

IN PERSON & VIRTUAL BOARD MEETING

*The Board meeting will be held after the Committee meeting scheduled prior.



TO VIEW VIA WEB



TO PROVIDE PUBLIC COMMENT

Members of the public may address the Board orally and in writing. To provide Public Comment, you should visit the above link and complete the request form by selecting whether you will provide oral or written comment from the options located under Options next to the Board meeting.

Attention: If you have any questions, you may email PublicComment@lacera.com. If you would like to make a public comment during the board meeting, review the [Public Comment instructions](#).

AGENDA

A REGULAR MEETING OF THE BOARD OF INVESTMENTS

LOS ANGELES COUNTY EMPLOYEES RETIREMENT ASSOCIATION

300 N. LAKE AVENUE, SUITE 810, PASADENA, CA 91101

9:00 A.M., WEDNESDAY, DECEMBER 13, 2023*

This meeting will be conducted by the Board of Investments both in person and by teleconference under California Government Code Section 54953 (f).

Any person may view the meeting in person at LACERA's offices or online at <https://LACERA.com/leadership/board-meetings>

The Board may take action on any item on the agenda, and agenda items may be taken out of order.

- I. CALL TO ORDER
- II. PLEDGE OF ALLEGIANCE
- III. PROCEDURE FOR TELECONFERENCE MEETING ATTENDANCE UNDER AB 2449, California Government Code Section 54953(f)
 - A. Just Cause
 - B. Action on Emergency Circumstance Requests
 - C. Statement of Persons Present at AB 2449 Teleconference Locations
- IV. APPROVAL OF MINUTES
 - A. Approval of the Minutes of the Regular Meeting of November 8, 2023
- V. PUBLIC COMMENT
(Members of the public may address the Board orally and in writing. To provide Public Comment, you should visit <https://LACERA.com/leadership/board-meetings> and complete the request form by selecting whether you will provide oral or written comment from the options located under Options next to the Board meeting.

If you select oral comment, we will contact you via email with information and instructions as to how to access the meeting as a speaker. You will have up to 3

V. PUBLIC COMMENT (Continued)

minutes to address the Board. Oral comment request will be accepted up to the close of the Public Comment item on the agenda.

If you select written comment, please input your written public comment or documentation on the above link as soon as possible and up to the close of the meeting. Written comment will be made part of the official record of the meeting. If you would like to remain anonymous at the meeting without stating your name, please leave the name field blank in the request form. If you have any questions, you may email PublicComment@lacera.com.)

VI. EXECUTIVE UPDATE

- A. Chief Investment Officer's Report
- B. Member Spotlight
- C. Chief Executive Officer's Report

VII. CONSENT ITEMS

A. **Revised Trustee Education and Travel Policies**

Recommendation as submitted by Herman B. Santos, Chair, Joint Organizational Governance Committee: That the Board approve the revised Trustee Education and Travel Policies.
(Memo dated November 17, 2023)

B. **Document Processing Center Classification and Compensation Study**

Recommendation as submitted by Herman B. Santos, Chair, Joint Organizational Governance Committee: That the Board approve the proposed classification and compensation changes be approved for implementation, including prompt incorporation of the changes into the County Salary Ordinance: Title change, description revision and salary change for the Document Processing Coordinator, LACERA classification, and Title change, description revision and salary change for the Document Processing Assistant, LACERA classification.
(Memo dated November 17, 2023)

VII. CONSENT ITEMS (Continued)

C. **Chief Executive Officer Salary Designation Authority Upon Appointment of External Candidates**

Recommendation as submitted by Herman B. Santos, Chair, Joint Organizational Governance Committee: That the Board approve amendments to the LACERA portion of the Los Angeles County Salary Ordinance, Sections 6.127.040 M 1 for Tier I and 6.127.040 P 1 for Tier II, to permit LACERA's Chief Executive Officer (CEO) to designate a Salary upon appointment of persons not employed by the County or LACERA to positions at any rate or step within the applicable Salary range, provided that for Tier I, as is currently provided for Tier II, the CEO makes a written finding based on factors to justify hiring above the minimum Salary range and with periodic reporting to the Boards, and further recommend implementation of the amendments.

(Memo dated November 17, 2023)

D. **2024 Infrastructure Investor Global Summit in Berlin, Germany March 18 - 21, 2024**

Recommendation that the Board approve attendance of Trustees at the 2024 Infrastructure Investor Global Summit in Berlin, Germany on March 18 - 21, 2024, and approve reimbursement of all travel costs incurred in accordance with LACERA's Trustee Education and Trustee Travel Policies. (Memo dated December 1, 2023)

VIII. EXCLUDED FROM CONSENT ITEMS

IX. NON-CONSENT ITEMS

A. **Revised Board of Investments Charter**

Recommendation as submitted by Jonathan Grabel, Chief Investment Officer, Steven P. Rice, Chief Counsel and Scott Zdrzil, Principal Investment Officer: That the Board approve a revised Board of Investments Charter. (Memo dated November 30, 2023)

IX. NON-CONSENT ITEMS (Continued)

B. Hedge Funds, Credit, and Real Assets Consultant(s)– Request for Proposal, Minimum Qualifications, And Scope of Work

Recommendation as submitted by the Hedge Funds, Credit, and Real Assets Consultant(s) Search Evaluation Team: That the Board approve the proposed hedge funds, credit, and real assets consultant(s) search Minimum Qualifications, Evaluation Criteria, and Scope of Work. (Memo dated November 16, 2023)

C. OPEB Trust Investment Policy Statement: Delegated Authority Revisions

Recommendation as submitted by Jonathan Grabel, Chief Investment Officer, Jude Pérez, Deputy Chief Investment Officer, Esmeralda del Bosque, Principal Investment Officer, Tim Filla, Managing Principal of Meketa Investment Group: That the Board approve the redlined OPEB Trust Investment Policy Statement. (Memo dated November 29, 2023)

D. 2023 Actuarial Valuation of Retirement Benefits

Recommendation as submitted by Santos H. Kreimann, Chief Executive Officer and Ted Granger, Interim Chief Financial Officer: That the Board 1) Accept the June 30, 2023 Actuarial Valuation of Retirement Benefits as submitted by the Plan's consulting actuary, Milliman, and 2) Adopt recommended employer contribution rates (all plan tiers) and employee contribution rates (PEPRA plans - General Plan G and Safety Plan C), and 3) Delegate authority to the Chief Executive Officer to communicate the results of the 2023 Actuarial Valuation of Retirement Benefits to the Board of Supervisors on or before May 15, 2024, with a recommendation to implement the employer and employee rates no later than September 29, 2024. (Memo dated November 30, 2023)

E. Information Systems Acceptable Use and Mobile Device Policies for Trustees

Recommendation as submitted by Herman B. Santos, Chair, Joint Organizational Governance Committee: That the Board the Acceptable Use Bring Your Own Device (BYOD) Policy.

IX. NON – CONSENT ITEMS (Continued)

(Memo dated November 17, 2023) (Supplemental Memo dated December 6, 2023) (Confidential Attachment - Privileged and Confidential Attorney-Client Communication/Attorney Work Product)

F. **Chief Executive Officer Compensation**

Recommendation as submitted by Shawn Kehoe, Chair, Board of Retirement and Gina Sanchez, Chair, Board of Investments: That the Board discuss salary adjustments for the Chief Executive Officer, Santos H. Kreimann, effective October 1, 2023; and discuss a 3% cost of living adjustment (COLA) for the Chief Executive Officer, Santos H. Kreimann, effective January 1, 2024. (Memo dated December 1, 2023)

X. REPORTS

A. **Annual Update and Review of LACERA Towards Inclusion, Diversity, And Equity (LACERA T.I.D.E.)**

Jonathan Grabel, Chief Investment Officer
(Presentation) (Memo dated December 1, 2023)

B. **Strategic Asset Allocation Review**

Jonathan Grabel, Chief Investment Officer
Jude Pérez, Deputy Chief Investment Officer
Tim Filla, Managing Principal, Meketa
Aysun Kilic, Managing Principal, Meketa
Jonathan Camp, Managing Principal, Meketa
(Presentation) (Memo dated December 4, 2023)

C. **Total Fund Investment Cost Report – Fiscal Year 2023**

John Kim, Investment Officer
Kathryn Ton, Senior Investment Analyst
(Presentation) (Memo dated December 1, 2023)

D. **Presentation on FPPC Form 700 e-Filing for Trustees**

Jessica Rivas, Staff Counsel
(Presentation) (Memo dated November 28, 2023)

X. REPORTS (Continued)

E. **Board of Retirement and Board of Investments 2024 Meeting Calendar**

Santos H. Kreimann, Chief Executive Officer
(Memo dated November 28, 2023)

F. **Private Market Analytics Platform Search – Update**

Esmeralda del Bosque, Principal Investment Officer
John Kim, Investment Officer
Kathryn Ton, Sr. Investment Analyst
Soniah Ginoyan, Sr. Investment Analyst
(For Information Only) (Memo dated November 27, 2023)

G. **LACERA Total Quarterly Performance Book**

Esmeralda del Bosque, Principal Investment Officer
(For Information Only) (Memo dated December 1, 2023)

H. **OPEB Trust Quarterly Performance Book**

Esmeralda del Bosque, Principal Investment Officer
(For Information Only) (Memo dated December 1, 2023)

I. **Investment Policy Statement**

Jonathan Grabel, Chief Investment Officer
Scott Zdrazil, Principal Investment Officer
(For Information Only) (Memo dated December 1, 2023)

J. **Fiscal Year 2023-24 Mid-Year Budget Adjustments**

Laura Guglielmo, Assistant Executive Officer
(For Information Only) (Memo dated November 16, 2023)

K. **Fiscal Year 2022-23 Final Budget Control Report**

Laura Guglielmo, Assistant Executive Officer
(For Information Only) (Memo dated November 17, 2023)

L. **FPPC Formal Advice Letter**

Steven P. Rice, Chief Counsel
(For Information Only) (Memo dated December 6, 2023)

X. REPORTS (Continued)

M. **Legal Projects**

Christine Roseland, Senior Staff Counsel

(For Information Only) (Memo dated December 5, 2023)

N. **Monthly Trustee Travel & Education Reports – October 2023
Fiscal Year 2023-24 1st Quarter Trustee Travel & Education
Expenditure Reports**

Ted Granger, Interim Chief Financial Officer

Fiscal Year 2023-24 1st Quarter Staff Travel Report

(Public memo dated November 21, 2023)

(Confidential memo dated November 21, 2023 - Includes Pending
Travel)

O. **Fiduciary Counsel Self-Assessment**

Steven P. Rice, Chief Counsel

(For Information Only) (Memo dated November 28, 2023) (Privileged
and Confidential Attorney-Client Communication/Attorney Work
Product)

P. **November 2023 Fiduciary Counsel Contact and Billing Report**

Steven P. Rice, Chief Counsel

(For Information Only) (Memo dated November 28, 2023) (Privileged
and Confidential/Attorney-Client Communication/Attorney Work
Product)

XI. ITEMS FOR STAFF REVIEW

(This item summarizes requests and suggestions by individual trustees during the meeting for consideration by staff. These requests and suggestions do not constitute approval or formal action by the Board, which can only be made separately by motion on an agenda item at a future meeting.)

XII. ITEMS FOR FUTURE AGENDAS

(This item provides an opportunity for trustees to identify items to be included on a future agenda as permitted under the Board's Regulations.)

XIII. GOOD OF THE ORDER

(For Information Purposes Only)

XIV EXECUTIVE SESSION

- A. Conference with Staff and Legal Counsel to Consider the Purchase or Sale of Particular, Specific Pension Fund Investments (Pursuant to California Government Code Section 54956.81)
 - 1. **One Item**
James Rice, Principal Investment Officer
Amit Aggarwal, Investment Officer
(For Information Only) (Memo dated November 20, 2023)
 - 2. **Securities Lending Update**
Vache Mahseredjian, Principal Investment Officer
(For Information Only) (Memo dated November 30, 2023)
- B. Potential Threats to Public Services or Facilities (Pursuant to Subdivision (a) of California Government Code Section 54957)
 - 1. Consultation with: LACERA Chief Executive Officer Santos H. Kreimann, Deputy Chief Executive Officer Luis Lugo, Assistant Executive Officers JJ Popowich and Laura Guglielmo, Chief, Information Technology Kathy Delino, Information Security Officer Chaitanya Errande, and Other LACERA Staff.
- C. Public Employee Performance Evaluation (Pursuant to Paragraph (1) of Subdivision (b) of California Government Code Section 54957)

Title: Chief Executive Officer

XV. ADJOURNMENT

****Although the meeting is scheduled for 9:00 a.m., it can start anytime thereafter, depending on the length of the Committee meeting preceding it.***

Documents subject to public disclosure that relate to an agenda item for an open session of the Board of Retirement that are distributed to members of the Board of Retirement less than 72 hours prior to the meeting will be available for public inspection at the time they are distributed to a majority of the Board of Retirement Trustees at LACERA's offices at 300 N. Lake Avenue, Suite 820, Pasadena, CA 91101, during normal business hours of 9:00 a.m. to 5:00 p.m. Monday through Friday and will also be posted on lacera.com at the same time, [Board Meetings | LACERA](#).

