank Loans	2.00%	3.70%
TIPS	4.00%	0.86%
Emerging Market Debt (External)	2.25%	3.55%
Emerging Market Debt (Local)	2.25%	4.75%
Core Real Estate	4.20%	4.60%
Non-Core Real Estate	2.80%	5.76%
Cash	1.00%	0.03%
Commodities	1.00%	3.33%
Private Equity	14.00%	8.97%
Private Credit/Debt	3.75%	6.00%
REITS	1.00%	5.98%
Total	**100.00%**	**5.50%**

Discount rate. The discount rate used to measure the TPL was 7.00% as of June 30, 2020 and 7.25% as of June 30, 2019. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the actuarially determined contribution rates. For this purpose, only employee and employer contributions that are intended to fund benefits for current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs for future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the Pension Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments for current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the TPL as of both June 30, 2020 and June 30, 2019.

Discount rate sensitivity

Sensitivity of the Net Pension Liability to changes in the discount rate. The following presents the Net Pension Liability of LACERS as of June 30, 2020, which is allocated to all employer categories, calculated using the discount rate of 7.00%, as well as what LACERS' Net Pension Liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.00%) or 1-percentage-point higher (8.00%) than the current rate:

	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
City	$8,820,123,111	$6,294,231,550	$4,204,429,465
Airports	1,431,463,140	1,021,523,208	682,358,480
Harbor	391,014,208	279,036,237	186,391,010
Total for all Employer Categories	**$10,642,600,459**	**$7,594,790,995**	**$5,073,178,955**

Schedule of changes in Net Pension Liability – Last two fiscal years

Reporting Date for Employer under GAS 68 Measurement Date for Employer under GAS 68	June 30, 2021 June 30, 2020	June 30, 2020 June 30, 2019
Total Pension Liability		
• Service cost[1]	$374,967,243	$370,409,073
• Interest	1,499,208,335	1,439,660,906
• Change of benefit terms	0	0
• Differences between expected and actual experience	308,183,796	-46,035,243
• Changes of assumptions	530,720,225	0
• Benefit payments, including refunds of member contributions	-979,305,447	-915,192,651
Net change in Total Pension Liability	**$1,733,774,152**	**$848,842,085**
Total Pension Liability – beginning	**20,793,421,143**	**19,944,579,058**
Total Pension Liability – ending	**$22,527,195,295**	**$20,793,421,143**
Plan's Fiduciary Net Position		
• Contributions – employer	$553,118,173	$478,716,953
• Contributions – employee	259,816,657	237,087,419
• Net investment income	306,712,445	799,350,708
• Benefit payments, including refunds of member contributions	-979,305,447	-915,192,651
• Administrative expense	-23,530,369	-19,600,116
• Other	0	0
Net change in Plan's Fiduciary Net Position	**$116,811,459**	**$580,362,313**
Plan's Fiduciary Net Position – beginning	**14,815,592,841**	**14,235,230,528**
Plan's Fiduciary Net Position – ending	**$14,932,404,300**	**$14,815,592,841**
Net Pension Liability – ending	**$7,594,790,995**	**$5,977,828,302**
Plan's Fiduciary Net Position as a percentage of the Total Pension Liability	**66.29%**	**71.25%**
Covered payroll[2]	**$2,271,038,575**	**$2,108,171,088**
Net Pension Liability as percentage of covered payroll	**334.42%**	**283.56%**

[1] The service cost is based on the previous year's valuation, meaning the June 30, 2020 and 2019 measurement date values are based on the valuations as of June 30, 2019 and June 30, 2018, respectively. Both service costs have been calculated using the actuarial assumptions shown in the June 30, 2019 measurement date column on page 7, as there had been no changes in the actuarial assumptions between the June 30, 2018 and June 30, 2019 valuations.

[2] Covered payroll is defined as the payroll on which contributions to a pension plan are based.

Schedule of contributions – Last ten fiscal years

Year Ended June 30	Actuarially Determined Contributions	Contributions in Relation to the Actuarially Determined Contributions	Contribution Deficiency / (Excess)	Covered Payroll[1]	Contributions as a Percentage of Covered Payroll
2011	$303,560,953	$303,560,953	$0	$1,678,059,440	18.09%
2012	308,539,905	308,539,905	0	1,715,197,133	17.99%
2013	346,180,852	346,180,852	0	1,736,112,598	19.94%
2014	357,649,232	357,649,232	0	1,802,931,195	19.84%
2015	381,140,923	381,140,923	0	1,835,637,409	20.76%
2016	440,546,011	440,546,011	0	1,876,946,179	23.47%
2017	453,356,059	453,356,059	0	1,973,048,633	22.98%
2018	450,195,254	450,195,254	0	2,057,565,478	21.88%
2019	478,716,953	478,716,953	0	2,108,171,088	22.71%
2020	553,118,173	553,118,173	0	2,271,038,575	24.36%

1 Covered payroll is defined as the payroll on which contributions to a pension plan are based.

See accompanying notes to this schedule on the next page.

Notes to Schedule:

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

Valuation date:	Actuarially determined contribution rates are calculated as of June 30, two years prior to the end of the fiscal year in which contributions are reported
Actuarial cost method:	Entry Age Cost Method (individual basis)
Amortization method:	Level percent of payroll
Amortization period:	Multiple layers, closed amortization periods. Actuarial gains/losses are amortized over 15 years. Assumption or method changes are amortized over 20 years. Plan changes, including the 2009 ERIP, are amortized over 15 years. Future ERIPs will be amortized over 5 years. Actuarial surplus is amortized over 30 years. The existing layers on June 30, 2012, except those arising from the 2009 ERIP and the two (at that time) GASB 25/27 layers, were combined and amortized over 30 years.
Asset valuation method:	Market value of assets less unrecognized returns in each of the last seven years. Unrecognized return is equal to the difference between the actual market return and the expected return on the market value, and is recognized over a seven-year period. The actuarial value of assets cannot be less than 60% or greater than 140% of the market value of assets.

Section 2: GAS 68 Information

Actuarial assumptions:

Valuation Date:	**June 30, 2020**
Investment rate of return:	7.00%
Inflation rate:	2.75%
Real across-the-board salary increase:	0.50%
Projected salary increases:[1]	Ranges from 9.95% to 4.25%, based on years of service
Cost of living adjustments:	2.75% for Tier 1; 2.00% for Tier 3. (Actual increases are contingent upon CPI increases with a 2.75% maximum for Tier 1 and a 2.00% maximum for Tier 3. For Tier 1 members with a sufficient COLA bank, withdrawals from the bank can be made to increase the retiree COLA up to 3% per year.)
Mortality:	Healthy: Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Tables (separate tables for males and females) with rates increased by 10% for males, projected generationally with the two-dimensional mortality improvement scale MP-2019.
Other assumptions:	Same as those used in the June 30, 2020 funding actuarial valuation

[1] Includes inflation at 2.75% plus across the board salary increases of 0.50% plus merit and promotion increases.

Determination of proportionate share

Actual Employer Contributions by Employer Category
July 1, 2018 to June 30, 2019

Employer Category	Contributions	Percentage[1]
City	$395,373,858	82.591%
Airports	65,667,006	13.717%
Harbor	17,676,089	3.692%
Total for all Employer Categories	**$478,716,953**	**100.000%**

[1] The unrounded percentages are used in the allocation of the NPL amongst employer categories.

Allocation of June 30, 2019 Net Pension Liability (NPL)

Employer Category	NPL	Percentage
City	$4,937,107,456	82.591%
Airports	819,996,210	13.717%
Harbor	220,724,636	3.692%
Total for all Employer Categories	**$5,977,828,302**	**100.000%**

Notes:

1. Based on the July 1, 2018 through June 30, 2019 employer contributions as provided by LACERS.
2. The Net Pension Liability is the Total Pension Liability minus the Plan's Fiduciary Net Position (plan assets).
3. The NPL is allocated based on the actual contributions from each employer category. The steps used for the allocation are as follows:
   - First calculate the ratio of the contributions from the employer category to the total contributions.
   - Then multiply this ratio by the NPL to determine the employer category's proportionate share of the NPL.

Determination of proportionate share (continued)

Actual Employer Contributions by Employer Category
July 1, 2019 to June 30, 2020

Employer Category	Contributions	Percentage[1]
City	$458,400,219	82.876%
Airports	74,396,129	13.450%
Harbor	20,321,825	3.674%
Total for all Employer Categories	**$553,118,173**	**100.000%**

[1] The unrounded percentages are used in the allocation of the NPL amongst employer categories.

Allocation of June 30, 2020 Net Pension Liability (NPL)

Employer Category	NPL	Percentage
City	$6,294,231,550	82.876%
Airports	1,021,523,208	13.450%
Harbor	279,036,237	3.674%
Total for all Employer Categories	**$7,594,790,995**	**100.000%**

Notes:

1. Based on the July 1, 2019 through June 30, 2020 employer contributions as provided by LACERS.
2. The Net Pension Liability is the Total Pension Liability minus the Plan's Fiduciary Net Position (plan assets).
3. The NPL is allocated based on the actual contributions from each employer category. The steps used for the allocation are as follows:
   - First calculate the ratio of the contributions from the employer category to the total contributions.
   - Then multiply this ratio by the NPL to determine the employer category's proportionate share of the NPL.

Determination of proportionate share (continued)

For purposes of the above results, the reporting date for the employer under GAS 68 is June 30, 2021. The reporting date and measurement date for the Plan under GAS 67 are June 30, 2020. Consistent with the provisions of GAS 68, the assets and liabilities measured as of June 30, 2020 are not adjusted or rolled forward to the June 30, 2021 reporting date. Other results, such as the total deferred inflows and outflows would also be allocated based on the same proportionate shares determined above.

The following items are allocated based on the corresponding proportionate share:

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

Pension expense

Total for All Employer Categories

Reporting Date for Employer under GAS 68	June 30, 2021	June 30, 2020
Measurement Date for Employer under GAS 68	**June 30, 2020**	**June 30, 2019**
Components of Pension Expense		
• Service cost	$374,967,243	$370,409,073
• Interest on the Total Pension Liability	1,499,208,335	1,439,660,906
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
• Expensed portion of current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	61,760,280	-9,262,624
• Expensed portion of current-period changes of assumptions or other inputs	106,356,759	0
• Member contributions	-259,816,657	-237,087,419
• Projected earnings on plan investments	-1,085,626,226	-1,040,023,249
• Expensed portion of current-period differences between actual and projected earnings on plan investments	155,782,756	48,134,508
• Administrative expense	23,530,369	19,600,116
• Other expense	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	408,781,408	564,037,096
• Recognition of beginning of year deferred inflows of resources as pension expense	-285,904,296	-309,033,715
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
Pension Expense	**$999,039,971**	**$846,434,692**

Pension expense (continued)

City

Reporting Date for Employer under GAS 68	June 30, 2021	June 30, 2020
Measurement Date for Employer under GAS 68	**June 30, 2020**	**June 30, 2019**
Components of Pension Expense		
• Service cost	$310,756,500	$305,922,035
• Interest on the Total Pension Liability	1,242,478,484	1,189,020,533
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	3,245,357	1,258,565
• Expensed portion of current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	51,184,227	-7,650,031
• Expensed portion of current-period changes of assumptions or other inputs	88,143,843	0
• Member contributions	-215,324,714	-195,811,256
• Projected earnings on plan investments	-899,719,670	-858,958,518
• Expensed portion of current-period differences between actual and projected earnings on plan investments	129,105,954	39,754,444
• Administrative expense	19,500,944	16,187,799
• Other expense	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	338,780,203	465,840,036
• Recognition of beginning of year deferred inflows of resources as pension expense	-236,945,012	-255,231,931
• Net amortization of deferred amounts from changes in proportion and differences between employer’s contributions and proportionate share of contributions	6,552,446	7,475,418
Pension Expense	**$837,758,562**	**$707,807,094**

Pension expense (continued)

Airports

Reporting Date for Employer under GAS 68	June 30, 2021	June 30, 2020
Measurement Date for Employer under GAS 68	**June 30, 2020**	**June 30, 2019**
Components of Pension Expense		
• Service cost	$50,434,269	$50,810,097
• Interest on the Total Pension Liability	201,648,223	197,482,501
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	-3,036,741	-393,628
• Expensed portion of current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	8,306,951	-1,270,581
• Expensed portion of current-period changes of assumptions or other inputs	14,305,318	0
• Member contributions	-34,946,155	-32,521,975
• Projected earnings on plan investments	-146,020,132	-142,663,034
• Expensed portion of current-period differences between actual and projected earnings on plan investments	20,953,269	6,602,751
• Administrative expense	3,164,908	2,688,605
• Other expense	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	54,982,381	77,370,620
• Recognition of beginning of year deferred inflows of resources as pension expense	-38,455,024	-42,391,059
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	-1,837,588	-3,134,350
Pension Expense	**$129,499,679**	**$112,579,947**

Pension expense (continued)

Harbor

Reporting Date for Employer under GAS 68	June 30, 2021	June 30, 2020
Measurement Date for Employer under GAS 68	**June 30, 2020**	**June 30, 2019**
Components of Pension Expense		
• Service cost	$13,776,474	$13,676,941
• Interest on the Total Pension Liability	55,081,628	53,157,872
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	-208,616	-864,937
• Expensed portion of current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	2,269,102	-342,012
• Expensed portion of current-period changes of assumptions or other inputs	3,907,598	0
• Member contributions	-9,545,788	-8,754,188
• Projected earnings on plan investments	-39,886,424	-38,401,697
• Expensed portion of current-period differences between actual and projected earnings on plan investments	5,723,533	1,777,313
• Administrative expense	864,517	723,712
• Other expense	0	0
• Recognition of beginning of year deferred outflows of resources as pension expense	15,018,824	20,826,440
• Recognition of beginning of year deferred inflows of resources as pension expense	-10,504,260	-11,410,725
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	-4,714,858	-4,341,068
Pension Expense	**$31,781,730**	**$26,047,651**

Deferred outflows of resources and deferred inflows of resources

Total for All Employer Categories

Reporting Date for Employer under GAS 68	June 30, 2021	June 30, 2020
Measurement Date for Employer under GAS 68	June 30, 2020	June 30, 2019
Deferred Outflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions[1]	$21,574,399	$16,730,873
• Changes of assumptions or other inputs	708,249,680	442,101,522
• Net excess of projected over actual earnings on Pension Plan investments (if any)	531,127,873	N/A
• Difference between actual and expected experience in the Total Pension Liability	308,076,696	89,176,921
• **Total Deferred Outflows of Resources**	**$1,569,028,648**	**$548,009,316**
Deferred Inflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions[1]	$21,574,399	$16,730,873
• Changes of assumptions or other inputs	0	0
• Net excess of actual over projected earnings on Pension Plan investments (if any)	N/A	49,339,029
• Difference between expected and actual experience in the Total Pension Liability	74,435,577	179,961,637
• **Total Deferred Inflows of Resources**	**$96,009,976**	**$246,031,539**
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GAS 68, Year Ended June 30:		
2021	N/A	$122,877,112
2022	$326,023,271	2,123,476
2023	432,966,540	109,066,745
2024	391,810,239	67,910,444
2025	322,218,622	0
2026	0	0
Thereafter	0	0

[1] Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

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

City

Reporting Date for Employer under GAS 68	June 30, 2021	June 30, 2020
Measurement Date for Employer under GAS 68	**June 30, 2020**	**June 30, 2019**
Deferred Outflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions[1]	$20,395,538	$14,379,350
• Changes of assumptions or other inputs	586,966,447	365,133,057
• Net excess of projected over actual earnings on Pension Plan investments (if any)	440,175,617	N/A
• Difference between actual and expected experience in the Total Pension Liability	255,320,530	73,651,504
• **Total Deferred Outflows of Resources**	**$1,302,858,132**	**$453,163,911**
Deferred Inflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions[1]	$0	$380,339
• Changes of assumptions or other inputs	0	0
• Net excess of actual over projected earnings on Pension Plan investments (if any)	N/A	40,749,261
• Difference between expected and actual experience in the Total Pension Liability	61,688,959	148,630,889
• **Total Deferred Inflows of Resources**	**$61,688,959**	**$189,760,489**
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GAS 68, Year Ended June 30:		
2021	N/A	$108,037,045
2022	$277,551,491	5,866,051
2023	364,065,727	92,075,156
2024	329,298,311	57,425,170
2025	270,253,644	0
2026	0	0
Thereafter	0	0

[1] Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

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

Airports

Reporting Date for Employer under GAS 68	June 30, 2021	June 30, 2020
Measurement Date for Employer under GAS 68	**June 30, 2020**	**June 30, 2019**
Deferred Outflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions[1]	$1,178,861	$2,351,523
• Changes of assumptions or other inputs	95,261,803	60,644,360
• Net excess of projected over actual earnings on Pension Plan investments (if any)	71,438,365	N/A
• Difference between actual and expected experience in the Total Pension Liability	41,437,282	12,232,659
• **Total Deferred Outflows of Resources**	**$209,316,311**	**$75,228,542**
Deferred Inflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions[1]	$14,714,277	$5,607,931
• Changes of assumptions or other inputs	0	0
• Net excess of actual over projected earnings on Pension Plan investments (if any)	N/A	6,767,979
• Difference between expected and actual experience in the Total Pension Liability	10,011,819	24,685,865
• **Total Deferred Inflows of Resources**	**$24,726,096**	**$37,061,775**
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GAS 68, Year Ended June 30:		
2021	N/A	$15,017,825
2022	$39,664,806	-858,322
2023	55,184,914	14,947,303
2024	49,407,452	9,059,961
2025	40,333,043	0
2026	0	0
Thereafter	0	0

[1] Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

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

Harbor

Reporting Date for Employer under GAS 68	June 30, 2021	June 30, 2020
Measurement Date for Employer under GAS 68	**June 30, 2020**	**June 30, 2019**
Deferred Outflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions[1]	$0	$0
• Changes of assumptions or other inputs	26,021,430	16,324,105
• Net excess of projected over actual earnings on Pension Plan investments (if any)	19,513,891	N/A
• Difference between actual and expected experience in the Total Pension Liability	11,318,884	3,292,758
• **Total Deferred Outflows of Resources**	**$56,854,205**	**$19,616,863**
Deferred Inflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions[1]	$6,860,122	$10,742,603
• Changes of assumptions or other inputs	0	0
• Net excess of actual over projected earnings on Pension Plan investments (if any)	N/A	1,821,789
• Difference between expected and actual experience in the Total Pension Liability	2,734,799	6,644,883
• **Total Deferred Inflows of Resources**	**$9,594,921**	**$19,209,275**
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GAS 68, Year Ended June 30:		
2021	N/A	-$177,758
2022	$8,806,974	-2,884,253
2023	13,715,899	2,044,286
2024	13,104,476	1,425,313
2025	11,631,935	0
2026	0	0
Thereafter	0	0

[1] Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

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

There are changes in each employer category's proportionate share of the total Net Pension Liability during the measurement period ended June 30, 2020. The net effect of the change on the employer category's proportionate share of the collective Net Pension Liability and collective deferred outflows of resources and deferred inflows of resources is recognized over the average of the expected remaining service lives of all employees that are provided with pensions through LACERS which is 4.99 years determined as of June 30, 2019 (the beginning of the measurement period ending June 30, 2020).

In addition, the difference between the actual employer contributions and the proportionate share of the employer contributions during the measurement period ended June 30, 2020 is recognized over the same period.

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

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

Schedule of proportionate share of the Net Pension Liability

Total for All Employer Categories

Reporting Date for Employer under GAS 68 as of June 30	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered Payroll[1]	Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	Plan's Fiduciary Net Position as a Percentage of the Total Pension Liability
2014	100.000%	$4,727,177,064	$1,736,112,598	272.29%	68.23%
2015	100.000%	4,457,773,626	1,802,931,195	247.25%	72.57%
2016	100.000%	4,989,426,361	1,835,637,409	271.81%	70.49%
2017	100.000%	5,615,666,914	1,876,946,179	299.19%	67.77%
2018	100.000%	5,277,672,228	1,973,048,633	267.49%	71.41%
2019	100.000%	5,709,348,530	2,057,565,478	277.48%	71.37%
2020	100.000%	5,977,828,302	2,108,171,088	283.56%	71.25%
2021	100.000%	7,594,790,995	2,271,038,575	334.42%	66.29%

[1] Covered payroll is defined as the payroll on which contributions to a pension plan are based.

Schedule of proportionate share of the Net Pension Liability (continued)

City

Reporting Date for Employer under GAS 68 as of June 30	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered Payroll[1]	Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	Plan's Fiduciary Net Position as a Percentage of the Total Pension Liability
2014	81.453%	$3,850,425,590	$1,414,115,080	272.29%	68.23%
2015	81.972%	3,654,125,793	1,477,663,755	247.29%	72.57%
2016	81.869%	4,084,786,762	1,504,659,940	271.48%	70.49%
2017	82.271%	4,620,035,451	1,540,925,299	299.82%	67.77%
2018	82.423%	4,350,001,537	1,625,808,930	267.56%	71.41%
2019	82.473%	4,708,641,301	1,701,304,099	276.77%	71.37%
2020	82.591%	4,937,107,456	1,749,621,444	282.18%	71.25%
2021	82.876%	6,294,231,550	1,895,552,279	332.05%	66.29%

[1] Covered payroll is defined as the payroll on which contributions to a pension plan are based.

Schedule of proportionate share of the Net Pension Liability (continued)

Airports

Reporting Date for Employer under GAS 68 as of June 30	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered Payroll[1]	Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	Plan's Fiduciary Net Position as a Percentage of the Total Pension Liability
2014	14.299%	$675,950,764	$248,251,046	272.29%	68.23%
2015	13.804%	615,348,678	249,227,877	246.90%	72.57%
2016	13.979%	697,482,231	255,014,220	273.51%	70.49%
2017	13.789%	774,356,211	260,929,145	296.77%	67.77%
2018	13.700%	723,062,142	271,035,342	266.78%	71.41%
2019	13.754%	785,272,253	278,681,843	281.78%	71.37%
2020	13.717%	819,996,210	280,595,646	292.23%	71.25%
2021	13.450%	1,021,523,208	292,405,953	349.35%	66.29%

[1] Covered payroll is defined as the payroll on which contributions to a pension plan are based.

Schedule of proportionate share of the Net Pension Liability (continued)

Harbor

Reporting Date for Employer under GAS 68 as of June 30	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered Payroll[1]	Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	Plan's Fiduciary Net Position as a Percentage of the Total Pension Liability
2014	4.248%	$200,800,710	$73,746,472	272.29%	68.23%
2015	4.224%	188,299,155	76,039,563	247.63%	72.57%
2016	4.152%	207,157,368	75,963,249	272.71%	70.49%
2017	3.940%	221,275,252	75,091,735	294.67%	67.77%
2018	3.877%	204,608,549	76,204,361	268.50%	71.41%
2019	3.773%	215,434,976	77,579,536	277.70%	71.37%
2020	3.692%	220,724,636	77,953,998	283.15%	71.25%
2021	3.674%	279,036,237	83,080,343	335.86%	66.29%

[1] Covered payroll is defined as the payroll on which contributions to a pension plan are based.

Schedule of reconciliation of Net Pension Liability

Total for All Employer Categories

Reporting Date for Employer under GAS 68	June 30, 2021	June 30, 2020
Measurement Date for Employer under GAS 68	**June 30, 2020**	**June 30, 2019**
Beginning Net Pension Liability	**$5,977,828,302**	**$5,709,348,530**
• Pension Expense	999,039,971	846,434,692
• Employer Contributions	-553,118,173	-478,716,953
• New Net Deferred Inflows/Outflows	1,293,918,007	155,765,414
• Change in Allocation of Prior Deferred Inflows/Outflows	0	0
• New Net Deferred Flows Due to Change in Proportion	0	0
• Recognition of Prior Deferred Inflows/Outflows	-122,877,112	-255,003,381
• Recognition of Prior Deferred Flows Due to Change in Proportion	0	0
Ending Net Pension Liability	**$7,594,790,995**	**$5,977,828,302**

Schedule of Reconciliation of Net Pension Liability (continued)

City

Reporting Date for Employer under GAS 68	June 30, 2021	June 30, 2020
Measurement Date for Employer under GAS 68	**June 30, 2020**	**June 30, 2019**
Beginning Net Pension Liability	**$4,937,107,456**	**$4,708,641,301**
• Pension Expense	837,758,562	707,807,094
• Employer Contributions	-458,400,219	-395,373,858
• New Net Deferred Inflows/Outflows	1,072,342,812	128,647,151
• Change in Allocation of Prior Deferred Inflows/Outflows	861,603	472,791
• New Net Deferred Flows Due to Change in Proportion	12,948,973	4,996,500
• Recognition of Prior Deferred Inflows/Outflows	-101,835,191	-210,608,105
• Recognition of Prior Deferred Flows Due to Change in Proportion	-6,552,446	-7,475,418
Ending Net Pension Liability	**$6,294,231,550**	**$4,937,107,456**

Schedule of Reconciliation of Net Pension Liability (continued)

Airports

Reporting Date for Employer under GAS 68	June 30, 2021	June 30, 2020
Measurement Date for Employer under GAS 68	**June 30, 2020**	**June 30, 2019**
Beginning Net Pension Liability	**$819,996,210**	**$785,272,253**
• Pension Expense	129,499,679	112,579,947
• Employer Contributions	-74,396,129	-65,667,006
• New Net Deferred Inflows/Outflows	174,036,031	21,366,799
• Change in Allocation of Prior Deferred Inflows/Outflows	-806,218	-147,870
• New Net Deferred Flows Due to Change in Proportion	-12,116,596	-1,562,702
• Recognition of Prior Deferred Inflows/Outflows	-16,527,357	-34,979,561
• Recognition of Prior Deferred Flows Due to Change in Proportion	1,837,588	3,134,350
Ending Net Pension Liability	**$1,021,523,208**	**$819,996,210**

Schedule of Reconciliation of Net Pension Liability (continued)

Harbor

Reporting Date for Employer under GAS 68	June 30, 2021	June 30, 2020
Measurement Date for Employer under GAS 68	**June 30, 2020**	**June 30, 2019**
Beginning Net Pension Liability	**$220,724,636**	**$215,434,976**
• Pension Expense	31,781,730	26,047,651
• Employer Contributions	-20,321,825	-17,676,089
• New Net Deferred Inflows/Outflows	47,539,164	5,751,464
• Change in Allocation of Prior Deferred Inflows/Outflows	-55,385	-324,921
• New Net Deferred Flows Due to Change in Proportion	-832,377	-3,433,798
• Recognition of Prior Deferred Inflows/Outflows	-4,514,564	-9,415,715
• Recognition of Prior Deferred Flows Due to Change in Proportion	4,714,858	4,341,068
Ending Net Pension Liability	**$279,036,237**	**$220,724,636**

Schedule of recognition of changes in Total Net Pension Liability

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

Reporting Date for Employer under GAS 68, Year Ended June 30	Differences Between Actual and Expected Experience	Recognition Period (Years)	Reporting Date for Employer under GAS 68, Year Ended June 30:							
			2020	2021	2022	2023	2024	2025	2026	Thereafter
2015	-$161,871,265	5.62	-$17,857,685	$0	$0	$0	$0	$0	$0	$0
2016	-135,821,076	5.42	-25,059,239	-10,524,881	0	0	0	0	0	0
2017	-300,812,751	5.24	-57,407,014	-57,407,014	-13,777,681	0	0	0	0	0
2018	-146,474,065	5.17	-28,331,541	-28,331,541	-28,331,541	-4,816,360	0	0	0	0
2019	144,224,403	5.24	27,523,741	27,523,741	27,523,741	27,523,741	6,605,698	0	0	0
2020	-46,035,243	4.97	-9,262,624	-9,262,624	-9,262,624	-9,262,624	-8,984,747	0	0	0
2021	308,183,796	4.99	N/A	61,760,280	61,760,280	61,760,280	61,760,280	61,142,676	0	0
Net increase (decrease) in pension expense			**-$110,394,362**	**-$16,242,039**	**$37,912,175**	**$75,205,037**	**$59,381,231**	**$61,142,676**	**$0**	**$0**

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

Reporting Date for Employer under GAS 68, Year Ended June 30	Effects of Assumption Changes	Recognition Period (Years)	Reporting Date for Employer under GAS 68, Year Ended June 30:							
			2020	2021	2022	2023	2024	2025	2026	Thereafter
2015	$785,439,114	5.62	$86,649,869	$0	$0	$0	$0	$0	$0	$0
2016	0	5.42	0	0	0	0	0	0	0	0
2017	0	5.24	0	0	0	0	0	0	0	0
2018	340,717,846	5.17	65,902,872	65,902,872	65,902,872	11,203,486	0	0	0	0
2019	483,717,164	5.24	92,312,436	92,312,436	92,312,436	92,312,436	22,154,984	0	0	0
2020	0	4.97	0	0	0	0	0	0	0	0
2021	530,720,225	4.99	N/A	106,356,759	106,356,759	106,356,759	106,356,759	105,293,189	0	0
Net increase (decrease) in pension expense			**$244,865,177**	**$264,572,067**	**$264,572,067**	**$209,872,681**	**$128,511,743**	**$105,293,189**	**$0**	**$0**

As described on page 34, the average of the expected remaining service lives of all employees that are provided with pensions through LACERS (active and inactive employees) determined as of June 30, 2019 (the beginning of the measurement period ending June 30, 2020) is 4.99 years.

Amortization amounts prior to June 30, 2020 have been omitted from this exhibit. These amounts can be found in prior year's GAS 68 reports.

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

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

Reporting Date for Employer under GAS 68, Year Ended June 30	Differences Between Projected and Actual Earnings	Recognition Period (Years)	Reporting Date for Employer under GAS 68, Year Ended June 30:							
			2020	2021	2022	2023	2024	2025	2026	Thereafter
2015	-$1,017,855,266	5.00	$0	$0	$0	$0	$0	$0	$0	$0
2016	583,701,643	5.00	116,740,327	0	0	0	0	0	0	0
2017	874,539,255	5.00	174,907,851	174,907,851	0	0	0	0	0	0
2018	-621,748,969	5.00	-124,349,794	-124,349,794	-124,349,793	0	0	0	0	0
2019	-280,142,210	5.00	-56,028,442	-56,028,442	-56,028,442	-56,028,442	0	0	0	0
2020	240,672,541	5.00	48,134,508	48,134,508	48,134,508	48,134,508	48,134,509	0	0	0
2021	778,913,781	5.00	N/A	155,782,756	155,782,756	155,782,756	155,782,756	155,782,757	0	0
Net increase (decrease) in pension expense			**$159,404,450**	**$198,446,879**	**$23,539,029**	**$147,888,822**	**$203,917,265**	**$155,782,757**	**$0**	**$0**

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

Total Increase (Decrease) in Pension Expense

Reporting Date for Employer under GAS 68, Year Ended June 30	Total Differences	Reporting Date for Employer under GAS 68, Year Ended June 30:							
		2020	2021	2022	2023	2024	2025	2026	Thereafter
2015	-$394,287,417	$68,792,184	$0	$0	$0	$0	$0	$0	$0
2016	447,880,567	91,681,088	-10,524,881	0	0	0	0	0	0
2017	573,726,504	117,500,837	117,500,837	-13,777,681	0	0	0	0	0
2018	-427,505,188	-86,778,463	-86,778,463	-86,778,462	6,387,126	0	0	0	0
2019	347,799,357	63,807,735	63,807,735	63,807,735	63,807,735	28,760,682	0	0	0
2020	194,637,298	38,871,884	38,871,884	38,871,884	38,871,884	39,149,762	0	0	0
2021	1,617,817,802	N/A	323,899,795	323,899,795	323,899,795	323,899,795	322,218,622	0	0
Net increase (decrease) in pension expense		**$293,875,265**	**$446,776,907**	**$326,023,271**	**$432,966,540**	**$391,810,239**	**$322,218,622**	**$0**	**$0**

Allocation of changes in Total Net Pension Liability

In addition to the amounts shown in the *Schedule of Recognition of Changes in Total Net Pension Liability*, there are changes in each employer's proportionate share of the total Net Pension Liability during the measurement period ending on June 30, 2020. The net effect of the change on the employer's proportionate share of the collective Net Pension Liability and collective deferred outflows of resources and deferred inflows of resources is also recognized over the average of the expected remaining service lives of all employees shown above. The difference between the actual employer contributions and the proportionate share of the employer contributions during the measurement period ending on June 30, 2020 is recognized over the same periods. These amounts are shown below. While these amounts are different for each employer, they sum to zero over the entire LACERS.