Requests for reasonable modification or accommodation of the telephone public access and Public Comments procedures stated in this agenda from individuals with disabilities, consistent with the Americans with Disabilities Act of 1990, may call the Board Offices at (626) 564-6000, Ext. 4401/4402 from 8:30 a.m. to 5:00 p.m. Monday through Friday or email PublicComment@lacera.com, but no later than 48 hours prior to the time the meeting is to commence.

MINUTES OF A REGULAR MEETING OF THE BOARD OF INVESTMENTS
LOS ANGELES COUNTY EMPLOYEES RETIREMENT ASSOCIATION

300 N. LAKE AVENUE, SUITE 810, PASADENA, CA 91101

9:00 A.M., WEDNESDAY, NOVEMBER 8, 2023

This meeting was conducted by the Board of Investments both in person and by teleconference under California Government Code Section 54953 (b), (f).

*Teleconference Location for Trustees and the Public
under California Government Code Section 54953(b)
Omni Rancho Las Palmas Resort & Spa - 41000 Bob Hope Drive
Rancho Mirage, CA 92270*

TRUSTEES PRESENT

Gina Sanchez, Chair

Herman Santos, Vice Chair

Joseph Kelly, Secretary

David Green

Jason Green

Onyx Jones

Patrick Jones (Teleconference under Section 54953(b))

Keith Knox

David Ryu

STAFF, ADVISORS, PARTICIPANTS:

Jonathan Gabel, Chief Investment Officer

Jude Perez, Deputy Chief Investment Officer

Steven P. Rice, Chief Counsel

STAFF, ADVISORS, PARTICIPANTS (Continued)

Luis Lugo, Deputy Chief Executive Officer

James Rice, Principal Investment Officer

Scott Zdrazil, Principal Investment Officer

Ted Granger, Interim Chief Financial Officer

Richard P. Bendall, Chief Audit Executive

Kristina Sun, Senior Internal Auditor

Kathryn Ton, Senior Investment Analyst

Dale Johnson, Investment Officer

Cheryl Lu, Investment Officer

Quoc Nguyen, Investment Officer

Mike Romero, Senior Investment Analyst

Cindy Rivera, Investment Officer

Pushpam Jain, Investment Officer

Mel Tsao, Senior Investment Analyst

Inga Tadevosyan, Investment Analyst

Meketa Investment Group (General Investment Consultants)

Timothy Filla, Managing Principal

Aysun Kilic, Managing Principal

Zach Stevens, Senior Vice President

STAFF, ADVISORS, PARTICIPANTS (Continued)

Albourne

Mark White, Partner

Nossaman LLP

Ashley K. Dunning, Fiduciary Counsel

StepStone Group LP (Private Equity Consultants)

Natalie Walker, Partner

Jose Fernandez, Partner

StepStone Group LP (Real Assets Consultants)

Margaret McKnight, Partner

Milliman

Craig Glyde, Consulting Actuary

I. CALL TO ORDER

The meeting was called to order by Chair Sanchez at 9:00 a.m. in the Board Room of Gateway Plaza.

II. PLEDGE OF ALLEGIANCE

Trustee D. Green led the Trustees and staff in reciting the Pledge of Allegiance.

III. PROCEDURE FOR TELECONFERENCE MEETING ATTENDANCE UNDER AB 2449, California Government Code Section 54953(f)

A. Just Cause

B. Action on Emergency Circumstance Requests

C. Statement of Persons Present at AB 2449 Teleconference Locations

There was nothing to report. No trustees participated under Section 54953(f).

IV. APPROVAL OF MINUTES

A. Approval of the Minutes of the Regular Meeting of October 11, 2023

IV. APPROVAL OF MINUTES (Continued)

A motion was made by Trustee D. Green, seconded by Trustee Kelly, to approve the minutes of the Board of Investments meetings of October 11, 2023. The motion passed by following roll call vote:

Yes: Knox, O. Jones, Santos, P. Jones, D. Green, Ryu, Kelly, Sanchez, J. Green

No: None

V. PUBLIC COMMENT

There were no requests from the public to speak.

VI. EXECUTIVE UPDATE

A. Chief Investment Officer's Report

Mr. Grabel provided a brief presentation on the Chief Investment Officer's Report and answered questions from the Board.

B. Member Spotlight

Mr. Lugo recognized LACERA member, Tyrone Brown.

C. Chief Executive Officer's Report

Mr. Lugo provided a brief presentation on the Chief Executive Officer's Report and answered questions from the Board.

VII. NON-CONSENT ITEMS

A. **Actuarial Consulting and Actuarial Auditing Services Request for Proposal**

Recommendation as submitted by Jude Pérez, Deputy Chief Investment Officer, Ted Granger, Interim Chief Financial Officer, Richard P. Bendall, Chief Audit Executive, Kristina Sun, Senior Internal Auditor and Kathryn Ton, Senior Investment Analyst: That the

VII. NON-CONSENT ITEMS (Continued)

Board approve the proposed search criteria for an actuarial consulting and actuarial auditing services Request for Proposal.
(Presentation) (Memo dated October 24, 2023)

A motion was made by Trustee Kelly, seconded by Trustee D. Green, to approve staff's recommendation. The motion passed by the following roll call vote: The motion passed by following roll call vote:

Yes: Knox, O. Jones, Santos, P. Jones, D. Green, Ryu, Kelly, Sanchez, J. Green

No: None

B. Board Approval of Appointment to a Special Step Placement for the CEO's Proposed Appointee for Senior Staff Counsel, LACERA (Benefits) – Jean J. Kim

Recommendation as submitted by Santos H. Kreimann, Chief Executive Officer: That the Board approve the appointment to a Special Step Placement for the Chief Executive Officer's proposed appointee for the position of Senior Staff Counsel, LACERA (Benefits) – Jean J. Kim LS 16 (Step 18, \$274,297.32/annual).
(Memo dated October 25, 2023)

A motion was made by Trustee Santos, seconded by Trustee D. Green, to approve staff's recommendation. The motion passed by the following roll call vote: The motion passed by following roll call vote:

Yes: Knox, O. Jones, Santos, P. Jones, D. Green, Ryu, Kelly, Sanchez, J. Green

No: None

VIII. REPORTS

A. Governance Review and Delegated Authority Framework

Jonathan Grabel, Chief Investment Officer
Jude Pérez, Deputy Chief Investment Officer
Scott Zdrazil, Principal Investment Officer

VIII. REPORTS (Continued)

Tim Filla, Managing Partner, Meketa Investment Group
Cheryl Lu, Investment Officer
Quoc Nguyen, Investment Officer
Cindy Rivera, Investment Officer
(Presentation) (Memo dated October 31, 2023)

Mr. Zdrazil, Ms. Dunning of Nossaman and Mr. Filla of Meketa

Investment Group provided a presentation and answered questions from the Board.

A motion was made by Trustee Santos, seconded by Trustee J. Green, (1.) to approve the draft revised Investment Policy Statement, with two modifications to reference the Chief Investment Officer's role to make any appropriate recommendations and to oversee an annual self-evaluation for internal investment committees, and (2.) to eliminate the existing *Power Reserved and Delegated Authorities* and *Powers Reserved Defined* policies. The motion passed by the following roll call vote:

Yes: Knox, O. Jones, Santos, P. Jones, D. Green, Ryu, Kelly, Sanchez, J. Green

No: None

B. Climate-Aware Strategic Asset Allocation

Scott Zdrazil, Principal Investment Officer
Dale Johnson, Investment Officer
Tim Filla, Managing Principal, Meketa Investment Group
Zach Stevens, Senior Vice President, Meketa Investment Group
(Presentation) (Memo dated October 27, 2023)

Messrs. Zdrazil, Johnson and Messrs. Filla, Stevens of Meketa

Investment Group provided a presentation and answered questions from the Board. This item was received and filed.

VIII. REPORTS (Continued)

C. **Responsible Contractor Policy Annual Report**

Scott Zdrazil, Principal Investment Officer
James Rice, Principal Investment Officer
Mike Romero, Senior Investment Analyst
(Presentation) (Memo dated October 20, 2023)

Messrs. Zdrazil, Rice and Romero provided a presentation and answered questions from the Board. This item was received and filed.

D. **PEPRA Impact**

Santos H. Kreimann, Chief Executive Officer
Ted Granger, Interim Chief Financial Officer
Nick Collier, Consulting Actuary, Milliman
Craig Glyde, Consulting Actuary, Milliman
(For Information Only) (Memo dated October 23, 2023)

This item was received and filed.

E. **Monthly Status Report on Legislation**

Barry W. Lew, Legislative Affairs Office
(For Information Only) (Memo dated October 18, 2023)

This item was received and filed.

F. **Legal Projects**

Christine Roseland, Senior Staff Counsel
(For Information Only) (Memo dated October 30, 2023)

This item was received and filed.

G. **Tier I Merit Salary Adjustment and Tier II Step Advancement**

Santos H. Kreimann, Chief Executive Officer
(For Information Only) (Memo dated October 25, 2023)

This item was received and filed.

VIII. REPORTS (Continued)

H. **Semi-Annual Interest Crediting for Reserves as of June 30, 2023 (AUDITED)**

Ted Granger, Interim Chief Financial Officer
(For Information Only) (Memo dated October 24, 2023)

This item was received and filed.

I. **Monthly Trustee Travel & Education Reports – September 2023**

Ted Granger, Interim Chief Financial Officer
(Public memo dated October 19, 2023)
(Confidential memo dated October 19, 2023 - Includes Pending Travel)

This item was received and filed.

J. **October 2023 Fiduciary Counsel Contract and Billing Report**

Steven P. Rice, Chief Counsel
(For Information Only) (Memo dated October 23, 2023)
(Privileged and Confidential/Attorney-Client Communication/Attorney Work Product)

This item was received and filed.

IX. ITEMS FOR STAFF REVIEW

There were no items to report.

X. ITEMS FOR FUTURE AGENDAS

Trustee Santos request for staff to agendize a discussion at the next Joint Organizational Governance Committee meeting regarding revising he County Ordinance on to eliminate the limitation on the Chief Executive Officer's salary delegation authority by which approval of both Board must be obtained for new external MAPP hires above Level 12.

XI. GOOD OF THE ORDER

(For Information Purposes Only)

There was nothing to report.

XII. EXECUTIVE SESSION

- A. Conference with Staff and Legal Counsel to Consider the Purchase or Sale of Particular, Specific Pension Fund Investments (Pursuant to California Government Code Section 54956.81)

1. **Real Assets Emerging Manager Program**

James Rice, Principal Investment Officer

Pushpam Jain, Investment Officer

Cindy Rivera, Investment Officer

Mel Tsao, Senior Investment Analyst

Inga Tadevosyan, Investment Analyst

(Presentation) (Memo dated October 20, 2023)

This item was pulled from the agenda and will be presented at a future meeting.

2. **Real Estate Portfolio**

James Rice, Principal Investment Officer

Amit Aggarwal, Investment Officer

Mike Romero, Senior Investment Analyst

(For Information Only) (Memo dated October 24, 2023)

There is nothing to report.

- B. Potential Threats to Public Services or Facilities (Pursuant to Subdivision (a) of California Government Code Section 54957) (Confidential Memo dated October 31, 2023)

Consultation with: LACERA Chief Executive Officer Santos H. Kreimann, Deputy Chief Executive Officer Luis Lugo, Assistant Executive Officers JJ Popowich and Laura Guglielmo, Information Security Officer Chaitanya Errande, Chief, Information Technology Kathy Delino, and Other LACERA Staff.

There is nothing to report.