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer Contributions for the Year Ended June 30, 2021

	Total Change to be Recognized	Recognition Period (Years)	Reporting Date for Employer under GAS 68, Year Ended June 30:					
			2021	2022	2023	2024	2025	2026
City	$16,194,330	4.99	$3,245,357	$3,245,357	$3,245,357	$3,245,357	$3,212,902	$0
Airports	-15,153,337	4.99	-3,036,741	-3,036,741	-3,036,741	-3,036,741	-3,006,373	0
Harbor	-1,040,993	4.99	-208,616	-208,616	-208,616	-208,616	-206,529	0
Total for all Employer Categories	**$0**		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

Allocation of Changes in Total Net Pension Liability (continued)

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer Contributions for the Year Ended June 30, 2020

	Total Change to be Recognized	Recognition Period (Years)	Reporting Date for Employer under GAS 68, Year Ended June 30: 2020	2021	2022	2023	2024	2025
City	$6,255,065	4.97	$1,258,565	$1,258,565	$1,258,565	$1,258,565	$1,220,805	$0
Airports	-1,956,330	4.97	-393,628	-393,628	-393,628	-393,628	-381,818	0
Harbor	-4,298,735	4.97	-864,937	-864,937	-864,937	-864,937	-838,987	0
Total for all Employer Categories	**$0**		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

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

	Total Change to be Recognized	Recognition Period (Years)	Reporting Date for Employer under GAS 68, Year Ended June 30: 2019	2020	2021	2022	2023	2024
City	$2,552,476	5.24	$487,113	$487,113	$487,113	$487,113	$487,113	$116,911
Airports	2,757,695	5.24	526,278	526,278	526,278	526,278	526,278	126,305
Harbor	-5,310,171	5.24	-1,013,391	-1,013,391	-1,013,391	-1,013,391	-1,013,391	-243,216
Total for all Employer Categories	**$0**		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

Allocation of Changes in Total Net Pension Liability (continued)

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

	Total Change to be Recognized	Recognition Period (Years)	Reporting Date for Employer under GAS 68, Year Ended June 30: 2018	2019	2020	2021	2022	2023
City	$7,630,406	5.17	$1,475,900	$1,475,900	$1,475,900	$1,475,900	$1,475,900	$250,906
Airports	-4,450,747	5.17	-860,879	-860,879	-860,879	-860,879	-860,879	-146,352
Harbor	-3,179,659	5.17	-615,021	-615,021	-615,021	-615,021	-615,021	-104,554
Total for all Employer Categories	**$0**		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

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

	Total Change to be Recognized	Recognition Period (Years)	Reporting Date for Employer under GAS 68, Year Ended June 30: 2017	2018	2019	2020	2021	2022
City	$19,446,722	5.24	$3,711,207	$3,711,207	$3,711,207	$3,711,207	$3,711,207	$890,687
Airports	-9,200,091	5.24	-1,755,743	-1,755,743	-1,755,743	-1,755,743	-1,755,743	-421,376
Harbor	-10,246,631	5.24	-1,955,464	-1,955,464	-1,955,464	-1,955,464	-1,955,464	-469,311
Total for all Employer Categories	**$0**		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

Allocation of Changes in Total Net Pension Liability (continued)

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

	Total Change to be Recognized	Recognition Period (Years)	Reporting Date for Employer under GAS 68, Year Ended June 30:					
			2016	2017	2018	2019	2020	2021
City	-$4,908,194	5.42	-$905,571	-$905,571	-$905,571	-$905,571	-$905,571	-$380,339
Airports	8,341,429	5.42	1,539,009	1,539,009	1,539,009	1,539,009	1,539,009	646,384
Harbor	-3,433,235	5.42	-633,438	-633,438	-633,438	-633,438	-633,438	-266,045
Total for all Employer Categories	**$0**		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

Section 3: Actuarial Assumptions and Methods and Appendices

Actuarial assumptions and methods

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

Rationale for Assumptions

The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in the July 1, 2016 through June 30, 2019 Actuarial Experience Study dated June 17, 2020. Unless otherwise noted, all actuarial assumptions and methods shown below apply to both Tier 1 and Tier 3 members. These assumptions have been adopted by the Board.

Economic Assumptions

Net Investment Return:	7.00%; net of investment expenses.
Employee Contribution Crediting Rate:	Based on average of 5-year Treasury note rate. An assumption of 2.75% is used to approximate that crediting rate in this valuation.
Consumer Price Index (CPI):	Increase of 2.75% per year; benefit increases due to CPI subject to 2.75% maximum for Tier 1 and 2.00% maximum for Tier 3. (For Tier 1 members with a sufficient COLA bank, withdrawals from the bank can be made to increase the retiree COLA up to 3% per year.)
Payroll Growth:	Inflation of 2.75% per year plus real “across the board” salary increases of 0.50% per year, used to amortize the UAAL as a level percentage of payroll.
Increase in Internal Revenue Code Section 401(a)(17) Compensation Limit:	Increase of 2.75% per year from the valuation date.

Salary Increases:

The annual rate of compensation increase includes: inflation at 2.75%, plus “across the board” salary increases of 0.50% per year, plus the following merit and promotion increases:

Merit and Promotion Increases

Years of Service	Rate (%)
Less than 1	6.70
1 – 2	6.50
2 – 3	5.80
3 – 4	4.00
4 – 5	3.00
5 – 6	2.20
6 – 7	2.00
7 – 8	1.80
8 – 9	1.60
9 – 10	1.40
10 & Over	1.00

Demographic Assumptions

Post-Retirement Mortality Rates:

Healthy Members

- Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Tables with rates increased by 10% for males, projected generationally with the two-dimensional mortality improvement scale MP-2019.

Disabled Members

- Pub-2010 Non-Safety Disabled Retiree Amount-Weighted Mortality Tables with rates increased by 10% for males and decreased by 5% for females, projected generationally with the two-dimensional mortality improvement scale MP-2019.

Beneficiaries

- Pub-2010 Contingent Survivor Amount-Weighted Above-Median Mortality Tables with rates increased by 10% for males and females, projected generationally with the two-dimensional mortality improvement scale MP-2019.

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

Pre-Retirement Mortality Rates:

- Pub-2010 General Employee Amount-Weighted Above-Median Mortality Tables with rates increased by 10%, projected generationally with the two-dimensional mortality improvement scale MP-2019.

	Rate (%)	
Age	**Male**	**Female**
20	0.04	0.01
25	0.03	0.01
30	0.03	0.01
35	0.05	0.02
40	0.06	0.04
45	0.09	0.06
50	0.14	0.08
55	0.21	0.12
60	0.30	0.19
65	0.45	0.30

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

For Tier 1 Enhanced, 100% of pre-retirement death benefits are assumed to be service-connected.

Disability Incidence:

Disability Incidence

Age	Rate (%)
25	0.01
30	0.02
35	0.04
40	0.06
45	0.12
50	0.16
55	0.18
60	0.18
65	0.22

For Tier 1 Enhanced, 90% of disability retirements are assumed to be service-connected with service-connected disability benefits based on years of service, as follows:

Years of Service	Benefit
Less than 20	55% of Final Average Monthly Compensation
20 – 30	65% of Final Average Monthly Compensation
More than 30	75% of Final Average Monthly Compensation

For Tier 1 Enhanced, 10% of disability retirements are assumed to be nonservice-connected with nonservice-connected disability benefits equal to 40% of Final Average Monthly Compensation.

Termination:

Less Than Five Years of Service

Years of Service	Rate (%)
Less than 1	11.50
1 – 2	10.00
2 – 3	8.50
3 – 4	7.75
4 – 5	7.00

Five or More Years of Service

Age	Rate (%)
25	7.00
30	6.70
35	5.30
40	3.75
45	3.10
50	3.00
55	3.00
60	3.00

No termination is assumed after a member is eligible for retirement (as long as a retirement rate is present).

Retirement Rates:

	Rate (%)					
	Tier 1		Tier 1 Enhanced		Tier 3	
Age	Non-55/30	55/30	Non-55/30	55/30	Non-55/30	55/30
50	5.0	0.0	7.0	0.0	5.0	0.0
51	3.0	0.0	5.0	0.0	3.0	0.0
52	3.0	0.0	5.0	0.0	3.0	0.0
53	3.0	0.0	5.0	0.0	3.0	0.0
54	18.0	0.0	20.0	0.0	17.0	0.0
55	6.0	27.0	8.0	30.0	0.0[1]	26.0
56	6.0	18.0	8.0	22.0	0.0[1]	17.0
57	6.0	18.0	8.0	22.0	0.0[1]	17.0
58	6.0	18.0	8.0	22.0	0.0[1]	17.0
59	6.0	18.0	8.0	22.0	0.0[1]	17.0
60	7.0	18.0	9.0	22.0	6.0	17.0
61	7.0	18.0	9.0	22.0	6.0	17.0
62	7.0	18.0	9.0	22.0	6.0	17.0
63	7.0	18.0	9.0	22.0	6.0	17.0
64	7.0	18.0	9.0	22.0	6.0	17.0
65	14.0	21.0	16.0	26.0	13.0	20.0
66	14.0	21.0	16.0	26.0	13.0	20.0
67	14.0	21.0	16.0	26.0	13.0	20.0
68	14.0	21.0	16.0	26.0	13.0	20.0
69	14.0	21.0	16.0	26.0	13.0	20.0
70 & Over	100.0	100.0	100.0	100.0	100.0	100.0

[1] Not eligible to retire under the provisions of the Tier 3 plan at these ages with less than 30 years of service. If a member has at least 30 years of service at these ages, they would be subject to the “55/30” rates.

Retirement Age and Benefit for Inactive Vested Members: Pension benefit paid at the later of age 59 or the current attained age. For reciprocals, 4.25% compensation increases per annum.

Other Reciprocal Service: 5% of future inactive vested members will work at a reciprocal system.

Service:	Employment service is used for eligibility determination purposes. Benefit service is used for benefit calculation purposes.
Future Benefit Accruals:	1.0 year of service credit per year.
Unknown Data for Members:	Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male.
Form of Payment:	All active and inactive Tier 1 and Tier 3 members who are assumed to be married or with domestic partners at retirement are assumed to elect the 50% Joint and Survivor Cash Refund Annuity. For Tier 1 Enhanced, the continuance percentage is 70% for service retirement and nonservice-connected disability, and 80% for service-connected disability. Those members who are assumed to be un-married or without domestic partners are assumed to elect the Single Cash Refund Annuity.
Percent Married/Domestic Partner:	For all active and inactive members, 76% of male participants and 52% of female participants are assumed to be married or with domestic partner at pre-retirement death or retirement.
Age and Gender of Spouse:	For all active and inactive members, male members are assumed to have a female spouse who is 3 years younger than the member and female members are assumed to have a male spouse who is 2 years older than the member.

Actuarial Methods

Actuarial Cost Method:	Entry Age Cost Method, level percent of salary. Entry age is calculated as age on the valuation date minus years of employment service. Both the normal cost and the actuarial accrued liability are calculated on an individual basis.
Actuarial Value of Assets:	Market value of assets (MVA) less unrecognized returns in each of the last seven years. Unrecognized return is equal to the difference between the actual market return and the expected return on the market value, and is recognized over a seven-year period. The actuarial value of assets (AVA) is limited by a 40% corridor; the AVA cannot be less than 60% of MVA, nor greater than 140% of MVA.
Expected Remaining Service Lives:	The average of the expected service lives of all employees is determined by: • Calculating each active employee's expected remaining service life as the present value of $1 per year of future service at zero percent interest. • Setting the remaining service life to zero for each nonactive or retired member. • Dividing the sum of the above amounts by the total number of active employee, nonactive and retired members.

Changes in Actuarial Assumptions

Based on the July 1, 2016 through June 30, 2019 Actuarial Experience Study, the following actuarial assumptions were changed. Previously, these assumptions were:

Economic Assumptions

Net Investment Return:	7.25%; net of investment expenses.
Employee Contribution Crediting Rate:	Based on average of 5-year Treasury note rate. An assumption of 3.00% is used to approximate that crediting rate in this valuation.
Consumer Price Index:	Increase of 3.00% per year; benefit increases due to CPI subject to 3.00% maximum for Tier 1 and 2.00% maximum for Tier 3.
Payroll Growth:	Inflation of 3.00% per year plus real "across the board" salary increases of 0.50% per year, used to amortize the UAAL as a level percentage of payroll.
Increase in Internal Revenue Code Section 401(a)(17) Compensation Limit:	Increase of 3.00% per year from the valuation date.
Salary Increases:	The annual rate of compensation increase includes: inflation at 3.00%, plus "across the board" salary increases of 0.50% per year, plus the following merit and promotion increases:

Merit and Promotion Increases

Years of Service	Rate (%)
Less than 1	6.50
1 – 2	6.20
2 – 3	5.10
3 – 4	3.10
4 – 5	2.10
5 – 6	1.10
6 – 7	1.00
7 – 8	0.90
8 – 9	0.70
9 – 10	0.60
10 & Over	0.40

Changes in Actuarial Assumptions

Based on the July 1, 2016 through June 30, 2019 Actuarial Experience Study, the following actuarial assumptions were changed. Previously, these assumptions were:

Demographic Assumptions

Post-Retirement Mortality Rates:

Healthy Members and All Beneficiaries

- Headcount-Weighted RP-2014 Healthy Annuitant Mortality Tables (separate tables for males and females), with no setback for males and females, projected generationally with the two-dimensional mortality improvement scale MP-2017.

Disabled Members

- Headcount-Weighted RP-2014 Disabled Retiree Mortality Tables (separate tables for males and females), with no setback for males and females, projected generationally with the two-dimensional mortality improvement scale MP-2017.

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

Pre-Retirement Mortality Rates:

- Headcount-Weighted RP-2014 Employee Mortality Tables (separate tables for males and females), with no setback for males and females, multiplied by 90%, projected generationally with the two-dimensional mortality improvement scale MP-2017.

	Rate (%)[1]	
Age	Male	Female
20	0.05	0.02
25	0.06	0.02
30	0.05	0.02
35	0.06	0.03
40	0.07	0.04
45	0.11	0.07
50	0.19	0.12
55	0.31	0.19
60	0.51	0.27
65	0.88	0.40

For Tier 1 Enhanced, 100% of pre-retirement death benefits are assumed to be service-connected.

[1] Generational projections beyond the base year (2014) are not reflected in the above mortality rates.

Changes in Actuarial Assumptions

Based on the July 1, 2016 through June 30, 2019 Actuarial Experience Study, the following actuarial assumptions were changed. Previously, these assumptions were:

Disability Incidence:

Disability Incidence

Age	Rate (%)
25	0.01
30	0.02
35	0.05
40	0.07
45	0.13
50	0.19
55	0.20
60	0.20

For Tier 1 Enhanced, 90% of disability retirements are assumed to be service-connected with service-connected disability benefits based on years of service, as follows:

Years of Service	Benefit
Less than 20	55% of Final Average Monthly Compensation
20 – 30	65% of Final Average Monthly Compensation
More than 30	75% of Final Average Monthly Compensation

For Tier 1 Enhanced, 10% of disability retirements are assumed to be nonservice-connected with nonservice-connected disability benefits equal to 40% of Final Average Monthly Compensation.

Changes in Actuarial Assumptions

Based on the July 1, 2016 through June 30, 2019 Actuarial Experience Study, the following actuarial assumptions were changed. Previously, these assumptions were:

Termination:

Less Than Five Years of Service

Years of Service	Rate (%)
Less than 1	12.00
1 – 2	10.00
2 – 3	9.00
3 – 4	8.25
4 – 5	7.75

Five or More Years of Service

Age	Rate (%)
25	7.00
30	7.00
35	5.50
40	3.90
45	3.20
50	2.70
55	2.50
60	2.50

No termination is assumed after a member is eligible for retirement (as long as a retirement rate is present).

Changes in Actuarial Assumptions

Based on the July 1, 2016 through June 30, 2019 Actuarial Experience Study, the following actuarial assumptions were changed. Previously, these assumptions were:

Retirement Rates:

	Retirement Rates (%)					
	Tier 1		Tier 1 Enhanced[1]		Tier 3	
Age	Non-55/30	55/30	Non-55/30	55/30	Non-55/30	55/30
50	6.0	0.0	7.0	0.0	6.0	0.0
51	3.0	0.0	4.0	0.0	3.0	0.0
52	3.0	0.0	4.0	0.0	3.0	0.0
53	3.0	0.0	4.0	0.0	3.0	0.0
54	17.0	0.0	18.0	0.0	16.0	0.0
55	6.0	24.0	7.0	25.0	0.0[2]	23.0
56	6.0	16.0	7.0	17.0	0.0[2]	15.0
57	6.0	16.0	7.0	17.0	0.0[2]	15.0
58	6.0	16.0	7.0	17.0	0.0[2]	15.0
59	6.0	16.0	7.0	17.0	0.0[2]	15.0
60	7.0	16.0	8.0	17.0	6.0	15.0
61	7.0	16.0	8.0	17.0	6.0	15.0
62	7.0	16.0	8.0	17.0	6.0	15.0
63	7.0	16.0	8.0	17.0	6.0	15.0
64	7.0	16.0	8.0	17.0	6.0	15.0
65	13.0	20.0	14.0	21.0	12.0	19.0
66	13.0	20.0	14.0	21.0	12.0	19.0
67	13.0	20.0	14.0	21.0	12.0	19.0
68	13.0	20.0	14.0	21.0	12.0	19.0
69	13.0	20.0	14.0	21.0	12.0	19.0
70 & Over	100.0	100.0	100.0	100.0	100.0	100.0

1 Consistent with the cost study prepared for the adoption of enhanced Tier 1 benefits, we have estimated the rates above by increasing the retirement rates for Tier 1 by a flat 1%.

2 Not eligible to retire under the provisions of the Tier 3 plan.

Changes in Actuarial Assumptions

Based on the July 1, 2016 through June 30, 2019 Actuarial Experience Study, the following actuarial assumptions were changed. Previously, these assumptions were:

Retirement Age and Benefit for Inactive Vested Members:	Pension benefit paid at the later of age 59 or the current attained age. For reciprocals, 3.90% compensation increases per annum.
Percent Married/Domestic Partner:	For all active and inactive members, 76% of male participants and 50% of female participants are assumed to be married or with domestic partner at pre-retirement death or retirement.

Appendix A: Projection of Plan's Fiduciary Net Position for use in the Calculation of Discount Rate as of June 30, 2020 ($ in millions)

Year Beginning July 1,	Projected Beginning Plan's Fiduciary Net Position (a)	Projected Total Contributions (b)	Projected Benefit Payments (c)	Projected Administrative Expenses (d)	Projected Investment Earnings (e)	Projected Ending Plan's Fiduciary Net Position (f) = (a) + (b) - (c) - (d) + (e)
2019	$14,816	$813	$979	$24	$307	$14,932
2020	14,932	925	1,141	24	1,032	15,725
2021	15,725	945	1,168	25	1,088	16,565
2022	16,565	965	1,236	26	1,144	17,412
2023	17,412	985	1,304	28	1,202	18,268
2024	18,268	961	1,370	29	1,258	19,089
2025	19,089	986	1,433	30	1,314	19,926
2026	19,926	1,007	1,501	32	1,371	20,771
2027	20,771	1,018	1,570	33	1,427	21,613
2046	30,722	166	2,592	49	2,054	30,301
2047	30,301	157 *	2,612	48	2,023	29,821
2048	29,821	148 *	2,630	47	1,989	29,281
2049	29,281	139 *	2,648	47	1,950	28,675
2050	28,675	129 *	2,664	46	1,907	28,001
2083	2,947	22 *	589	5	184	2,559
2084	2,559	20 *	529	4	159	2,205
2085	2,205	18 *	471	4	137	1,886
2086	1,886	17 *	417	3	116	1,598
2087	1,598	15 *	366	3	98	1,343
2103	23	1 *	9	0	1	16
2104	16	1 *	7	0	1	11
2105	11	1 *	5	0	1	8
2106	8	1 *	3	0	0	6
2107	6	1 *	2	0	0	4
2108	4	0 *,**	2	0	0	3
2109	3	0 *,**	1	0	0	2
2110	2	0 *,**	1	0	0	2
2111	2	0 *,**	1	0	0	1
2112	1	0 *,**	1	0	0	1
2113	1	0 *,**	0 **	0	0	0
2114	0	0 *,**	0 **	0	0	0
2115	0	0 *,**	0 **	0	0	0
2116	0	0 *,**	0 **	0	0	0
2117	0	0 *,**	0 **	0	0	0
2118	0	0 *,**	0 **	0	0	0

* Mainly attributable to employer contributions to fund each year's annual administrative expenses.

** Less than $1 million, when rounded.

Note that in preparing the above projections, we have not taken into consideration the one-year delay between the date of the contribution rate calculation and the implementation.

Notes:

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

(2) Amounts shown for the year beginning July 1, 2019 row are actual amounts, based on the unaudited financial statements provided by LACERS.

(3) Years 2028-2045, 2051-2082, and 2088-2102 have been omitted from this table.

(4) Column (a): None of the projected beginning Plan's Fiduciary Net Position amounts shown have been adjusted for the time value of money.

(5) Column (b): Projected total contributions include employee and employer normal cost contributions based on closed group projections (based on covered active members as of June 30, 2020); plus employer contributions to the unfunded actuarial accrued liability; plus contributions to fund each year's annual administrative expenses reflecting a 15-year amortization schedule. Contributions are assumed to occur halfway through the year, on average.

(6) Column (c): Projected benefit payments have been determined in accordance with paragraph 39 of GASB Statement No. 67, and are based on the closed group of active, inactive vested, retired members, and beneficiaries as of June 30, 2020. The projected benefit payments reflect the cost of living increase assumptions used in the June 30, 2020 funding valuation report. Benefit payments are assumed to occur halfway through the year, on average. In accordance with paragraph 31.b.(1)(e) of GASB Statement No. 67, the long-term expected rate of return on Plan investments of 7.00% was applied to all periods of projected benefit payments to determine the discount rate.

(7) Column (d): Projected administrative expenses are calculated as approximately 0.16% of the projected beginning Plan's Fiduciary Net Position amount. The 0.16% portion was based on the actual fiscal year 2019 - 2020 administrative expenses as a percentage of the beginning Plan's Fiduciary Net Position amount as of July 1, 2019. Administrative expenses are assumed to occur halfway through the year, on average.

(8) Column (e): Projected investment earnings are based on the assumed investment rate of return of 7.00% per annum.

(9) As illustrated in this Exhibit, the Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments for current Plan members. In other words, there is no projected 'cross-over date' when projected benefits are not covered by projected assets. Therefore, the long-term expected rate of return on Plan investments of 7.00% per annum was applied to all periods of projected benefit payments to determine the Total Pension Liability as of June 30, 2020 shown earlier in this report, pursuant to paragraph 44 of GASB Statement No. 67.

(10) This projection is based on a model developed by our Actuarial Technology and Systems unit, comprised of both actuaries and programmers. The model allows the client team, under the supervision of the responsible actuary, control over the entry of future expected contribution income, benefit payments and administrative expenses. The projection of fiduciary net position and the discounting of benefits is part of the model.

Appendix B: Definition of Terms

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

Actuarial Present Value of Projected Benefit Payments:	Projected benefit payments discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment.
Actuarial Valuation:	The determination, as of a point in time (the actuarial valuation date), of the service cost, Total Pension Liability, and related actuarial present value of projected benefit payments for pensions performed in conformity with Actuarial Standards of Practice unless otherwise specified by the GASB.
Actuarial Valuation Date:	The date as of which an actuarial valuation is performed.
Actuarially Determined Contribution:	A target or recommended contribution to a defined benefit pension plan for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.
Ad Hoc Cost-of-Living Adjustments (Ad Hoc COLAs):	Cost-of-living adjustments that require a decision to grant by the authority responsible for making such decisions.
Ad Hoc Postemployment Benefit Changes:	Postemployment benefit changes that require a decision to grant by the authority responsible for making such decisions.
Automatic Cost-of-Living Adjustments (Automatic COLAs):	Cost-of-living adjustments that occur without a requirement for a decision to grant by a responsible authority, including those for which the amounts are determined by reference to a specified experience factor (such as the earnings experience of the pension plan) or to another variable (such as an increase in the consumer price index).
Automatic Postemployment Benefit Changes:	Postemployment benefit changes that occur without a requirement for a decision to grant by a responsible authority, including those for which the amounts are determined by reference to a specified experience factor (such as the earnings experience of the pension plan) or to another variable (such as an increase in the consumer price index).
Cost-of-Living Adjustments:	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
Cost-Sharing Multiple-Employer Defined Benefit Pension Plan (Cost-Sharing Pension Plan):	A multiple-employer defined benefit pension plan in which the pension obligations to the employees of more than one employer are pooled and pension plan assets can be used to pay the benefits of the employees of any employer that provides pensions through the pension plan.
Covered Payroll:	Payroll on which contributions to the pension plan are based.
Defined Benefit Pension Plans:	Pension plans that are used to provide defined benefit pensions.

Defined Benefit Pensions:	Pensions for which the income or other benefits that the employee will receive at or after separation from employment are defined by the benefit terms. The pensions may be stated as a specified dollar amount or as an amount that is calculated based on one or more factors such as age, years of service, and compensation. (A pension that does not meet the criteria of a defined contribution pension is classified as a defined benefit pension for purposes of Statement 67.)
Defined Contribution Pension Plans:	Pension plans that are used to provide defined contribution pensions.
Defined Contribution Pensions:	Pensions having terms that (1) provide an individual account for each employee; (2) define the contributions that an employer is required to make (or the credits that it is required to provide) to an active employee's account for periods in which that employee renders service; and (3) provide that the pensions an employee will receive will depend only on the contributions (or credits) to the employee's account, actual earnings on investments of those contributions (or credits), and the effects of forfeitures of contributions (or credits) made for other employees, as well as pension plan administrative costs, that are allocated to the employee's account.
Discount Rate:	The single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the total of the following: 1. The actuarial present value of benefit payments projected to be made in future periods in which (a) the amount of the pension Plan's Fiduciary Net Position is projected (under the requirements of Statement 67) to be greater than the benefit payments that are projected to be made in that period and (b) pension plan assets up to that point are expected to be invested using a strategy to achieve the long-term expected rate of return, calculated using the long-term expected rate of return on pension plan investments. 2. The actuarial present value of projected benefit payments not included in (1), calculated using the municipal bond rate.
Entry Age Actuarial Cost Method:	A method under which the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age(s). The portion of this actuarial present value allocated to a valuation year is called the normal cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is called the actuarial accrued liability.
Inactive Employees:	Terminated individuals that have accumulated benefits but are not yet receiving them, and retirees or their beneficiaries currently receiving benefits.
Multiple-Employer Defined Benefit Pension Plan:	A defined benefit pension plan that is used to provide pensions to the employees of more than one employer.
Net Pension Liability (NPL):	The liability of employers and non-employer contributing entities to employees for benefits provided through a defined benefit pension plan.

Other Postemployment Benefits:	All postemployment benefits other than retirement income (such as death benefits, life insurance, disability, and long-term care) that are provided separately from a pension plan, as well as postemployment healthcare benefits, regardless of the manner in which they are provided. Other postemployment benefits do not include termination benefits.
Pension Plans:	Arrangements through which pensions are determined, assets dedicated for pensions are accumulated and managed and benefits are paid as they come due.
Pensions:	Retirement income and, if provided through a pension plan, postemployment benefits other than retirement income (such as death benefits, life insurance, and disability benefits). Pensions do not include postemployment healthcare benefits and termination benefits.
Plan Members:	Individuals that are covered under the terms of a pension plan. Plan members generally include (1) employees in active service (active plan members) and (2) terminated employees who have accumulated benefits but are not yet receiving them and retirees or their beneficiaries currently receiving benefits (inactive plan members).
Postemployment:	The period after employment.
Postemployment Benefit Changes:	Adjustments to the pension of an inactive employee.
Postemployment Healthcare Benefits:	Medical, dental, vision, and other health-related benefits paid subsequent to the termination of employment.
Projected Benefit Payments:	All benefits estimated to be payable through the pension plan to current active and inactive employees as a result of their past service and their expected future service.
Public Employee Retirement System:	A special-purpose government that administers one or more pension plans; also may administer other types of employee benefit plans, including postemployment healthcare plans and deferred compensation plans.
Real Rate of Return:	The rate of return on an investment after adjustment to eliminate inflation.
Service Costs:	The portions of the actuarial present value of projected benefit payments that are attributed to valuation years.
Single-Employer Defined Benefit Pension Plan (Single-Employer Pension Plan):	A defined benefit pension plan that is used to provide pensions to employees of only one employer.
Termination Benefits:	Inducements offered by employers to active employees to hasten the termination of services, or payments made in consequence of the early termination of services. Termination benefits include early-retirement incentives, severance benefits, and other termination-related benefits.
Total Pension Liability (TPL):	The portion of the actuarial present value of projected benefit payments that is attributed to past periods of employee service in conformity with the requirements of Statement 68.

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BOARD Meeting: 10/12/21
Item: V - D
Attachment 2

Los Angeles City Employees' Retirement System (LACERS)

Governmental Accounting Standards Board Statement 75 (GAS 75) Actuarial Valuation of Other Postemployment Benefits (OPEB)

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

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

Segal

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June 11, 2021

Board of Administration
Los Angeles City Employees' Retirement System
202 W. 1st Street, Suite 500
Los Angeles, CA 90012-4401

Dear Board Members:

We are pleased to submit this Governmental Accounting Standards (GAS) 75 Actuarial Valuation based on a June 30, 2020 measurement date for employer reporting as of June 30, 2021. It contains various information that will need to be disclosed in order for the three employer categories in LACERS (i.e., the City, Airports, and Harbor) to comply with GAS 75.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist the sponsors in preparing their financial report for their liabilities associated with the LACERS Other Postemployment Benefits (OPEB) plan. The census and financial information on which our calculations were based was prepared by LACERS. That assistance is gratefully acknowledged.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and changes in plan provisions or applicable law.

The actuarial calculations were completed under the supervision of Thomas Bergman, ASA, MAAA, Enrolled Actuary and Andy Yeung ASA, MAAA, FCA, Enrolled Actuary. The health care trend and other related medical assumptions have been reviewed by Paul Sadro, ASA, MAAA. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in the actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and expectations for LACERS.

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

Sincerely,

Segal

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

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

Table of Contents

Section 1: Actuarial Valuation Summary

Purpose and basis

This report has been prepared by Segal to present certain disclosure information required by Governmental Accounting Standards (GAS) 75 for employer reporting as of June 30, 2021. The results used in preparing this GAS 75 report are comparable to those used in preparing the Governmental Accounting Standards (GAS) 74 report for the Plan based on a measurement date and a reporting date as of June 30, 2020. This valuation is based on:

- The benefit provisions of the OPEB Plan, as administered by the Board of Administration;
- The characteristics of covered active members, inactive vested members, and retired members and beneficiaries as of June 30, 2020, provided by LACERS;
- The assets of the Plan as of June 30, 2020, provided by LACERS;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board for the June 30, 2020 valuation; and
- Other (health and non-health) actuarial assumptions, regarding employee terminations, retirement, death, health care trend and enrollment, etc. that the Board has adopted for the June 30, 2020 valuation.

General observations on GAS 75 actuarial valuation

1. The Governmental Accounting Standards Board (GASB) rules only define OPEB liability and expense for financial reporting purposes, and do not apply to contribution amounts for OPEB funding purposes. Employers and plans still develop and adopt funding policies under current practices.
2. When measuring OPEB liability, GASB uses the same actuarial cost method (Entry Age) and the same type of discount rate (expected return on assets) as LACERS uses for funding. This means that the Total OPEB Liability (TOL) measure for financial reporting shown in this report is determined on the same basis as the Actuarial Accrued Liability (AAL) measure for funding. We note that the same is true for the Normal Cost component of the annual plan cost for funding and financial reporting.
3. The Net OPEB Liability (NOL) is equal to the difference between the TOL and the Plan's Fiduciary Net Position. The Plan's Fiduciary Net Position is equal to the market value of assets and therefore, the NOL measure is the same as the Unfunded Actuarial Accrued Liability (UAAL) calculated on a market value basis. The NOL reflects all investment gains and losses as of the measurement date. This is different from the UAAL calculated on an actuarial value of assets basis in the funding valuation that reflects investment gains and losses over a seven-year period.

Highlights of the valuation

1. For this report, the reporting dates for the employer are June 30, 2021 and 2020. The NOL was measured as of June 30, 2020 and 2019, and determined based upon the results of the actuarial valuations as of June 30, 2020 and 2019, respectively. The Plan's Fiduciary Net Position (plan assets) and the TOL were valued as of the measurement dates. Consistent with the provisions of GAS 75, the assets and liabilities measured as of June 30, 2020 and 2019 were not adjusted or rolled forward to the June 30, 2021 and 2020 reporting dates, respectively.
2. The NOL has increased from $522.2 million as of June 30, 2019 to $635.3 million as of June 30, 2020 mainly due to an increase of about $95.9 million from reflecting assumption changes based on the triennial experience study dated June 17, 2020 and a loss of $145.9 million from the return on the market value of retiree health plan assets during 2019/2020 less than the assumption of 7.25% used in the June 30, 2019 valuation, offset to some degree by favorable premium renewal experience of $144.3 million.
3. There was an increase in the total employer OPEB expense from $79.2 million calculated last year to $101.3 million calculated this year. The primary cause of the increase was the expensed portion of the unfavorable return on the market value of assets for the year ended June 30, 2020 and the changes in actuarial assumptions, offset to some extent by favorable premium renewal experience for calendar year 2021. A breakdown of the OPEB expenses for this year and last year can be found in *Section 2, OPEB Expense* on page 25.
4. The discount rates used in the valuations for financial disclosure purposes as of June 30, 2020 and 2019 are the assumed investment returns on Plan assets (i.e. 7.00% and 7.25%, respectively, for the funding valuations as of the same dates). As contributions that are required to be made by the City to amortize the Unfunded Actuarial Accrued Liability in the funding valuation are determined on an actuarial basis, the future Actuarially Determined Contributions and current Plan assets, when projected in accordance with the method prescribed by GAS 75, are expected to be sufficient to make all benefit payments to current members.

Section 1: Actuarial Valuation Summary

5. The NOLs for the three employer categories in LACERS (i.e., the City, Airports, and Harbor) as of June 30, 2019 and June 30, 2020 are allocated based on the actual employer contributions made during 2018/2019 and 2019/2020, respectively. The steps we used for the allocation are as follows
   a. First calculate the ratio of the employer category's contributions to the total contributions.
   b. Then multiply this ratio by the NOL to determine the employer category's proportionate share of the NOL. The NOL allocation can be found in Section 2, Determination of proportionate share on pages 22 and 23.
6. Results shown in this report exclude any employer contributions made after the measurement date of June 30, 2020. Employers should consult with their auditors to determine any deferred outflow that should be created for these contributions.
7. It is important to note that this actuarial valuation is based on plan assets as of June 30, 2020. Due to the COVID-19 pandemic, market conditions have changed significantly since the onset of the Public Health Emergency. The plan's funded status does not reflect short-term fluctuations of the market, but rather is based on the market values on the last day of the plan year. Moreover, this actuarial valuation does not include any direct or indirect effects of COVID-19 on short term health plan costs and any possible short-term or long-term impacts on mortality of the covered population that may emerge after June 30, 2020. While it is impossible to determine how the pandemic will affect market conditions, health care costs, and other demographic experience of the plan in future valuations, Segal is available to prepare projections of potential outcomes upon request.

Summary of key valuation results

		June 30, 2021[1]	June 30, 2020[2]
Reporting Date for Employer under GAS 75		**June 30, 2021[1]**	**June 30, 2020[2]**
Measurement Date for Employer under GAS 75		**June 30, 2020**	**June 30, 2019**
Disclosure elements for fiscal year ending June 30:	• Service cost[3]	$76,422,769	$74,477,507
	• Total OPEB Liability	3,486,530,510	3,334,298,548
	• Plan's Fiduciary Net Position	2,851,204,652	2,812,097,867
	• Net OPEB Liability	635,325,858	522,200,681
	• OPEB Expense	101,341,978	79,246,882
Schedule of contributions for fiscal year ending June 30:	• Actuarially determined contributions	$112,136,429	$107,926,949
	• Actual contributions	112,136,429	107,926,949
	• Contribution deficiency / (excess)	0	0
Demographic data for plan year ending June 30:	• Number of retired members and beneficiaries[4]	16,107	15,791
	• Number of inactive vested members	1,526	1,474
	• Retired members and beneficiaries entitled but not yet eligible for health benefits.	142	146
	• Number of active members	27,490	26,632
Key assumptions as of June 30:	• Discount rate	7.00%	7.25%
	• Health care premium trend rates		
	Non-Medicare medical plans	Actual premium increase in first year, then graded from 6.62% to ultimate 4.50% over 9 years	Actual premium increase in first year, then graded from 6.62% to ultimate 4.50% over 9 years
	Medicare medical plans	Actual premium increase in first year, then graded from 6.12% to ultimate 4.50% over 7 years	Actual premium increase in first year, then graded from 6.12% to ultimate 4.50% over 7 years
	Dental	4.00%	4.00%
	Medicare Part B	4.50%	4.50%

[1] The reporting date and measurement date for the Plan are June 30, 2020.
[2] The reporting date and measurement date for the Plan are June 30, 2019.
[3] The service cost is based on the previous year's valuation, meaning the June 30, 2020 and 2019 measurement date values are based on the valuations as of June 30, 2019 and June 30, 2018, respectively. The key assumptions used in the June 30, 2018 valuation are as follows:

Discount rate	7.25%
Health care premium trend rates	
Non-Medicare medical plan*	Actual premium increase in first year, then graded from 6.87% to ultimate 4.50% over 10 years
Medicare medical plan*	Actual premium increase in first year, then graded from 6.37% to ultimate 4.50% over 8 years
Dental and Medicare Part B	4.00%

* The 2019-2020 trends are before reflecting additional estimated increases of 1.0% (non-Medicare) and 0.5% (Medicare) from the impact of the Health Insurance Tax (HIT).

[4] The total number of participants, including married dependents, receiving benefits is 21,572 as of June 30, 2020 and 21,115 as of June 30, 2019.

Important information about actuarial valuations

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

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

Plan of benefits	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan description in this report (as well as the plan summary included in our funding valuation report) to confirm that Segal has correctly interpreted the plan of benefits.
Participant data	An actuarial valuation for a plan is based on data provided to the actuary by LACERS. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
Assets	This valuation is based on the market value of assets as of the valuation date, as provided by the System. The System uses an “actuarial value of assets” that differs from market value to gradually reflect year-to-year changes in the market value of assets in determining contribution requirements.
Actuarial assumptions	In preparing an actuarial valuation, Segal projects the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This projection requires actuarial assumptions as to the probability of death, disability, termination, and retirement of each participant for each year. In addition, the benefits projected to be paid for each of those events in each future year reflect actuarial assumptions as to health care trends and member enrollment in retiree health benefits. The projected benefits are then discounted to a present value, based on the assumed rate of return that is expected to be achieved on the plan’s assets. There is a reasonable range for each assumption used in the projection and the results may vary materially based on which assumptions are selected. It is important for any user of an actuarial valuation to understand this concept. Actuarial assumptions are periodically reviewed to ensure that future valuations reflect emerging plan experience. While future changes in actuarial assumptions may have a significant impact on the reported results, that does not mean that the previous assumptions were unreasonable.
Models	Segal valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are presented to meet regulatory, legislative and client requirements. Our Actuarial Technology and Systems unit, comprised of both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuary.

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

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

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

Section 2: GAS 75 Information

General information about the OPEB plan

Plan Description

Plan administration. The Los Angeles City Employees' Retirement System (LACERS) was established by City Charter in 1937. LACERS is a single employer public employee retirement system whose main function is to provide retirement benefits to the civilian employees of the City of Los Angeles.

Under the provisions of the City Charter, the Board of Administration (the "Board") has the responsibility and authority to administer the Plan and to invest its assets. The Board members serve as trustees and must act in the exclusive interest of the Plan's members and beneficiaries. The Board has seven members: four members, one of whom shall be a retired member of the System, shall be appointed by the Mayor subject to the approval of the Council; two members shall be active employee members of the System elected by the active employee members; one shall be a retired member of the System elected by the retired members of the System.

Plan membership. At June 30, 2020, OPEB plan membership consisted of the following:

Retired members or beneficiaries currently receiving benefits[1]	16,107
Inactive vested members entitled to, but not yet receiving benefits	1,526
Retired members and beneficiaries entitled but not yet eligible for health benefits	142
Active members	27,490
Total	**45,265**

[1] The total number of participants, including married dependents, receiving benefits is 21,572.

Benefits provided. LACERS provides benefits to eligible retirees and beneficiaries:

Membership Eligibility:	
Tier 1 (§4.1002(a))	All employees who became members of the System before July 1, 2013, and certain employees who became members of the System on or after July 1, 2013. In addition, pursuant to Ordinance No. 184134, all Tier 2 employees who became members of the System between July 1, 2013 and February 21, 2016 were transferred to Tier 1 effective February 21, 2016.
Tier 3 (§4.1080.2(a))	All employees who became members of the System on or after February 21, 2016, except as provided otherwise in Section 4.1080.2(b) of the Los Angeles Administrative Code.
Benefit Eligibility:	
Tier 1 (§4.1111(a)) and Tier 3 (§4.1126(a))	Retired age 55 or older with at least 10 years of service (including deferred vested members who terminate employment and receive a retirement benefit from LACERS), or if retirement date is between October 2, 1996, and September 30, 1999 at age 50 or older with at least 30 years of service. Benefits are also payable to spouses, domestic partners, or other qualified dependents while the retiree is alive. Please note that the health subsidy is not payable to a disabled retiree before the member reaches age 55.
Medical Subsidy for Members Not Subject to Cap:	
Under Age 65 or Over Age 65 Without Medicare Part A	
Tier 1 (§4.1111(d)) and Tier 3 (§4.1126(c))	The System will pay 4% of the maximum health subsidy (limited to actual premium) for each year of Service Credit, up to 100% of the maximum health subsidy. As of July 1, 2020, the maximum health subsidy is $1,790.80 per month; remaining unchanged in calendar year 2021. This amount includes coverage of dependent premium costs
Over Age 65 and Enrolled in Both Medicare Parts A and B	
Tier 1 (§4.1111(e)) and Tier 3 (§4.1126(d))	For retirees, a maximum health subsidy shall be paid in the amount of the single-party monthly premium of the approved Medicare supplemental or coordinated plan in which the retiree is enrolled, subject to the following vesting schedule:

Completed Years of Service	Vested Percentage
1-14	75%
15-19	90%
20+	100%

Section 2: GAS 75 Information

Subsidy Cap for Tier 1:	
(§4.1111(b))	As of the June 30, 2011 valuation, the retiree health benefits program was changed to cap the medical subsidy for non-retired members who do not contribute an additional 4% or 4.5% of employee contributions to the Pension Plan. The capped subsidy is different for Medicare and non-Medicare retirees. The cap applies to the medical subsidy limits at the 2011 calendar year level. The cap does not apply to the dental subsidy or the Medicare Part B premium reimbursement.
Dependents:	
Tier 1 (§4.1111(e)(4)) *and Tier 3 (§4.1126(d)(4))*	An additional amount is added for coverage of dependents which shall not exceed the amount provided to a retiree not enrolled in Medicare Parts A and B and covered by the same medical plan with the same years of service. The combined member and dependent subsidy shall not exceed the actual premium. This refers to dependents of retired members with Medicare Parts A and B. It does not apply to those without Medicare or Part B only.
Dental Subsidy for Members:	
Tier 1 (§4.1114(b)) *and Tier 3 (§4.1129(b))*	The System will pay 4% of the maximum dental subsidy (limited to actual premium) for each year of Service Credit, up to 100% of the maximum dental subsidy. As of July 1, 2020, the maximum dental subsidy is $44.60 per month; remaining unchanged in calendar year 2021. There is no subsidy available to spouses or domestic partners or for dependent coverage. There is also no reimbursement for dental plans not sponsored by the System.
Medicare Part B Reimbursement for Members:	
Tier 1 (§4.1113) and *Tier 3 (§4.1128)*	If a Retiree is covered by both Medicare Parts A and B, and enrolled in a LACERS medical plan or participates in the LACERS Retiree Medical Premium Reimbursement Program, LACERS will reimburse the retiree the basic Medicare Part B premium.

Surviving Spouse Medical Subsidy:	
Tier 1 (§4.1115) and Tier 3 (§4.1129.1)	The surviving spouse or domestic partner will be entitled to a health subsidy based on the member's years of service and the surviving dependent's eligibility for Medicare.
Under Age 65 or Over Age 65 Without Medicare Part A	The maximum health subsidy available for survivors is the lowest cost plan available (currently Kaiser) single-party premium ($853.39 per month as of July 1, 2020; remaining unchanged in calendar year 2021).
Over Age 65 and Enrolled in Both Medicare Parts A and B	For survivors, a maximum health subsidy limited to the single-party monthly premium of the plan in which the survivor is enrolled, is provided subject to the following vesting schedule:

Completed Years of Service	Vested Percentage
1-14	75%
15-19	90%
20+	100%

In compliance with the City Charter Sections 1158 and 1160, the City of Los Angeles contributes to the health plan based upon actuarially determined contribution rates adopted by the Board of Administration. Employer contribution rates are adopted annually based upon recommendations received from LACERS' actuary after the completion of the annual actuarial valuation. The combined employer contribution rate as of June 30, 2020 was 4.94% of compensation.[1]

Note that a new Tier 1 Enhanced Plan providing a higher retirement benefit was adopted pursuant to Ordinance No. 184853. However, other than Segal applying higher retirement rate assumptions to anticipate somewhat earlier retirement, there are no differences between the retiree health benefits paid by LACERS to those members.

[1] Based on the June 30, 2018 funding valuation which established funding requirements for fiscal year 2019/2020. The schedule of contributions in Section 2 of this report provides details on how this rate was calculated.

Net OPEB Liability

The components of the Net OPEB Liability were as follows:

Reporting Date for Employer under GAS 75	June 30, 2021	June 30, 2020
Measurement Date for Employer under GAS 75	**June 30, 2020**	**June 30, 2019**
Components of the Net OPEB Liability		
Total OPEB Liability	$3,486,530,510	$3,334,298,548
Plan's Fiduciary Net Position	-2,851,204,652	-2,812,097,867
Net OPEB Liability	**$635,325,858**	**$522,200,681**
Plan's Fiduciary Net Position as a percentage of the Total OPEB Liability	81.78%	84.34%

The NOL was measured as of June 30, 2020 and 2019. The Plan's Fiduciary Net Position (plan assets) was valued as of the measurement date, while the TOL was determined based upon the results of the actuarial valuations as of June 30, 2020 and 2019, respectively.

Plan provisions. The plan provisions used in the measurement of the NOL as of June 30, 2020 and 2019 are the same as those used in the LACERS funding valuations as of June 30, 2020 and 2019, respectively.

Actuarial assumptions. The TOL as of June 30, 2020 was determined by an actuarial valuation as of June 30, 2020. The actuarial assumptions used in the June 30, 2020 valuation were based on the results of an experience study for the period from July 1, 2016 through June 30, 2019 dated June 17, 2020 and retiree health assumptions letter dated September 15, 2020. They are the same as the assumptions used in the June 30, 2020 funding actuarial valuation for LACERS. In particular, the following actuarial assumptions were applied to all periods included in the measurement:

Inflation	2.75%
Salary increases	Ranges from 9.95% to 4.25% based on years of service, including inflation
Investment rate of return	7.00%, net of OPEB plan investment expense and including inflation
Other assumptions	Same as those used in the June 30, 2020 actuarial valuation

Section 2: GAS 75 Information

The TOL as of June 30, 2019 was determined by an actuarial valuation as of June 30, 2019. The actuarial assumptions used in the June 30, 2019 valuation were based on the results of an experience study for the period from July 1, 2014 through June 30, 2017, the June 30, 2017 review of economic actuarial assumptions and retiree health assumptions letter dated September 17, 2019. They are the same as the assumptions used in the June 30, 2019 funding actuarial valuation for LACERS. In particular, the following actuarial assumptions were applied to all periods included in the measurement:

Inflation	3.00%
Salary increases	Ranges from 10.00% to 3.90% based on years of service, including inflation
Investment rate of return	7.25%, net of OPEB plan investment expense and including inflation
Other assumptions	Same as those used in the June 30, 2019 actuarial valuation

Determination of discount rate and investment rates of return

The long-term expected rate of return on OPEB plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation and subtracting expected investment expenses and a risk margin. The target allocation and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before deducting investment expenses, are summarized in the following table. These values were used in the derivation of the long-term expected investment rate of return assumption that was used in the actuarial valuation as of June 30, 2020. This information is subject to change every three years based on the actuarial experience study.

Asset Class	Target Allocation	Long-Term Expected Arithmetic Real Rate of Return
Large Cap U.S. Equity	15.01%	5.54%
Small/Mid Cap U.S. Equity	3.99%	6.25%
Developed International Large Cap Equity	17.01%	6.61%
Developed International Small Cap Equity	2.97%	6.90%
Emerging International Large Cap Equity	5.67%	8.74%
Emerging International Small Cap Equity	1.35%	10.63%
Core Bonds	13.75%	1.19%
High Yield Bonds	2.00%	3.14%
Bank Loans	2.00%	3.70%
TIPS	4.00%	0.86%
Emerging Market Debt (External)	2.25%	3.55%
Emerging Market Debt (Local)	2.25%	4.75%
Core Real Estate	4.20%	4.60%
Non-Core Real Estate	2.80%	5.76%
Cash	1.00%	0.03%
Commodities	1.00%	3.33%
Private Equity	14.00%	8.97%
Private Credit/Debt	3.75%	6.00%
REITS	1.00%	5.98%
Total	**100.00%**	**5.50%**

Discount rate. The discount rates used to measure the TOL were 7.00% as of June 30, 2020 and 7.25% as of June 30, 2019. The projection of cash flows used to determine the discount rate assumed employer contributions will be made at rates equal to the actuarially determined contribution rates. For this purpose, only employer contributions that are intended to fund benefits for current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs for future plan members and their beneficiaries are not included. Based on those assumptions, the OPEB Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments for current plan members. Therefore, the long-term expected rate of return on OPEB plan investments was applied to all periods of projected benefit payments to determine the TOL as of both June 30, 2020 and June 30, 2019.

Discount rate and trend sensitivity

Sensitivity of the Net OPEB Liability to changes in the discount rate. The following presents the Net OPEB Liability of LACERS as of June 30, 2020, calculated using the discount rate of 7.00%, as well as what LACERS' Net OPEB Liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.00%) or 1-percentage-point higher (8.00%) than the current rate:

	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
City	$951,404,929	$531,226,775	$188,228,221
Airports	145,256,675	81,105,566	28,737,927
Harbor	41,180,427	22,993,517	8,147,234
Total for all Employer Categories	**$1,137,842,031**	**$635,325,858**	**$225,113,382**

Sensitivity of the Net OPEB Liability to changes in the healthcare cost trend rates. The following presents the Net OPEB Liability of LACERS as of June 30, 2020, calculated using the current trend rates as well as what LACERS' Net OPEB Liability would be if it were calculated using trend rates that are 1-percentage-point lower or 1-percentage-point higher than the current rates:

	1% Decrease	Current Trend Rates[1]	1% Increase
City	$156,475,696	$531,226,775	$999,330,843
Airports	23,890,079	81,105,566	152,573,811
Harbor	6,772,864	22,993,517	43,254,843
Total for all Employer Categories	**$187,138,639**	**$635,325,858**	**$1,195,159,497**

[1] Current trend rates: Actual premium increase in first year then 6.62% graded down to 4.50% over 9 years for Non-Medicare medical plan costs and 6.12% graded down to 4.50% over 7 years for Medicare medical plan costs. 4.00% for all years for Dental and 4.50% for all years for Medicare Part B subsidy cost.

Schedule of changes in Net OPEB Liability – Last two fiscal years

Reporting Date for Employer under GAS 75 Measurement Date for Employer under GAS 75	June 30, 2021 June 30, 2020	June 30, 2020 June 30, 2019
Total OPEB Liability		
• Service cost[1]	$76,422,769	$74,477,507
• Interest	242,665,810	236,677,675
• Change of benefit terms	0	0
• Differences between expected and actual experience	-135,719,690	-134,052,778
• Changes of assumptions	96,076,478	33,939,702
• Benefit payments	-127,213,405	-133,571,405
Net change in Total OPEB Liability	**$152,231,962**	**$77,470,701**
Total OPEB Liability – beginning	**3,334,298,548**	**3,256,827,847**
Total OPEB Liability – ending (a)	**$3,486,530,510**	**$3,334,298,548**
Plan's Fiduciary Net Position		
• Contributions – employer	$112,136,429	$107,926,949
• Contributions – employee	0	0
• Net investment income	60,898,611	166,469,503
• Benefit payments	-127,213,405	-133,571,405
• Administrative expense	-6,714,850	-5,098,795
• Other	0	0
Net change in Plan's Fiduciary Net Position	**$39,106,785**	**$135,726,252**
Plan's Fiduciary Net Position – beginning	**2,812,097,867**	**2,676,371,615**
Plan's Fiduciary Net Position – ending (b)	**$2,851,204,652**	**$2,812,097,867**
Net OPEB Liability – ending (a) – (b)	**$635,325,858**	**$522,200,681**
Plan's Fiduciary Net Position as a percentage of the Total OPEB Liability	**81.78%**	**84.34%**
Covered payroll[2]	**$2,271,038,575**	**$2,108,171,088**
Net OPEB Liability as percentage of covered payroll	**27.98%**	**24.77%**

1 The service cost is based on the previous year's valuation, meaning the June 30, 2020 and 2019 measurement date values are based on the valuations as of June 30, 2019 and June 30, 2018, respectively. The service cost as of June 30, 2020 and June 30, 2019 measurement dates have been calculated using the assumptions shown in the June 30, 2019 measurement date column of page 7 and the key assumptions as of June 30, 2018 shown in footnote 3 of page 7, respectively.

2 Covered payroll is defined as the payroll on which contributions to an OPEB plan are based.

Schedule of contributions – Last ten fiscal years

Year Ended June 30	Actuarially Determined Contributions	Contributions in Relation to the Actuarially Determined Contributions	Contribution Deficiency / (Excess)	Covered Payroll[1]	Contributions as a Percentage of Covered Payroll
2011	$107,395,804	$107,395,804	$0	$1,678,059,440	6.40%
2012	115,208,835	115,208,835	0	1,715,197,133	6.72%
2013	72,916,729	72,916,729	0	1,736,112,598	4.20%
2014	97,840,554	97,840,554	0	1,802,931,195	5.43%
2015	100,466,945	100,466,945	0	1,835,637,409	5.47%
2016	105,983,112	105,983,112	0	1,876,946,179	5.65%
2017	97,457,455	97,457,455	0	1,973,048,633	4.94%
2018	100,909,010	100,909,010	0	2,057,565,478	4.90%
2019	107,926,949	107,926,949	0	2,108,171,088	5.12%
2020	112,136,429	112,136,429	0	2,271,038,575	4.94%

[1] Covered payroll is defined as the payroll on which contributions to an OPEB plan are based.

See accompanying notes to this schedule on the next page.

Notes to Schedule:

Methods and assumptions used to establish "actuarially determined contribution" (ADC) rates:

Valuation date:	Actuarially determined contribution rates are calculated as of June 30, two years prior to the end of the fiscal year in which contributions are reported
Actuarial cost method:	Entry Age Cost Method (individual basis)
Amortization method:	Level percent of payroll
Amortization period:	Multiple layers, closed amortization periods. The costs associated with the 2009 ERIP have been amortized over 15 years beginning with the June 30, 2009 valuation date. The unfunded actuarial accrued liability as of June 30, 2012 is amortized over a fixed period of 30 years beginning July 1, 2012. Assumption changes resulting from the triennial experience study will be amortized over 20 years. Health trend and premium assumption changes, plan changes, and gains and losses will be amortized over 15 years.
Asset valuation method:	Market value of assets less unrecognized returns in each of the last seven years. Unrecognized return is equal to the difference between the actual market return and the expected return on the market value, and is recognized over a seven-year period. The actuarial value of assets cannot be less than 60% or greater than 140% of the market value of assets.

Actuarial assumptions:

Valuation date:	**June 30, 2020**
Investment rate of return	7.00%
Inflation rate	2.75%
Real across-the-board salary increase	0.50%
Projected salary increases[1]	Ranges from 9.95% to 4.25%, based on years of service
Mortality	Healthy: Pub-2010 General Healthy Retiree Headcount-Weighted Above-Median Mortality Tables (separate tables for males and females) with rates increased by 10% for males, projected generationally with the two-dimensional mortality improvement scale MP-2019.
Medical cost trend rates	
Non-Medicare medical plans	Actual premium increase in first year, then graded from 6.62% to ultimate 4.50% over 9 years
Medicare medical plans	Actual premium increase in first year, then graded from 6.12% to ultimate 4.50% over 7 years
Dental	4.00%
Medicare Part B	4.50%
Other assumptions:	Same as those used in the June 30, 2020 funding actuarial valuation.

[1] Includes inflation at 2.75% plus across the board salary increases of 0.50% plus merit and promotional increases

Determination of proportionate share

Actual Employer Contributions by Employer Category
July 1, 2018 to June 30, 2019

Employer Category	Contributions	Percentage[1]
City	$89,718,772	83.129%
Airports	14,263,712	13.216%
Harbor	3,944,465	3.655%
Total for all Employer Categories	**$107,926,949**	**100.000%**

[1] The unrounded percentages are used in the allocation of the NOL amongst employer categories.

Allocation of June 30, 2019 Net OPEB Liability (NOL)

Employer Category	Total NOL	Percentage
City	$434,101,068	83.129%
Airports	69,014,460	13.216%
Harbor	19,085,153	3.655%
Total for all Employer Categories	**$522,200,681**	**100.000%**

Notes:

1. Based on the July 1, 2018 through June 30, 2019 employer contributions as provided by LACERS.
2. The Net OPEB Liability is the Total OPEB Liability minus the Plan's Fiduciary Net Position (plan assets).
3. The NOL is allocated based on the actual contributions from each employer category. The steps used for the allocation are as follows:
   - First calculate the ratio of the contributions from the employer category to the total contributions.
   - Then multiply this ratio by the NOL to determine the employer category's proportionate share of the NOL.

Determination of proportionate share (continued)

Actual Employer Contributions by Employer Category
July 1, 2019 to June 30, 2020

Employer Category	Contributions	Percentage[1]
City	$93,762,709	83.615%
Airports	14,315,313	12.766%
Harbor	4,058,407	3.619%
Total for all Employer Categories	**$112,136,429**	**100.000%**

[1] The unrounded percentages are used in the allocation of the NOL amongst employer categories.

Allocation of June 30, 2020 Net OPEB Liability (NOL)

Employer Category	Total NOL	Percentage
City	$531,226,775	83.615%
Airports	81,105,566	12.766%
Harbor	22,993,517	3.619%
Total for all Employer Categories	**$635,325,858**	**100.000%**

Notes:

1. Based on the July 1, 2019 through June 30, 2020 employer contributions as provided by LACERS.
2. The Net OPEB Liability is the Total OPEB Liability minus the Plan's Fiduciary Net Position (plan assets).
3. The NOL is allocated based on the actual contributions from each employer category. The steps used for the allocation are as follows:
   - First calculate the ratio of the contributions from the employer category to the total contributions.
   - Then multiply this ratio by the NOL to determine the employer category's proportionate share of the NOL.

Determination of proportionate share (continued)

For purposes of the above results, the reporting date for the employer under GAS 75 is June 30, 2021. The reporting date and measurement date for the Plan under GAS 74 are June 30, 2020. Consistent with the provisions of GAS 75, the assets and liabilities measured as of June 30, 2020 are not adjusted or rolled forward to the June 30, 2021 reporting date. Other results, such as the total deferred inflows and outflows would also be allocated based on the same proportionate shares determined above.

The following items are allocated based on the corresponding employer allocation percentage or proportionate share shown above within each tier.

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

OPEB expense

Total for All Employer Categories

Reporting Date for Employer under GAS 75	June 30, 2021	June 30, 2020
Measurement Date for Employer under GAS 75	**June 30, 2020**	**June 30, 2019**
Components of OPEB Expense		
• Service cost	$76,422,769	$74,477,507
• Interest on the Total OPEB Liability	242,665,810	236,677,675
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
• Expensed portion of current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total OPEB Liability	-21,680,462	-21,586,599
• Expensed portion of current-period changes of assumptions or other inputs	15,347,680	5,465,330
• Member contributions	0	0
• Projected earnings on plan investments	-206,813,342	-196,508,822
• Expensed portion of current-period differences between actual and projected earnings on plan investments	29,182,946	6,007,864
• Administrative expense	6,714,850	5,098,795
• Other expense	0	0
• Recognition of beginning of year deferred outflows of resources as OPEB expense	33,932,997	22,459,803
• Recognition of beginning of year deferred inflows of resources as OPEB expense	-74,431,270	-52,844,671
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
OPEB Expense	**$101,341,978**	**$79,246,882**

OPEB expense (continued)

City

Reporting Date for Employer under GAS 75	June 30, 2021	June 30, 2020
Measurement Date for Employer under GAS 75	**June 30, 2020**	**June 30, 2019**
Components of OPEB Expense		
• Service cost	$63,900,786	$61,912,531
• Interest on the Total OPEB Liability	202,904,658	196,748,176
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	478,423	390,629
• Expensed portion of current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total OPEB Liability	-18,128,086	-17,944,760
• Expensed portion of current-period changes of assumptions or other inputs	12,832,940	4,543,283
• Member contributions	0	0
• Projected earnings on plan investments	-172,926,670	-163,356,144
• Expensed portion of current-period differences between actual and projected earnings on plan investments	24,401,277	4,994,287
• Administrative expense	5,614,612	4,238,586
• Other expense	0	0
• Recognition of beginning of year deferred outflows of resources as OPEB expense	28,373,025	18,670,647
• Recognition of beginning of year deferred inflows of resources as OPEB expense	-62,235,596	-43,929,334
• Net amortization of deferred amounts from changes in proportion and differences between employer’s contributions and proportionate share of contributions	926,065	535,436
OPEB Expense	**$86,141,434**	**$66,803,337**

OPEB expense (continued)

Airports

Reporting Date for Employer under GAS 75	June 30, 2021	June 30, 2020
Measurement Date for Employer under GAS 75	**June 30, 2020**	**June 30, 2019**
Components of OPEB Expense		
• Service cost	$9,756,115	$9,843,007
• Interest on the Total OPEB Liability	30,978,666	31,279,511
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	-443,370	-288,367
• Expensed portion of current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total OPEB Liability	-2,767,723	-2,852,902
• Expensed portion of current-period changes of assumptions or other inputs	1,959,282	722,302
• Member contributions	0	0
• Projected earnings on plan investments	-26,401,748	-25,970,763
• Expensed portion of current-period differences between actual and projected earnings on plan investments	3,725,489	794,004
• Administrative expense	857,216	673,861
• Other expense	0	0
• Recognition of beginning of year deferred outflows of resources as OPEB expense	4,331,879	2,968,306
• Recognition of beginning of year deferred inflows of resources as OPEB expense	-9,501,880	-6,983,994
• Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	-626,865	-338,498
OPEB Expense	**$11,867,061**	**$9,846,467**

OPEB expense (continued)

Harbor

Reporting Date for Employer under GAS 75	June 30, 2021	June 30, 2020
Measurement Date for Employer under GAS 75	**June 30, 2020**	**June 30, 2019**
Components of OPEB Expense		
• Service cost	$2,765,868	$2,721,969
• Interest on the Total OPEB Liability	8,782,486	8,649,988
• Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	-35,053	-102,262
• Expensed portion of current-period benefit changes	0	0
• Expensed portion of current-period difference between expected and actual experience in the Total OPEB Liability	-784,653	-788,937
• Expensed portion of current-period changes of assumptions or other inputs	555,458	199,745
• Member contributions	0	0
• Projected earnings on plan investments	-7,484,924	-7,181,915
• Expensed portion of current-period differences between actual and projected earnings on plan investments	1,056,180	219,573
• Administrative expense	243,022	186,348
• Other expense	0	0
• Recognition of beginning of year deferred outflows of resources as OPEB expense	1,228,093	820,850
• Recognition of beginning of year deferred inflows of resources as OPEB expense	-2,693,794	-1,931,343
• Net amortization of deferred amounts from changes in proportion and differences between employer’s contributions and proportionate share of contributions	-299,200	-196,938
OPEB Expense	**$3,333,483**	**$2,597,078**

Deferred outflows of resources and deferred inflows of resources

Total for All Employer Categories

Reporting Date for Employer under GAS 75	June 30, 2021	June 30, 2020
Measurement Date for Employer under GAS 75	**June 30, 2020**	**June 30, 2019**
Deferred Outflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions[1]	$5,781,355	$4,190,912
• Changes of assumptions or other inputs	166,036,651	110,155,291
• Net excess of projected over actual earnings on OPEB Plan investments (if any)	64,960,655	0
• Difference between actual and expected experience in the Total OPEB Liability	7,355,691	10,433,386
• **Total Deferred Outflows of Resources**	**$244,134,352**	**$124,779,589**
Deferred Inflows of Resources		
• Changes in proportion and differences between employer's contributions and proportionate share of contributions[1]	$5,781,355	$4,190,912
• Changes of assumptions or other inputs	0	0
• Net excess of actual over projected earnings on OPEB Plan investments (if any)	0	97,485,010
• Difference between expected and actual experience in the Total OPEB Liability	208,871,508	117,541,806
• **Total Deferred Inflows of Resources**	**$214,652,863**	**$219,217,728**
Deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized as follows:		
Reporting Date for Employer under GAS 75 Year Ended June 30:		
2021	N/A	-$40,498,273
2022	-$17,648,109	-40,498,273
2023	16,000,658	-6,849,506
2024	28,997,136	6,146,972
2025	13,496,568	-9,353,597
2026	-9,718,244	-3,385,462
2027	-1,646,520	0
Thereafter	0	0

[1] Calculated in accordance with Paragraphs 64 and 65 of GAS 75.

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

City

Reporting Date for Employer under GAS 75		June 30, 2021	June 30, 2020
Measurement Date for Employer under GAS 75		**June 30, 2020**	**June 30, 2019**
Deferred Outflows of Resources			
• Changes in proportion and differences between employer's contributions and proportionate share of contributions[1]		$5,781,355	$4,190,912
• Changes of assumptions or other inputs		138,831,300	91,571,174
• Net excess of projected over actual earnings on OPEB Plan investments (if any)		54,316,755	0
• Difference between actual and expected experience in the Total OPEB Liability		6,150,450	8,673,187
• **Total Deferred Outflows of Resources**		**$205,079,860**	**$104,435,273**
Deferred Inflows of Resources			
• Changes in proportion and differences between employer's contributions and proportionate share of contributions[1]		$0	$0
• Changes of assumptions or other inputs		0	0
• Net excess of actual over projected earnings on OPEB Plan investments (if any)		0	81,038,475
• Difference between expected and actual experience in the Total OPEB Liability		174,647,602	97,711,522
• **Total Deferred Inflows of Resources**		**$174,647,602**	**$178,749,997**
Deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized as follows:			
Reporting Date for Employer under GAS 75 Year Ended June 30:			
	2021	N/A	-$32,739,811
	2022	-$13,351,952	-32,739,811
	2023	14,783,414	-4,767,872
	2024	25,507,653	5,893,245
	2025	12,310,927	-7,228,198
	2026	-7,565,442	-2,732,277
	2027	-1,252,342	0
	Thereafter	0	0

[1] Calculated in accordance with Paragraphs 64 and 65 of GAS 75.