- C. Public Employee Performance Evaluation (Pursuant to Paragraph (1) of Subdivision (b) of California Government Code Section 54957)

Title: Chief Counsel

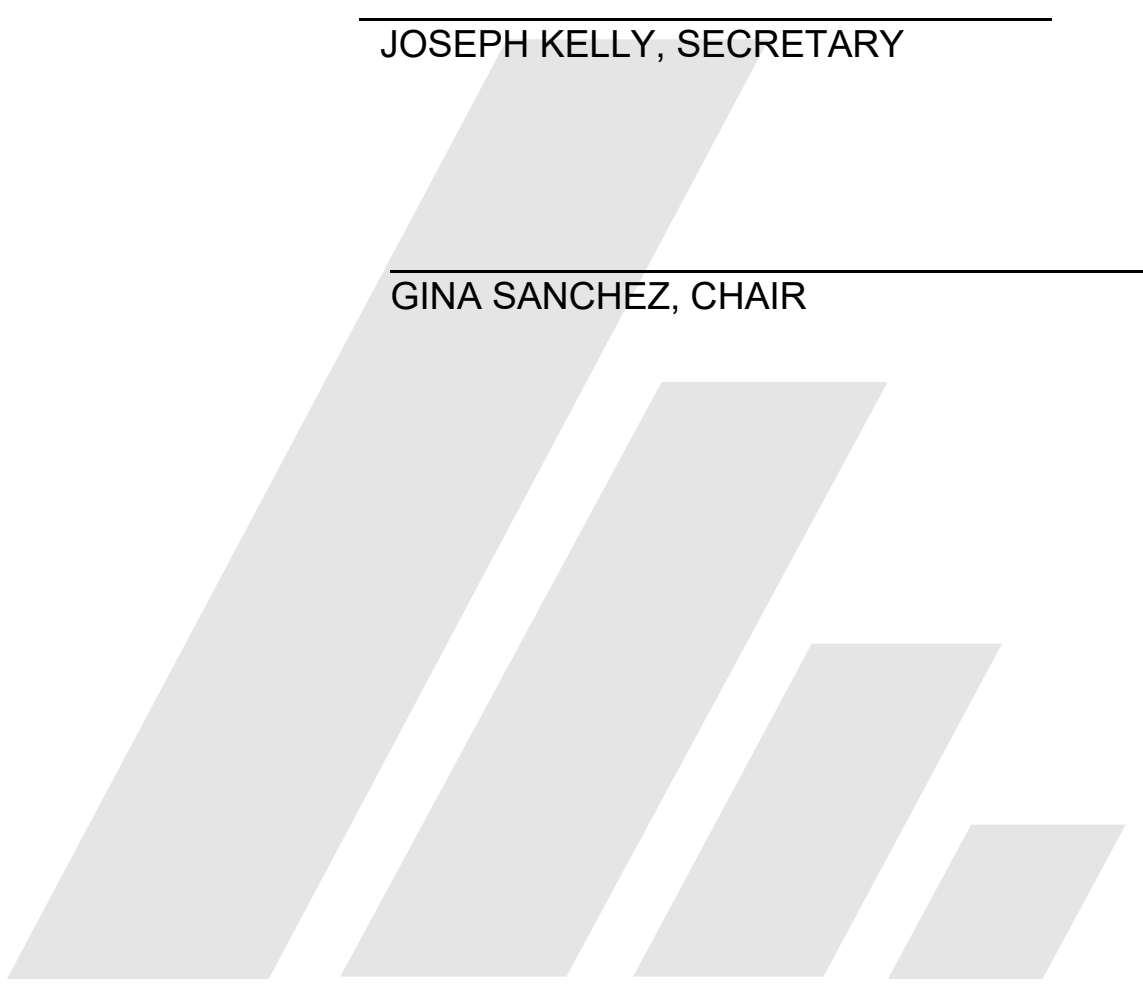
There is nothing to report.

XIII. ADJOURNMENT

There being no further business to come before the Board, the meeting was adjourned at 1:20 p.m.

JOSEPH KELLY, SECRETARY

GINA SANCHEZ, CHAIR





Chief Investment Officer Monthly Report

Jonathan Grabel – Chief Investment Officer

Board of Investments Meeting
December 13, 2023

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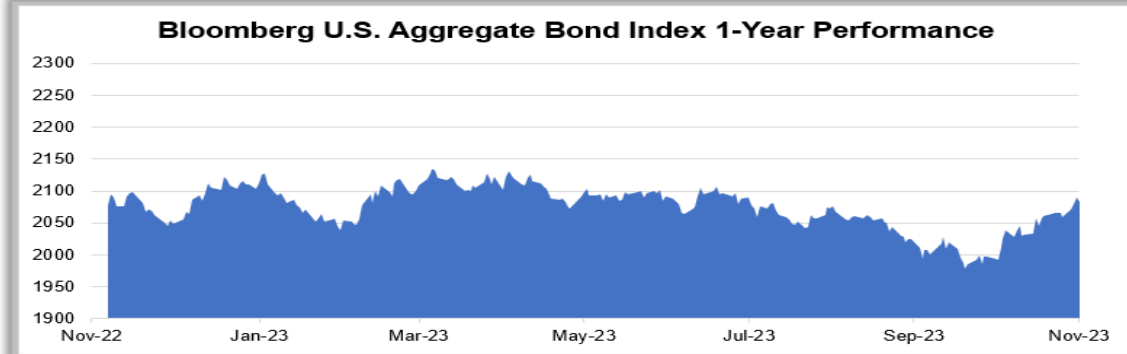
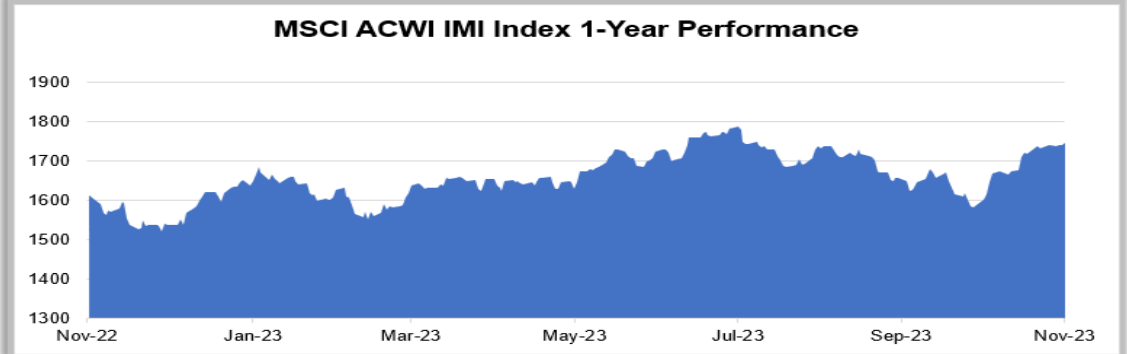
01 Market Environment

Global Market Performance as of November 30, 2023



MSCI ACWI IMI Index (Global Equity Market)*							
Trailing Returns (%)				Annualized Returns (%)			
1-Month	3-Month	FYTD	YTD	1Y	3Y	5Y	10Y
9.2	1.2	2.0	15.5	11.1	5.4	8.7	7.4

Bloomberg U.S. Aggregate Bond Index**							
Trailing Returns (%)				Annualized Returns (%)			
1-Month	3-Month	FYTD	YTD	1Y	3Y	5Y	10Y
4.5	0.3	-0.4	1.6	1.2	-4.5	0.7	1.4



*Global Equity Policy Benchmark - MSCI ACWI IMI Index

**Investment Grade Bonds Policy Benchmark - Barclays U.S. Aggregate Bond Index

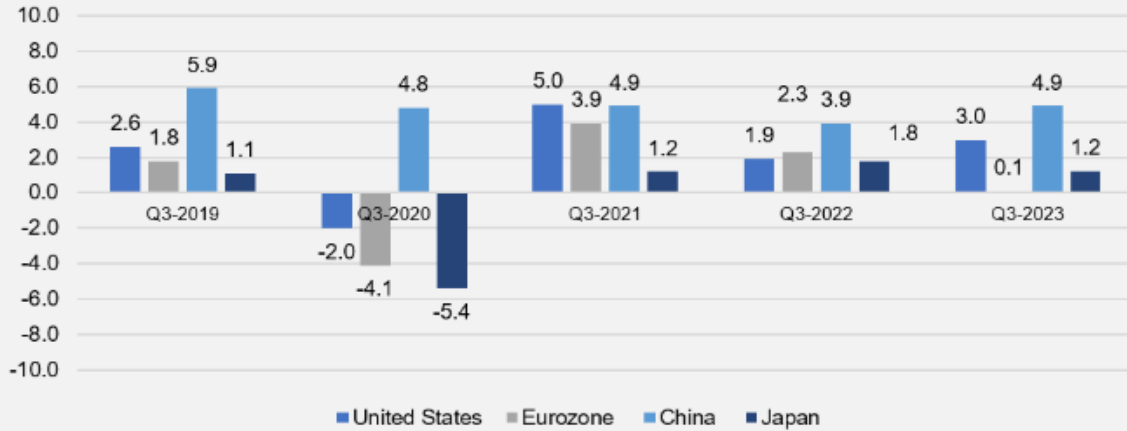
Market	Sub-Category	Index Name	1-Month	3-Month	FYTD	YTD	1 Y	3 Y	5 Y	10 Y
Equity	Global All Cap	MSCI ACWI IMI Total Return	9.2	1.2	2.0	15.5	11.1	5.4	8.7	7.4
	U.S. All Cap	Russell 3000 Total Return	9.3	1.4	3.0	19.6	12.6	8.3	11.8	11.2
	U.S. Large Cap	S&P 500 Total Return	9.1	1.7	3.3	20.8	13.8	9.8	12.5	11.8
	U.S. Small Cap	Russell 2000 Total Return	9.1	-4.4	-3.6	4.2	-2.6	1.1	4.8	6.1
	Non-U.S. All Cap	MSCI ACWI-ex U.S. IMI Total Return	9.1	1.0	0.7	9.9	9.2	1.7	5.1	3.5
	Emerging Markets	MSCI Emerging Markets Total Return	8.0	1.1	0.8	5.7	4.2	-4.0	2.3	2.1
Private Equity	Private Equity Buyout	Thomson Reuters PE Buyout Index	16.9	1.0	3.4	-2.4	-6.4	-2.6	5.8	9.6
Fixed Income	U.S. Investment Grade Bonds	Bloomberg U.S. Aggregate Index	4.5	0.3	-0.4	1.6	1.2	-4.5	0.7	1.4
	U.S. Corporate High Yield Bonds	Bloomberg U.S. Corporate High Yield Total Return	4.5	2.1	3.8	9.4	8.7	1.4	4.1	4.3
	U.S. Long Term Treasury Bonds	Bloomberg Long Term U.S. Treasury Total Return Index	9.2	-3.8	-8.5	-5.1	-6.7	-14.2	-1.8	1.2
	Developed Markets Leveraged Loans	Credit Suisse Leveraged Loan Total Return	1.2	2.1	4.6	11.3	11.7	5.5	4.7	4.3
	U.S. Treasury Inflation Protected Securities	Bloomberg U.S. Treasury TIPS Total Return Index	2.7	0.1	-0.7	1.2	0.1	-1.5	2.7	2.0
	U.S. 3 Month Treasury Bill	FTSE 3 Month Treasury Bill	0.5	1.4	2.3	4.8	5.1	2.1	1.9	1.2
Commodity	Commodity Prices Index	Bloomberg Commodity Index Total Return	-2.3	-2.7	2.6	-5.4	-7.7	13.6	6.3	-0.7
	Natural Resources	S&P Global LargeMidCap Commodity & Resources Index	2.7	-2.0	0.4	-4.5	-8.1	14.1	10.0	4.8
Infrastructure	Global Infrastructure	Dow Jones Brookfield Global Infrastructure Composite Index	9.7	4.2	1.0	3.6	0.2	5.8	5.2	4.7
Real Estate	U.S. REITs	MSCI U.S. REIT Index	10.4	-1.6	-1.8	3.5	-1.8	4.9	3.6	6.6

Source: Bloomberg

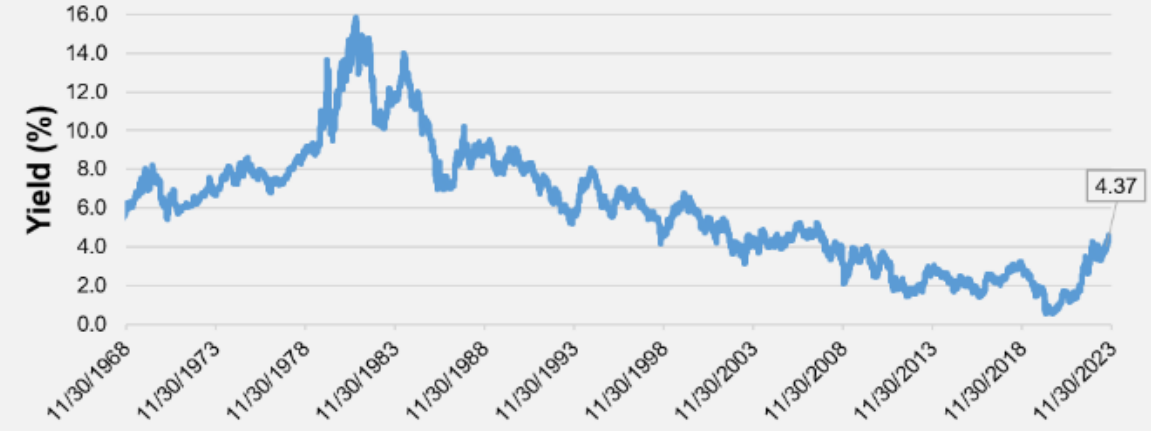
Key Macro Indicators*



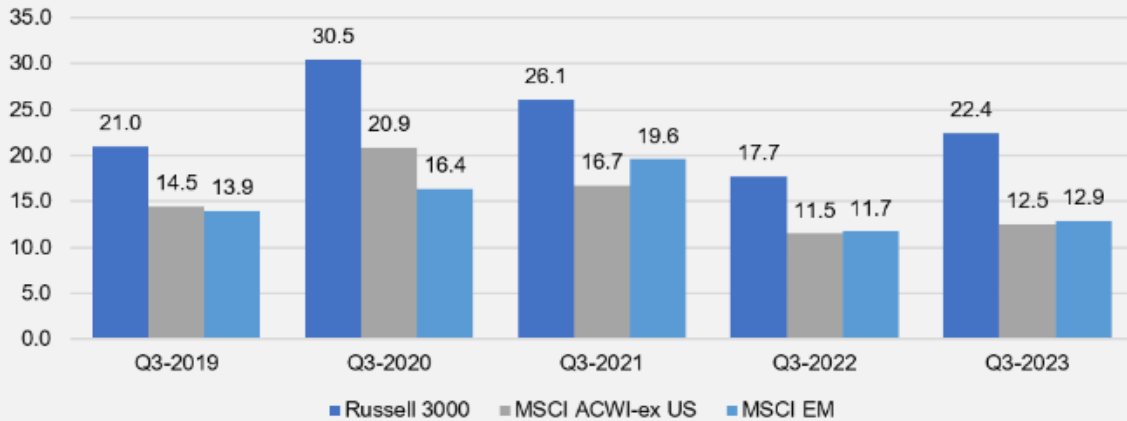
Real GDP Growth YoY (%) - Last Five Years¹



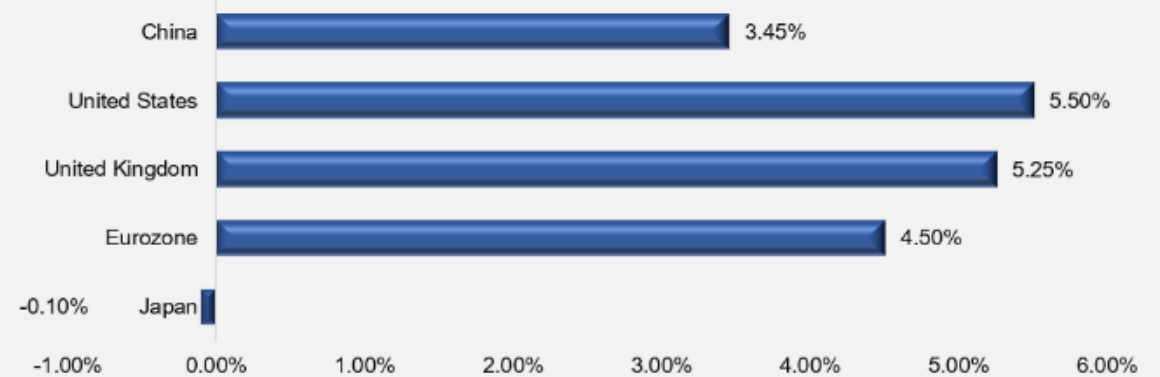
Historical 10-Year Treasury Yield²



Price-to-Earnings - Last Five Years³



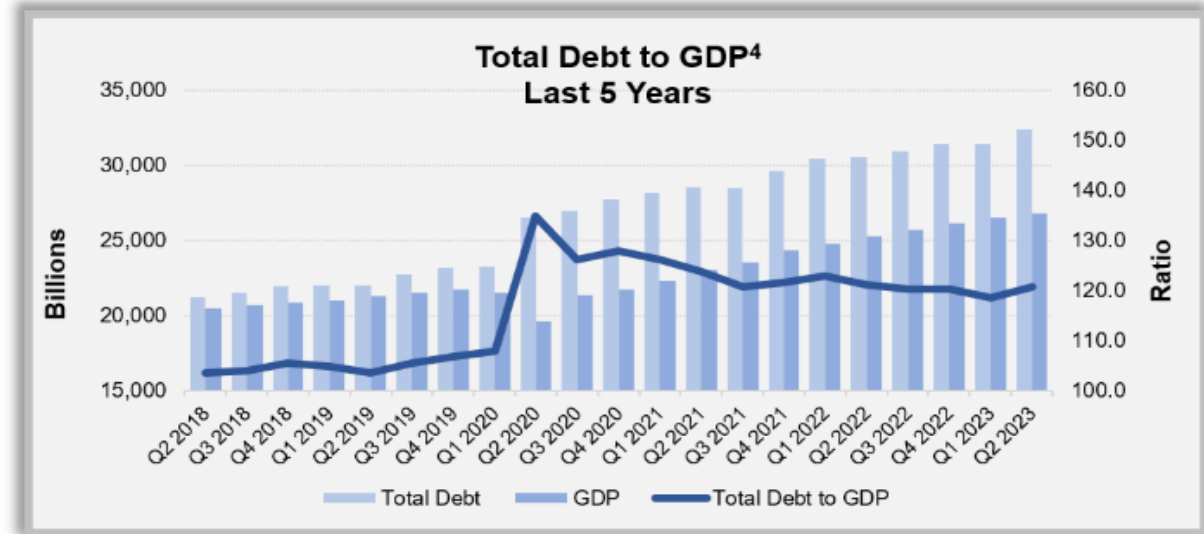
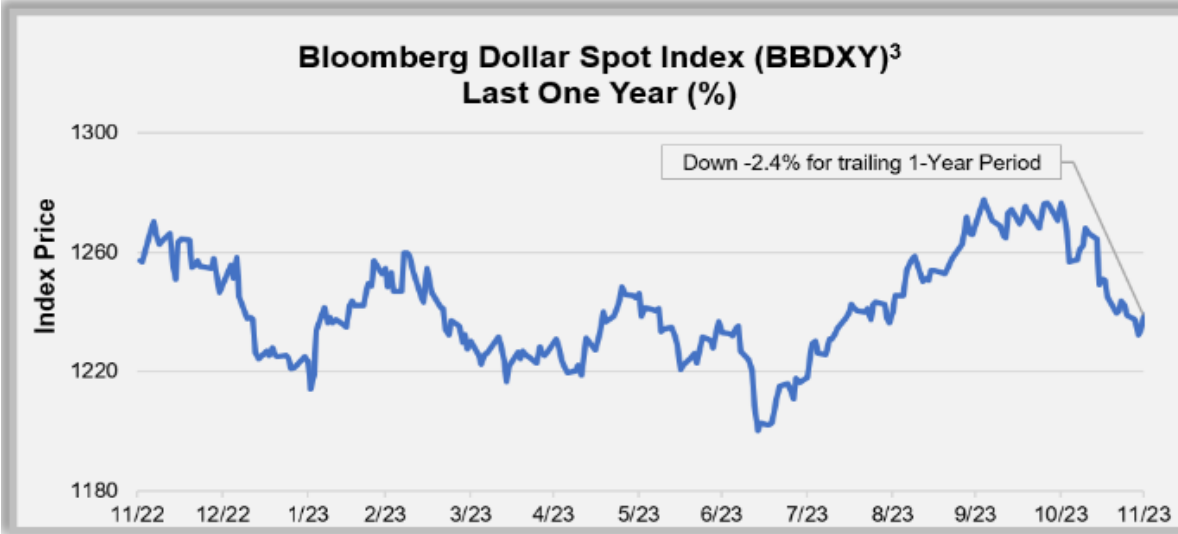
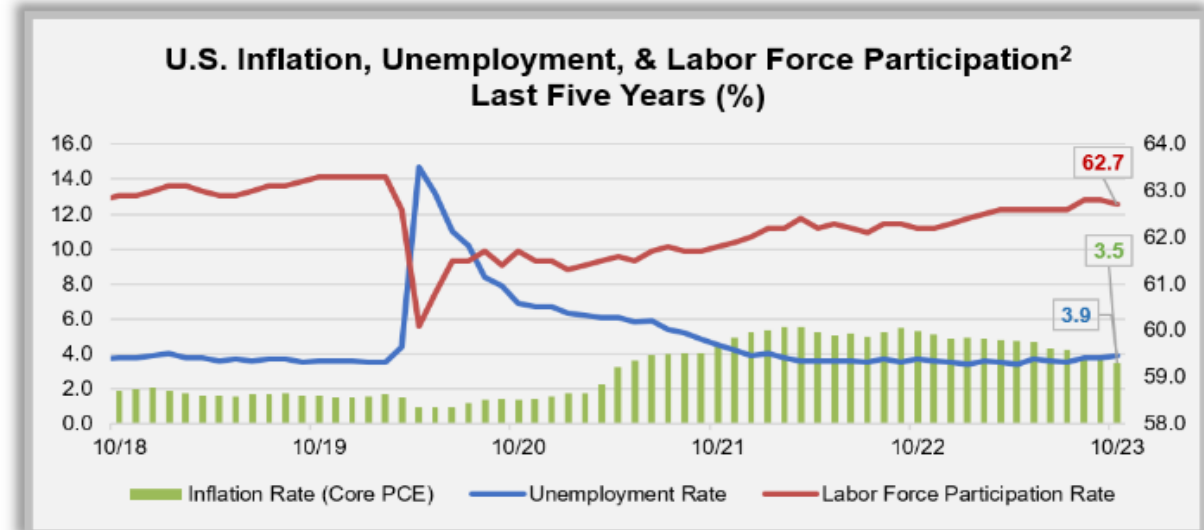
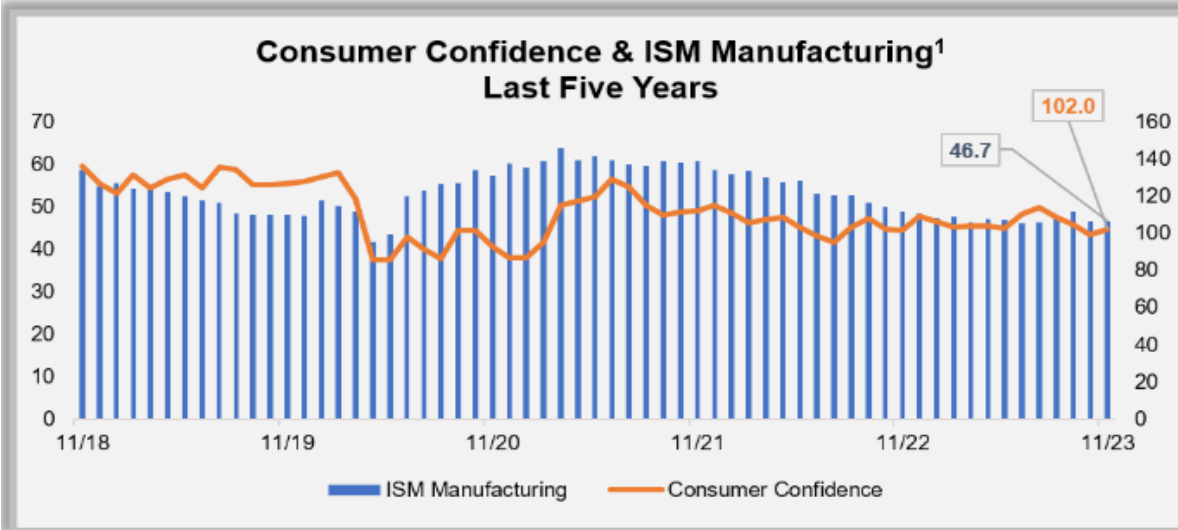
Central Bank Rates⁴ As of 11/30/2023



*The information on the "Key Macro Indicators" charts is the best available data as of 11/30/23 and may not reflect the current market and economic environment

Sources: 1. Bloomberg 2. St. Louis Federal Reserve 3. FactSet 4. FactSet

Key Macro Indicators*



Sources: 1. Bloomberg 3. Bloomberg
2. Bloomberg 4. Office of Management and Budget; St. Louis Federal Reserve

*The information on the "Key Macro Indicators" charts is the best available data as of 11/30/23 and may not reflect the current market and economic environment