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

Airports

Reporting Date for Employer under GAS 75		June 30, 2021	June 30, 2020
Measurement Date for Employer under GAS 75		**June 30, 2020**	**June 30, 2019**
Deferred Outflows of Resources			
• Changes in proportion and differences between employer's contributions and proportionate share of contributions[1]		$0	$0
• Changes of assumptions or other inputs		21,196,204	14,558,211
• Net excess of projected over actual earnings on OPEB Plan investments (if any)		8,292,864	0
• Difference between actual and expected experience in the Total OPEB Liability		939,026	1,378,885
• **Total Deferred Outflows of Resources**		**$30,428,094**	**$15,937,096**
Deferred Inflows of Resources			
• Changes in proportion and differences between employer's contributions and proportionate share of contributions[1]		$4,569,022	$2,863,759
• Changes of assumptions or other inputs		0	0
• Net excess of actual over projected earnings on OPEB Plan investments (if any)		0	12,883,697
• Difference between expected and actual experience in the Total OPEB Liability		26,664,493	15,534,419
• **Total Deferred Inflows of Resources**		**$31,233,515**	**$31,281,875**
Deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized as follows:			
Reporting Date for Employer under GAS 75 Year Ended June 30:			
	2021	N/A	-$5,979,149
	2022	-$3,323,189	-5,979,149
	2023	972,406	-1,532,101
	2024	2,722,572	276,563
	2025	892,819	-1,622,959
	2026	-1,744,557	-507,984
	2027	-325,472	0
	Thereafter	0	0

[1] Calculated in accordance with Paragraphs 64 and 65 of GAS 75.

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

Harbor

Reporting Date for Employer under GAS 75 Measurement Date for Employer under GAS 75		June 30, 2021 June 30, 2020	June 30, 2020 June 30, 2019
Deferred Outflows of Resources			
• Changes in proportion and differences between employer's contributions and proportionate share of contributions[1]		$0	$0
• Changes of assumptions or other inputs		6,009,147	4,025,906
• Net excess of projected over actual earnings on OPEB Plan investments (if any)		2,351,036	0
• Difference between actual and expected experience in the Total OPEB Liability		266,215	381,314
• **Total Deferred Outflows of Resources**		**$8,626,398**	**$4,407,220**
Deferred Inflows of Resources			
• Changes in proportion and differences between employer's contributions and proportionate share of contributions[1]		$1,212,333	$1,327,153
• Changes of assumptions or other inputs		0	0
• Net excess of actual over projected earnings on OPEB Plan investments (if any)		0	3,562,838
• Difference between expected and actual experience in the Total OPEB Liability		7,559,413	4,295,865
• **Total Deferred Inflows of Resources**		**$8,771,746**	**$9,185,856**
Deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized as follows:			
Reporting Date for Employer under GAS 75 Year Ended June 30:			
	2021	N/A	-$1,779,313
	2022	-$972,968	-1,779,313
	2023	244,838	-549,533
	2024	766,911	-22,836
	2025	292,822	-502,440
	2026	-408,245	-145,201
	2027	-68,706	0
	Thereafter	0	0

1 Calculated in accordance with Paragraphs 64 and 65 of GAS 75.

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

There are changes in each employer category's proportionate share of the total Net OPEB Liability during the measurement period ended June 30, 2020. The net effect of the change on the employer category's proportionate share of the collective Net OPEB Liability and collective deferred outflows of resources and deferred inflows of resources is recognized over the average of the expected remaining service lives of all employees that are provided with OPEB benefits through LACERS which is 6.26 years[1] determined as of June 30, 2019 (the beginning of the measurement period ending June 30, 2020).

In addition, the difference between the actual employer contributions and the proportionate share of the employer contributions during the measurement period ended June 30, 2020 is recognized over the same period.

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

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

[1] The remaining service lives of all employees of 6.26 years used here for GAS 75 is different from the 4.99 years used for GAS 68 because the number of payees (with 0 years of expected remaining service lives) receiving health benefits under the Plan is less than the number of payees receiving pension benefits.

Schedule of proportionate share of the Net OPEB Liability

Total for All Employer Categories

Reporting Date for Employer under GAS 75 as of June 30	Proportion of the Net OPEB Liability	Proportionate Share of Net OPEB Liability	Covered Payroll[1]	Proportionate Share of the Net OPEB Liability as a Percentage of its Covered Payroll	Plan's Fiduciary Net Position as a Percentage of the Total OPEB Liability
2017	100.000%	$658,811,838	$1,876,946,179	35.10%	76.42%
2018	100.000%	566,944,384	1,973,048,633	28.73%	81.14%
2019	100.000%	580,456,232	2,057,565,478	28.21%	82.18%
2020	100.000%	522,200,681	2,108,171,088	24.77%	84.34%
2021	100.000%	635,325,858	2,271,038,575	27.98%	81.78%

[1] Covered payroll is defined as the payroll on which contributions to a OPEB plan are based.

Schedule of proportionate share of the Net OPEB Liability (continued)

City

Reporting Date for Employer under GAS 75 as of June 30	Proportion of the Net OPEB Liability	Proportionate Share of Net OPEB Liability	Covered Payroll[1]	Proportionate Share of the Net OPEB Liability as a Percentage of its Covered Payroll	Plan's Fiduciary Net Position as a Percentage of the Total OPEB Liability
2017	82.227%	$541,721,269	$1,540,925,299	35.16%	76.42%
2018	82.454%	467,468,218	1,625,808,930	28.75%	81.14%
2019	82.753%	480,346,441	1,701,304,099	28.23%	82.18%
2020	83.129%	434,101,068	1,749,621,444	24.81%	84.34%
2021	83.615%	531,226,775	1,895,552,279	28.02%	81.78%

[1] Covered payroll is defined as the payroll on which contributions to a OPEB plan are based.

Schedule of proportionate share of the Net OPEB Liability (continued)

Airports

Reporting Date for Employer under GAS 75 as of June 30	Proportion of the Net OPEB Liability	Proportionate Share of Net OPEB Liability	Covered Payroll[1]	Proportionate Share of the Net OPEB Liability as a Percentage of its Covered Payroll	Plan's Fiduciary Net Position as a Percentage of the Total OPEB Liability
2017	13.826%	$91,088,903	$260,929,145	34.91%	76.42%
2018	13.681%	77,566,434	271,035,342	28.62%	81.14%
2019	13.494%	78,324,326	278,681,843	28.11%	82.18%
2020	13.216%	69,014,460	280,595,646	24.60%	84.34%
2021	12.766%	81,105,566	292,405,953	27.74%	81.78%

[1] Covered payroll is defined as the payroll on which contributions to a OPEB plan are based.

Schedule of proportionate share of the Net OPEB Liability (continued)

Harbor

Reporting Date for Employer under GAS 75 as of June 30	Proportion of the Net OPEB Liability	Proportionate Share of Net OPEB Liability	Covered Payroll[1]	Proportionate Share of the Net OPEB Liability as a Percentage of its Covered Payroll	Plan's Fiduciary Net Position as a Percentage of the Total OPEB Liability
2017	3.947%	$26,001,666	$75,091,735	34.63%	76.42%
2018	3.865%	21,909,732	76,204,361	28.75%	81.14%
2019	3.753%	21,785,465	77,579,536	28.08%	82.18%
2020	3.655%	19,085,153	77,953,998	24.48%	84.34%
2021	3.619%	22,993,517	83,080,343	27.68%	81.78%

[1] Covered payroll is defined as the payroll on which contributions to a OPEB plan are based.

Schedule of reconciliation of Net OPEB Liability

Total for All Employer Categories

Reporting Date for Employer under GAS 75	June 30, 2021	June 30, 2020
Measurement Date for Employer under GAS 75	June 30, 2020	June 30, 2019
Beginning Net OPEB Liability	**$522,200,681**	**$580,456,232**
• OPEB Expense	101,341,978	79,246,882
• Employer Contributions	-112,136,429	-107,926,949
• New Net Deferred Inflows/Outflows	83,421,355	-59,960,352
• Change in Allocation of Prior Deferred Inflows/Outflows	0	0
• New Net Deferred Flows Due to Change in Proportion	0	0
• Recognition of Prior Deferred Inflows/Outflows	40,498,273	30,384,868
• Recognition of Prior Deferred Flows Due to Change in Proportion	0	0
Ending Net OPEB Liability	**$635,325,858**	**$522,200,681**

Schedule of reconciliation of Net OPEB Liability (continued)

City

Reporting Date for Employer under GAS 75	June 30, 2021	June 30, 2020
Measurement Date for Employer under GAS 75	**June 30, 2020**	**June 30, 2019**
Beginning Net OPEB Liability	**$434,101,068**	**$480,346,441**
• OPEB Expense	86,141,434	66,803,337
• Employer Contributions	-93,762,709	-89,718,772
• New Net Deferred Inflows/Outflows	69,752,641	-49,844,540
• Change in Allocation of Prior Deferred Inflows/Outflows	-458,673	-243,824
• New Net Deferred Flows Due to Change in Proportion	2,516,508	2,035,175
• Recognition of Prior Deferred Inflows/Outflows	33,862,571	25,258,687
• Recognition of Prior Deferred Flows Due to Change in Proportion	-926,065	-535,436
Ending Net OPEB Liability	**$531,226,775**	**$434,101,068**

Schedule of reconciliation of Net OPEB Liability (continued)

Airports

Reporting Date for Employer under GAS 75	June 30, 2021	June 30, 2020
Measurement Date for Employer under GAS 75	**June 30, 2020**	**June 30, 2019**
Beginning Net OPEB Liability	**$69,014,460**	**$78,324,326**
• OPEB Expense	11,867,061	9,846,467
• Employer Contributions	-14,315,313	-14,263,712
• New Net Deferred Inflows/Outflows	10,649,553	-7,924,408
• Change in Allocation of Prior Deferred Inflows/Outflows	425,067	179,994
• New Net Deferred Flows Due to Change in Proportion	-2,332,128	-1,502,393
• Recognition of Prior Deferred Inflows/Outflows	5,170,001	4,015,688
• Recognition of Prior Deferred Flows Due to Change in Proportion	626,865	338,498
Ending Net OPEB Liability	**$81,105,566**	**$69,014,460**

Schedule of reconciliation of Net OPEB Liability (continued)

Harbor

Reporting Date for Employer under GAS 75	June 30, 2021	June 30, 2020
Measurement Date for Employer under GAS 75	**June 30, 2020**	**June 30, 2019**
Beginning Net OPEB Liability	**$19,085,153**	**$21,785,465**
• OPEB Expense	3,333,483	2,597,078
• Employer Contributions	-4,058,407	-3,944,465
• New Net Deferred Inflows/Outflows	3,019,161	-2,191,404
• Change in Allocation of Prior Deferred Inflows/Outflows	33,606	63,830
• New Net Deferred Flows Due to Change in Proportion	-184,380	-532,782
• Recognition of Prior Deferred Inflows/Outflows	1,465,701	1,110,493
• Recognition of Prior Deferred Flows Due to Change in Proportion	299,200	196,938
Ending Net OPEB Liability	**$22,993,517**	**$19,085,153**

Schedule of recognition of changes in Total Net OPEB Liability

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

Reporting Date for Employer under GAS 75 Year Ended June 30	Differences Between Actual and Expected Experience	Recognition Period (Years)	Reporting Date for Employer under GAS 75 Year Ended June 30:[1] 2020	2021	2022	2023	2024	2025	2026	2027
2018	$19,666,471	6.39	$3,077,695	$3,077,695	$3,077,695	$3,077,695	$1,200,301	$0	$0	$0
2019	-7,321,481	6.52	-1,122,927	-1,122,927	-1,122,927	-1,122,927	-1,122,927	-583,919	0	0
2020	-134,052,778	6.21	-21,586,599	-21,586,599	-21,586,599	-21,586,599	-21,586,599	-21,586,599	-4,533,184	0
2021	-135,719,690	6.26	N/A	-21,680,462	-21,680,462	-21,680,462	-21,680,462	-21,680,462	-21,680,462	-5,636,918
Net Increase/(Decrease) in OPEB Expense			**-$19,631,831**	**-$41,312,293**	**-$41,312,293**	**-$41,312,293**	**-$43,189,687**	**-$43,850,980**	**-$26,213,646**	**-$5,636,918**

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

Reporting Date for Employer under GAS 75 Year Ended June 30	Effects of Assumption Changes	Recognition Period (Years)	Reporting Date for Employer under GAS 75 Year Ended June 30:[1] 2020	2021	2022	2023	2024	2025	2026	2027
2018	$33,511,927	6.39	$5,244,433	$5,244,433	$5,244,433	$5,244,433	$2,045,329	$0	$0	$0
2019	92,177,641	6.52	14,137,675	14,137,675	14,137,675	14,137,675	14,137,675	7,351,591	0	0
2020	33,939,702	6.21	5,465,330	5,465,330	5,465,330	5,465,330	5,465,330	5,465,330	1,147,722	0
2021	96,076,478	6.26	N/A	15,347,680	15,347,680	15,347,680	15,347,680	15,347,680	15,347,680	3,990,398
Net Increase/(Decrease) in OPEB Expense			**$24,847,438**	**$40,195,118**	**$40,195,118**	**$40,195,118**	**$36,996,014**	**$28,164,601**	**$16,495,402**	**$3,990,398**

As described in *Section 2, Schedule of Deferred Outflows of Resources and Deferred Inflows of Resources*, the average of the expected remaining service lives of all employees that are provided with OPEB through LACERS (active and inactive employees) determined as of July 1, 2019 (the beginning of the measurement period ending June 30, 2020) is 6.26 years.

[1] The amortization amounts prior to June 30, 2020 have been omitted from this Schedule. Those amounts can be found in prior years' GAS 75 reports.

Schedule of recognition of changes in Total Net OPEB Liability (continued)

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

Reporting Date for Employer under GAS 75 Year Ended June 30	Differences Between Projected and Actual Earnings	Recognition Period (Years)	Reporting Date for Employer under GAS 75 Year Ended June 30:[1] 2020	2021	2022	2023	2024	2025	2026	2027
2018	-$168,243,825	5.00	-$33,648,765	-$33,648,765	-$33,648,765	$0	$0	$0	$0	$0
2019	-90,364,893	5.00	-18,072,979	-18,072,979	-18,072,979	-18,072,977	0	0	0	0
2020	30,039,319	5.00	6,007,864	6,007,864	6,007,864	6,007,864	6,007,863	0	0	0
2021	145,914,731	5.00	N/A	29,182,946	29,182,946	29,182,946	29,182,946	29,182,947	0	0
Net Increase/(Decrease) in OPEB Expense			**-$45,713,880**	**-$16,530,934**	**-$16,530,934**	**$17,117,833**	**$35,190,809**	**$29,182,947**	**$0**	**$0**

The difference between projected and actual earnings on OPEB plan investments are recognized over a five-year period per Paragraph 43b. of GAS 75.

Total Increase (Decrease) in OPEB Expense

Reporting Date for Employer under GAS 75 Year Ended June 30	Total Differences	Reporting Date for Employer under GAS 75 Year Ended June 30:[1] 2020	2021	2022	2023	2024	2025	2026	2027
2018	-$115,065,427	-$25,326,637	-$25,326,637	-$25,326,637	$8,322,128	$3,245,630	$0	$0	$0
2019	-5,508,733	-5,058,231	-5,058,231	-5,058,231	-5,058,229	13,014,748	6,767,672	0	0
2020	-70,073,757	-10,113,405	-10,113,405	-10,113,405	-10,113,405	-10,113,406	-16,121,269	-3,385,462	0
2021	106,271,519	N/A	22,850,164	22,850,164	22,850,164	22,850,164	22,850,165	-6,332,782	-1,646,520
Net Increase/(Decrease) in OPEB Expense		**-$40,498,273**	**-$17,648,109**	**-$17,648,109**	**$16,000,658**	**$28,997,136**	**$13,496,568**	**-$9,718,244**	**-$1,646,520**

[1] The amortization amounts prior to June 30, 2020 have been omitted from this Schedule. Those amounts can be found in prior years' GAS 75 reports.

Allocation of changes in Total Net OPEB Liability

In addition to the amounts shown in *Section 2, Schedule of Recognition of Changes in Total Net OPEB Liability*, there are changes in each entity's proportionate share of the total Net OPEB Liability (NOL) during the measurement period ending on June 30, 2020. The net effect of the change on the entity's proportionate share of the collective NOL and collective deferred outflows of resources and deferred inflows of resources is also recognized over the average of the expected remaining service lives of all employees shown previously. The differences between the actual employer contributions and the proportionate share of the employer contributions during the measurement period ending on June 30, 2020 are recognized over the same period. These amounts are shown below. While these amounts are different for each entity, they sum to zero for the entire Plan.

Increase (Decrease) in OPEB Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer Contributions for the Year Ended June 30, 2021

	Total Change to be Recognized	Recognition Period (Years)	Reporting Date for Employer under GAS 75 Year Ended June 30						
			2021	2022	2023	2024	2025	2026	2027
City	$2,994,931	6.26	$478,423	$478,423	$478,423	$478,423	$478,423	$478,423	$124,393
Airports	-2,775,498	6.26	-443,370	-443,370	-443,370	-443,370	-443,370	-443,370	-115,278
Harbor	-219,433	6.26	-35,053	-35,053	-35,053	-35,053	-35,053	-35,053	-9,115
Total	**$0**		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

Allocation of Changes in Total Net OPEB Liability (continued)

Increase (Decrease) in OPEB Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer Contributions for the Year Ended June 30, 2020

	Total Change to be Recognized	Recognition Period (Years)	Reporting Date for Employer under GAS 75 Year Ended June 30						
			2020	2021	2022	2023	2024	2025	2026
City	$2,425,804	6.21	$390,629	$390,629	$390,629	$390,629	$390,629	$390,629	$82,030
Airports	-1,790,760	6.21	-288,367	-288,367	-288,367	-288,367	-288,367	-288,367	-60,558
Harbor	-635,044	6.21	-102,262	-102,262	-102,262	-102,262	-102,262	-102,262	-21,472
Total	**$0**		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

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

	Total Change to be Recognized	Recognition Period (Years)	Reporting Date for Employer under GAS 75 Year Ended June 30						
			2019	2020	2021	2022	2023	2024	2025
City	$1,965,296	6.52	$301,426	$301,426	$301,426	$301,426	$301,426	$301,426	$156,740
Airports	-1,233,967	6.52	-189,259	-189,259	-189,259	-189,259	-189,259	-189,259	-98,413
Harbor	-731,329	6.52	-112,167	-112,167	-112,167	-112,167	-112,167	-112,167	-58,327
Total	**$0**		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

Allocation of Changes in Total Net OPEB Liability (continued)

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

	Total Change to be Recognized	Recognition Period (Years)	Reporting Date for Employer under GAS 75 Year Ended June 30						
			2018	2019	2020	2021	2022	2023	2024
City	$1,495,323	6.39	$234,010	$234,010	$234,010	$234,010	$234,010	$234,010	$91,263
Airports	-953,634	6.39	-149,239	-149,239	-149,239	-149,239	-149,239	-149,239	-58,200
Harbor	-541,689	6.39	-84,771	-84,771	-84,771	-84,771	-84,771	-84,771	-33,063
Total	**$0**		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

Section 3: Actuarial Assumptions and Methods and Appendices

Actuarial assumptions and methods

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

Rationale for Assumptions

The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in the July 1, 2016 through June 30, 2019 Actuarial Experience Study dated June 17, 2020 and retiree health assumptions letter dated September 15, 2020. Following the most recent experience study, the Retirement Board adopted benefit-weighted tables for the Retirement Plan. For the OPEB Plan, we will continue to use headcount-weighted mortality tables, as benefits do not vary by salary in the OPEB Plan. Unless otherwise noted, all actuarial assumptions and methods shown below apply to both Tier 1 and Tier 3 members. These assumptions have been adopted by the Board.

Economic Assumptions

Net Investment Return:	7.00%; net of administrative and investment expenses.
Payroll Growth:	Inflation of 2.75% per year plus real “across the board” salary increases of 0.50% per year, used to amortize the UAAL as a level percentage of payroll.

Salary Increases:

The annual rate of compensation increase includes: inflation at 2.75%, plus “across the board” salary increases of 0.50% per year, plus the following merit and promotion increases:

Merit and Promotion Increases

Years of Service	Rate (%)
Less than 1	6.70
1 – 2	6.50
2 – 3	5.80
3 – 4	4.00
4 – 5	3.00
5 – 6	2.20
6 – 7	2.00
7 – 8	1.80
8 – 9	1.60
9 – 10	1.40
10 & Over	1.00

Demographic Assumptions

Post-Retirement Mortality Rates:

Healthy Members

- Pub-2010 General Healthy Retiree Headcount-Weighted Above-Median Mortality Tables with rates increased by 10% for males, projected generationally with the two-dimensional mortality improvement scale MP-2019.

Disabled Members

- Pub-2010 Non-Safety Disabled Retiree Headcount-Weighted Mortality Tables with rates increased by 10% for males and decreased by 5% for females, projected generationally with the two-dimensional mortality improvement scale MP-2019.

Beneficiaries

- Pub-2010 Contingent Survivor Headcount-Weighted Above-Median Mortality Table with rates increased by 10% for males and females, projected generationally with the two-dimensional mortality improvement scale MP-2019.

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

Pre-Retirement Mortality Rates:

Pub-2010 General Employee Headcount-Weighted Above-Median Mortality Tables with rates increased by 10%, projected generationally with the two-dimensional mortality improvement scale MP-2019.

	Rate (%)	
Age	**Male**	**Female**
20	0.04	0.01
25	0.03	0.01
30	0.04	0.02
35	0.05	0.03
40	0.07	0.04
45	0.10	0.06
50	0.15	0.09
55	0.22	0.13
60	0.32	0.19
65	0.46	0.30

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

For Tier 1 Enhanced, 100% of pre-retirement death benefits are assumed to be service-connected.

Disability Incidence:

Disability Incidence

Age	Rate (%)
25	0.01
30	0.02
35	0.04
40	0.06
45	0.12
50	0.16
55	0.18
60	0.18
65	0.22

Termination:

Less Than Five Years of Service

Years of Service	Rate (%)
Less than 1	11.50
1 – 2	10.00
2 – 3	8.50
3 – 4	7.75
4 – 5	7.00

Five or More Years of Service

Age	Rate (%)
25	7.00
30	6.70
35	5.30
40	3.75
45	3.10
50	3.00
55	3.00
60	3.00

No termination is assumed after a member is eligible for retirement (as long as a retirement rate is present).

Retirement Rates:

Age	Tier 1 Non-55/30	Tier 1 55/30	Tier 1 Enhanced Non-55/30	Tier 1 Enhanced 55/30	Tier 3 Non-55/30	Tier 3 55/30
50	5.0	0.0	7.0	0.0	5.0	0.0
51	3.0	0.0	5.0	0.0	3.0	0.0
52	3.0	0.0	5.0	0.0	3.0	0.0
53	3.0	0.0	5.0	0.0	3.0	0.0
54	18.0	0.0	20.0	0.0	17.0	0.0
55	6.0	27.0	8.0	30.0	0.0[1]	26.0
56	6.0	18.0	8.0	22.0	0.0[1]	17.0
57	6.0	18.0	8.0	22.0	0.0[1]	17.0
58	6.0	18.0	8.0	22.0	0.0[1]	17.0
59	6.0	18.0	8.0	22.0	0.0[1]	17.0
60	7.0	18.0	9.0	22.0	6.0	17.0
61	7.0	18.0	9.0	22.0	6.0	17.0
62	7.0	18.0	9.0	22.0	6.0	17.0
63	7.0	18.0	9.0	22.0	6.0	17.0
64	7.0	18.0	9.0	22.0	6.0	17.0
65	14.0	21.0	16.0	26.0	13.0	20.0
66	14.0	21.0	16.0	26.0	13.0	20.0
67	14.0	21.0	16.0	26.0	13.0	20.0
68	14.0	21.0	16.0	26.0	13.0	20.0
69	14.0	21.0	16.0	26.0	13.0	20.0
70 & Over	100.0	100.0	100.0	100.0	100.0	100.0

Rate (%)

[1] Not eligible to retire under the provisions of the Tier 3 plan at these ages with less than 30 years of service. If a member has at least 30 years of service at these ages, they would be subject to the "55/30" rates.

Retirement Age and Benefit for Inactive Vested Members: OPEB benefit will be paid at the later of age 59 or the current attained age.

Service: Employment service is used for eligibility determination purposes. Benefit service is used for benefit calculation purposes.

Future Benefit Accruals: 1.0 year of service credit per year.

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

Retiree Health Assumptions

Per Capita Cost Development:

The assumed costs on a composite basis are the future costs of providing postemployment health care benefits at each age. To determine the assumed costs on a composite basis, historical premiums are reviewed and adjusted for increases in the cost of health care services.

Per Capita Cost Development - Maximum Dental Subsidy:

Carrier	Election Percent (%)	Monthly 2020-2021 Fiscal Year Subsidy
Delta Dental PPO	79.9	$44.60
DeltaCare USA	20.1	14.38

Per Capita Cost Development - Medicare Part B Premium Subsidy:

	Single Monthly Premium
Actual monthly premium for calendar year 2020	$144.60
Projected monthly premium for calendar year 2021	153.30
Projected average monthly premium for plan year 2020/2021	148.95

LACERS will not reimburse Medicare Part B premiums for Spouse/Domestic Partners, unless they are LACERS retired Members with Medicare Parts A and B enrolled as a dependent in a LACERS medical plan. This valuation does not reflect Medicare Part B reimbursement for any spouse/domestic partners enrolled in Medicare Parts A and B.

For retirees age 65 and over on the valuation date, we valued the Medicare Part B premium subsidy as reported in the data. For current and future retirees under age 65, we will assume 100% of those electing a medical subsidy will be eligible for the Medicare Part B premium subsidy.

Per Capita Cost Development – Medical Subsidy for Members Not Subject to Retiree Medical Subsidy Cap:	Tier 1 members not subject to medical subsidy cap and all Tier 3 members.

Participant Under Age 65 or Not Eligible for Medicare A&B

2020-2021 Fiscal Year		Single Party			Married/With Domestic Partner			Eligible Survivor		
Carrier	Observed and Assumed Election Rate (%)	Monthly Premium*	Maximum Subsidy	Subsidy	Monthly Premium*	Maximum Subsidy	Subsidy	Monthly Premium*	Maximum Subsidy	Subsidy
Kaiser HMO	61.5	$853.39	$1,790.80	$853.39	$1,706.78	$1,790.80	$1,706.78	$853.39	$853.39	$853.39
Anthem Blue Cross PPO	21.6	1,275.68	1,790.80	1,275.68	2,546.32	1,790.80	1,790.80	1,275.68	853.39	853.39
Anthem Blue Cross HMO	16.9	1,054.59	1,790.80	1,054.59	2,104.14	1,790.80	1,790.80	1,054.59	853.39	853.39

* With the exception of Kaiser, the amounts above reflect the inclusion of the vision insurance plan premium.

Participant Eligible for Medicare A&B

2020-2021 Fiscal Year		Single Party			Married/With Domestic Partner			Eligible Survivor		
Carrier	Observed and Assumed Election Rate (%)	Monthly Premium*	Maximum Subsidy	Subsidy	Monthly Premium*	Maximum Subsidy	Subsidy	Monthly Premium*	Maximum Subsidy	Subsidy
Kaiser Senior Advantage HMO	57.1	$262.47	$262.47	$262.47	$524.94	$524.94	$524.94	$262.47	$262.47	$262.47
Anthem Blue Cross Medicare Supplement	31.8	557.75	557.75	557.75	1,110.46	1,072.87	1,072.87	557.75	557.75	557.75
UHC Medicare Advantage Plan**	11.1	278.98	278.98	278.98	552.93	552.93	552.93	278.98	278.98	278.98

* With the exception of Kaiser, the amounts above reflect the inclusion of the vision insurance plan premium.

** Rates for CA plan.

Per Capita Cost Development – Medical Subsidy for Members Subject to Retiree Medical Subsidy Cap:

Tier 1 members who are subject to the retiree medical subsidy cap will have monthly health insurance subsidy maximums capped at the levels in effect at July 1, 2011, as shown in the table below. We understand that no active members are subject to the cap but that some inactive members may be subject to the cap.

Retiree Plan	Single Party	Married/With Domestic Partner	Eligible Survivor
Under 65 – All Plans	$1,190.00	$1,190.00	$593.62
Over 65			
Kaiser Senior Advantage	203.27	406.54	203.27
Anthem Blue Cross Medicare Supplement	478.43	478.43*	478.43
UHC Medicare Adv. HMO	219.09	433.93	219.09

* The reason the subsidy is only at the single party amount is that there is no excess subsidy to cover a dependent.

Per Capita Cost Development – Adjustments to Per Capita Costs Based on Age, Gender, and Status:

Adjustments to per capita costs (as shown on page 53-54) are as follows:

	Retiree		Spouse	
Age	Male	Female	Male	Female
55	0.9003	0.9295	0.7085	0.8025
60	1.0692	1.0019	0.9485	0.9308
64	1.2266	1.0628	1.1974	1.0476
65	0.9182	0.7805	0.9182	0.7805
70	1.0642	0.8411	1.0642	0.8411
75	1.1468	0.9053	1.1468	0.9053
80+	1.2350	0.9760	1.2350	0.9760

Health Care Cost Subsidy Trend Rates:	Trend is to be applied to premium for shown fiscal year to calculate next fiscal year's projected premium. First Fiscal Year is July 1, 2020 through June 30, 2021.

	Rate (%)					
Plan	**Anthem Blue Cross PPO,** Under Age 65	**Anthem Blue Cross Medicare Supplement**	**Kaiser HMO,** Under Age 65	**Kaiser Senior Advantage**	**Anthem Blue Cross HMO,** Under 65	**UHC Medical HMO**
Trend to be applied to 2020-2021 Fiscal Year premium	3.71	4.45	3.37	3.12	4.85	3.12

The fiscal year trend rates are based on the following calendar year trend rates:

	Approximate Trend Rate (%)			Trend Applied to Calculate Following Year Premium Rate (%)	
Fiscal Year	**Non-Medicare**	**Medicare**	**Calendar Year**	**Non-Medicare**	**Medicare**
2021-2022	6.62	6.12	2021	6.75*	6.25*
2022-2023	6.37	5.87	2022	6.50	6.00
2023-2024	6.12	5.62	2023	6.25	5.75
2024-2025	5.87	5.37	2024	6.00	5.50
2025-2026	5.62	5.12	2025	5.75	5.25
2026-2027	5.37	4.87	2026	5.50	5.00
2027-2028	5.12	4.62	2027	5.25	4.75
2028-2029	4.87	4.50	2028	5.00	4.50
2029-2030	4.62	4.50	2029	4.75	4.50
2030-2031 and later	4.50	4.50	2030	4.50	4.50

Dental Premium Trend	4.00% for all years.
Medicare Part B Premium Trend	4.50% for all years.

* For example, the 6.75% assumption when applied to the 2021 non-Medicare medical premiums would provide the projected 2022 non-Medicare medical premiums. This trend would also be applied to the maximum medical subsidy, based on the non-Medicare Kaiser premium.

Alternative actuarial models exist to project future medical trend assumptions and one of those is called the Getzen Model. To apply that model in studying the medical trend assumptions, there are some other hypothetical assumptions that need to be made (such as real per capita GDP growth, excess medical cost growth, and capacity constraints on health costs with respect to GDP) before that model can be applied.

Spouse/Domestic Partner Coverage:	For all active and inactive members, 60% of male participants and 35% of female participants who receive a retiree health subsidy are assumed to be married or have a qualified domestic partner and elect dependent coverage. Of these covered spouses/domestic partners, 100% are assumed to continue coverage if the retiree predeceases the spouse/domestic partner. Male retirees are assumed to be 4 years older than their female spouses/domestic partners. Female retirees are assumed to be 2 years younger than their male spouses/domestic partners.
Participation:	Retiree Medical and Dental Coverage Election:

Service Range (Years)	Percent Covered[1] (%)
10 – 14	60
15 – 19	80
20 – 24	90
25 and over	95

[1]For deferred vested members, we assume an election percent of 50% of these rates.

Health Care Reform:	In both the funding valuation and the GASB Statements No. 74 and 75 actuarial valuations for financial reporting purposes as of June 30, 2019, we included the impact of the projected excise tax on certain high cost medical plans ("Cadillac Tax") beginning in 2022 as prescribed by the Affordable Care Act (ACA) and related statutes. Subsequent to the June 30, 2019 valuations, the excise tax was repealed. The excise tax is no longer reflected beginning with the June 30, 2020 valuations for funding and financial reporting purposes.
Administrative Expenses:	No administrative expenses were valued separately from the premium costs.
Plan Design:	Development of plan liabilities was based on the substantive plan of benefits in effect as described in Section 2.

Actuarial Methods

Actuarial Cost Method:	Entry Age Actuarial Cost Method, level percent of salary. Entry age is calculated as age on the valuation date minus years of employment service. Both the normal cost and the actuarial accrued liability are calculated on an individual basis.
Expected Remaining Service Lives:	The average of the expected service lives of all employees is determined by: • Calculating each active employee's expected remaining service life as the present value of $1 per year of future service at zero percent interest. • Setting the remaining service life to zero for each nonactive or retired member. • Dividing the sum of the above amounts by the total number of active employee, nonactive and retired members.