02 Portfolio Performance & Risk Updates



Recent Themes

- At the last Federal Open Markets Committee (“FOMC”) meeting on November 1st, the U.S. Federal Reserve (“Fed”) unanimously elected to leave interest rates steady at a 22-year high of 5.25 to 5.5%. The next FOMC meeting is on December 12-13
- The U.S. 10-year Treasury yield ended November at 4.37%, 51 bps lower than at the end of last month and after being 3.88% at the end of 2022, 1.52% at the end of 2021 and 0.93% at the end of 2020
- On December 1st during a fireside chat in Atlanta, Fed Chair Jerome Powell said, “The FOMC is strongly committed to bringing inflation down to 2 percent over time, and to keeping policy restrictive until we are confident that inflation is on a path to that objective”
- Global equities (MSCI All Country World Investable Market Index) returned 9.2% in November

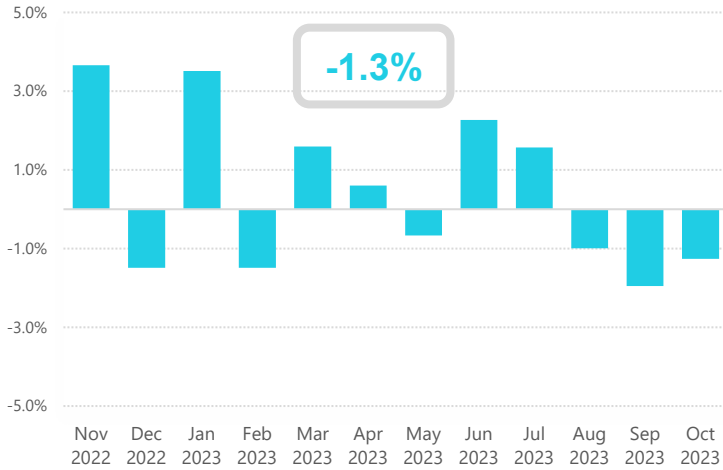
What to Watch

- Interest rates and central bank actions
- Economic data and trends
 - Inflation, supply chains, and labor developments
- Macro conditions and geopolitical risks
- Stewardship and ESG-related developments
 - Global investor coalition representing \$2.5 trillion in assets (and supported by LACERA per October 2023 Corporate Governance Committee) issued [report](#) encouraging phase-out of unequal investor voting rights at public companies

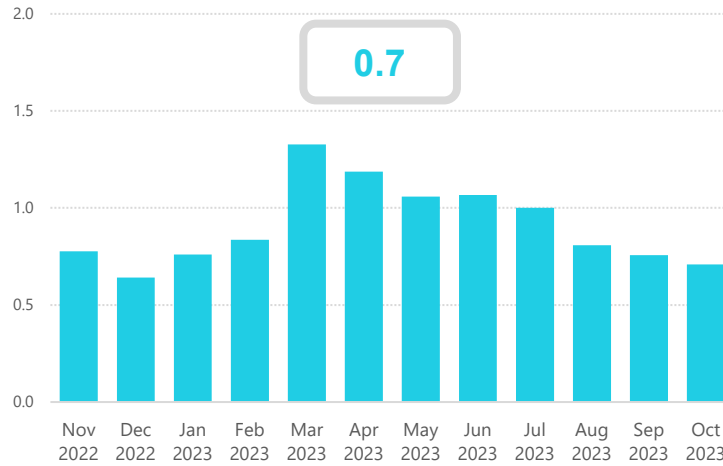
Total Fund Summary as of October 2023



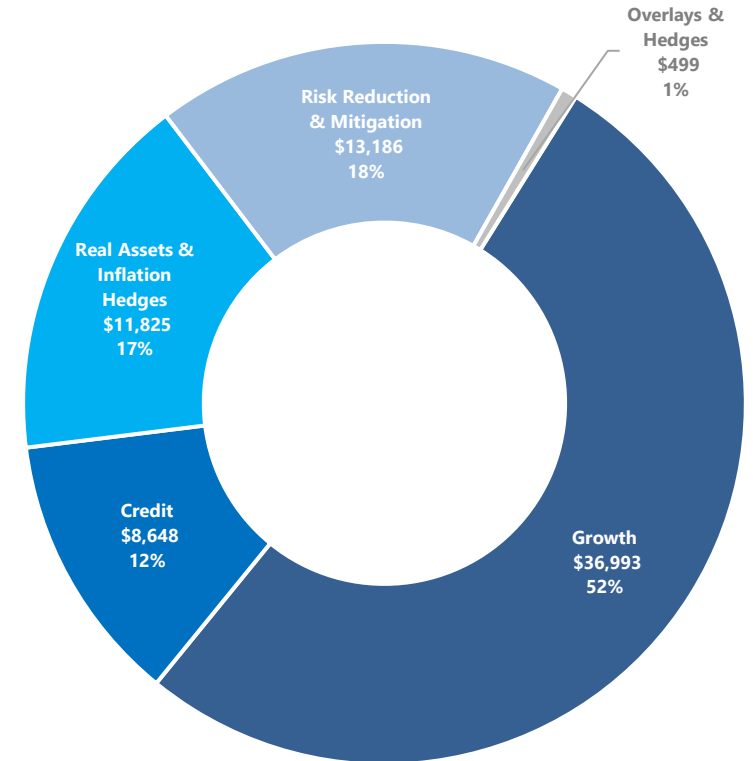
Monthly Return (net)



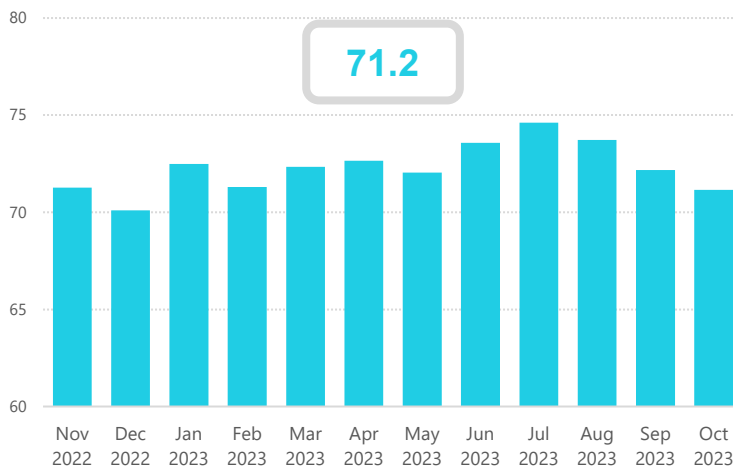
Sharpe Ratio (3-year annualized)



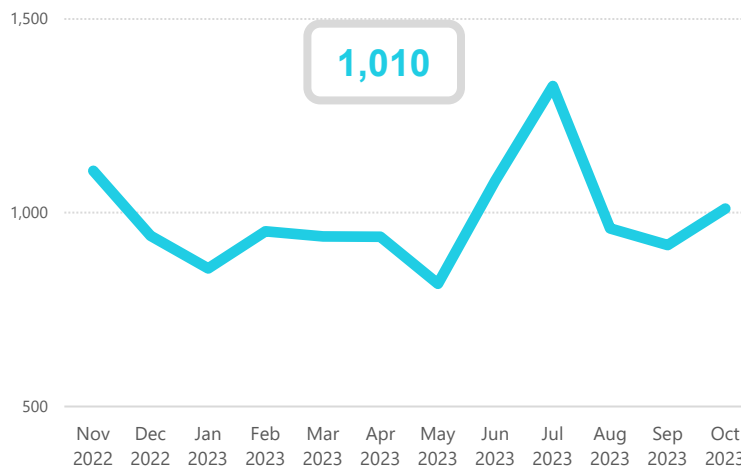
Asset Allocation (\$ millions)



Total Market Value (\$ billions)



Cash (\$ millions)

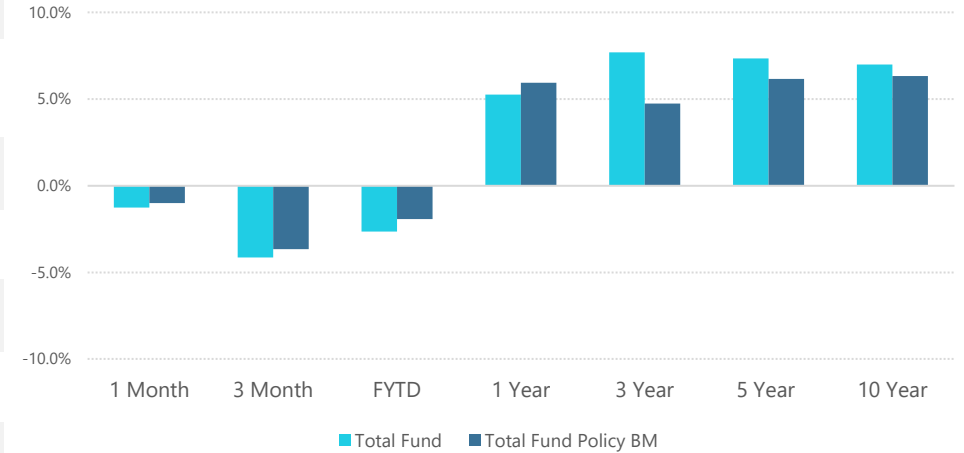


Historical Net Performance as of October 2023



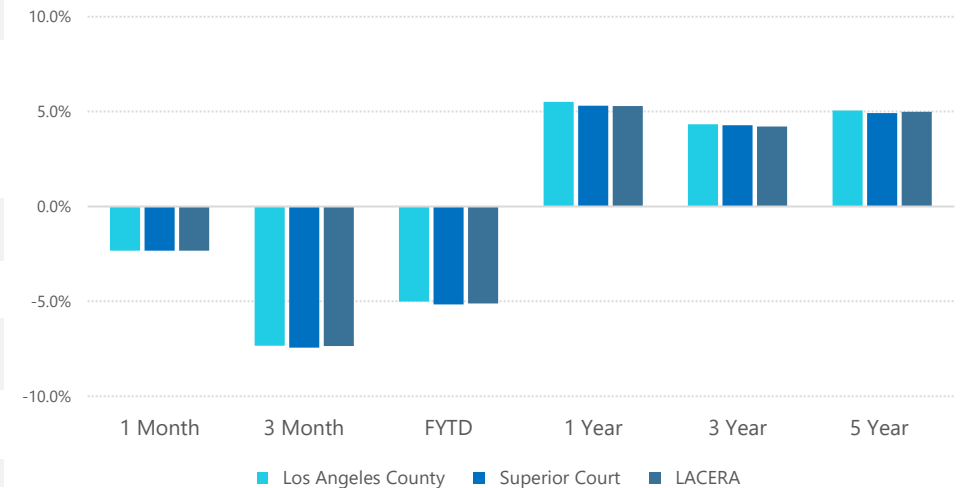
LACERA Pension Fund

	Market Value (\$ millions)	% of Total Fund	Final Target	1 Month	3 Month	FYTD	1 Year	3 Year	5 Year	10 Year
Total Fund	71,152	100.0%	100.0%	-1.3%	-4.1%	-2.6%	5.3%	7.7%	7.3%	7.0%
Total Fund Policy BM				-1.0%	-3.7%	-1.9%	5.9%	4.8%	6.2%	6.3%
7% Annual Hurdle Rate				0.6%	1.7%	2.3%	7.0%	7.0%	7.0%	7.0%
Growth	36,993	52.0%	53.0%	-2.0%	-5.9%	-3.6%	7.6%	11.9%		
Growth Policy BM				-0.8%	-3.5%	-0.9%	10.2%	8.8%		
Credit	8,648	12.2%	11.0%	1.0%	2.7%	4.1%	12.6%	6.3%		
Credit Policy BM				-0.5%	0.6%	2.5%	11.5%	2.0%		
Real Assets & Inflation Hedges	11,825	16.6%	17.0%	-0.5%	-3.7%	-2.8%	-2.1%	8.3%		
Real Assets & Inflation Hedges Policy BM				-1.3%	-5.4%	-4.1%	-4.5%	7.2%		
Risk Reduction & Mitigation	13,186	18.5%	19.0%	-1.3%	-4.2%	-4.5%	0.7%	-3.6%		
Risk Reduction & Mitigation Policy BM				-1.6%	-4.9%	-5.3%	0.5%	-4.4%		
Overlays & Hedges	499	0.7%		0.6%	14.2%	13.6%	25.3%			