Changes in Actuarial Assumptions

The following assumptions were changed since the prior valuation:

- Starting premium costs and first year trends were updated to reflect 2021 calendar year premium data.
- Reflect updated trends to project future medical costs after 2020/2021.
- The excise tax on high costs health plans ("Cadillac Tax") was removed to reflect the recent repeal effective as of December 20, 2019.
- Economic and demographic assumptions have been updated based on the July 1, 2016 through June 30, 2019 Actuarial Experience Study.

Appendix A: Definition of Terms

Definitions of certain terms as they are used in Statement 75. The terms may have different meanings in other contexts.

Actuarially Determined Contribution:	A target or recommended contribution to an OPEB plan for the reporting period based on the most recent measurement available.
Assumptions or Actuarial Assumptions:	The estimates on which the cost of the Plan is calculated including: a) Investment return — the rate of investment yield that the Plan will earn over the long-term future; b) Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates; c) Retirement rates — the rate or probability of retirement at a given age; d) Turnover rates — the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.
Covered Employee Payroll:	The payroll of the employees that are provided OPEB benefits.
Discount Rate:	The single rate of return, that when applied to all projected benefit payments results in an actuarial present value that is the sum of the following: 1) the actuarial present value of projected benefit payments projected to be funded by plan assets using a long term rate of return, and 2) the actuarial present value of projected benefit payments that are not included in (1) using a yield or index rate for 20 year tax exempt general obligation municipal bonds with an average rating of AA/Aa or higher.
Entry Age Actuarial Cost Method:	An actuarial cost method where the present value of the projected benefits for an individual is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age.
Healthcare Cost Trend Rates:	The rate of change in per capita health costs over time.
Net OPEB Liability:	The Total OPEB Liability less the Plan's Fiduciary Net Position.
Plan's Fiduciary Net Position:	Market Value of Assets
Real Rate of Return:	The rate of return on an investment after removing inflation.
Service Cost:	The amount of contributions required to fund the benefit allocated to the current year of service.
Total OPEB Liability:	Present value of all future benefit payments for current retirees and active employees taking into account assumptions about demographics, turnover, mortality, disability, retirement, health care trends, and other actuarial assumptions.
Valuation Date:	The date at which the actuarial valuation is performed.

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BOARD Meeting: 10/12/21
Item: V - D
Attachment 3

REPORT OF INDEPENDENT AUDITORS AND
SCHEDULES OF EMPLOYER ALLOCATIONS
AND PENSION AMOUNTS BY EMPLOYER

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
RETIREMENT PLAN

June 30, 2020
(For employer reporting as of June 30, 2021)

MOSSADAMS

Table of Contents

Report of Independent Auditors

To the Audit Committee and Board of Administration
Los Angeles City Employees' Retirement System Retirement Plan
Los Angeles, California

Report on the Schedules

We have audited the accompanying schedule of employer allocations and the total for all employers of the columns titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total pension expense (specified column totals) included in the accompanying schedule of pension amounts by employer of Los Angeles City Employees' Retirement System Retirement Plan (the Plan) as of and for the year ended June 30, 2020, and the related notes.

Management's Responsibility for the Financial Statements

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

Auditor's Responsibility

Our responsibility is to express an opinion on the schedule of employer allocations and the specified column totals included in the schedule of pension amounts by employer based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the schedule of employer allocations and specified column totals included in the schedule of pension amounts by employer are free from material misstatement.

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

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

Opinion

In our opinion, the schedules referred to above present fairly, in all material respects, the employer allocations and net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total pension expense for the total of all participating employers for the Plan as of and for the year ended June 30, 2020, in accordance with accounting principles generally accepted in the United States of America.

Other Matter

We have audited, in accordance with auditing standards generally accepted in the United States of America, the financial statements of the Plan as of and for the year ended June 30, 2020, and our report thereon, dated November 30, 2020, expressed an unmodified opinion on those financial statements.

Restriction on Use

Our report is intended solely for the information and use of the Plan's management, Audit Committee, Board of Administration, and the Plan's sponsoring employers and their auditors and is not intended to be and should not be used by anyone other than these specified parties.

Moss Adams LLP

Los Angeles, California
September 29, 2021

Los Angeles City Employees' Retirement System
Retirement Plan
Schedule of Employer Allocations
Year Ended June 30, 2020

Employer	Total Employer Contributions	Employer Allocation Percentage
City	$ 458,400,219	82.876%
Airports	74,396,129	13.450%
Harbor	20,321,825	3.674%
	$ 553,118,173	100.000%

See accompanying notes.

Los Angeles City Employees' Retirement System
Retirement Plan
Schedule of Pension Amounts by Employer
Year Ended June 30, 2020

		Deferred Outflows of Resources					Deferred Inflows of Resources			Pension Expense		
Employer	Net Pension Liability	Difference Between Expected and Actual Experience	Changes of Assumptions	Net Difference Between Expected and Actual Investment Experience	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources	Difference Between Expected and Actual Experience	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Plan Pension Expense	Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between employer contribution and Proportionate Share of Contributions	Net Pension Expense
City	$ 6,294,231,550	$ 255,320,530	$ 586,966,447	$ 440,175,617	$ 20,395,538	$ 1,302,858,132	$ 61,688,959	$ -	$ 61,688,959	$ 827,960,759	$ 9,797,803	$ 837,758,562
Airports	1,021,523,208	41,437,282	95,261,803	71,438,365	1,178,861	209,316,311	10,011,819	14,714,277	24,726,096	134,374,008	(4,874,329)	129,499,679
Harbor	279,036,237	11,318,884	26,021,430	19,513,891	-	56,854,205	2,734,799	6,860,122	9,594,921	36,705,204	(4,923,474)	31,781,730
	$ 7,594,790,995	$ 308,076,696	$ 708,249,680	$ 531,127,873	$ 21,574,399	$ 1,569,028,648	$ 74,435,577	$ 21,574,399	$ 96,009,976	$ 999,039,971	$ -	$ 999,039,971

See accompanying notes.

Note 1 – Plan Description

The Los Angeles City Employees' Retirement System (LACERS) is under the exclusive management and control of its Board of Administration (the Board), whose authority is granted by statute in Article XVI, Section 17 of the California State Constitution, and Article XI of the Los Angeles City Charter. LACERS is a department of the Municipality of the City of Los Angeles (the City). LACERS financial statements are included in the City's comprehensive annual financial report as a pension trust fund.

The Los Angeles City Employees' Retirement System Retirement Plan (the Plan) is a single employer defined benefit retirement plan administered by LACERS that provides for service and disability retirement benefits, as well as death benefits. Changes to the benefit terms require approval by the City Council.

The Plan covers all full-time personnel and department-certified part-time employees of the City, except for sworn employees of the fire and police departments, Department of Water and Power employees, elected officials who elected to participate in an alternative defined contribution plan, certain port police officers of the Harbor Department, and certain airport peace officers who elected to opt out of the Plan.

As of June 30, 2020, the Plan's membership consisted of the following:

Retirees and beneficiaries currently receiving benefits	20,423
Terminated vested members not receiving benefits	9,207
Active members	27,490
Total	57,120

Note 2 – Summary of Significant Accounting Policies

Basis of Accounting

The schedules are presented in accordance with the standards issued by the Governmental Accounting Standards Board (GASB), which is the standard setting body for establishing accounting principles generally accepted in the United States of America for governmental entities. As prescribed by GASB, the schedules are reported using the economic resources measurement focus and the accrual basis of accounting.

Employer and member contributions are recognized as revenues when due, pursuant to formal commitments, as well as statutory and contractual requirements that coincide with the period in which employee services are performed. Deductions from the Plan's assets are recorded when corresponding liabilities are incurred, regardless of when paid. Benefits and refunds are recognized when due and are payable in accordance with LACERS policy.

Note 2 – Summary of Significant Accounting Policies (continued)

For purposes of measuring net pension liability, deferred outflows of resources, deferred inflows of resources, and pension expense, information about the fiduciary net position of the Plan and additions to and deductions from the Plan’s fiduciary net position have been determined on the same basis as they are reported by the Plan. For this purpose, benefit payments are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

Employer Contributions

LACERS funding policy under Article XI Sections 1158 and 1160 of the City Charter provides for periodic employer contributions at actuarially determined rates that, expressed as percentages of annual covered payroll, are sufficient to accumulate the required assets to pay benefits when due. Based on actual payroll, the effective rate for the Plan was 24.36% during the year ended June 30, 2020.

Employer Allocations

For the presentation of the schedule of employer allocations and schedule of pension amounts by employer (collectively, the Schedules), the City has requested the allocation of pension amounts among three individual entities: City, Airports, and Harbor (the Employers). The Schedules present amounts that are elements of the financial statements of the Plan or of the Employers. The Schedules do not purport to be a complete presentation of the financial position or changes in financial position of LACERS or the Employers.

The Employers are required to recognize their proportionate share of the collective net pension liability, collective deferred outflows of resources, collective deferred inflows of resources and collective pension expense. The employer allocation percentages presented in the schedule of employer allocations and applied to amounts presented in the schedule of pension amounts by employer are based on the ratio of each employer’s contribution to the LACERS total employer contributions during the measurement period from July 1, 2019 through June 30, 2020.

Use of Estimates

The preparation of the Schedules in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect certain amounts and disclosures. Actual results could differ from those estimates.

Note 3 – Net Pension Liability

The actuarial valuation and measurement of the net pension liability and other pension amounts was performed by the Plan's independent actuary as of June 30, 2020. The components of the Plan's net pension liability are summarized as follows:

Total pension liability	$ 22,527,195,295
Plan fiduciary net position	(14,932,404,300)
Employers' net pension liability	$ 7,594,790,995
Plan fiduciary net position as a percentage of the total pension liability	66.29%

Note 4 – Actuarial Assumptions

The total pension liability was determined based on the June 30, 2020 actuarial valuation using the following actuarial assumptions:

Valuation Date	June 30, 2020
Investment Rate of Return	7.00%, including inflation and net of expenses
Projected Salary Increases	4.25% to 9.95%, including inflation, based on years of service
Inflation	2.75%
Cost-of-Living Adjustments	Tier 1: 2.75%, Tier 3: 2.00%, Actual increases are contingent upon Consumer Price Index (CPI) increases with a 2.75% maximum for Tier 1 and a 2.00% maximum for Tier 3. For Tier 1 members with a sufficient COLA bank, withdrawals from the bank can be made to increase the retiree COLA up to 3% per year.
Mortality	Active members: Healthy: Pub-2010 General Healthy Retiree Amount-Weighted Above Median Mortality Tables (separate tables for males and females), with rates increased by 10% for males, projected generationally with the two-dimensional mortality improvement scale MP-2019.

For pre-retirement mortality, withdrawal rates, disability rates, and service retirement rates, the rates vary by age, gender, and/or service.

Note 4 – Actuarial Assumptions (continued)

Long-Term Expected Rate of Return by Asset Class

The long-term expected rate of return on the Plan's investments was determined using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation and subtracting expected investment expenses and a risk margin. The target allocation and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before deducting investment expenses, used in the derivation of the long-term expected investment rate of return assumption are summarized as follows:

Investment Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
U.S. large cap equity	15.01%	5.54%
U.S. small cap equity	3.99%	6.25%
Developed international large cap equity	17.01%	6.61%
Developed international small cap equity	2.97%	6.90%
Emerging international large cap equity	5.67%	8.74%
Emerging international small cap equity	1.35%	10.63%
Core bonds	13.75%	1.19%
High yield bond	2.00%	3.14%
Bank loan	2.00%	3.70%
TIPS	4.00%	0.86%
Emerging market debt (external)	2.25%	3.55%
Emerging market debt (local)	2.25%	4.75%
Core real estate	4.20%	4.60%
Non-core real estate	2.80%	5.76%
Cash	1.00%	0.03%
Commodities	1.00%	3.33%
Private equity	14.00%	8.97%
Private credit/debit	3.75%	6.00%
REITS	1.00%	5.98%
Total	100.00%	

Note 4 – Actuarial Assumptions (continued)

Discount Rate

The discount rate used to measure the total pension liability was 7.00% as of June 30, 2020. The projection of cash flows used to determine the discount rate assumed that member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the actuarially determined contribution rates. For this purpose, only employee and employer contributions that are intended to fund benefits for current members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs for future members and their beneficiaries, as well as projected contributions from future members, are not included. Based on those assumptions, the Plan's fiduciary net position was projected to be available to make all projected future benefit payments of current members. Therefore, the long-term expected rate of return on the Plan’s investments was applied to all periods of projected benefit payments to determine the total pension liability as of June 30, 2020.

Sensitivity of the Net Pension Liability

The following presents the net pension liability, calculated using the discount rate of 7.00%, as well as what the net pension liability would be if it were calculated using a discount rate that is 1% point lower (6.00%) or 1% point higher (8.00%) than the current rate:

1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
$ 10,642,600,459	$ 7,594,790,995	$ 5,073,178,955

The Employers should multiply their employer allocation percentage by these amounts to calculate their portion of the sensitivity amounts.

Note 5 – Pension Expense

The collective pension expense includes changes in the collective net pension liability, projected earnings on pension plan investments, and the amortization of deferred outflows of resources for the current period. Components of pension expense for the year ended June 30, 2020 are summarized as follows:

Service cost	$ 374,967,243
Interest on the total pension liability	1,499,208,335
Expensed portion of current period difference between actual and expected experience	61,760,280
Expensed portion of current period changes of assumptions or other inputs	106,356,759
Member contributions	(259,816,657)
Expected return on investments	(1,085,626,227)
Expensed portion of current period difference between actual and expected return on investments	155,782,756
Administrative expenses	23,530,369
Recognition of beginning of year deferred balances	122,877,113
Net Pension Expense	$ 999,039,971

Note 6 – Average Remaining Service Life

Changes arising from differences between expected and actual experience and from changes in actual assumptions are recognized in net pension expense over the average remaining service life of all employees provided with benefits through the pension plan (active and inactive). These differences are considered on a pooled basis, rather than an individual basis, in order to reflect the expected remaining service life of the entire pool of employees, with the understanding that inactive employees have no remaining service period. As of June 30, 2020, the average of the expected remaining service lives of all employees as calculated by the Plan's independent actuaries was 4.99 years.

REPORT OF INDEPENDENT AUDITORS AND
SCHEDULES OF EMPLOYER ALLOCATIONS
AND OPEB AMOUNTS BY EMPLOYER

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
POSTEMPLOYMENT HEALTH CARE PLAN

June 30, 2020
(For employer reporting as of June 30, 2021)

MOSSADAMS

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Report of Independent Auditors

To the Audit Committee and Board of Administration
Los Angeles City Employees' Retirement System Postemployment Health Care Plan
Los Angeles, California

Report on the Schedules

We have audited the accompanying schedule of employer allocations and the total for all employers of the columns titled net OPEB liability, total deferred outflows of resources, total deferred inflows of resources, and total OPEB expense (specified column totals) included in the accompanying schedule of OPEB amounts by employer of the Los Angeles City Employees' Retirement System Postemployment Health Care Plan (the Plan) as of and for the year ended June 30, 2020, and the related notes.

Management's Responsibility for the Schedules

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

Auditor's Responsibility

Our responsibility is to express an opinion on the schedule of employer allocations and the specified column totals included in the schedule of OPEB amounts by employer based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the schedule of employer allocations and specified column totals included in the schedule of OPEB amounts by employer are free from material misstatement.

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

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

Opinion

In our opinion, the schedules referred to above present fairly, in all material respects, the employer allocations and net OPEB liability, total deferred outflows of resources, total deferred inflows of resources, and total OPEB expense for the total of all participating employers for the Plan as of and for the year ended June 30, 2020, in accordance with accounting principles generally accepted in the United States of America.

Other Matter

We have audited, in accordance with auditing standards generally accepted in the United States of America, the financial statements of the Plan as of and for the year ended June 30, 2020, and our report thereon, dated November 30, 2020, expressed an unmodified opinion on those financial statements.

Restriction on Use

Our report is intended solely for the information and use of the Plan's management, Audit Committee, Board of Administration, and the Plan's sponsoring employers and their auditors and is not intended to be and should not be used by anyone other than these specified parties.

Moss Adams LLP

Los Angeles, California
September 29, 2021

Los Angeles City Employees' Retirement System
Postemployment Health Care Plan
Schedule of Employer Allocations
Year Ended June 30, 2020

Employer	Total Employer Contributions	Employer Allocation Percentage
City	$ 93,762,709	83.615%
Airports	14,315,313	12.766%
Harbor	4,058,407	3.619%
	$ 112,136,429	100.000%

See accompanying notes.

Los Angeles City Employees' Retirement System
Postemployment Health Care Plan
Schedule of OPEB Amounts by Employer
Year Ended June 30, 2020

		Deferred Outflows of Resources					Deferred Inflows of Resources			OPEB Expense		
Employer	Net OPEB Liability	Differences Between Expected and Actual Experience	Changes of Assumptions	Net Difference Between Projected and Actual Investment Earnings on OPEB Plan Investments	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Plan OPEB Expenses	Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer's Contribution and Proportionate Share of Contributions	Net OPEB Expense
City	$ 531,226,775	$ 6,150,450	$ 138,831,300	$ 54,316,755	$ 5,781,355	$ 205,079,860	$ 174,647,602	$ -	$ 174,647,602	$ 84,736,946	$ 1,404,488	$ 86,141,434
Airports	81,105,566	939,026	21,196,204	8,292,864	-	30,428,094	26,664,493	$4,569,022	31,233,515	12,937,296	(1,070,235)	11,867,061
Harbor	22,993,517	266,215	6,009,147	2,351,036	-	8,626,398	7,559,413	$1,212,333	8,771,746	3,667,736	(334,253)	3,333,483
	$ 635,325,858	$ 7,355,691	$ 166,036,651	$ 64,960,655	$ 5,781,355	$ 244,134,352	$ 208,871,508	$ 5,781,355	$ 214,652,863	$ 101,341,978	$ -	$ 101,341,978

See accompanying notes.

Note 1 – **Plan Description**

The Los Angeles City Employees' Retirement System (LACERS) is under the exclusive management and control of its Board of Administration (the Board), whose authority is granted by statute in Article XVI, Section 17 of the California State Constitution, and Article XI of the Los Angeles City Charter. LACERS is a department of the Municipality of the City of Los Angeles (the City). LACERS financial statements are included in the City's comprehensive annual financial report as a pension trust fund.

The Los Angeles City Employees' Retirement System Postemployment Health Care Plan (the Plan) is a plan within the single employer defined benefit retirement plan administered by LACERS. The Plan provides other postemployment health care benefits (OPEB) to eligible retirees and their eligible spouses or domestic partners. Changes to the benefit terms require approval by the City Council.

The Plan covers all personnel who participate in the LACERS defined benefit retirement plan regardless of their membership tier. Eligibility in the Plan requires the member 1) be at least age 55; 2) have at least 10 complete years of service with LACERS; and 3) be enrolled in a system-sponsored medical or dental plan or be a participant in the Medical Premium Reimbursement Program (MPRP). The health care plans available include medical, dental, and vision benefits, or participation in the MPRP if the member resides in an area not covered by the available medical plans.

As of June 30, 2020, the Plan's membership consisted of the following:

Retirees or surviving spouses currently receiving benefits	16,107
Terminated vested members not receiving benefits	1,526
Retired members and surviving spouses entitled but not yet eligible for health benefits	142
Active members	27,490
Total	45,265

Note 2 – **Summary of Significant Accounting Policies**

Basis of Accounting

The schedules are presented in accordance with the standards issued by the Governmental Accounting Standards Board (GASB), which is the standard setting body for establishing accounting principles generally accepted in the United States of America for governmental entities. As prescribed by GASB, the schedules are reported using the economic resources measurement focus and the accrual basis of accounting.

Employer contributions are recognized as revenues when due, pursuant to formal commitments, as well as statutory and contractual requirements that coincide with the period in which employee services are performed. Deductions from the Plan's assets are recorded when corresponding liabilities are incurred, regardless of when paid. Benefits are recognized when due and are payable in accordance with LACERS policy.

Note 2 – **Summary of Significant Accounting Policies (continued)**

For purposes of measuring net OPEB liability, deferred outflows of resources, deferred inflows of resources, and OPEB expense, information about the fiduciary net position of the Plan and additions to and deductions from the Plan’s fiduciary net position have been determined on the same basis as they are reported by the Plan. For this purpose, benefit payments are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

Employer Contributions

LACERS funding policy under Article XI Sections 1158 and 1160 of the City Charter provides for periodic employer contributions at actuarially determined rates that, expressed as percentages of annual covered payroll, are sufficient to accumulate the required assets to pay benefits when due. Based on actual payroll, the effective rate for the Plan was 4.94% during the year ended June 30, 2020.

Employer Allocations

For the presentation of the schedule of employer allocations and schedule of OPEB amounts by employer (collectively, the Schedules), the City has requested the allocation of pension amounts among three individual entities: City, Airports, and Harbor (the Employers). The Schedules present amounts that are elements of the financial statements of the Plan or of the Employers. The Schedules do not purport to be a complete presentation of the financial position or changes in financial position of LACERS or the Employers.

The Employers are required to recognize their proportionate share of the collective net OPEB liability, collective deferred outflows of resources, collective deferred inflows of resources and collective OPEB expense. The employer allocation percentages presented in the schedule of employer allocations and applied to amounts presented in the schedule of OPEB amounts by employer are based on the ratio of each employer’s contribution to the LACERS total employer contributions during the measurement period from July 1, 2019 through June 30, 2020.

Use of Estimates

The preparation of the Schedules in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect certain amounts and disclosures. Actual results could differ from those estimates.

Note 3 – Net OPEB Liability

The actuarial measurement of the net OPEB liability and other OPEB amounts was performed by LACERS' independent actuary as of June 30, 2020. The components of the Plan's net OPEB liability at June 30, 2020 are summarized as follows:

Total OPEB liability	$ 3,486,530,510
Plan fiduciary net position	(2,851,204,652)
Employers' net OPEB liability	$ 635,325,858
Plan fiduciary net position as a percentage of the total OPEB liability	81.78%

Note 4 – Actuarial Assumptions

The total OPEB liability was determined based on the June 30, 2020 actuarial valuation using the following actuarial assumptions:

Valuation date	June 30, 2020
Investment rate of return	7.00%, including inflation and net of expenses
Projected salary increases	4.25% to 9.95%, including inflation, based on years of service
Inflation	2.75%
Cost-of-living adjustments	Tier 1: 3.00%, Tier 3: 2.00%, actual increases are contingent upon Consumer Price Index (CPI) increases with a 3.00% maximum for Tier 1 and a 2.00% maximum for Tier 3.
Medical cost trend rates	6.62% graded down to 4.5% over 9 years for Non-Medicare Medical Plan; 6.12% graded down to 4.5% over 7 years for Medicare Medical Plan; and 4.5% for Medicare Part B.
Mortality	Healthy retirees: Pub-2010 General Healthy Retiree Headcount-Weighted Above-Median Mortality Tables with rates increased by 10% for males and projected generationally with two-dimensional mortality improvement scale MP-2019.
	Disabled retirees: Pub-2010 Non-Safety Disabled Retiree Headcount-Weighted Mortality Tables with rates increased by 10% for males and decreased by 5% for females, projected generationally with the two-dimensional mortality improvement scale MP-2019.

For pre-retirement mortality, withdrawal rates, disability rates, and service retirement rates, the rates vary by age, gender, and/or service.

Note 4 – Actuarial Assumptions (continued)

Long-Term Expected Rate of Return by Asset Class
The long-term expected rate of return on the Plan's investments was determined using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation and subtracting expected investment expenses and a risk margin. The target allocation and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before deducting investment expenses, used in the derivation of the long-term expected investment rate of return assumption are summarized in the table below:

Investment Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
U.S. large cap equity	15.01%	5.54%
U.S. small cap equity	3.99%	6.25%
Developed international large cap equity	17.01%	6.61%
Developed international small cap equity	2.97%	6.90%
Emerging international large cap equity	5.67%	8.74%
Emerging international small cap equity	1.35%	10.63%
Core bonds	13.75%	1.19%
High yield bond	2.00%	3.14%
Bank loan	2.00%	3.70%
TIPS	4.00%	0.86%
Emerging market debt (external)	2.25%	3.55%
Emerging market debt (local)	2.25%	4.75%
Core real estate	4.20%	4.60%
Non-core real estate	2.80%	5.76%
Cash	1.00%	0.03%
Commodities	1.00%	3.33%
Private equity	14.00%	8.97%
Private credit/debit	3.75%	6.00%
REITS	1.00%	5.98%
Total	100.00%	

Note 4 – Actuarial Assumptions (continued)

Discount Rate

The discount rate used to measure the total OPEB liability was 7.00% as of June 30, 2020. As contributions that are required to be made by the City to amortize the unfunded actuarial accrued liability in the funding valuation are determined on an actuarial basis, the future actuarially determined contributions and current plan assets, when projected in accordance with the method prescribed by GASB Statement No. 74, are expected to be sufficient to make all benefit payments to current members. Therefore, the long-term expected rate of return on the Plan's investments was applied to all periods of projected benefit payments to determine the total OPEB liability as of June 30, 2020.

Sensitivity of the Net OPEB Liability

The following presents the net OPEB liability, calculated using the discount rate of 7.00%, as well as what the net OPEB liability would be if it were calculated using a discount rate that is 1-percent lower (6.00%) or 1-percent higher (8.00%) than the current rate:

1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
$ 1,137,842,031	$ 635,325,858	$ 225,113,382

The following presents the net OPEB liability, calculated using the current health trend rates as of June 30, 2020, as well as what the net OPEB liability would be if it were calculated using a health cost trend rate that is 1-percentage-point lower or 1-percentage-point higher than the health cost trend rates used:

1% Decrease	Current Trend Rate	1% Increase
$ 187,138,639	$ 635,325,858	$ 1,195,159,497

The Employers should multiply their employer allocation percentage by the amounts to calculate their portion of the sensitivity amounts.

Note 5 – OPEB Expense

The collective OPEB expense includes changes in the collective net OPEB liability, projected earnings on the Plan's investments, and the amortization of deferred outflows of resources for the current period. Components of OPEB expense for the year ended June 30, 2020 are summarized as follows:

Service cost	$ 76,422,768
Interest on the total pension liability	242,665,810
Expensed portion of current period changes of assumptions or other inputs	15,347,680
Expensed portion of current period difference between actual and expected experience	(21,680,462)
Expected return on investments	(206,813,341)
Expensed portion of current period difference between actual and expected return on investments	29,182,946
Administrative expenses	6,714,850
Recognition of beginning of year deferred balances	(40,498,273)
Net OPEB expense	$ 101,341,978

Note 6 – Average Remaining Service Life

Changes arising from differences between expected and actual experience and from changes in actual assumptions are recognized in net OPEB expense over the average remaining service life of all employees provided with benefits through the Plan. These differences are considered on a pooled basis, rather than an individual basis, in order to reflect the expected remaining service life of the entire pool of employees, with the understanding that inactive employees have no remaining service period. As of June 30, 2020, the average of the expected remaining service lives of all employees as calculated by the Plan's independent actuaries was 6.26 years.

LACERS
LA CITY EMPLOYEES' RETIREMENT SYSTEM

REPORT TO BOARD OF ADMINISTRATION **MEETING: OCTOBER 12, 2021**
From: Neil M. Guglielmo, General Manager **ITEM: V – E**

SUBJECT: **INVESTMENT CLASSIFICATIONS SALARY COMPENSATION STUDY**

ACTION: ☐ CLOSED: ☐ CONSENT: ☐ RECEIVE & FILE: ☒

Recommendation

That the Board receive and file this report.

Executive Summary

The Department retained CPS HR Consulting (CPS HR) to conduct a total compensation study for Investment classifications: Chief Investment Officer and Investment Officers I, II, III based on labor market data as of July 2020. The purpose of the study is to determine whether compensation for LACERS Investment staff is competitive across comparable labor markets to ensure effective recruitment and retention of Investment staff.

Discussion

The Total Compensation Study was completed in November 2020 by CPS HR. At that time, the City was facing a severe financial crisis due to the devastating impacts of the COVID-19 pandemic on the economy. Given that the City's financial position has stabilized, the Department is presenting this report to the Board. LACERS will share the findings of this study with the City Administrative Officer (CAO) and commence discussions regarding necessary salary compensation adjustments for the Chief Investment Officer and Investment Officer III classifications and paygrades.

The study found that the Chief Investment Officer is compensated below market for base salary and total compensation, falling short 11% to 20% against the median. The findings for Investment Officer classification series are less conclusive, given challenges identifying Investment Officer paygrade levels within comparable public plans. Nevertheless, the Department feels strongly that adjustments to compensation should be discussed with the CAO to ensure LACERS remain competitive.

Another area that was studied, incentive pay/performance compensation, requires further research and development. While some public plans offer some form of non-base compensation (deferred compensation matching programs, performance pay, etc.), further research and discussion is warranted. Other considerations include how to structure non-base compensation within the City's civil service system, as well as the requirement to consult with labor for Chief Investment Officer as it is a represented class.

Strategic Plan Impact Statement

Conducting the salary compensation study for Investment classifications ensures LACERS remain competitive and allow LACERS to attract and retain the best talent in the Investment industry.

Prepared By: Lin Lin, Senior Personnel Analyst II

NMG/ll

Attachments: 1. LACERS Total Compensation Study prepared by CPS HR Nov 2020

CPS HR CONSULTING **Final Report**

Board Mtg: 10/12/2021
Item: V-E
Attachment

November 19, 2020

Los Angeles City Employees' Retirement System (LACERS)

Total Compensation Report

SUBMITTED BY:

Project Manager
Leena Rai

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Contents

I. Introduction

CPS HR Consulting (CPS HR) was retained by the Los Angeles City Employees' Retirement System (LACERS) to conduct a total compensation study for four (4) benchmark classifications. The study's objective was to determine the competitiveness of LACERS' compensation plan in the labor market. To achieve this, a labor market of twelve (12) comparable agencies was identified, and base salary and total compensation data were collected and analyzed.

This total compensation report contains the project scope and work plan, describes the methodologies utilized in data collection and analysis, and provides the total compensation results for all survey classifications. The data for this report were collected during the months of July and August 2020. For consistency in labor market comparisons, all salary and benefit data are represented as of July 2020.

LACERS' classification specific results are summarized in Section IV of this report. Survey results for each classification are presented in Appendix A. In addition, other benefits and premium pay elements of interest to LACERS were collected and are summarized in Section V and details presented in Appendix B.

II. Project Scope and Work Plan

To complete the total compensation study, the CPS HR Project Team completed the following tasks:

- Reviewed LACERS' background materials, including classification specifications, salary schedules, position control documents, policies, MOUs, and organization charts.
- Conducted a project initiation meeting: CPS HR conducted the project initiation meeting with LACERS highlighting study scope, study objectives, goals, and expectation of results as well as an introduction to the CPS HR staff assigned to specific study components.
- Labor market research and analysis: Based upon identification of specific criteria, CPS HR assisted LACERS in identifying comparable labor market agencies by researching the organizational and investment function details to ensure the labor market agencies chosen were similar to LACERS.
- Subsequently, CPS HR received approval from LACERS regarding the twelve (12) labor market agencies and confirmation of the four (4) benchmark classifications to be surveyed.
- Developed and sent survey instrument to all labor market agencies to gather salary and benefits information. Researched salary and benefits data from the respective labor market agencies, including salary schedules, classification specifications, budgets, benefits summaries, MOUs, and position control documents where available. CPS HR followed through with agencies to request further information or clarification on job matching and benefits levels.
- Provided Project Status Report to LACERS regarding information received. Notified LACERS that of the twelve labor market agencies surveyed, two agencies did not yield study data – Public Employees' Retirement System of Nevada (NVPERS) contracts their investment function and Oregon Public Employees Retirement System declined to participate.
- Presented job match datasheets for LACERS review and approval.
- Responded to LACERS' request for the replacement of two (2) labor market agencies: Public Employees' Retirement System of Nevada and Oregon Public Employees Retirement System with two (2) *new* labor market agencies: Chicago Teachers Pension Fund and Employees Retirement System of Texas[1].
- Revised job match and benefits datasheets with two replacement agencies. Information regarding the need and determination of the selection of these two agencies as replacement labor market agencies is detailed in the report sections that follow.
- Prepared and submitted a draft total compensation study report with salary recommendations to LACERS for review and feedback.
- Received and responded to LACERS' feedback. Addressed LACERS' request to revise salary recommendations with adjustments for both cost of living and cost of wages.
- Prepared Final Total Compensation Study Report for submission on November 19, 2020.

[1] Upon review of the initial survey results, two agencies were unable to be included for different reasons: Oregon Public Employees Retirement System responded that they chose not to participate in the study and the Public Employees' Retirement System of Nevada identified that they subcontract their investment function.

III. Compensation Study Parameters

The first step in conducting a total compensation study is to determine the basic parameters for the study. These parameters included:

- Confirmation of the labor market position
- Twelve (12) labor market agencies
- Survey four (4) benchmark classifications
- Survey scope

Labor Market Position

LACERS requested that labor market data analysis be established on the median of the market. The labor market median, which is described as the "middle" of the market, is the data point at which half of the complete range of data (excluding LACERS data) is higher, and half of the complete range of data (excluding LACERS data) is lower. The median is a common market position, particularly in smaller data sets, because the data are less likely to be skewed by high and low payers in the market.

Labor Market Agencies

The labor market pool surveyed was comprised of twelve (12) agencies for each of the four (4) classifications surveyed. Demographic information about the labor market agencies is provided in Tables 1, 1a, and 1b. As communicated throughout the study, the selected labor market agencies were vetted in a two phased approach. In the first phase, CPS HR conducted research to identify the comparable labor market based upon the following selection criteria: location, agency size, and total portfolio value. In the second phase of selection, CPS HR progressed towards a more in-depth analysis by surveying the selected agencies and requesting additional information regarding detailed investment activities, investment classifications, defined distinguishing characteristics, and essential assigned roles and responsibilities in support of the agency's investment function. The determination of the appropriate labor market involved the application of the selection criteria outlined below.

- **Agency size** – In general, agencies that employ relatively similar numbers of employees may have similar economic demographics. Since it is rare to find agencies that are the same, the goal is to provide a balanced mix of larger and smaller agencies, thereby minimizing the "skewing" effect when either of these are used exclusively. Specific to size, CPS reviewed the following:
  - **Total Membership** - Information regarding the number of members in active and retired.
  - **Total Number of Allocated Positions** - Information regarding the number, and types of allocated classifications, as compared with LACERS' positional structure allows for greater understanding of expectations, requirements and distinguishing characteristics between classifications within a series.
  - **Total Portfolio Value**- In an effort to select retirement systems comparable to LACERS, particular attention was spent on identifying and researching agency total portfolio values.
- **Geographic proximity** – When considering a labor market, it is important to consider the geographic proximity of potential agencies, since they may be competitors in the recruitment market. If there are not enough agencies within the local market with which to conduct a study, then the geographic area may be expanded to include agencies in other closer counties which are similar in other aspects.

- **Cost of Labor (Wages)**
  CPS HR analyzed the cost of wages for each city within the labor market using ERI. This index is important because it is a more accurate and stable reflection of the relative cost of labor or the sum of all wages paid to employees, as well as the cost of employee benefits and payroll taxes, paid by an employer in an area. Cost of wages often factors in *direct and indirect (overhead) costs associated with wages paid by the employer*.
- **Cost of Living**
  CPS HR also analyzed the cost of living for each city within the labor market by utilizing an index provided by the Economic Research Institute (ERI). Cost of living measures the amount of money needed to sustain a certain level of living, including basic expenses such as the cost of housing, food, and taxes in an area. Cost of living is often used to compare how expensive it is to live in one city versus another locale.

Labor Market Response

Upon receiving approval from LACERS, CPS HR sent the following labor market agencies the total compensation online survey on July 10, 2020, with the request to complete the survey by July 15, 2020.

1. Alameda County Employees' Retirement Association
2. Arizona State Retirement System
3. Oregon Public Employees Retirement System
4. Contra Costa County Employees' Retirement Association
5. Public Employees' Retirement System of Nevada
6. Employees' Retirement System of the State of Hawaii
7. Orange County Employees Retirement System
8. Sacramento County Employees' Retirement System
9. San Bernardino County Employees' Retirement Association
10. San Diego City Employees' Retirement System
11. San Diego County Employees Retirement Association
12. San Francisco Employees' Retirement System

After conducting a review of the surveys completed, CPS HR was able to record study data and responses to questions from ten (10) out of the twelve (12) labor market agencies initially selected, resulting in an initial study response rate of 83%. The Oregon Public Employees Retirement System declined to participate, and the Public Employees' Retirement System of Nevada contracts their investment function to a private firm. Job Match Datasheets were then developed to reflect collected study results and sent to LACERS for review and feedback on August 21, 2020.

Upon conducting their review, LACERS subsequently requested that CPS HR substitute the two non-participating agencies with two (2) replacement agencies. These two replacement agencies, the Chicago Teachers' Pension Fund and the Employees Retirement System of Texas, were then contacted, sent study surveys, and followed up with to confirm compensation and benefits information. On September 30, 2020, CPS HR updated the study documents to reflect the final list of labor market agencies, as approved by LACERS.

Table 1: Labor Market Agencies Surveyed.

Agency	Distance from LACERS	Number of Allocated positions	Total Membership	Total Portfolio Value	Average Cost of Living*	Average Cost of Labor (wages) *
LACERS	**0**	**160**	**55,254**	**17.7 B**	**100.0**	**100.0**
Alameda County Employees' Retirement Association (Oakland, CA)	370	23	23,739	8.7 B	96.3	102.3
Arizona State Retirement System (Phoenix, Az)	373	402	608,150	41.8 B	67.0	85.2
Chicago Teachers' Pension Fund	2,028	126	88,000	11.0 B	87.4	92.2
Contra Costa County Employees' Retirement Association (Concord, CA)	369	57	23,045	9.3 B	81.9	102.7
Employees' Retirement System of Texas	1,378	408	384,507	28.8 B	66.5	91.9
Employees' Retirement System of the State of Hawaii (Honolulu, HI)	2,558	22	141,908	16.6 B	102.9	87.3
Orange County Employees Retirement System (Santa Ana, CA)	34	93	46,996	16.1 B	86.3	97.0
Sacramento County Employees' Retirement System (Sacramento, CA)	384	60	28,661	9.8 B	79.2	93.1
San Bernardino County Employees' Retirement Association (San Bernardino, CA)	57	75	42,000	10.6 B	72.7	93.5
San Diego City Employees' Retirement System (San Diego, CA)	121	18	20,780	8.4 B	96.1	941
San Diego County Employees Retirement Association (San Diego, CA)	119	27	44,030	12.9 B	96.1	94.1
San Francisco Employees' Retirement System (San Francisco, CA)	380	34	74,094	25.9 B	121.3	108.4

* For purpose of this analysis, CPS HR used the average amount for wage structures $150,000, $200,000, $250,000, and $300,000, as these dollar amounts reflect the minimum and maximum salary ranges of the surveyed classifications.

Table 1a: Cost of Wages (labor)

Cost of Wages (labor) by Earnings					
Comparison Cities	**$150,000**	**$200,000**	**$250,000**	**$300,000**	**Average**
Los Angeles, California	100.0	100.0	100.0	100.0	**100.0**
San Diego, California	94.1	93.8	94.1	94.5	**94.1**
San Bernardino, California	93.5	93.2	93.4	93.7	**93.5**
Oakland, California	103.9	101.9	101.5	101.8	**102.3**
San Francisco, California	109.9	108.2	107.7	107.6	**108.4**
Santa Ana, California	97.1	96.7	96.9	97.3	**97.0**
Sacramento, California	93.5	92.7	92.8	93.2	**93.1**
Phoenix, Arizona	83.0	84.6	86.1	87.0	**85.2**
Concord, California	104.3	102.3	101.9	102.2	**102.7**
Honolulu, Hawaii	87.4	86.7	87.1	87.8	**87.3**
Chicago, Illinois	93.1	91.7	91.8	92.3	**92.2**
Austin, Texas	90.2	91.9	92.7	92.9	**91.9**
Data as of: 10/1/2020					

Table 1b: Cost of Living

Cost of Living by Earnings					
Comparison Cities	**$150,000**	**$200,000**	**$250,000**	**$300,000**	**Average**
Los Angeles, California	100.0	100.0	100.0	100.0	**100.0**
San Diego, California	94.9	95.9	96.5	96.9	**96.1**
San Bernardino, California	64.4	71.6	75.9	78.8	**72.7**
Oakland, California	93.7	96.0	97.3	98.2	**96.3**
San Francisco, California	127.7	122.2	118.8	116.6	**121.3**
Santa Ana, California	81.8	85.7	88.1	89.7	**86.3**
Sacramento, California	71.4	78.1	82.2	84.9	**79.2**
Phoenix, Arizona	59.3	66.0	70.1	72.7	**67.0**
Concord, California	75.0	81.0	84.6	87.1	**81.9**
Honolulu, Hawaii	102.1	102.7	103.2	103.4	**102.9**
Chicago, Illinois	86.3	87.2	87.9	88.2	**87.4**
Austin, Texas	61.0	65.7	68.7	70.4	**66.5**
Data as of: 10/1/2020					

Survey Classifications

The survey benchmark classifications for the study are presented below. Summary descriptions for all survey benchmark classifications were based on the current job description provided by LACERS.

- Chief Investment Officer (Executive Level)
- Investment Officer III (Senior-Supervisory Level)
- Investment Officer II (Advanced Journey Level)
- Investment Officer I (Journey Level)

Survey Data Collection Scope

Comparable Classifications – Classification Matching

When conducting a compensation survey, the intent is to provide general market trends by comparing the span of control, duties and responsibilities and the knowledge, skill, and ability requirements to determine whether these are comparable enough to utilize as a match. With a balanced labor market and the use of whole job analysis, it is reasonable to assume that while some matches will have slightly higher responsibilities and some matches will have slightly lower responsibilities, the overall scope of duties and responsibilities of the combined matches will be balanced.

In the process of matching comparable classifications from other agencies, CPS HR does not only rely on classification specifications. CPS HR references position control documents, where available, to specifically identify which classification, and level of classification, perform the duties of LACERS' classification. This is particularly relevant to non-supervisory, non-management classifications where there are multi-level classifications within the series matched from the other agencies. In addition, budgets or other fiscal tools facilitating series progression through multiple levels may provide greater flexibility in the use of the classification structure than is evident in the content of the classification specification. To the extent possible, CPS HR identifies the operational use of a classification in determining whether it is a comparable job match.

Comparable Classifications – Required Number of Comparable Classifications

In an effort to look at trends and to ensure that there is sufficient data to make recommendations, CPS HR's practice is to ensure that benchmark positions have a minimum of three (3) classification matches to be analyzed. (In most studies, it is common to have some classes for which limited market data exists.)

Upon collection of survey data, all four benchmark classifications exceeded the criteria for minimum matches. Definitively, classifications such as the Chief Investment Officer and the Investment Officer II were found to be more commonly allocated among the surveyed agencies while the Investment Officer I and III were less prevalent.

Labor Market Benefits, Pay Practices Collected

CPS HR collected benefits and compensation practices, in addition to base salary, to complete the total compensation evaluation of LACERS in the labor market. When measuring the market, the goal is to identify an agency's competitive position in the labor market to attract and retain talent, in addition to promoting internal equity. This is done by measuring those benefits and/or perquisites that new employees would receive upon their date of hire. Reported benefits are those for which all employees in an employee group would qualify.

The benefits data collected for the study, which are included in the total compensation figure, are presented in Table 2.

Table 2: Benefit Component Categories Included in Total Compensation

Benefit Component Category	Description
Deferred Compensation Plan	Refers to deferred compensation plans such as 457, 401a and 401k which allow a portion of an employee's income or employer contribution to be paid out at a later date after which the income was actually earned allowing for a deferral of taxes. The amount(s), if any, that the agency contributes to an employee's deferred compensation plan are reported; in many cases, this is a voluntary employee benefit.
Employer Retirement Contribution	The employer's Normal Cost Rate represents the annual cost of service accrual for the fiscal year for active employees as reported in the plan's actuarial valuation. The employers' Normal Cost (NC) Rate can be a blended rate for all benefit groups in the plan or reported based on a specific plan tier.
Flex Credit	A "flex credit" is an employer contribution in a cafeteria plan that the employee then allocates to benefits which may subsidize basic health benefits and may include life insurance, disability plans and other health voluntary benefits.
Health Benefit Employer Contributions	The value of the employer's monthly contribution for health benefits, which include medical, dental, and vision benefits, based on family coverage (employee + 2 or more dependents) is used in calculating total compensation.
Medicare	The Medicare contribution rate of 1.45% times the base salary median is used, less tax deferred contributions, to calculate the Medicare expense to be included in the total compensation calculation, there is no maximum compensation limit.
Social Security	When an agency participates in Social Security the contribution rate is 6.20% of the median compensation is included in the total compensation calculation. Each calendar year, the maximum social security taxable earnings are adjusted by the Social Security Administration.

IV. Survey Results

Compensation Results

LACERS' overall position within the labor market, and the averages for each classification, are presented in base salary and total compensation datasheets reflected in Appendix A and Appendix B. A summary of results is described below.

- Appendix A presents all study benchmark classifications, applicable employer benefit contributions, and premium pay with total compensation results.

- Appendix B presents the collected benefit information for all employee groups. An analysis of these benefits is presented in Section V.

Benchmark Comparable Classification Requirement

As noted previously, all four (4) benchmark classifications met the requirement of a minimum of three (3) comparable matching classifications. Evaluating further, two benchmark classifications yielded significant matches while the other two had fewer matches.

Significant Matches Found

- The **Chief Investment Officer** classification yielded 12 out of 12 matches. All twelve of the surveyed labor market agencies matched LACERS' Chief Investment Officer classification. Surveyed agencies designated this position as the executive-level position responsible for managing the organization's investment portfolios, monitoring the implementation of the fund's investment policies, ensuring the efficient use of investment funds and directing investment staff towards implementing effective and efficient investment processes.

- **Investment Officer II** classification yielded 11 out of 12 matches. A significant number of matches were also found at the Investment Officer II level, with eleven out of the twelve labor market agencies reporting comparable level positions within their investment group. As addressed in follow-up discussions, the retirement systems surveyed identified a distinct requirement to allocate an advanced journey-level classification within their investment group to manage average to difficult investment analysis, conduct research leading to recommendations on a variety of investment actions, including the purchase or sale of investment assets and to select and management of external investment managers and partners.

Fewer Matches Found

Fewer matches were found for the Investment Officer I and the Investment Officer III classifications, each yielding a total of four (4) comparable classifications within the labor market agencies studied.

- **Investment Officer I and the Investment Officer III** classifications each yielded 4 out of 12 matches each. As identified, the first step into the investment level series, within the majority of sites studied, the I level work begins at entry-level, with a minimum of six months to one year of experience. At level III, comparator agencies designate this role as an advanced level technical expert, but do not assign supervisory responsibilities in conducting and completing staff performance evaluations. Resultingly, in comparing LACERS' Officer I and III level classifications with the comparator labor market agency investment group work requirements and positional distinguishing characteristics, substantial and significant number of matches could not be found.

Results Analysis

Study results gathered were subsequently evaluated both within the structural context of LACERS' investment group design as well as the required distinguishing characteristics between each of the investment group classifications.

- **Experienced Investment Staff**: LACERS' sets, as its broad mission, the intent to "achieve the best risk-adjusted investment returns…managed on a total return basis in compliance with the investment policies to produce a total portfolio, long-term, real, positive return above the asset allocation policy benchmark." Towards this end, LACERS' positions itself in selecting, hiring, and preparing investment group staff to assume and carry out technical, professional-level work and rigorous research and analysis to develop sound, well-reasoned investment portfolio decisions. Consequently, the Investment Officer I classification, while at the beginning of LACERS investment group series, is *not* considered entry-level or a position structured to receive extensive training and preparation in undertaking substantive investment work.

  Rather, the journey-level Officer I classification is expected to manage "one or more asset classes of the portfolio such as public equities, private equities, fixed income, real estate and real assets and may be involved in activities such as evaluating and monitoring investment manager performance." The comparable labor market agencies allocated the I level as either entry-level or did not assign a "entry into the series" position within their investment group structure. This classification, as identified early in the study, is not at entry-level at LACERS. Rather, the Officer I classification has considerable responsibility in conducting complex investment analysis and research work, responsibility for portfolio management, including making recommendations on and sale of investment assets. **The comparator agencies designate this position as entry-level**, with the expectation that incumbents are developing their functional skills in conducting investment research and working closely under the oversight of more seasoned and experienced investment staff. LACERS, in contrast, considers the Officer I as journey level, with experience in managing at least one asset classes.

- **Structured Supervisory Responsibilities**: LACERS' investment classifications from the advanced-journey and then on to the senior-supervisory levels requires both the development of greater investment expertise, the management of greater number of asset portfolios, but also the ability to oversee the work and guide the professional development of subordinate investment team members. As evidenced by survey data received, comparator agencies studied did not commonly structure their investment group classifications in this arrangement. Rather, and unlike LACERS, the labor market agencies distinguished their investment series primarily by years of experience with "six months to at least three years of professional experience performing investment analysis or closely related work for a public agency or private financial institution." Not as predominant or essential in the agencies studied was the expectation that higher-level positions within the series be tasked with supervising, guiding, or training subordinate series staff. Consequently, results indicated that in the agencies surveyed, a lesser number of organizations deemed the task of supervision as a key expectation or a desired skill or competency within the investment series classifications. The more prevalent practice, it was learned, was to centralize supervision, direction, and oversight directly in the hands of the Chief Investment Officer.

While supervisory responsibility was not unilaterally structured within the comparator agencies studied, the benefit of experienced staff providing guidance and direction to subordinate staff has key advantages in coaching and providing employees a way to learn, better develop skills, and become more competent in their abilities. It further allows staff to feel they can advance through the ranks and benefit from professional development opportunities.

Labor Market Position by Benchmark Classification

This section provides a summary of LACERS' position within the labor market by the selected benchmark classification. Table 3 illustrates the following information for each classification.

- LACERS classification titles
- The number of comparable classifications
- LACERS control points of monthly salary (minimum, midpoint, maximum) for the survey classifications
- The labor market median and mean of the control points which is calculated using the same control point for each of the comparable classes; that range of data is then computed to provide the median or mean amount. LACERS salary is not included in the median and mean calculation.
- The percentage the agencies control points are above or below the median and mean of the labor market; these numbers indicate what percentage of the agencies salary is required to move it up or down to the market median or mean.

Table 3: LACERS' Percent (%) Above/Below Labor Market by Classification

Classification Title	of Matches	Base Salary Minimum	Base Salary Midpoint	Base Salary Maximum	LM Base Salary Minimum	LM Base Salary Midpoint	LM Base Salary Maximum	Mrkt Variance from Min	Mrkt Variance from Mid	Mrkt Variance from Max	Agency Total Compensation	Mrkt Total Compensation	Mrkt Variance from Total Compensation
Chief Investment Officer	12	$15,753.06	$19,410.99	$23,068.92	$18,911.34	$22,714.42	$25,817.40	20.05%	17.02%	11.91%	$26,563.97	$32,087.27	20.79%
Investment Officer I	4	$8,412.90	$10,355.61	$12,298.32	$7,356.63	$9,731.92	$12,107.21	-12.56%	-6.02%	-1.55%	$14,926.33	$15,149.61	1.50%
Investment Officer II	11	$10,480.02	$12,902.10	$15,324.18	$9,316.00	$10,955.92	$14,405.42	-11.11%	-15.08%	-6.00%	$18,195.78	$18,272.04	0.42%
Investment Officer III	4	$13,177.02	$16,221.15	$19,265.28	$13,450.75	$16,123.75	$18,902.42	2.08%	-0.60%	-1.88%	$22,454.14	$23,297.82	3.76%

Table 3a: Cost of Wages

Classification Title	# of matches	Base Salary Minimum	Base Salary Midpoint	Base Salary Maximum	Adjusted Base Salary Maximum - Cost of Labor-Median	Adjusted Base Salary Maximum - Cost of Labor Variance	Adjusted Total Comp - Cost of Labor-Median	Adjusted Total Comp - Cost of Labor Variance
Chief Investment Officer	12	$15,753.06	$19,410.99	$23,068.92	$25,903.64	12.29%	$32,704.28	23.12%
Investment Officer I	4	$8,412.90	$10,355.61	$12,298.32	$12,789.71	4.00%	$15,990.86	7.13%
Investment Officer II	11	$10,480.02	$12,902.10	$15,324.18	$14,837.58	-3.18%	$18,820.20	3.43%
Investment Officer III	4	$13,177.02	$16,221.15	$19,265.28	$19,306.51	0.21%	$24,075.15	7.22%

Table 3b: Cost of Living

Classification Title	# of matches	Base Salary Minimum	Base Salary Midpoint	Base Salary Maximum	Adjusted Base Salary Maximum - Cost of Living-Median	Adjusted Base Salary Maximum - Cost of Living Variance	Adjusted Total Comp - Cost of Living-Median	Adjusted Total Comp - Cost of Living Variance
Chief Investment Officer	12	$15,753.06	$19,410.99	$23,068.92	$28,633.70	24.12%	$36,076.34	35.81%
Investment Officer I	4	$8,412.90	$10,355.61	$12,298.32	$15,011.74	22.06%	$18,734.26	25.51%
Investment Officer II	11	$10,480.02	$12,902.10	$15,324.18	$14,649.95	-4.40%	$19,392.54	6.58%
Investment Officer III	4	$13,177.02	$16,221.15	$19,265.28	$19,614.29	1.81%	$25,590.12	13.97%

Labor Market Position

Table 3 data reflect that LACERS' base salary and total compensation comparisons to the market yielded mixed results.

- The **Chief Investment Officer** classification is below market overall:
  - **below** the market max for base salary, **and**
  - **below** the market for total compensation

- The three (3) **Investment Officer series** classifications are mixed:
  - **Investment Officer III** is *above* the market max for base salary, however,
    - **below** the market for total compensation
  - **Investment Officer II** is *above* the market max for base salary, however,
    - **below** the market for total compensation
  - **Investment Officer I** is *above* the market max for base salary, however,
    - **below** the market for total compensation

In Tables 3a and 3b, one can note significant differences when comparing the application of Cost of Wages vs Cost of Living. In general, in many large cities, the cost of living can be much higher than cost of labor. The difference can be attributed to the desirability of these cities, which in turn increases demand (and prices) for housing, food, entertainment, etc. In this sense, the cost of living reflects the cost of goods utilized by a typical consumer in that area.

On the other hand, cost of wages reflects what a particular geographic market offers as compensation for a specific type of work. Agencies may choose to focus on the going rate of pay a particular geographic market offers since the emphasis is on the job, not the location alone. By adjusting pay rates to cost of wages data, one would be aligning employee pay with appropriate rates for adequately recruiting and retaining talent.

In essence, we recommend agencies clarify the purpose of their compensation program when deciding which adjustment to select. Is it to reimburse employees for their cost of living? Or is it to pay employees a competitive wage for the particular jobs they perform, and the specific skill sets they offer to the organization?

V. Summary of Benefit Tables

In addition to the base salary and total compensation data presented in the datasheets provided within Appendix A, CPS HR presents summary benefit information for the surveyed classification displayed in table format in Appendix B.

In developing a comprehensive analysis of LACERS positioning within the market, LACERS is trending *below* market for all four benchmarks in total compensation, with variance in percentages from .42% to 20.79%. As detailed below and in the datasheets, LACERS is losing market position in the following areas:

- Employer Retirement Rate
- Social Security
- Deferred Compensation

Table B-1: Retirement Contribution Practices and FICA Participation

Table B-1 reports data pertaining to retirement plan's administrator, employer's Normal Cost blended contribution rate, active members in a plan and each agency's participation in Social Security, it is presumed that all agency's employees participate in Medicare.

Employer Retirement Contribution: The employer's Normal Cost Rate represents the annual cost of service accrual for the fiscal year for active employees as reported in the plan's actuarial valuation. The employers' Normal Cost (NC) Rate is be a blended rate for all benefit groups in the plan.

Social Security: When an agency participates in Social Security the contribution rate is 6.20% of the median compensation is included in the total compensation calculation.

Data that were collected for reporting with employer's contribution for retirement, Social Security and Medicare totaling 7.65% are included in total compensation calculations.

- Eight (8) of the labor market agencies retirement plans are a 1937 Act Retirement System: three (3) of the plans are non-California state Public Employees Retirement Systems; 1 plan is a non-California city plan; *the LACERS' retirement plan is not a 1937 Act Retirement System*.
- The normal cost blended average rate for all labor market agencies is 12.70% with a median of 14.340%; *the LACERS' contribution rate is 6.60%*.
- Seven (7) of the twelve (12) labor market agencies participate in Social Security benefits; *LACERS does not participate in Social Security benefits.*

Table B-2: Deferred Compensation Plans

Table B-2 reports data pertaining to deferred compensation plans which can provide a non-matching or matching contribution; in many cases, this is a voluntary employee benefit.

Deferred Compensation Plan: Deferred compensation plans such as 457, 401a, and 401k allow a portion of an employee's income or employer contribution to be paid out at a later date after which the income was actually earned allowing for a deferral of taxes. The amount(s), if any, that the agency contributes to an employee's deferred compensation plan are reported; in many cases, this is a voluntary employee benefit.

The data are collected for reporting and included in total compensation calculations if the employer makes a contribution.

- Five (5) of the agencies provide a 457(b) plan; Two (2) agencies provide a 401(a) plan; three (3) agencies provide a 457(b) and a 401(k) plan; *LACERS provides a 457(b) plan.*
- Three (3) agencies provide employer matching contributions based on the employee's contribution to the plan; No agency provides a non-matching contribution; *LACERS does not provide a matching or non-matching contribution.*

Table B-3: Health Plans Monthly Contributions

Table B-3 reports data related to health benefits which include medical, dental, and vision plans offered to employees and their eligible dependents. Employer and employee contributions are reported as monthly contribution for medical, dental, and vision or flexible credits for health benefits-based family coverage. The benchmark plan, highest premium HMO plan offered, or a comparable HMO plan was used to determine employer and employee contributions.

Health Benefit Contributions: The value of the employer's and employee's monthly contribution for health benefits, which include medical, dental, and vision benefits, based on family coverage (employee + 2 or more dependents) is used in calculating total compensation.

Medical Contribution Formula: Percentage of total medical premium that agency provides as employer contribution for employee only (EE), Employee +1 (EE+1) and employee plus 2 or more dependents also referred to as family coverage (EE+2)

Flex Credit: A "flex credit" is an employer contribution in a health plan that the employee then allocates to benefits which may subsidize basic health benefits and may include life insurance, disability plans and other health voluntary benefits.

The data are collected for reporting and with the total monthly employer contribution included in the total compensation calculations.

- Two (2) agencies provide Flexible Credits which employees can use to pay health premiums based on their own discretion; *LACERS does not provide a Flex Credit contribution*.
- The average of the total health insurance contribution (medical, dental, vision, and flex credit) for all labor market agencies is $1,651.43 and a median of $1,599.92 *LACERS' employer contribution is $1,638.46 which is* $12.97 *below the average and* $38.54 *above the median*.

Table B-4: Other Compensation – Certification and Performance Incentive Pay

Table B-4 reports pay incentives for additional compensation. Please note, the four surveyed labor market agencies offering incentive pay are detailed in Appendix D of this report. Incentive pay policies, for those agencies providing this additional compensation, vary greatly based on performance metrics, percentage or pay out, and other factors. For example, one agency distributes the bonus amount over a 3-year period while others do not. CPS HR does not recommend using bonus pay to consider total compensation changes. Rather, these data should be used as a reference point when developing a pay for performance program.

Incentive Programs: Incentive compensation is awarded for results rather than for time worked. Incentive pay is used to incentivize employees to achieve outstanding performance, a milestone in education or certification, or gaining skills above the level required for the classification of the position or personnel improvement.

The data are collected for reporting only and not included in the total compensation calculations.

- One (1) of the twelve (12) agencies provide a certification incentive for employees with Investment Certification; *LACERS does not have investment certification incentive pay.*
- Four (4) of the twelve (12) agencies provide a bonus related to investment portfolio performance and other performance factors; *LACERS does not have an incentive related to investment portfolio performance.*

A pay-for-performance (performance incentive pay) program is a compensation program designed to link employee pay with job performance, or a system of employee compensation in which pay, and rewards are defined by individual behaviors and individual and organizational results. Pay-for-performance programs are utilized by both private and public organizations; however, this form of variable pay is not widely found in the public sector. Note that only four (4) of the twelve (12) labor market agencies provide a pay incentive related to the investment portfolio function. Implementing a pay-for-performance system in LACERS' Investment Group may have several advantages in terms of attracting and retaining talented employees as well as strengthening the link between the achievement of key organizational goals and objectives and superior performance both individually and organizationally. Further, when developing such a program, it is important to understand the potential impacts by assessing the level of effort required to both implement and sustain the program.

As LACERS considers the creation of a pay-for-performance system, CPS HR recommends that a comprehensive analysis be conducted to ensure that the use of incentives aligns with LACERS' organizational philosophy, vision, mission, goals, and objectives. Heavy analysis and consideration should be given to the pros and cons of factors such as organizational culture, organizational needs, performance management process, factors for successful implementation, employee engagement, and sustainability.

VI. Recommendations

Total Compensation Salary Recommendations

At the request of LACERS, CPS HR utilized the total compensation market data to develop salary recommendations for the four (4) benchmark classifications, which are included in Appendix C. While labor market data are good indicators of market trends in pay, the concept of internal equity is an equally important factor when establishing a compensation plan, especially since the **Investment Officer I** and **III** yielded significantly fewer comparable matches than the **Investment Officer II**.

As noted in Table 1, LACERS's comparator agencies represent Northern California, Southern California, and states outside of California. Given the expanded market, at the request of LACERS, CPS HR provided market data adjustments using the cost of living and cost of wages. As noted in Tables 3a and 3b, CPS HR adjusted the maximum base salary and total compensation salary using the average percentage amount for wage structures $150,000, $200,000, $250,000, and $300,000, as these dollar amounts reflect the minimum and maximum salary ranges of the surveyed classifications. Salaries for the comparator agencies above the 100 percentile (LACERS anchor point) were adjusted downward and salaries for comparator agencies below the 100 percentile were adjusted upward, with the goal of getting each comparator agency to the 100% anchor.

As previously alluded to, while it is important to consider the impacts that cost of living and cost of wage data will have on the market data, when considering salary recommendations, CPS HR strongly recommends that any adjustment be made using the cost of wage data. While some locations may have a much higher cost of living, the actual difference in cost of wages rarely reflect such large differences. For example, while it may cost 33.6% less to live in Austin, Texas, employees do not earn 33.6% less in wages (in fact, the cost of wage difference is actually 8.1% less than Los Angeles), since the cost of wages is impacted by a number of different factors including the supply and demand of workers.

Regardless of the choice between using the total compensation or adjusted cost of living total compensation percentage median, it is important for LACERS to carefully review the internal relationships and the differentials between the classification levels to determine if they are still appropriate given the differences in available current market data.

VII. Next Steps

This final report provides information concerning the scope of the project, the methodology used to complete the total compensation study, as well as the results of the study which show where LACERS is positioned in comparison to the labor market. Implementation of salary recommendations is highly dependent on further discussion internally concerning the agency's financial climate and the sustainability of salary changes. Some general factors to consider are compounded labor costs associated with benefits plans and employer contributions, initial placement of employees within revised salary ranges, and overall fiscal impact of implementation today and in the future.

Should you require any further information or have questions and comments with respect to this final report, please do not hesitate to contact **Leena Rai** at (657) 204-4006 or via e-mail at lrai@cpshr.us.

Appendix A: Classification Datasheets

Please note that datasheets have also been provided to LACERS as a separate document for ease of viewing.