OPEB Master Trust¹

	Market Value (\$ millions)	% of Master Trust	Final Target	1 Month	3 Month	FYTD	1 Year	3 Year	5 Year	10 Year
OPEB Master Trust	3,057			-2.3%	-7.3%	-5.0%	5.5%	4.3%	5.1%	5.9%
OPEB Master Trust Policy Benchmark				-1.9%	-5.9%	-3.8%	5.6%	4.5%	5.0%	5.1%
Los Angeles County	2,978	97.4%	—	-2.3%	-7.3%	-5.0%	5.5%	4.3%	5.1%	5.4%
Superior Court	63	2.1%	—	-2.3%	-7.4%	-5.2%	5.3%	4.3%	4.9%	
LACERA	15	0.5%	—	-2.3%	-7.4%	-5.1%	5.3%	4.2%	5.0%	5.4%
OPEB Growth	1,353	44.3%	45.0%	-3.3%	-9.9%	-6.5%	9.6%	6.7%	7.4%	
OPEB Growth Policy Benchmark				-2.5%	-8.0%	-4.8%	11.0%	6.8%	7.3%	
OPEB Credit	574	18.8%	18.0%	-0.1%	-0.9%	0.6%	10.2%	2.4%	2.9%	
OPEB Credit Policy Benchmark				-0.5%	0.0%	1.7%	10.3%	2.4%	3.0%	
OPEB Real Assets & Inflation Hedges	605	19.8%	20.0%	-2.3%	-8.2%	-5.7%	-3.3%	5.7%	3.2%	
OPEB RA & IH Policy Benchmark				-1.3%	-5.2%	-3.5%	-5.2%	6.5%	3.6%	
OPEB Risk Reduction & Mitigation	524	17.2%	17.0%	-2.2%	-6.8%	-7.1%	-2.3%	-5.2%	-0.3%	
OPEB RR & M Policy Benchmark				-2.3%	-6.9%	-7.5%	-2.1%	-5.8%	-0.8%	
OPEB HL PM Cash	0	0.0%								

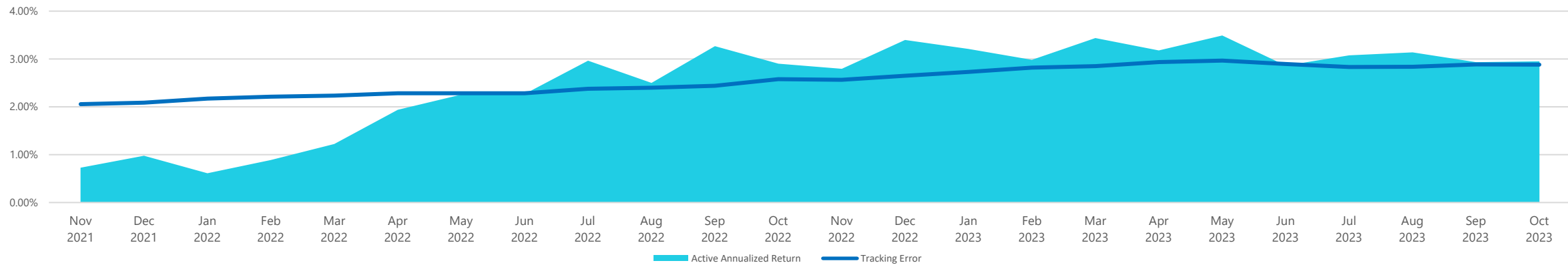


¹ OPEB Master Trust total market value includes participant level cash.

Active and Excess Return as of October 2023



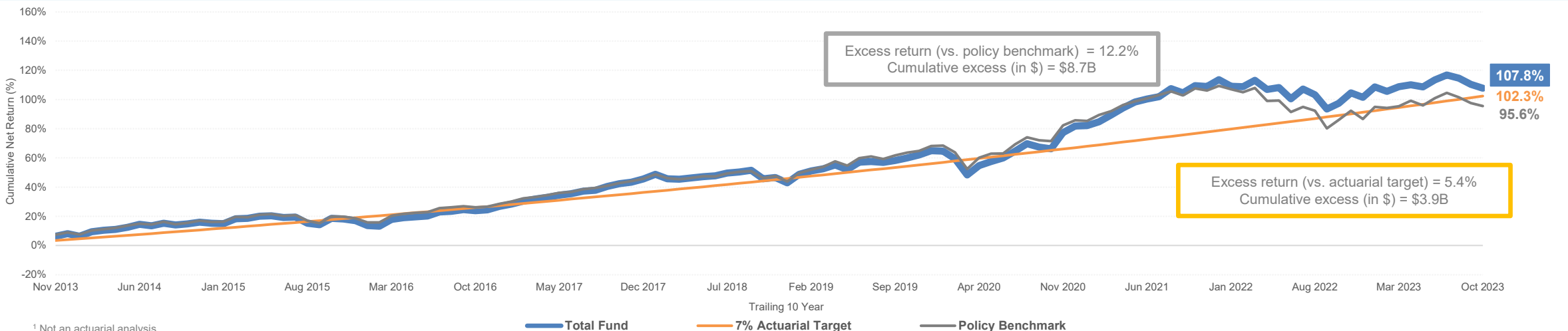
Active Return vs. Tracking Error^{1,2,3}



Period Ending	Annualized Return	Annualized Benchmark Return	Annualized Active Return	Tracking Error
Oct 2023	7.7%	4.8%	3.0%	2.9%

¹ Rolling 36 months.
² Active return equals the difference in return between a portfolio and its benchmark.
³ Tracking error (or active risk) measures the volatility of active returns.

Excess Return¹



¹ Not an actuarial analysis.

Total Fund Forecast Volatility as of October 2023*



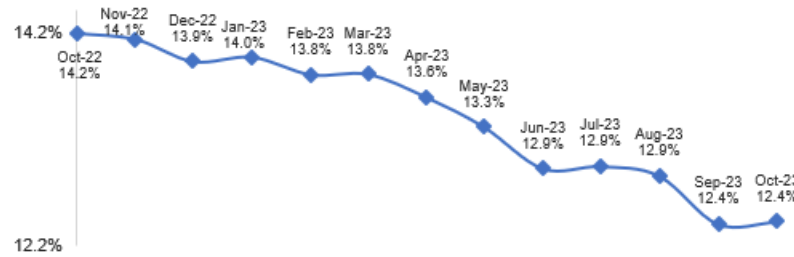
TOTAL FUND VOLATILITY

12.4%

BENCHMARK VOLATILITY

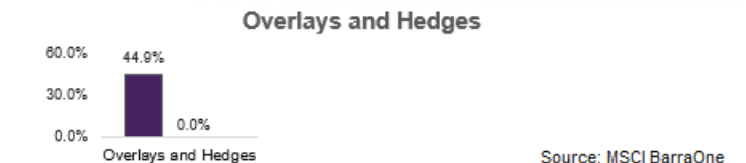
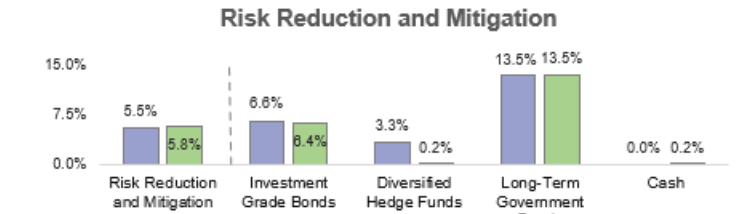
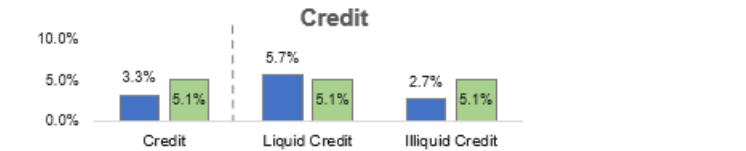
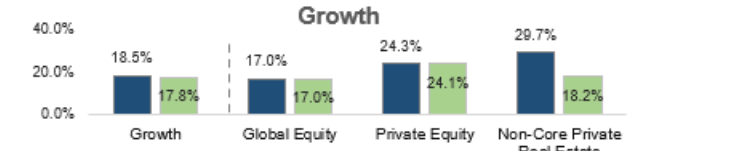
12.0%

Forecasted Total Fund Volatility Trend



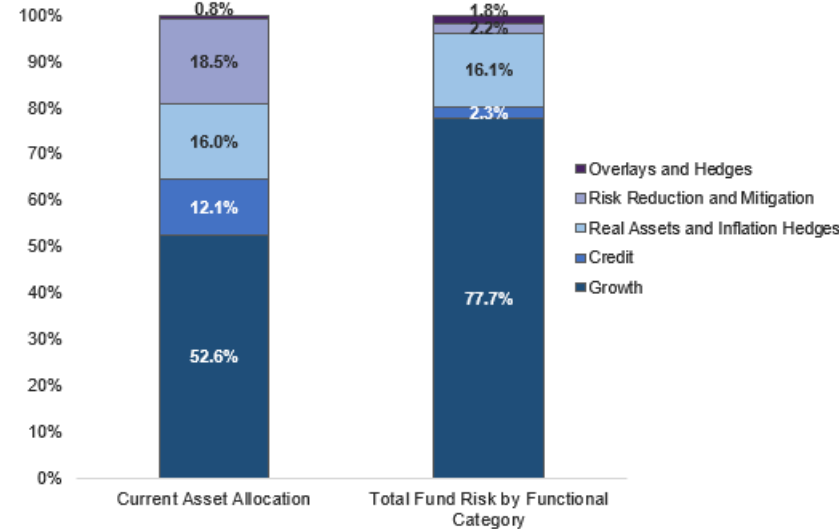
Subcategory Volatility

1 Subcategory volatility is on the left bar and benchmark risk is on the right bar.

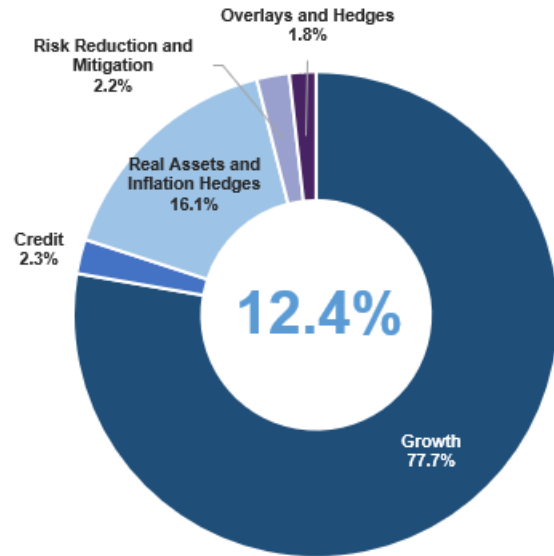


Source: MSCI BarraOne

Total Fund Asset Allocation Capital-based versus Risk-based



Functional Category Contributions to Total Fund Volatility



* Real estate and private equity data is based on best available cash flow adjusted market values. Exposure data is based on security level holdings and/or proxies.

Total Fund Forecast Tracking Error as of October 2023*

TOTAL FUND TRACKING ERROR

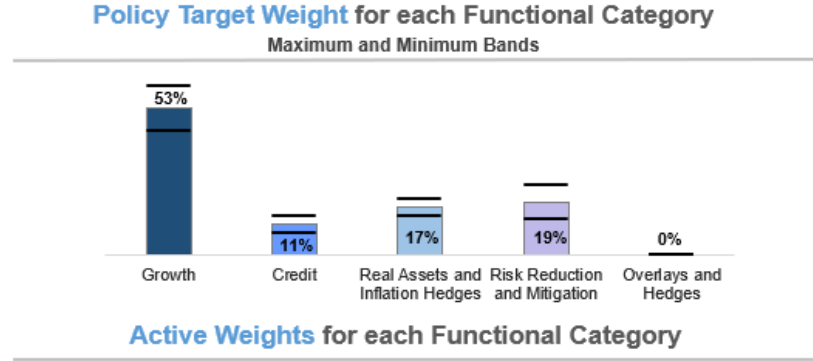
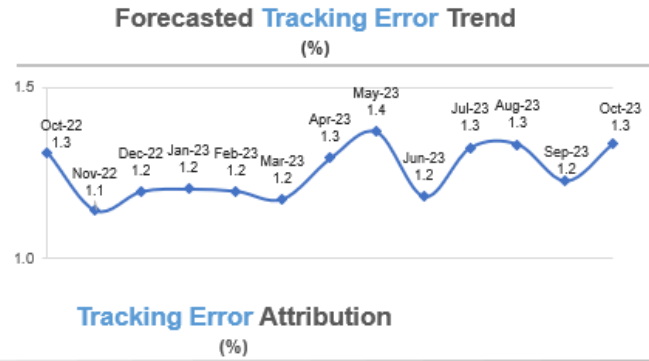
1.34%

ALLOCATION RISK

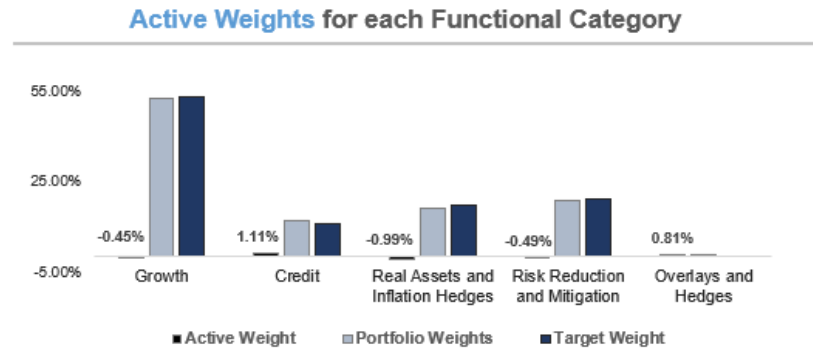
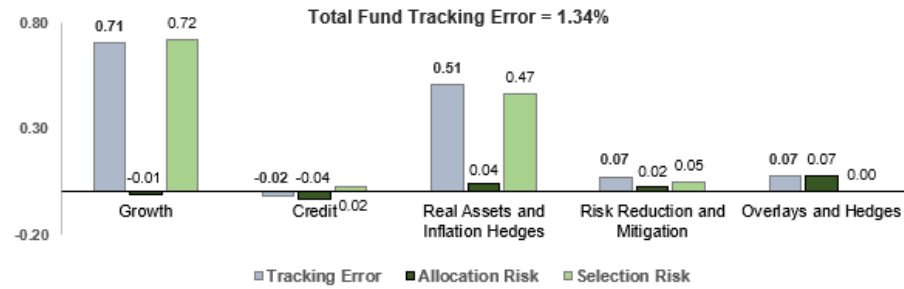
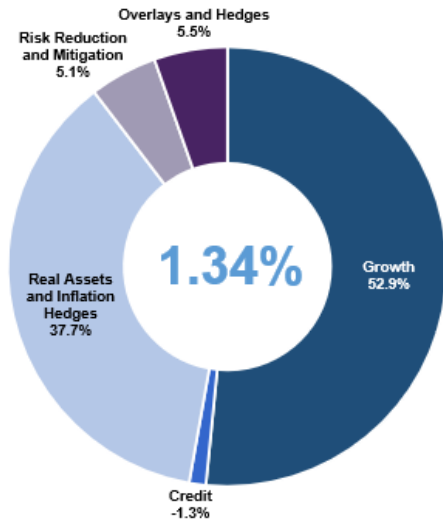
0.08%

SELECTION RISK

1.26%



Functional Category Contributions to Tracking Error



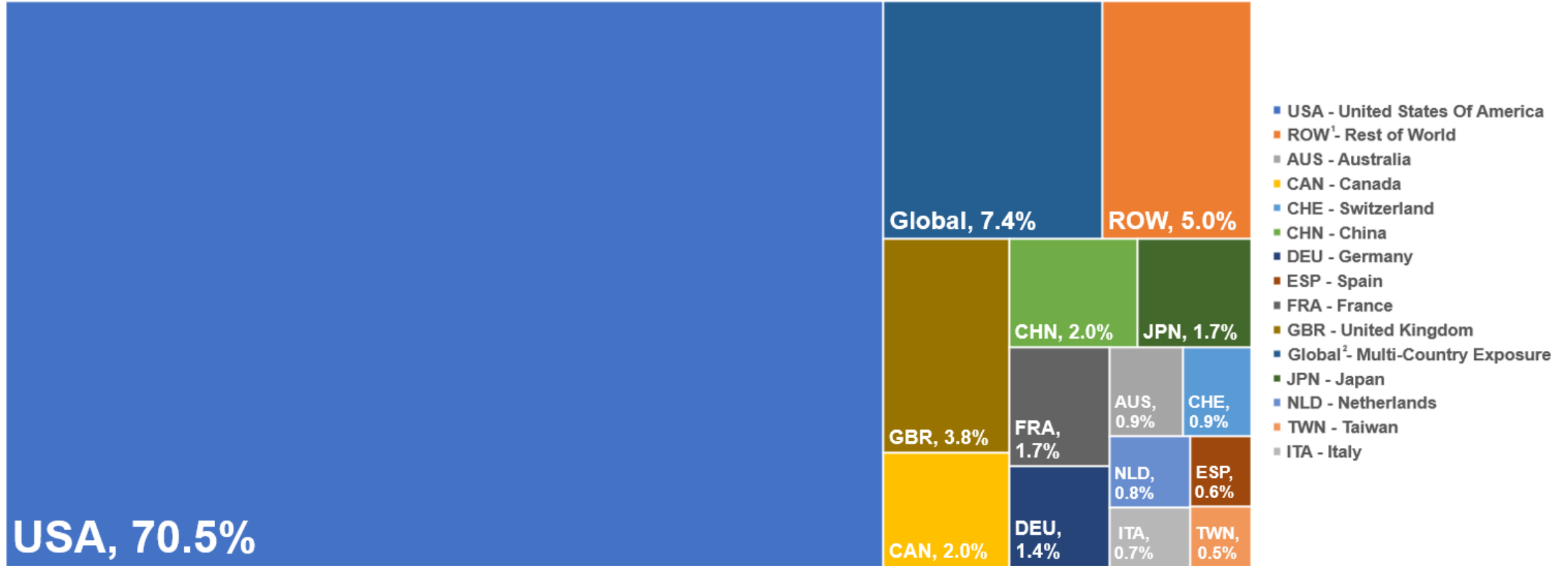
Subcategory Tracking Error (%)

Total Fund	Global				Credit			Real Assets and Inflation Hedges					Risk Reduction and Mitigation				Overlays and Hedges	
1.34	1.57	0.39	3.11	13.43	2.67	0.90	4.26	3.61	4.16	4.54	8.86	0.10	1.23	0.27	3.28	0.03	0.25	44.94
Total Fund	Growth	Global Equity	Private Equity	Non-Core Private Real Estate	Credit	Liquid Credit	Illiquid Credit	Real Assets and Inflation Hedges	Core Private Real Estate	Natural Resources and Commodities	Infrastructure	TIPS	Risk Reduction and Mitigation	Investment Grade Bonds	Diversified Hedge Funds	Long-Term Government Bonds	Cash	Overlays and Hedges

Source: MSCI BarraOne
 * Real estate and private equity data is based on best available cash flow adjusted market values. Exposure data is based on security level holdings and/or proxies.

Geographic Exposures by AUM

Total Fund as of October 2023* Ex-Overlays and Hedges



AUM = Assets under management.

Geographic exposure is based on the domicile country of a given security/asset.

* Implementation of the MSCI Risk Platform is ongoing; reconciliation and refinement of the data is progressing and subject to change.

Real Estate and Private Equity data is based on best available cash flow adjusted market values. Exposure data is based on security level holdings and/or proxies.

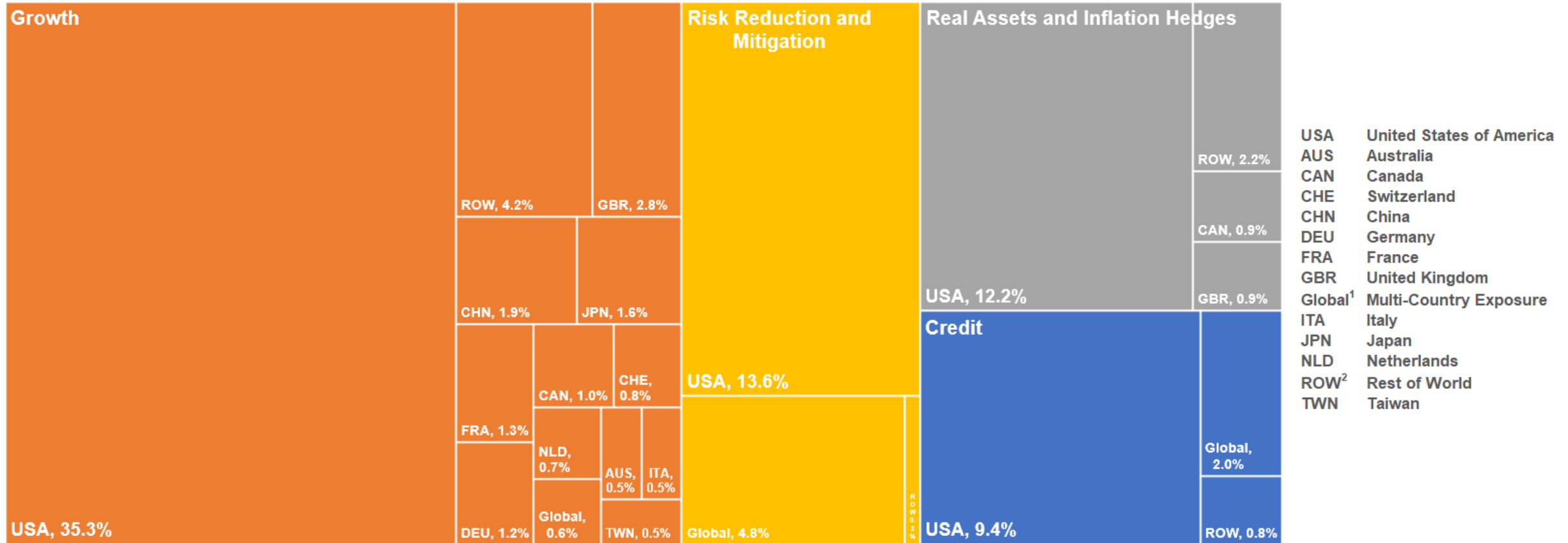
¹ "ROW - Rest of World" is sum of countries with weights below 0.5%.

² Global represents investments made in regions where specific country allocations are not available.

SOURCE: MSCI BarraOne

Geographic Exposures by AUM

Functional Categories as of October 2023* Ex-Overlays and Hedges



- USA United States of America
- AUS Australia
- CAN Canada
- CHE Switzerland
- CHN China
- DEU Germany
- FRA France
- GBR United Kingdom
- Global¹ Multi-Country Exposure
- ITA Italy
- JPN Japan
- NLD Netherlands
- ROW² Rest of World
- TWN Taiwan

AUM = Assets under management.

Geographic exposure is based on the domicile country of a given security/asset.

* Implementation of the MSCI Risk Platform is ongoing; reconciliation and refinement of the data is progressing and subject to change.

Real Estate and Private Equity data is based on best available cash flow adjusted market values. Exposure data is based on security level holdings and/or proxies.

¹ Global represents investments made in regions where specific country allocations are not available.

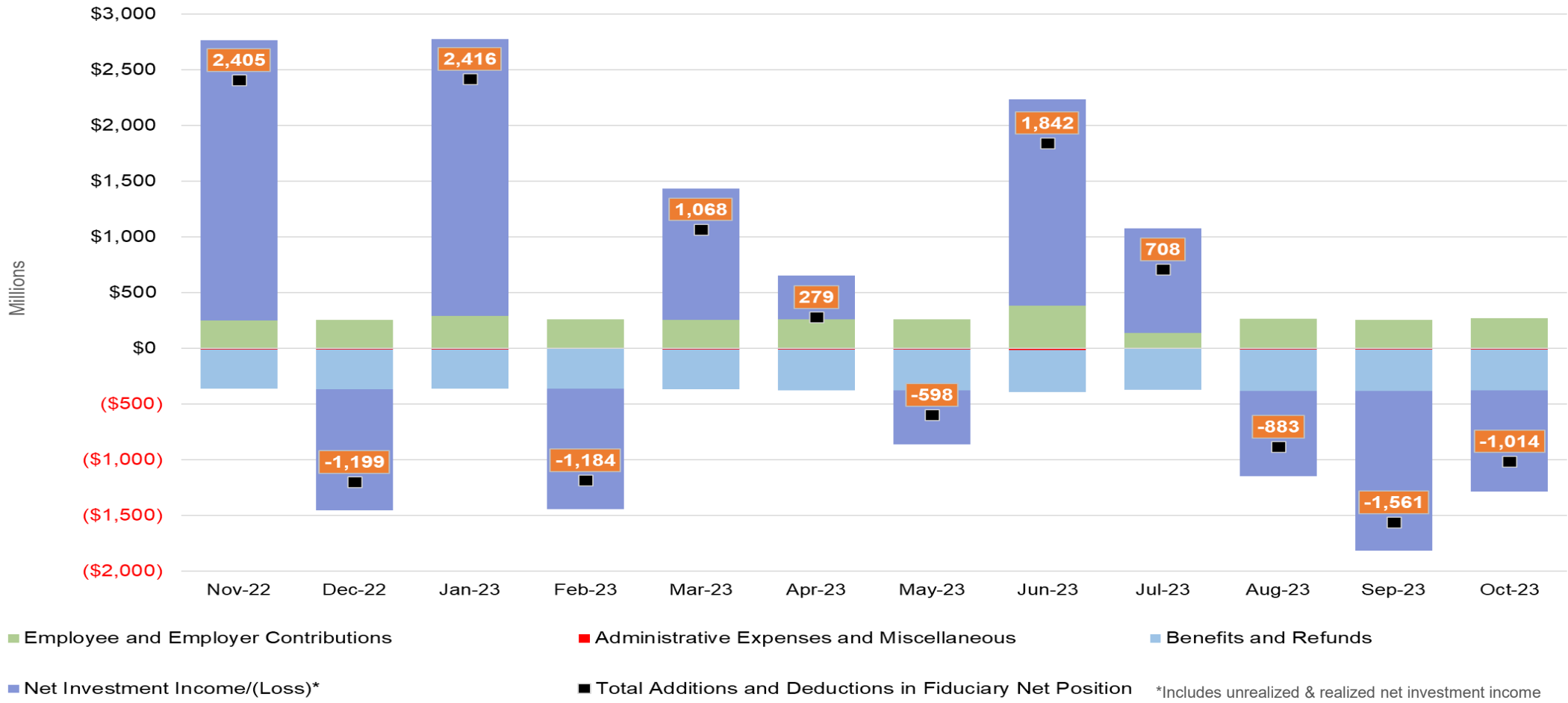
² "ROW - Rest of World" is sum of countries with weights below 0.5%.