CPS HR CONSULTING

Client Benchmark: Chief Investment Officer

Data represented as Monthly values

Labor Market Agency	Comparable Classification Title	Base Salary Minimum	Base Salary Midpoint	Base Salary Maximum	Bandwidth	Deferred Comp ER Non-Matching Contribution	Total ER Health Contribution	ER Normal Cost Retirement Rate	Medicare	Social Security	Total Compensation (Median)	Adjusted Base Salary Maximum - Cost of Labor	Adjusted Total Comp - Cost of Labor	Adjusted Base Salary Maximum - Cost of Living	Adjusted Total Comp - Cost of Living	Adusted Total Comp- bonus (See Notes)	Total ER Benefit Expenses
Los Angeles City Employees Retirement System (LACERS)	Chief Investment Officer	$15,753.06	$19,410.99	$23,068.92	46.44%		$1,638.00	$1,522.55	$334.50		$26,563.97	$23,068.92	$26,563.97	$23,068.92	$26,563.97		$3,495.05
Alameda County Employees' Retirement Association	Chief Investment Officer	$16,128.67	$20,957.74	$25,786.80	59.88%		$1,447.00	$2,408.49	$373.91	$711.45	$30,727.65	$25,207.04	$30,036.80	$26,740.91	$31,864.57		$4,940.85
Arizona State Retirement System	Chief Investment Officer	$8,038.33	$12,411.73	$16,785.13	108.81%		$1,397.00	$2,020.93	$243.38	$711.45	$21,157.89	$19,269.33	$24,289.26	$22,324.22	$28,140.00	$25,354.17	$4,372.76
Chicago Teachers' Pension Fund	Chief Investment Officer	$19,436.75	$26,239.63	$33,042.50	70.00%		$2,198.00	$6,843.10	$479.12		$42,562.72	$35,619.82	$45,882.61	$37,205.86	$47,925.62		$9,520.22
Contra Costa County Employees' Retirement Association	Chief Investment Officer	$19,883.00	$22,865.50	$25,848.00	30.00%	$235.00	$2,141.00	$3,923.73	$374.80		$32,522.52	$25,168.45	$31,667.50	$30,526.49	$38,409.10		$6,674.52
Employees Retirement System of Texas	CIO-Director of Investments	$37,500.00	$37,500.00	$37,500.00	0.00%		$1,220.00	$1,597.50	$543.75	$711.45	$41,572.70	$40,537.50	$44,940.09	$50,100.00	$55,541.13	$79,072.70	$4,072.70
Employees' Retirement System of the State of Hawaii	Chief Investment Officer	$22,084.00	$22,084.00	$22,084.00	0.00%		$1,386.00	$1,561.34	$320.22	$711.45	$26,063.01	$24,910.75	$29,399.07	$21,482.49	$25,353.12		$3,979.01
Orange County Employees Retirement System	Chief Investment Officer	$18,385.92	$22,982.42	$27,578.92	50.00%		$1,592.00	$3,954.82	$399.89		$33,525.63	$28,406.29	$34,531.40	$31,357.23	$38,118.64		$5,946.71
Sacramento County Employees' Retirement System	Chief Investment Officer-Retirement	$17,955.08	$19,889.96	$21,824.83	21.55%	$218.25	$1,688.00	$3,301.58	$316.46	$711.45	$28,150.57	$23,352.57	$30,121.11	$26,386.22	$34,034.04		$6,325.74
San Bernardino County Employees' Retirement Association	Chief Investment Officer	$20,173.33	$22,563.33	$24,953.33	23.69%	$2,245.80	$1,189.00	$2,902.07	$361.82		$31,652.03	$26,600.25	$33,741.06	$31,765.59	$40,293.03	$44,128.70	$6,698.70
San Diego City Employees' Retirement System	Chief Investment Officer	$3,096.00	$10,761.54	$18,427.08	495.19%		$1,792.00	$2,106.22	$267.19		$22,592.49	$19,514.28	$23,925.44	$19,145.74	$23,473.59		$4,165.41
San Diego County Employees Retirement Association	Retirement Chief Investment Officer	$13,485.33	$23,994.54	$34,503.74	155.86%		$1,608.00	$5,451.59	$500.30	$711.45	$42,775.09	$36,539.46	$45,298.82	$35,849.39	$44,443.31		$8,271.35
San Francisco Employees' Retirement System	Chief Investment Officer	$22,891.00	$26,055.50	$29,220.00	27.65%		$2,161.00	$4,397.61	$423.69	$711.45	$36,913.75	$26,980.61	$34,084.72	$24,089.04	$30,431.78	unk	$7,693.75

	Base Salary Minimum	Base Salary Midpoint	Base Salary Maximum	Bandwidth
Total Matches		12		
Base Salary Medians (Min, Mid, Max)	$18,911.34	$22,714.42	$25,817.40	40.00%
Base Salary Means (Min, Mid, Max)	$18,254.78	$22,358.82	$26,462.86	86.89%
Percentage Needed to Reach LM Median*	20.05%	17.02%	11.91%	
Percentage Needed to Reach LM Mean*	15.88%	15.19%	14.71%	

	Total Compensation (Median)	Adjusted Base Salary Maximum - Cost of Labor	Adjusted Total Comp - Cost of Labor	Adjusted Base Salary Maximum - Cost of Living	Adjusted Total Comp - Cost of Living
Total Compensation Median	$32,087.27	$25,903.64	$32,704.28	$28,633.70	$36,076.34
Total Compensation Mean	$32,518.00	$27,675.53	$33,993.16	$29,747.76	$36,502.33
Percentage Needed to Reach LM Median*	20.79%	12.29%	23.12%	24.12%	35.81%
Percentage Needed to Reach LM Mean*	22.41%	19.97%	27.97%	28.95%	37.41%

Total ER Benefit Expenses	
$6,136.22	Total ER Benefit Exp. Median
$6,055.14	Total ER Benefit Exp. Mean
75.57%	Percentage Needed to Reach LM Median*
73.25%	Percentage Needed to Reach LM Mean*

* Positive number represents client's salaries and/or benefits are below LM and need the indicated percentage to reach LM, negative number mean client is above the LM

DEFINITIONS:	
Base Salary	All data represented as Monthly based on agreed upon effective date
Minimum	Minimum represents the minimum of a pay range as reported by the surveyed agency
Midpoint	Midpoint represents the middle number in the pay range from minimum to maximum as reported by the surveyed agency
Maximum	Maximum represents the maximum of a pay range as reported by the surveyed agency
Range Bandwidth	Range Bandwidth represents the spread from minimum to maximum of a pay range as reported by the surveyed agency. CPS uses this to compare the client's range with market trends to optimize pay administration
Base Salary Medians	Base Salary Medians represent the median of salaries from all surveyed agencies in each of the category (minimum, midpoint & maximum)
Base Salary Means	Base Salary Means represent the average of salaries from all surveyed agencies in each of the category (minimum, midpoint & maximum)
Percentage Needed to Reach LM Median	Percentage Needed to Reach LM Median represents the percentage needed to bring client's salary to the labor market median in each category (minimum, midpoint & maximum)
Percentage Needed to Reach LM Mean	Percentage Needed to Reach LM Mean represents the percentage needed to bring client's salary to the labor market mean in each category (minimum, midpoint & maximum)
Additional Percentile (or Control Point)	Additional Percentile/Control Point represents the percentile of the labor market salary range (i.e. 60th, 70th, etc. designated by the client agency) and requested to be added to data set
Total Compensation	Additional compensation which may include differentials, allowances or financial incentives that are paid in equal increments with the normal payroll process and eligibility is not discretionary are reported and included in TC calculations; discretionary compensation and one time lump sum compensation are reported but not included in the total
BASIC TOTAL COMPENSATION BENEFITS ELEMENTS:	
Retirement:	
Defined Benefit Plan	Employer Contribution - Normal Cost (NC) Rate, which represents the annual cost of service accrual for the upcoming fiscal year, for active employees. Normal cost is shown as a percentage of payroll and paid as part of the payroll reporting process and is included in the total compensation calculation.
	Employer Paid Member Contributions (EPMC) - is an employment benefit provided by some employers in which the employer agrees to pay some or all of the statutorily required employee contribution to the CalPERS system and is included in the total compensation calculation
Defined Contribution Plan	A retirement plan in lieu of a Defined Benefit Plan provided by the employer. The employer contribution is a set percentage of compensation which normally includes a vesting schedule which defines vesting in terms of percentages which are in turn determined based on the employee's number of years of service. The employer contribution is included in the total compensation calculation presuming 100% vesting.
Deferred Contribution Plan	Employer Contribution - Non-matching employer contributions or matching employer contributions based on mandated employee contributions are included in the total compensation calculations.
Health Benefits:	To find the value of employer contributions for health benefits, the employer's contributions to a flex plan and/or medical, dental, and vision premiums based on the maximum employer contributions for medical, dental and vision for a family plan (member + 2 or more dependents) were used in calculating total compensation.
Other Compensation	Additional compensation which can include differentials, allowances or other financial incentives that are paid in equal increments with the normal payroll process, one time lump sum compensation is not considered.

ADJUSTED TOTAL COMP WITH BONUS NOTES:

Arizona State Retirement System provides a bonus of up to 25% of base salary. **The figure included above is not the actual bonus amount received by any individual(s) during the last bonus round**; it represents the maximum possible bonus.

ERS of Texas provides a bonus of up to 100% of base salary. **The figure included above is not the actual bonus amount received by any individual(s) during the last bonus round**; it represents the maximum possible bonus. In addition, the figure above is for illustrative purposes only as this agency pays out the bonus over 3 years (Year 1: 50% of bonus, Year 2: 25% of bonus; Year 3: 25% of bonus. There are also clawback provisions).

San Bernardino ERS provides a bonus of up to 50% of base salary. **The figure included above is not the actual bonus amount received by any individual(s) during the last bonus round**; it represents the maximum possible bonus.

San Francisco ERS declined our requests for information on their bonus program

CPS HR CONSULTING

Client Benchmark: Investment Officer III

Data represented as Monthly values

Labor Market Agency	Comparable Classification Title	Base Salary Minimum	Base Salary Midpoint	Base Salary Maximum	Bandwidth	Deferred Comp ER Non-Matching Contribution	Total ER Health Contribution	ER Normal Cost Retirement Rate	Medicare	Social Security	Total Compensation (Median)
Los Angeles City Employees Retirement System (LACERS)	Investment Officer III	$13,177.02	$16,221.15	$19,265.28	46.20%		$1,638.00	$1,271.51	$279.35		$22,454.14
Alameda County Employees' Retirement Association	Investment Operations Officer	$11,483.33	$13,207.13	$14,930.93	30.02%		$1,447.00	$1,394.55	$216.50	$711.45	$18,700.43
Arizona State Retirement System	No Comparable Class										
Chicago Teachers' Pension Fund	No Comparable Class										
Contra Costa County Employees' Retirement Association	No Comparable Class										
Employees Retirement System of Texas	Supervising Portfolio Manager	$11,272.00	$15,168.50	$19,065.00	69.14%		$1,220.00	$812.17	$276.44	$711.45	$22,085.06
Employees' Retirement System of the State of Hawaii	No Comparable Class										
Orange County Employees Retirement System	No Comparable Class										
Sacramento County Employees' Retirement System	Assistant Retirement Administrator-Investment (Range B)	$15,418.17	$17,079.00	$18,739.83	21.54%	$187.70	$1,688.00	$2,912.17	$271.73	$711.45	$24,510.58
San Bernardino County Employees' Retirement Association	No Comparable Class										
San Diego City Employees' Retirement System	No Comparable Class										
San Diego County Employees Retirement Association	No Comparable Class										
San Francisco Employees' Retirement System	Director	$15,754.00	$17,928.00	$20,102.00	27.60%		$2,161.00	$3,025.35	$291.48	$711.45	$26,291.28

Labor Market Agency	Adjusted Base Salary Maximum - Cost of Labor	Adjusted Total Comp - Cost of Labor	Adjusted Base Salary Maximum - Cost of Living	Adjusted Total Comp - Cost of Living	Adusted Total Comp- bonus	Total ER Benefit Expenses
Los Angeles City Employees Retirement System (LACERS)	$19,265.28	$22,454.14	$19,265.28	$22,454.14		$3,188.86
Alameda County Employees' Retirement Association	$14,595.24	$18,279.99	$15,483.37	$19,392.34		$3,769.50
Arizona State Retirement System						
Chicago Teachers' Pension Fund						
Contra Costa County Employees' Retirement Association						
Employees Retirement System of Texas	$20,609.27	$23,873.95	$25,470.84	$29,505.64	$37,337.06	$3,020.06
Employees' Retirement System of the State of Hawaii						
Orange County Employees Retirement System						
Sacramento County Employees' Retirement System	$20,051.62	$26,226.32	$22,556.45	$29,633.29		$5,770.75
San Bernardino County Employees' Retirement Association						
San Diego City Employees' Retirement System						
San Diego County Employees Retirement Association						
San Francisco Employees' Retirement System	$18,561.40	$24,276.34	$16,572.14	$21,674.59		$6,189.28

	Base Salary Minimum	Base Salary Midpoint	Base Salary Maximum	Bandwidth
Total Matches		4		
Base Salary Medians (Min, Mid, Max)	$13,450.75	$16,123.75	$18,902.42	28.81%
Base Salary Means (Min, Mid, Max)	$13,481.88	$15,845.66	$18,209.44	37.08%
Percentage Needed to Reach LM Median^	2.08%	-0.60%	-1.88%	
Percentage Needed to Reach LM Mean^	2.31%	At Market	At Market	

	Total Compensation	Adjusted Base Salary Maximum - Cost of Labor	Adjusted Total Comp - Cost of Labor	Adjusted Base Salary Maximum - Cost of Living	Adjusted Total Comp - Cost of Living
Total Compensation Median	$23,297.82	$19,306.51	$24,075.15	$19,614.29	$25,590.12
Total Compensation Mean	$22,896.84	$18,454.38	$23,164.15	$20,045.70	$25,051.47
Percentage Needed to Reach LM Median^	3.76%	0.21%	7.22%	1.81%	13.97%
Percentage Needed to Reach LM Mean^	1.97%	-4.21%	3.16%	4.05%	11.57%

Total ER Benefit Expenses	
$4,770.12	Total ER Benefit Exp. Median
$4,687.40	Total ER Benefit Exp. Mean
49.59%	Percentage Needed to Reach LM Median^
46.99%	Percentage Needed to Reach LM Mean^

^ Positive number represents client's salaries and/or benefits are below LM and need the indicated percentage to reach LM, negative number mean client is above the LM

DEFINITIONS:	
Base Salary	All data represented as Monthly based on agreed upon effective date
Minimum	Minimum represents the minimum of a pay range as reported by the surveyed agency
Midpoint	Midpoint represents the middle number in the pay range from minimum to maximum as reported by the surveyed agency
Maximum	Maximum represents the maximum of a pay range as reported by the surveyed agency
Range Bandwidth	Range Bandwidth represents the spread from minimum to maximum of a pay range as reported by the surveyed agency. CPS uses this to compare the client's range with market trends to optimize pay administration
Base Salary Medians	Base Salary Medians represent the median of salaries from all surveyed agencies in each of the category (minimum, midpoint & maximum)
Base Salary Means	Base Salary Means represent the average of salaries from all surveyed agencies in each of the category (minimum, midpoint & maximum)
Percentage Needed to Reach LM Median	Percentage Needed to Reach LM Median represents the percentage needed to bring client's salary to the labor market median in each category (minimum, midpoint & maximum)
Percentage Needed to Reach LM Mean	Percentage Needed to Reach LM Mean represents the percentage needed to bring client's salary to the labor market mean in each category (minimum, midpoint & maximum)
Additional Percentile (or Control Point)	Additional Percentile/Control Point represents the percentile of the labor market salary range (i.e. 60th, 70th, etc. designated by the client agency) and requested to be added to data set
Total Compensation	Additional compensation which may include differentials, allowances or financial incentives that are paid in equal increments with the normal payroll process and eligibility is not discretionary are reported and included in TC calculations; discretionary compensation and one time lump sum compensation are reported but not included in the total compensation calculation.
BASIC TOTAL COMPENSATION BENEFITS ELEMENTS:	
Retirement:	
Defined Benefit Plan	Employer Contribution - Normal Cost (NC) Rate, which represents the annual cost of service accrual for the upcoming fiscal year, for active employees. Normal cost is shown as a percentage of payroll and paid as part of the payroll reporting process and is included in the total compensation calculation.
	Employer Paid Member Contributions (EPMC) - is an employment benefit provided by some employers in which the employer agrees to pay some or all of the statutorily required employee contribution to the CalPERS system and is included in the total compensation calculation
Defined Contribution Plan	A retirement plan in lieu of a Defined Benefit Plan provided by the employer. The employer contribution is a set percentage of compensation which normally includes a vesting schedule which defines vesting in terms of percentages which are in turn determined based on the employee's number of years of service. The employer contribution is included in the total compensation calculation presuming 100% vesting.
Deferred Contribution Plan	Employer Contribution - Non-matching employer contributions or matching employer contributions based on mandated employee contributions are included in the total compensation calculations.
Health Benefits:	To find the value of employer contributions for health benefits, the employer's contributions to a flex plan and/or medical, dental, and vision premiums based on the maximum employer contributions for medical, dental and vision for a family plan (member + 2 or more dependents) were used in calculating total compensation.
Other Compensation	Additional compensation which can include differentials, allowances or other financial incentives that are paid in equal increments with the normal payroll process, one time lump sum compensation is not considered.

ADJUSTED TOTAL COMP WITH BONUS NOTES:

ERS of Texas provides a bonus of up to 80% of base salary. **The figure included above is not the actual bonus amount received by any individual(s) during the last bonus round:** it represents the maximum possible bonus. In addition, the figure above is for illustrative purposes only as this agency pays out the bonus over 3 years (Year 1: 50% of bonus; Year 2: 25% of bonus; Year 3: 25% of bonus). There are also clawback provisions).

San Francisco ERS declined our requests for information on their bonus program.

CPS HR CONSULTING

Client Benchmark: Investment Officer II

Data represented as Monthly values

Labor Market Agency	Comparable Classification Title	Base Salary Minimum	Base Salary Midpoint	Base Salary Maximum	Bandwidth	Deferred Comp ER Non-Matching Contribution	Total ER Health Contribution	ER Normal Cost Retirement Rate	Medicare	Social Security	Total Compensation (Median)	Adjusted Base Salary Maximum - Cost of Labor	Adjusted Total Comp - Cost of Labor	Adjusted Base Salary Maximum - Cost of Living	Adjusted Total Comp - Cost of Living	Adusted Total Comp- bonus	Total ER Benefit Expenses
Los Angeles City Employees Retirement System (LACERS)	Investment Officer II	$10,480.02	$12,902.10	$15,324.18	46.22%		$1,638.00	$1,011.40	$222.20		$18,195.78	$15,324.18	$18,195.78	$15,324.18	$18,195.78		$2,871.60
Alameda County Employees' Retirement Association	Investment Officer	$6,810.27	$9,193.60	$11,576.93	69.99%		$1,447.00	$1,081.29	$167.87	$711.45	$14,984.53	$11,316.65	$14,647.64	$12,005.28	$15,538.96		$3,407.60
Arizona State Retirement System	Equity Portfolio Manager/Private Assets Manager	$6,050.00	$8,532.50	$11,015.00	82.07%		$1,397.00	$1,326.21	$159.72	$682.93	$14,580.85	$12,645.22	$16,738.82	$14,649.95	$19,392.54	$17,334.60	$3,565.85
Chicago Teachers' Pension Fund	Investment Portfolio Manager	$7,177.00	$8,971.00	$10,765.00	49.99%		$2,198.00	$2,229.43	$156.09		$15,348.52	$11,604.67	$16,545.71	$12,121.39	$17,282.44		$4,583.52
Contra Costa County Employees' Retirement Association	Investment Officer	$14,893.00	$16,497.50	$18,102.00	21.55%	$235.00	$2,141.00	$2,747.88	$262.48		$23,488.36	$17,626.10	$22,870.85	$21,378.46	$27,739.76		$5,386.36
Employees Retirement System of Texas	Portfolio Manager III	$9,316.00	$12,536.00	$15,756.00	69.13%		$1,220.00	$671.21	$228.46	$711.45	$18,587.12	$17,042.24	$20,092.67	$21,050.02	$24,832.39	$29,616.32	$2,831.12
Employees' Retirement System of the State of Hawaii	Investment Officer	$7,500.00	$9,583.34	$11,666.67	55.56%		$1,386.00	$824.83	$169.17	$711.45	$14,758.12	$13,160.00	$16,647.16	$11,348.90	$15,171.35		$3,091.45
Orange County Employees Retirement System	Senior Investment Officer	$9,340.08	$11,872.75	$14,405.42	54.23%		$1,592.00	$2,065.74	$208.88		$18,272.04	$14,837.58	$18,820.20	$16,378.96	$20,775.30		$3,866.62
Sacramento County Employees' Retirement System	Retirement Investment Officer	$10,422.58	$10,955.92	$11,489.25	10.23%	$114.89	$1,688.00	$1,785.43	$166.59	$711.45	$15,955.62	$12,293.50	$17,072.51	$13,890.50	$19,290.34		$4,466.37
San Bernardino County Employees' Retirement Association	Senior Investment Officer	$15,228.33	$17,040.00	$18,851.67	23.79%	$1,602.39	$1,189.00	$2,192.45	$273.35		$24,108.86	$20,095.88	$25,700.05	$23,998.18	$30,690.58	$29,764.36	$5,257.19
San Diego City Employees' Retirement System	Assistant Investment Officer	$4,192.00	$9,802.50	$15,413.00	267.68%		$1,792.00	$1,761.71	$223.49		$19,190.19	$16,322.37	$20,322.42	$16,014.11	$19,938.61		$3,777.19
San Diego County Employees Retirement Association	No Comparable Class																
San Francisco Employees' Retirement System	Senior Portfolio Manager	$12,957.00	$14,747.50	$16,538.00	27.64%		$2,161.00	$2,488.97	$239.80	$711.45	$22,139.22	$15,270.54	$20,442.49	$13,633.97	$18,251.62		$5,601.22

	Base Salary Minimum	Base Salary Midpoint	Base Salary Maximum	Bandwidth
Total Matches		11		
Base Salary Medians (Min, Mid, Max)	$9,316.00	$10,955.92	$14,405.42	54.23%
Base Salary Means (Min, Mid, Max)	$9,444.21	$11,793.87	$14,143.54	66.53%
Percentage Needed to Reach LM Median*	-11.11%	-15.08%	-6.00%	
Percentage Needed to Reach LM Mean*	At Market	At Market	At Market	

	Total Compensation (Median)	Adjusted Base Salary Maximum - Cost of Labor	Adjusted Total Comp - Cost of Labor	Adjusted Base Salary Maximum - Cost of Living	Adjusted Total Comp - Cost of Living
Total Compensation Median	$18,272.04	$14,837.58	$18,820.20	$14,649.95	$19,392.54
Total Compensation Mean	$18,310.31	$14,745.89	$19,081.86	$16,042.70	$20,809.44
Percentage Needed to Reach LM Median*	0.42%	-3.18%	3.43%	-4.40%	6.58%
Percentage Needed to Reach LM Mean*	0.63%	-3.77%	4.87%	4.69%	14.36%

$3,866.62	Total ER Benefit Exp. Median
$4,166.77	Total ER Benefit Exp. Mean
34.65%	Percentage Needed to Reach LM Median*
45.10%	Percentage Needed to Reach LM Mean*

* Positive number represents client's salaries and/or benefits are below LM and need the indicated percentage to reach LM, negative number mean client is above the LM

DEFINITIONS:	
Base Salary	All data represented as Monthly based on agreed upon effective date
Minimum	Minimum represents the minimum of a pay range as reported by the surveyed agency
Midpoint	Midpoint represents the middle number in the pay range from minimum to maximum as reported by the surveyed agency
Maximum	Maximum represents the maximum of a pay range as reported by the surveyed agency
Range Bandwidth	Range Bandwidth represents the spread from minimum to maximum of a pay range as reported by the surveyed agency. CPS uses this to compare the client's range with market trends to optimize pay administration
Base Salary Medians	Base Salary Medians represent the median of salaries from all surveyed agencies in each of the category (minimum, midpoint & maximum)
Base Salary Means	Base Salary Means represent the average of salaries from all surveyed agencies in each of the category (minimum, midpoint & maximum)
Percentage Needed to Reach LM Median	Percentage Needed to Reach LM Median represents the percentage needed to bring client's salary to the labor market median in each category (minimum, midpoint & maximum)
Percentage Needed to Reach LM Mean	Percentage Needed to Reach LM Mean represents the percentage needed to bring client's salary to the labor market mean in each category (minimum, midpoint & maximum)
Additional Percentile (or Control Point)	Additional Percentile/Control Point represents the percentile of the labor market salary range (i.e. 60th, 70th, etc. designated by the client agency) and requested to be added to data set
Total Compensation	Additional compensation which may include differentials, allowances or financial incentives that are paid in equal increments with the normal payroll process and eligibility is not discretionary are reported and included in TC calculations; discretionary compensation and one time lump sum compensation are reported but not included in the total
BASIC TOTAL COMPENSATION BENEFITS ELEMENTS:	
Retirement:	
Defined Benefit Plan	Employer Contribution - Normal Cost (NC) Rate, which represents the annual cost of service accrual for the upcoming fiscal year, for active employees. Normal cost is shown as a percentage of payroll and paid as part of the payroll reporting process and is included in the total compensation calculation.
	Employer Paid Member Contributions (EPMC) - is an employment benefit provided by some employers in which the employer agrees to pay some or all of the statutorily required employee contribution to the CalPERS system and is included in the total compensation calculation
Defined Contribution Plan	A retirement plan in lieu of a Defined Benefit Plan provided by the employer. The employer contribution is a set percentage of compensation which normally includes a vesting schedule which defines vesting in terms of percentages which are in turn determined based on the employee's number of years of service. The employer contribution is included in the total compensation calculation presuming 100% vesting.
Deferred Contribution Plan	Employer Contribution - Non-matching employer contributions or matching employer contributions based on mandated employee contributions are included in the total compensation calculations.
Health Benefits:	To find the value of employer contributions for health benefits, the employer's contributions to a flex plan and/or medical, dental, and vision premiums based on the maximum employer contributions for medical, dental and vision for a family plan (member + 2 or more dependents) were used in calculating total compensation.
Other Compensation	Additional compensation which can include differentials, allowances or other financial incentives that are paid in equal increments with the normal payroll process, one time lump sum compensation is not considered.

ADJUSTED TOTAL COMP WITH BONUS NOTES:

Arizona State Retirement System provides a bonus of up to 25% of base salary. **The figure included above** is not the **actual** bonus **amount received by any individual(s) during the last bonus round**; it represents the maximum possible bonus.

ERS of Texas provides a bonus of up to 70% of base salary. **The figure included above is not the actual bonus amount received by any individual(s) during the last bonus round**; it represents the maximum possible bonus. In addition, the figure above is for illustrative purposes only as this agency pays out the bonus over 3 years (Year 1: 50% of bonus; Year 2: 25% of bonus; Year 3: 25% of bonus. There are also clawback provisions).

San Bernardino ERS provides a bonus of up to 30% of base salary. **The figure included above** is not the **actual bonus amount received by any individual(s) during the last bonus round;** it represents the maximum possible bonus.

San Francisco ERS declined our requests for information on their bonus program

CPS HR CONSULTING

Client Benchmark: Investment Officer I

Data represented as Monthly values

Labor Market Agency	Comparable Classification Title	Base Salary Minimum	Base Salary Midpoint	Base Salary Maximum	Bandwidth	Deferred Comp ER Non-Matching Contribution	Total ER Health Contribution	ER Normal Cost Retirement Rate	Medicare	Social Security	Total Compensation (Median)	Adjusted Base Salary Maximum - Cost of Labor	Adjusted Total Comp - Cost of Labor	Adjusted Base Salary Maximum - Cost of Living	Adjusted Total Comp - Cost of Living	Adusted Total Comp- bonus	Total ER Benefit Expenses
Los Angeles City Employees Retirement System (LACERS)	Investment Officer I	$8,412.90	$10,355.61	$12,298.32	46.18%		$1,638.00	$811.69	$178.33		$14,926.33	$12,298.32	$14,926.33	$12,298.32	$14,926.33		$2,628.01
Alameda County Employees' Retirement Association	No Comparable Class																
Arizona State Retirement System	No Comparable Class																
Chicago Teachers' Pension Fund	No Comparable Class																
Contra Costa County Employees' Retirement Association	No Comparable Class																
Employees Retirement System of Texas	Portfolio Manager II	$7,699.00	$10,110.00	$12,521.00	62.63%		$1,220.00	$533.39	$181.55	$711.45	$15,167.40	$14,545.20	$16,395.96	$16,728.06	$20,263.65	$23,932.10	$2,646.40
Employees' Retirement System of the State of Hawaii	Investment Specialist	$4,968.00	$6,161.00	$7,354.00	48.03%		$1,386.00	$519.93	$106.63	$455.95	$9,822.51	$8,295.31	$11,079.79	$7,153.70	$10,097.54		$2,468.51
Orange County Employees Retirement System	Investment Officer	$7,014.25	$9,353.84	$11,693.42	66.71%		$1,592.00	$1,676.84	$169.55		$15,131.81	$12,044.22	$15,585.77	$13,295.42	$17,204.87		$3,438.39
Sacramento County Employees' Retirement System	No Comparable Class																
San Bernardino County Employees' Retirement Association	Investment Officer	$12,315.00	$13,771.67	$15,228.33	23.66%	$1,294.41	$1,189.00	$1,771.05	$220.81		$19,703.60	$16,233.40	$21,004.04	$19,385.66	$25,082.69		$4,475.27
San Diego City Employees' Retirement System	No Comparable Class																
San Diego County Employees Retirement Association	No Comparable Class																
San Francisco Employees' Retirement System	No Comparable Class																

	Minimum	Midpoint	Maximum	Bandwidth
Total Matches		4		
Base Salary Medians (Min, Mid, Max)	**$7,356.63**	**$9,731.92**	**$12,107.21**	**55.33%**
Base Salary Means (Min, Mid, Max)	**$7,999.06**	**$9,849.13**	**$11,699.19**	**50.26%**
Percentage Needed to Reach LM Median*	**-12.56%**	**-6.02%**	**-1.55%**	
Percentage Needed to Reach LM Mean*	**At Market**	**At Market**	**At Market**	

	Total Compensation (Median)	Adjusted Base Salary Maximum - Cost of Labor	Adjusted Total Comp - Cost of Labor	Adjusted Base Salary Maximum - Cost of Living	Adjusted Total Comp - Cost of Living
Total Compensation Median	**$15,149.61**	**$12,789.71**	**$15,990.86**	**$15,011.74**	**$18,734.26**
Total Compensation Mean	**$14,956.33**	**$12,527.03**	**$16,016.39**	**$14,140.71**	**$18,162.19**
Percentage Needed to Reach LM Median*	**1.50%**	**4.00%**	**7.13%**	**22.06%**	**25.51%**
Percentage Needed to Reach LM Mean*	**0.20%**	**1.86%**	**7.30%**	**14.98%**	**21.68%**

$3,042.40	**Total ER Benefit Exp. Median**
$3,257.14	**Total ER Benefit Exp. Mean**
15.77%	**Percentage Needed to Reach LM Median***
23.94%	**Percentage Needed to Reach LM Mean***

* Positive number represents client's salaries and/or benefits are below LM and need the indicated percentage to reach LM, negative number mean client is above the LM

DEFINITIONS:	
Base Salary	All data represented as Monthly based on agreed upon effective date
Minimum	Minimum represents the minimum of a pay range as reported by the surveyed agency
Midpoint	Midpoint represents the middle number in the pay range from minimum to maximum as reported by the surveyed agency
Maximum	Maximum represents the maximum of a pay range as reported by the surveyed agency
Range Bandwidth	Range Bandwidth represents the spread from minimum to maximum of a pay range as reported by the surveyed agency. CPS uses this to compare the client's range with market trends to optimize pay administration
Base Salary Medians	Base Salary Medians represent the median of salaries from all surveyed agencies in each of the category (minimum, midpoint & maximum)
Base Salary Means	Base Salary Means represent the average of salaries from all surveyed agencies in each of the category (minimum, midpoint & maximum)
Percentage Needed to Reach LM Median	Percentage Needed to Reach LM Median represents the percentage needed to bring client's salary to the labor market median in each category (minimum, midpoint & maximum)
Percentage Needed to Reach LM Mean	Percentage Needed to Reach LM Mean represents the percentage needed to bring client's salary to the labor market mean in each category (minimum, midpoint & maximum)
Additional Percentile (or Control Point)	Additional Percentile/Control Point represents the percentile of the labor market salary range (i.e. 60th, 70th, etc. designated by the client agency) and requested to be added to data set
Total Compensation	Additional compensation which may include differentials, allowances or financial incentives that are paid in equal increments with the normal payroll process and eligibility is not discretionary are reported and included in TC calculations; discretionary compensation and one time lump sum compensation are reported but not included in the
BASIC TOTAL COMPENSATION BENEFITS ELEMENTS:	
Retirement:	
Defined Benefit Plan	Employer Contribution - Normal Cost (NC) Rate, which represents the annual cost of service accrual for the upcoming fiscal year, for active employees. Normal cost is shown as a percentage of payroll and paid as part of the payroll reporting process and is included in the total compensation calculation.
	Employer Paid Member Contributions (EPMC) - is an employment benefit provided by some employers in which the employer agrees to pay some or all of the statutorily required employee contribution to the CalPERS system and is included in the total compensation calculation
Defined Contribution Plan	A retirement plan in lieu of a Defined Benefit Plan provided by the employer. The employer contribution is a set percentage of compensation which normally includes a vesting schedule which defines vesting in terms of percentages which are in turn determined based on the employee's number of years of service. The employer contribution is included in the total compensation calculation presuming 100% vesting.
Deferred Contribution Plan	Employer Contribution - Non-matching employer contributions or matching employer contributions based on mandated employee contributions are included in the total compensation calculations.
Health Benefits:	To find the value of employer contributions for health benefits, the employer's contributions to a flex plan and/or medical, dental, and vision premiums based on the maximum employer contributions for medical, dental and vision for a family plan (member + 2 or more dependents) were used in calculating total compensation.
Other Compensation	Additional compensation which can include differentials, allowances or other financial incentives that are paid in equal increments with the normal payroll process, one time lump sum compensation is not considered.

ADJUSTED TOTAL COMP WITH BONUS NOTES:

ERS of Texas provides a bonus of up to 70% of base salary. **The figure included above is not the actual bonus amount received by any individual(s) during the last bonus round**; it represents the maximum possible bonus. In addition, the figure above is for illustrative purposes only as this agency pays out the bonus over 3 years (Year 1: 50% of bonus; Year 2: 25% of bonus; Year 3: 25% of bonus. There are also clawback provisions).

San Bernardino ERS does not provide a bonus at this level.

Appendix B: Benefits Summary Tables

Table B-1: Retirement Contribution Practices and Social Security Participation

Agency	Retirement Plans			Participate in Social Security
	Type/Tier	Employer Normal Cost Contribution	Retirement Benefit Formula	
LACERS-Los Angeles City Employees' Retirement System	**Tier 1**	**6.60%**	**2.16% @ 60**	**NA**
ACERA – Alameda County Employees' Retirement Association	Tier 2[2]	9.34%	2.43% @ 65	6.2%
ASRS – Arizona State Retirement System	401(a)	12.04%	NA	6.2%
CTPF – Chicago Teachers' Pension Fund	Tier 1	20.71%	2.3% @ 62	NA
CCCERA – Contra Costa County Employees' Retirement Association	Tier 3[3]	15.18%	2.61% @ 65	NA
ERST – Employees Retirement System of Texas	Blended	4.26%[4]	2.3% @ 65	6.2%
HERS – Hawaii Employees' Retirement System	401(a)	7.07%	2.0% @ 55	6.2%
OCERS- Orange County Employees Retirement System	Plan I/J	14.34%	2.7% @ 55	NA
SCERS – Sacramento County Employees' Retirement System	Tier 3[5]	15.54%	2.61% @ 62	6.2%
SBCERA - San Bernardino County Employees' Retirement Association	Tier 1	11.63%	3.13% @ 65	NA
SDCERS - San Diego City Employee Retirement System	Old Plan	11.43%	2.55% @ 65	NA
SDCERA – San Diego County Employees' Retirement Association	General Tier A	15.80%[6]	3.0% @ 60	6.2%
SFERS – San Francisco Employees' Retirement System	Tier 1[7]	15.05%	2.3% @ 62	6.2%

[2] ACERA: Membership in General Tier 1 and Tier 2 was low with 34 active members and 45 active members, therefore used General Tier 3 with 6,229 active members.
[3] CCCERA: Membership in General Tier 1 and Tier 2 was low with 504 active members and 0 active members, therefore used General Tier 3 with 4,436 active members.
[4] ERST: This rate represents the blended rate of all retirement plans and tiers.
[5] SCERS: Membership in General Tier 1 was low with 133 active members, therefore used General Tier 2 with 5,659 active members.
[6] SDCERA: This rate represents the blended rate of all non-PEPRA tiers.
[7] SFERS: Tier 1 is pursuant to San Francisco City Charter Section 8.509.

Table B-2: Deferred Compensation Plans

Agency	Plan Type(s)	Employer Non-Matching Contribution Employee is either not required or is mandated to make a contribution to participate in the plan therefore being eligible to receive the employer contribution	Monthly Employer Matching Contribution Employee contribution is required to receive employer contribution
LACERS-Los Angeles City Employees' Retirement System	**457**	**No employer contribution**	**No employer contribution**
ACERA – Alameda County Employees' Retirement Association	Agency Did Not Respond		
ASRS – Arizona State Retirement System	Deferred Comp	No employer contribution	No employer contribution
CTPF – Chicago Teachers' Pension Fund	457	No employer contribution	No employer contribution
CCCERA – Contra Costa County Employees' Retirement Association	457	No employer contribution	$85, if EE contributes a qualifying base contribution and subsequent monthly contributions.
	457	No employer contribution	$150, if EE contributes $25/month and was hired on or after 1/1/2009.
ERST – Employees Retirement System of Texas	401(a)	No employer contribution	No employer contribution
HERS – Hawaii Employees' Retirement System	457	No employer contribution	No employer contribution
OCERS- Orange County Employees Retirement System	457	No employer contribution	No employer contribution
SCERS – Sacramento County Employees' Retirement System (Unit 50 Only)	401(a)	No employer contribution	1% match
SBCERA - San Bernardino County Employees' Retirement Association	401(k)	No employer contribution	2 times EE contribution, up to 8%
Sr. Investment Officer/Investment Officer	457(b)	No employer contribution	.5 times EE contribution, up to ½%
Chief Investment Officer	457(b)		1 times EE contribution, up to 1%
SDCERS - San Diego City Employee Retirement System	457/401(k)	No employer contribution	No employer contribution
SDCERA – San Diego County Employees' Retirement Association	457/401(k)	No employer contribution	No employer contribution
SFERS – San Francisco Employees' Retirement System	457	No employer contribution	No employer contribution

Table B-3: Health Plans Monthly Contributions

Agency	Monthly Employer (ER) Contribution				Total ER Contribution
	Flex Credits	Medical[8]	Dental	Vision[9]	
LACERS-Los Angeles City Employees' Retirement System		**$1,612.32**	**$16.78**	**$9.36**	**$1,638.46**
ACERA – Alameda County Employees' Retirement Association		$1,385.24	$61.94	$0.00	$1,447.18
ASRS – Arizona State Retirement System		$1,383.53[10]	$13.69	$0.00	$1,397.22
CTPF – Chicago Teachers' Pension Fund		$2,040.94	$156.96	$0.00	$2,197.90
CCCERA – Contra Costa County Employees' Retirement Association		$2,047.55	$93.00	$0.00	$2,140.55
ERST – Employees Retirement System of Texas		$1,219.52	$0.00	$0.00	$1,219.52
HERS – Hawaii Employees' Retirement System		$1,305.36	$71.40	$8.94	$1,385.70
OCERS- Orange County Employees Retirement System		$1,591.83	Agency did not respond		$1,591.83
SCERS – Sacramento County Employees' Retirement System		$1,569.04	$118.50	Inc. in med	$1,687.54
SBCERA - San Bernardino County Employees' Retirement Association		$1,174.19	$9.46	$5.78	$1,189.43
SDCERS - San Diego City Employee Retirement System	$1,791.67				$1,791.67
SDCERA – San Diego County Employees' Retirement Association	$1,608.00				$1,608.00
SFERS – San Francisco Employees' Retirement System		$2,090.68	$69.89	Inc. in med	$2,160.57

[8] Rates reflect the monthly maximum employer contribution to plans covering the employee plus two or more dependents in the HMO plan.
[9] Zero amount indicates that the agency does not contribute to vision coverage, the employee pays the full cost.
[10] Arizona does not have an HMO plan; the contribution amount is for the Exclusive Provider Organization (EPO) and Preferred Provider Organization (PPO) plans.

Table B-4: Investment Certification Differential Pay and Performance Incentive Pay

Agency	Investment Certification Pay		Performance Incentive Pay
	Amount	Type of Certification	Terms/Administration for Earning Bonus
LACERS-Los Angeles City Employees' Retirement System		**NA**	**NA**
ACERA – Alameda County Employees' Retirement Association		NA	Agency did not respond
ASRS – Arizona State Retirement System		NA	Yes, policy provided.
CTPF – Chicago Teachers' Pension Fund		NA	NA
CCCERA – Contra Costa County Employees' Retirement Association		NA	NA
ERST – Employees Retirement System of Texas		NA	Yes, policy provided.
HERS – Hawaii Employees' Retirement System		NA	NA
OCERS- Orange County Employees Retirement System	5.5% increase in base compensation	Charter Financial Analyst (CFA) Certification on top of base salary for all Investment classifications.	Agency did not respond
SBCERA - San Bernardino County Employees' Retirement Association		NA	Yes, policy provided.
SCERS – Sacramento County Employees' Retirement System		NA	NA
SDCERS - San Diego City Employee Retirement System		NA	NA
SDCERA – San Diego County Employees' Retirement Association		NA	NA
SFERS – San Francisco Employees' Retirement System		NA	Yes, Agency indicated they do not share information on their investment incentive program.

Appendix C: Salary Recommendations

Median

LACERS Classifications	LACERS Max Salary (step 12)	Percent Differential between classes	# of Matches	Total Compensation Market Median Percentage	LACERA Total Comp Max	Total Comp Labor Market Median	Maximum Monthly Salary Recommendation	Dollar Difference Recom. - Max Salary & Actual Salary	Differential between classes	Rationale for Salary Recommendation
Chief Investment Officer	$23,068.92	19.74%	12	20.79%	$26,563.97	$32,087.27	$27,864.95	$4,796.03	39.40%	Set consistent with the benchmark data
Investment Officer III	$19,265.28	25.72%	4	3.76%	$22,454.14	$23,297.82	$19,989.65	$724.37	29.90%	Set consistent with the benchmark data
Investment Officer II	$15,324.18	24.60%	11	0.42%	$18,195.78	$18,272.04	$15,388.54	$64.36	23.28%	Set consistent with the benchmark data
Investment Officer I	$12,298.32	--	4	1.50%	$14,926.33	$15,149.61	$12,482.79	$184.47	--	Set consistent with the benchmark data

Median-Cost of Wages

LACERS Classifications	LACERS Max Salary (step 12)	Percent Differential between classes	# of Matches	Adjusted Cost of Labor Total Compensation Market Median Percentage	LACERS Total Compensation Max	Adjusted Cost of Labor Total Compensation Labor Market Median	Adjusted Cost of Labor Maximum Monthly Salary Recommendation	Dollar Difference Recom. - Max Salary & Actual Salary	Differential between classes	Rationale for Salary Recommendation
Chief Investment Officer	$23,068.92	19.74%	12	23.12%	$26,563.97	$32,704.28	$28,402.45	$5,333.53	37.50%	Set consistent with the benchmark data
Investment Officer III	$19,265.28	25.72%	4	7.22%	$22,454.14	$24,075.15	$20,656.23	$1,390.95	30.32%	Set consistent with the benchmark data
Investment Officer II	$15,324.18	24.60%	11	3.43%	$18,195.78	$18,820.20	$15,849.80	$525.62	20.30%	Set consistent with the benchmark data
Investment Officer I	$12,298.32	--	4	7.13%	$14,926.33	$15,990.86	$13,175.19	$876.87	--	Set consistent with the benchmark data

Median-Cost of living

LACERS Classifications	LACERS Max Salary (step 12)	Percent Differential between classes	# of Matches	Adjusted Cost of Living Total Compensation Market Median Percentage	LACERS Total Compensation Max	Adjusted Cost of Labor Total Compensation Labor Market Median	Adjusted Cost of Labor Maximum Monthly Salary Recommendation	Dollar Difference Recom. - Max Salary & Actual Salary	Differential between classes	Rationale for Salary Recommendation
Chief Investment Officer	$23,068.92	19.74%	12	40.10%	$26,563.97	$37,216.44	$32,319.56	$9,250.64	47.20%	Set consistent with the benchmark data
Investment Officer III	$19,265.28	25.72%	4	13.97%	$22,454.14	$25,590.12	$21,956.64	$2,691.36	34.44%	Set consistent with the benchmark data
Investment Officer II	$15,324.18	24.60%	11	6.58%	$18,195.78	$19,392.54	$16,332.51	$1,008.33	5.81%	Set consistent with the benchmark data
Investment Officer I	$12,298.32	--	4	25.51%	$14,926.33	$18,734.26	$15,435.62	$3,137.30	--	Set consistent with the benchmark data

Appendix D: Job Matching Tables-with incentive pay

Please note that spreadsheets have been provided as a separate attachment to LACERS for ease of viewing.

LACERS Total Compensation **Level - Executive Management**
Job Match Data
As of: Thursday, November 19, 2020

Labor Market Agency	LACERS Benchmark	LMA Classification	Monthly Min	Monthly Max	Bonus	Bonus Amount*	Match Qualification	Justifications	Comments
LACERS	**Chief Investment Officer**	**N/A**	$ 15,780.06	$ 23,068.92			**N/A**	**N/A**	**N/A**
Arizona State ERS	Chief Investment Officer	Chief Investment Officer	$ 8,038.33	$ 16,785.13	**Up to 25%**	**$4,196.28**	Eight + yrs. of investment mgt. exper	Chief Investment Officer is member of the (	Match at Executive Management level
Alameda ERS	Chief Investment Officer	Chief Investment Officer	$ 16,128.67	$ 25,786.80			Equivalent to Bachelor's (180 quarte	Focuses on implementing ACERA investme	Match at Executive Management level
Chicago Teachers 'Pension Fund	Chief Investment Officer	Chief Investment Officer	$ 19,436.75	$ 33,042.50			MBA, Master's Degree, or Doctorate [illegible]	[illegible] asset allocation, risk assessment, and performa	Match at Executive Management level
Contra Costa ERA	Chief Investment Officer	Chief Investment Officer	$ 19,883.00	$ 25,848.00			Bachelor's from an accredited college	Executive management level class responsi	Match at Executive Management level
ERST - ERS of Texas	Chief Investments Officer	CIO-Director of Investments	No min specified	$ 37,500.00	**100% (paid over 3 yrs.: Year 1: 50%; Year 2: 25%; Year 3:25%)**	**$ 37,500.00**	Fifteen years experience managing in[illegible] pension plan that intern	[illegible]	Match at Executive Management level
Hawaii State ERS	Chief Investment Officer	Chief Investment Officer	No min specified	$ 22,084.00			Bachelor's in business administration	Responsible for the formulation of	Match at Executive Management level
Nevada PERS[1]	Chief Investment Officer	Chief Investment Officer	No min specified	$ 13,101.90			Oversees all aspects of PERS' investm	Only allocated investment position at NVPE	CIO has zero direct and indirect reports..
Orange County ERS	Chief Investment Officer	Chief Investment Officer	$ 18,385.92	$ 27,578.92			Bachelor's AND Master's Degree in E	Executive management level class responsi	Match at Executive Management level
Oregon ERS*	Chief Investment Officer	DNA	DNA	DNA			DNA	DNA	DNA
Sac County ERS	Chief Investment Officer	Chief Investment Officer-Retirement	$ 17,955.08	$ 21,824.83			The Chief Investment Officer (CIO) is	Exec Retirement Agency leadership to adm	Match at Executive Management level
San Bernardino ERS	Chief Investment Officer	Chief Investment Officer	$ 20,173.33	$ 24,953.33	**Up to 50%**	**$12,476.67**	No MQ's for this class	CIO has the responsibility to manage the SE	Match at Executive Management level
San Diego City ERS	Chief Investment Officer	Chief Investment Officer	$ 3,096.00	$ 18,427.08			No MQ's for this class	Exec leadership responsible for overseeing	Match at Executive Management level
San Diego County ERA[2]	Chief Investment Officer	Retirement Chief Investment Officer	$ 13,485.33	$ 34,503.74			Bachelor's in finance, accounting, eco	Manages the fund's investment staff; coord	Match at Executive Management level
San Francisco ERS	Chief Investment Officer	Chief Investment Officer	$ 22,891.00	$ 29,220.00	**Agency will not release information on bonuses**		Bachelor's in economics, banking or f	Directs the activities of the Investment Divi	Match at Executive Management level

Matches Found - 11
* No Comparable Comparison = NCC
* Data Not Available = DNA
* Please note: Oregon State Employees' Retirement System chose early in the study not to participate, thus no data is available for this labor market agency.
* Bonus Amount - Based upon monthly salary max and represents max bonus available; pls note that bonus factors vary and are weighted differently between agencies providing bonuses.
1- NVPERS- Investment activities are contracted out to an asset management firm. NPERS's Investment division includes one permanent allocation.
2- SDCERA - Majority of investment activities are contracted out to an asset management firm. SDCERA's Investment division includes two permanent allocations.

LACERS Total Compensation — **Level: Senior/Supervisory level**

Job Match Data

As of: Thursday, November 19, 2020

Labor Market Agency	LACERS Benchmark	LMA Classification	Monthly Min	Monthly Max	Bonus	Bonus Amount*	Match Qualification	Justifications	Comments
LACERS	**Investment Officer III**	**N/A**	$ 13,177.02	$ 19,265.28			**N/A**	**N/A**	**N/A**
Arizona State ERS	Investment Officer III	NCC	NCC	NCC	**NCC**	**NCC**	NCC	NCC - No match with Supervisory respor	No Match - no supervisory role
Alameda ERS	Investment Officer III	Investment Operations Officer	$ 11,483.33	$ 14,930.93			Equivalent of five years of full-time expe	Reports to Chief Investment Officer, ACE	Match at Senior Level with Supervisory responsi
Chicago Teachers 'Pension Fund	Investment Officer III	NCC	NCC	NCC			NCC	NCC	NCC - No classification between Investment Portfolio Manager and the Chief Investment officer.
Contra Costa ERA	Investment Officer III	NCC	NCC	NCC			NCC	NCC - No Supervisory level class at CCCE	No Match - no supervisory role
ERST - ERS of Texas	Investment Officer III	Supervising Portfolio Manager	$ 11,272.00	$ 19,065.00	**80% (paid over 3 yrs.: Year 1: 50%; Year 2: 25%; Year 3:25%)**	**$ 15,252.00**	Seven years of equity research and/or p… t. Experience in making oral presentations as part of regular duties. Expe	Performs highly advanced and complex…	Match at Senior Level with Supervisory responsibility
Hawaii State ERS	Investment Officer III	NCC	NCC	NCC			NCC	NCC - No supervisory class at HERS; all	No Match - no supervisory role
Nevada PERS	Investment Officer III	NCC	NCC	NCC			NCC	NCC - No match with Supervisory respor	No Match - only allocated position is CIO
Orange County ERS	Investment Officer III	NCC	NCC	NCC			NCC	NCC - No match with Supervisory respor	All positions report directly to OCERS CIO
Oregon ERS*	Investment Officer III	DNA	DNA	DNA			DNA	DNA	DNA
Sac County ERS	Investment Officer III	Assistant Retirement Administrator-Investme	$ 15,418.17	$ 18,739.83			Under the supervision and direction of t	Substantial responsibility for	SCERS only has one comparable position, which
San Bernardino ERS	Investment Officer III	NCC	NCC	NCC	**NCC**	**NCC**	NCC	NCC	No Match - no supervisory role
San Diego City ERS	Investment Officer III	NCC	NCC	NCC			NCC	NCC	No Match - no supervisory role
San Diego County ERA	Investment Officer III	NCC	NCC	NCC			NCC	NCC	No Match - no supervisory role
San Francisco ERS	Investment Officer III	Director	$ 15,754.00	$ 20,102.00	**Agency will not release information on bonuses**		Bachelor's in Finance, Economics, Bus A	Oversees a large portfolio of pension pla	Match at Senior Level with Supervisory responsi

Matches Found = 4

* No Comparable Comparison = NCC

* Data Not Available = DNA

* Please note: Oregon State Employees' Retirement System chose early in the study not to participate, thus no data is available for this labor market agency.

* Bonus Amount - Based upon monthly salary max and represents max bonus available; pls note that bonus factors vary and are weighted differently between agencies providing bonuses.

1- NVPERS- Investment activities are contracted out to an asset management firm. NPERS's Investment division includes one permanent allocation.

2- SDCERA - Majority of investment activities are contracted out to an asset management firm. SDCERA's Investment division includes two permanent allocations.

LACERS Total Compensation Level: Advanced Journey
Job Match Data
As of: Monday, November 1, 1920

Labor Market Agency	LACERS Benchmark	LMA Classification	Monthly Min	Monthly Max	Bonus	Bonus Amount*	Match Qualification	Justifications	Comments
LACERS	**Investment Officer II**		$ 10,480.02	$ 15,324.18					
Arizona State ERS	Investment Officer II	Equity Portfolio Manager/Private Assets	$ 6,050.00	$ 11,015.00	Up to 25% (only if class is eligible to participate in the Incentive Compensation Plan).	$2,753.75	Bachelor’s degree in business, finance, economics, or equivalent certification and	The Equity Portfolio Manager is directly responsible for the co-management of the	Match at Advanced Journey Level
Alameda ERS	Investment Officer II	Investment Officer	$ 6,810.27	$ 11,576.93			Bachelor's degree in Finance, Economics or i	Conducts complex research and analysis re	Match at Advanced Journey Level
Chicago Teachers' Pension Fund	Investment Officer II	Investment Portfolio Manager	$ 7,177.00	$ 10,765.00			Bachelor’s Degree in Finance, Economics, or Accounting required	Under the direct supervision of the Chief In	Match at Advanced Journey Level
Contra Costa ERA	Investment Officer II	Investment Officer	$ 14,893.00	$ 18,102.00			Bachelor's with major course work in accour	Provides analytical and technical support f	Match at Advanced Journey Level
ERST - ERS of Texas	Investment Officer II	Portfolio Manager III	$ 9,316.00	$ 15,756.00	70% (paid over 3 yrs.: Year 1: 50%; Year 2: 25%; Year 3:25%)	$ 11,029.20	Graduation from an accredited college or un	Performs advanced investment research, d	Match at Advanced Journey Level
Hawaii State ERS	Investment Officer II	Investment Officer	$ 7,500.00	$ 11,666.67			Bachelor's preferably in accounting, finance,	Primary functions are to: Design the	Match at Advanced Journey Level
Nevada PERS	Investment Officer II	NCC	NCC	NCC			NCC	NCC	CIO is only allocated position at NVPERS
Orange County ERS	Investment Officer II	Senior Investment Officer	$ 9,340.08	$ 14,405.42			Provides expert analytical and technical supp	Provides high degree of knowledge in pens	Match at Advanced Journey Level
Oregon ERS*	Investment Officer II	DNA	DNA	DNA			DNA	DNA	DNA
Sac County ERS	Investment Officer II	Retirement Investment Officer	$ 10,422.58	$ 11,489.25			Five years of progressively responsible profe	Monitors, analyzes and reports on investm	Match at Advanced Journey Level
San Bernardino ERS	Investment Officer II	Senior Investment Officer	$ 15,228.33	$ 18,851.67	Up to 30%	$5,655.50	Extensive professional investment experienc	Advanced Journey level responsible for co	Despite the "Senior" title, this position does n
San Diego City ERS	Investment Officer II	Assistant Investment Officer	$ 4,192.00	$ 15,413.00			Bachelor's; MBA/CFA preferred.	Sr. Investment Officer (Private Markets) ar	Match at Advanced Journey Level
San Diego County ERA	Investment Officer II	NCC	NCC	NCC			NCC	2019 CAFR - SDCERA hires external asset m	No Match at Advanced Journey Level
San Francisco ERS	Investment Officer II	Senior Portfolio Manager	$ 12,957.00	$ 16,538.00	Agency will not release information on bonuses		Bachelor's in Finance, Economics, Bus Admin	Oversees large portfolio of pension plan	Match at Advanced Journey Level

Matches Found = 11
* No Comparable Comparison = NCC
* Data Not Available = DNA
* Please note: Oregon State Employees' Retirement System chose early in the study not to participate, thus no data is available for this labor market agency.
* Bonus Amount - Based upon monthly salary max and represents max bonus available; pls note that bonus factors vary and are weighted differently between agencies providing bonuses.

1- NVPERS- Investment activities are contracted out to an asset management firm. NPERS's Investment division includes one permanent allocation.
2- SDCERA - Majority of investment activities are contracted out to an asset management firm. SDCERA's Investment division includes two permanent allocations.

LACERS Total Compensation **Level: Journey**
Job Match Data
As of: Thursday, November 19, 2020

Labor Market Agency	LACERS Benchmark	LMA Classification	Monthly Min	Monthly Max	Bonus	Bonus Amount*	Match Qualification	Justifications	Comments
LACERS	**Investment Officer I**	**N/A**	$ 8,412.90	$ 12,298.32			**N/A**	**N/A**	**N/A**
Arizona State ERS	Investment Officer I	NCC	NCC	NCC	**NCC**	**NCC**	NCC	NCC	No comparable match - ASERS has lower
Alameda County ERA	Investment Officer I	NCC	NCC	NCC			NCC	NCC	No comparable match
Chicago Teachers 'Pension Fund	Investment Officer I	NCC	NCC	NCC			NCC	NCC	No comparable match
Contra Costa ERA	Investment Officer I	NCC	NCC	NCC			NCC	NCC	No comparable match
ERST - ERA of Texas	Investment Officer I	Portfolio Manager II	$ 7,699.00	$ 12,521.00	**70% (paid over 3 yrs.: Year 1: 50%; Year 2: 25%; Year 3: 25%)**	**$ 8,764.70**	Graduation from an accredited four-yea	Performs complex portfolio management	Match at Journey Level
Hawaii State ERS	Investment Officer I	Investment Specialist	$ 4,968.00	$ 7,354.00			Bachelor's degree with at least 12 seme	Class manages portfolio and facilitates	Match at Journey Level
Nevada PERS	Investment Officer I	NCC	NCC	NCC			NCC	NCC	CIO is only allocated position at NVPERS
Orange County ERS	Investment Officer I	Investment Officer	$ 7,014.25	$ 11,693.42			Provides expert analytical and technica	Provides analytical-research and recomm	Match at Journey Level
Oregon ERS*	Investment Officer I	DNA	DNA	DNA			DNA	DNA	DNA
Sac County ERS	Investment Officer I	NCC	NCC	NCC			NCC	NCC	No comparable match at Journey level -
San Bernardino ERS	Investment Officer I	Investment Officer	$ 12,315.00	$ 15,228.33	**Bonus not offered at Investment Officer I Level**		Substantial professional investment exp	Class performs independent level researc	Match at Journey Level
San Diego City ERS	Investment Officer I	NCC	NCC	NCC			NCC	NCC	No comparable match
San Diego County ERA	Investment Officer I	NCC	NCC	NCC			NCC	NCC	No comparable match
San Francisco ERS	Investment Officer I	NCC	NCC	NCC	**Agency will not release information on bonuses**		NCC	NCC	No comparable match

Matches Found = 4

* No Comparable Comparison = NCC
* Data Not Available = DNA
* Please note: Oregon State Employees' Retirement System chose early in the study not to participate, thus no data is available for this labor market agency.
* Bonus Amount - Based upon monthly salary max and represents max bonus available; pls note that bonus factors vary and are weighted differently between agencies providing bonuses.
1- NVPERS- Investment activities are contracted out to an asset management firm. NPERS's Investment division includes one permanent allocation.
2- SDCERA - Majority of investment activities are contracted out to an asset management firm. SDCERA's Investment division includes two permanent allocations.

REPORT TO BOARD OF ADMINISTRATION **MEETING: OCTOBER 12, 2021**
From: Neil M. Guglielmo, General Manager **ITEM: VI – A**

SUBJECT: **DETERMINATION REGARDING TELECONFERENCING FOR BOARD MEETINGS PURSUANT TO AB 361 AND POSSIBLE BOARD ACTION**

ACTION: ☒ CLOSED: ☐ CONSENT: ☐ RECEIVE & FILE: ☐

Recommendation

That the Board approve continuing to hold LACERS Board and Committee meetings via teleconference and/or videoconference, under Government Code Section 54953(e)(1)(B)-(C).

Discussion

LACERS is committed to preserving public access and participation in meetings of the Board of Administration. All LACERS Board and Committee meetings are open and public, as required by the Ralph M. Brown Act (Cal. Gov. Code 54950 – 54963), so that any member of the public may attend and participate as the LACERS Board and Committees conduct their business. The Brown Act, Government Code Section 54953(e), makes provisions for remote teleconferencing participation in meetings by members of a legislative body, subject to the existence of certain conditions. The COVID-19 State of Emergency proclaimed by the Governor on March 4, 2020 remains active, and COVID-19 remains a public health concern in Los Angeles, with high levels of community transmission.

Strategic Plan Impact Statement

The Board's action on this item aligns with the LACERS Strategic Plan Goal to uphold good governance practices which affirm transparency, accountability, and fiduciary duty.

Prepared By: Ani Ghoukassian, Commission Executive Assistant II

NMG/AG

Attachment: Proposed Resolution

CONTINUE HOLDING LACERS BOARD AND COMMITTEE MEETINGS
VIA TELECONFERENCE AND/OR VIDEOCONFERENCE

PROPOSED RESOLUTION

WHEREAS, LACERS is committed to preserving public access and participation in meetings of the Board of Administration; and

WHEREAS, all LACERS Board and Committee meetings are open and public, as required by the Ralph M. Brown Act (Cal. Gov. Code 54950 – 54963), so that any member of the public may attend and participate as the LACERS Board and Committees conduct their business; and

WHEREAS, the Brown Act, Government Code Section 54953(e), makes provisions for remote teleconferencing participation in meetings by members of a legislative body, subject to the existence of certain conditions; and

WHEREAS, the COVID-19 State of Emergency proclaimed by the Governor on March 4, 2020 remains active; and

WHEREAS, COVID-19 remains a public health concern in Los Angeles, with high levels of community transmission.

NOW THEREFORE, BE IT RESOLVED that pursuant to Government Code Section 54953(e)(1)(B)-(C), the Board finds that holding Board and Committee meetings in person would present imminent risks to the health or safety of attendees.

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Board Mtg: 10/12/2021
Item: VIII-A

FIDUCIARY LEADERSHIP IN CONTRACTS AND INVESTMENTS

Part I: Ethical Contract Compliance Policy and the Ethics Ordinance, LAMC 49.5.11(A)

Part II: The Prudent Expert Rule and Principles of Prudent Delegation (Part 1)

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Public Pensions General Counsel Division

October 12, 2021

Learning Objectives

After this training, you will:

- ❑Foresee the legal and ethical lines in contacts with contractors and gracefully avoid them.
- ❑Understand the fiduciary principles governing investment decisions, including the prudent expert rule and prudent delegation.
- ❑Apply those fiduciary principles and legal rules to Board decisions regarding contracts and investments.

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OVERVIEW

1. Ethical Contract Compliance Policy (formerly known as the Marketing Cessation Policy)
2. Ethics Ordinance, LAMC 49.5.11(A)
3. The Prudent Expert Rule
4. Principles of Prudent Delegation
5. Hypothetical!

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1. Ethical Contract Compliance Policy

(fka Marketing Cessation Policy)

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Board Policy Rationale

- ✓ To support a transparent and fair contracting process which provides equal information and opportunity to all parties interested in contracting with LACERS.

- ✓ To avoid the appearance of undue influence on the Board, Board members, Staff, and Consultants, in the award of contracts, by restricting communications between parties seeking contracts and those involved in awarding contracts.

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An Important Component Of:

- ✓ Ethics responsibilities for Board Members, Staff, and Consultants
- ✓ Board Administrative Policy, and is
- ✓ Aligned with the City's Governmental Ethics Ordinance Section 49.5.11(A)

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Ethical Contract Compliance Policy Requirements

- Applies to firms seeking new contracts/new investment commitment from LACERS
- Applies to contract renewals/additional commitments
- Prohibits direct marketing contact and gifts/entertainment
- Prohibits communications unless they fall within an exception

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Ethical Contract Compliance Policy: Restricted Time Period

- For new public market investment and other services contracts: from time RFP is published until contract is awarded.
- For incumbent contractors: 3 months prior to renewal or from time RFP is published until contract is awarded, whichever is longer.
- For firms seeking agreements not subject to RFP (e.g. PE, RE): any time GP is accepting investments.

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Ethical Contract Compliance Policy: Permitted Contacts

- Communications with Staff about generic topics at group events or conferences
- Communications with Staff and current contractors related to the existing contract.
- Communications initiated by Staff with firms for due diligence or research.
- Communications initiated by Staff with firms that were not subject to a competitive proposal process (e.g. private equity) where contract negotiations are necessary prior to execution of a final agreement.
- Communications initiated by Staff with a firm that is actively negotiating a contract with LACERS for the purposes of collecting documentation necessary for the execution of the final agreement

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CONTRACT RENEWALS AND ADDITIONAL COMMITMENTS

- Covers 3 months prior to renewal or any time firm is raising a new fund or open to new investors
  - no entertainment or gifts can be accepted
  - Only Staff and consultant, not Board members, may have contact with current contractors, and contact must fall within one of the exceptions for permitted contacts.

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What About Contacts with Private Equity and Real Estate Managers?

- Different from RFP process
- Options to consider:
  - Avoid any contact with Private Equity Fund Managers or Real Estate Managers
  - Ask “Are you raising money for a fund?” If yes, do not discuss investment opportunity

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Required Disclosures by RFP Respondents

- File contact statement listing all contacts with Board members, Staff, and Consultants during restricted period
- Disclose any personal or business relationship between respondent's personnel and any Board member, Staff, or Consultants (Form 700 filers in the LACERS Conflict of Interest Code.
- Disclose any payments for marketing or placement services

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Things to Keep In Mind

- Firms subject to policy named in monthly Board report
- No exceptions to policy for Board contact with firms (per Ethics Ordinance)
- Any violation of policy results in automatic disqualification of firm

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What should you do if…

A fixed income manager approaches you at a conference to discuss services their firm could provide to LACERS. You vaguely recall that the Board recently approved an RFP for those services.

A. Throw your drink on him and run.
B. Listen to the pitch, ask lots of smart questions, and then refer the manager to the CIO.
C. Tell him that LACERS policies and City ethics laws prevent your discussing the firm’s proposal outside of a Board meeting, but offer to refer him to the CIO or General Fund Consultant and tell him all current opportunities are posted at lacers.org.
D. If you are impressed, call the CIO and order him to hire the firm immediately.

2. Ethics Ordinance Sec. 49.5.11(A)

LAMC 49.5.11(A)

Except at a public meeting, a member of a City board or commission ***shall not participate*** in the development, review, evaluation, or negotiation of or the recommendation process for bids, proposals, or any other requests for the award or termination of a contract, amendment, or change order involving that board, commission, or agency….

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But What About the Board Packet?

LAMC 49.5.11(A) *continued*

….This does not preclude individual members from reviewing documents and other information provided by agency staff when preparing for a public meeting at which the matter will be considered.

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Policy Rationales

- Transparency
- Fairness & Integrity
- Public confidence in government contracts
- Preventing undue influence
- Equal access to information for all Commissioners

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Recusal to Serve Public Interest

- Charter Section 222 authorizes City Attorney to provide written advice "where it would violate state law *or where it may not be in the public interest*" for a Commissioner "*to act in a particular matter, contract, sale or transaction.*"

- City Attorney has advised Commissioners recuse for violation of LAMC 49.5.11(A)

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City Ethics Commission

- Investigates alleged violations of state law, Charter, and City ordinances relating to ethics (Charter 706, LAAC Div. 24)
- Violations include “aiding and abetting”
- May issue formal or informal advice
- Investigations, hearings, referrals
- Enforcement authority: orders, penalties

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What should you do if…

Your old college roommate mentions at your kid's birthday party that he has recently joined a hot venture capital firm?

A. Do you want another beer?
B. What can I do to get LACERS into the fund?
C. Tell him Commissioners cannot get involved in investment contracts outside of public meetings but offer to refer him to the CIO or Private Equity Consultant.
D. To help your friend, you call the CIO and order him to hire the firm immediately.

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Questions?

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Something to look forward to on November 9, 2021...

Part II

3. The Prudent Expert Rule

4. Principles of Prudent Delegation

5. Hypothetical!

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THANK YOU!

More questions?
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