SOURCE: MSCI BarraOne

Change In Fiduciary Net Position



Additions and Deductions in Fiduciary Net Position (Unaudited)



Fiscal Year	Negative Months	Positive Months	Total Net Position Change \$
FY-22	7	5	(\$2.5 billion)
FY-23	5	7	\$3.3 billion
FY-24	3	1	(\$2.8 billion)



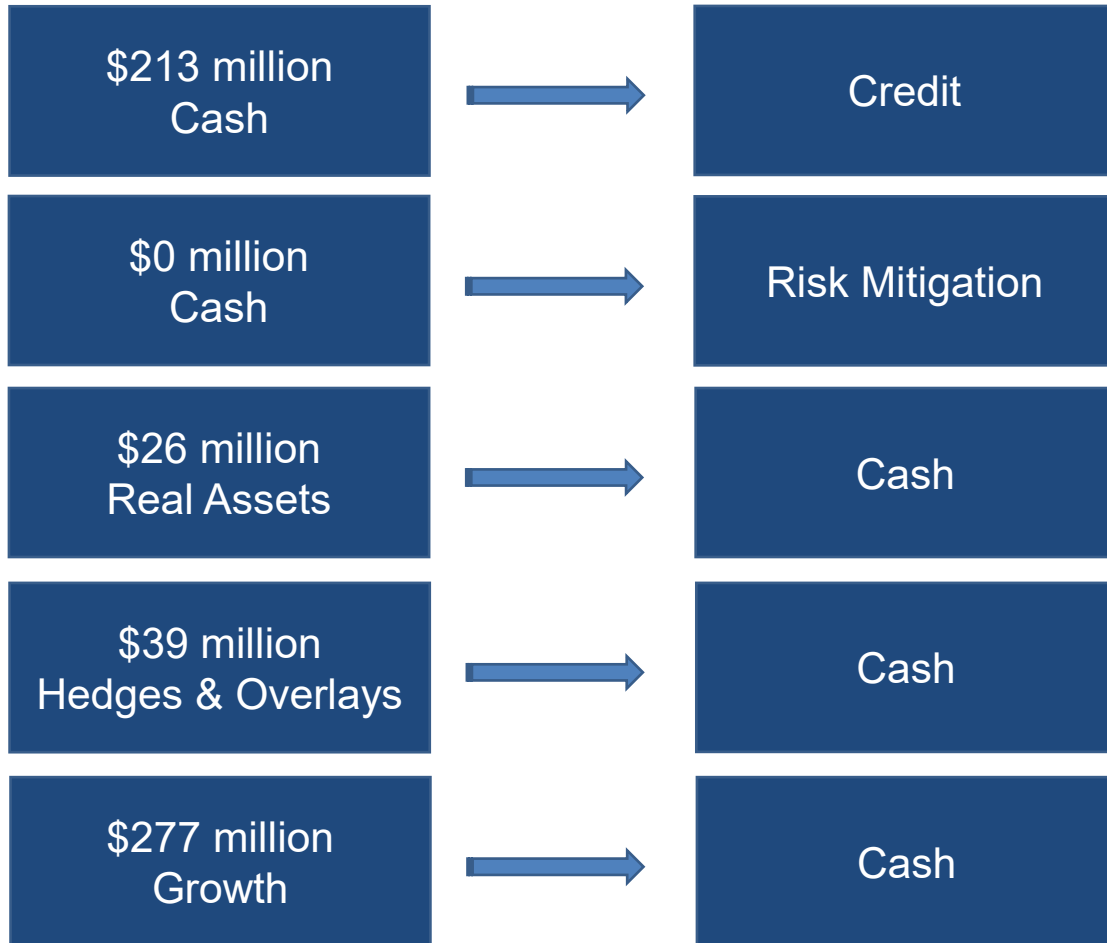
03 Portfolio Structural Updates

Portfolio Structural Updates



Portfolio Movements

Rebalancing Activity



Hedges & Overlays

Monthly Activity

Program	October Return	October Gain/(Loss)	Inception ¹ Gain/(Loss)
Currency Hedge ²	0.6%	\$38.8 Million	\$1.4 Billion
Cash/Rebalance Overlay ³	-1.2%	(\$33.7 Million)	\$251.8 Million

¹ Currency and overlay program inception dates are 8/2010 & 7/2019, respectively.

² LACERA's currency hedge program's 1-month return is calculated monthly whereas the monthly gain/loss amount for the same period is the net realized dollar amount at contract settlement over three monthly tranches.

³ LACERA's overlay program's 1-month return includes interest earned on the cash that supports the futures contracts.

Current Search Activity

Status of Active Searches – Subject to Change

Name	RFP Issued	Due Diligence	Selection/Review
Real Assets Emerging Manager Program Search	✓	✓	TBD
Private Market Analytics Platform Search	✓	✓	TBD



04 Key Initiatives & Operational Updates

Notable Initiatives and Operational Updates



Key Initiative Updates

- The 2024 Strategic Asset Allocation study is underway
- The 2024 Work Plan and Strategic Initiatives are in development
- Board education library under development

Operational Updates

- Annual contract compliance, fee report, and LACERA T.I.D.E. initiatives are in progress with two of the reports being presented at the December BOI.

Manager/Consultant Updates

Aermont – Real Estate - entered a strategic partnership with Keppel Corporation Limited, a Singapore-based asset manager, commencing with a 50/50 joint venture in H1 2024 and concluding with Keppel acquiring the remaining 50% stake in H1 2028. The deal is pending approval from Aermont's LPs, Luxembourg CSSF, UK FCA, and EU regulatory authorities.

Team Searches and Vacancies

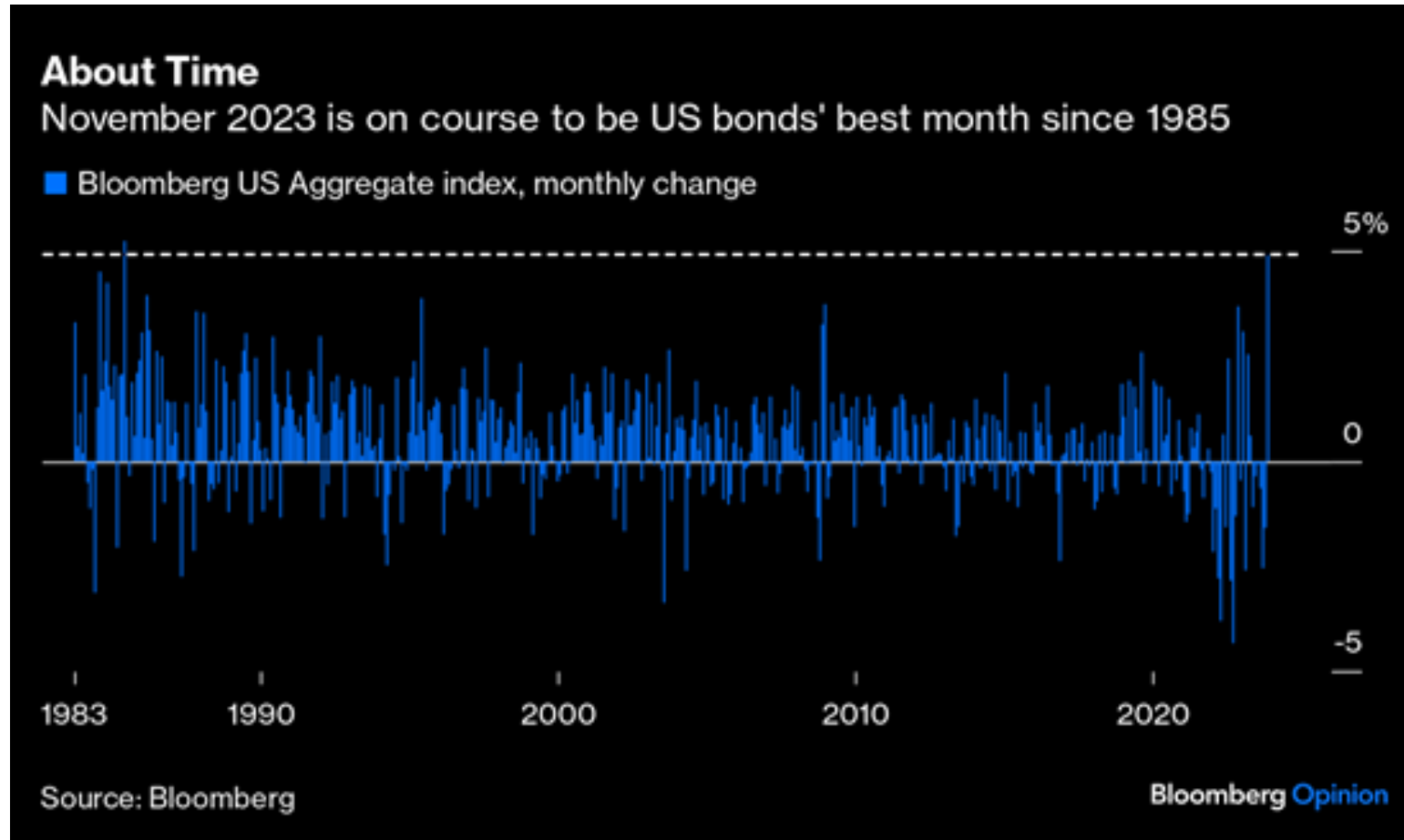
- Principal Investment Officer
- 4 – Senior Investment Officer
 - 2 in progress
- 2 – Financial Analyst-III
 - 2 in progress
- Financial Analyst-II
 - 1 in progress



05 **Commentary**

Staff Chart of the Month

U.S. Bonds Best Monthly Performance Since 1985





06 Appendix

Quiet Period for Search Respondents



Real Assets Emerging Manager Program Discretionary Separate Account Manager Search

- ✓ BlackRock Investments, LLC
- ✓ ACRES Capital
- ✓ Aether Investment Partners
- ✓ Cloverlay
- ✓ ORG Portfolio Management
- ✓ Barings
- ✓ Belay Investment Group
- ✓ Encore Enterprises, Inc.
- ✓ Stable
- ✓ Cambridge Associates
- ✓ GCM Grosvenor
- ✓ The Townsend Group
- ✓ Cypress Creek Partners
- ✓ Hamilton Lane Advisors
- ✓ Neuberger Berman Group
- ✓ Wafra Inc.
- ✓ Artemis Real Estate Partners
- ✓ Hawkeye Partners, LP
- ✓ Astarte Capital Partners
- ✓ Bentall Green Oak
- ✓ Clear Sky Advisers
- ✓ Clear Investment Group
- ✓ Poverni Sheikh Group
- ✓ Trilogy
- ✓ Stepstone
- ✓ Oak Street
- ✓ White Deer

Private Market Analytics Platform Search

- ✓ BlackRock
- ✓ Burgiss
- ✓ CEPRES
- ✓ Clearwater
- ✓ Dynamo
- ✓ Hamilton Lane
- ✓ Nasdaq



Recognizing Our Members' Service and Accomplishments

LACERA has over 100,000 active members working in dozens of L.A. County departments, many of whom dedicate their working lives to serving the community. Meet one of our long-serving active members working in public safety.



Pre-Retirement Member

Olga Fruge

Custody Assistant

Sheriff's Department, Marina Del Rey

Years of Service: 35

MEMBER SPOTLIGHT

Notable Contributions and Service: Ms. Fruge has dedicated her career to the vital role of custody assistant. Her daily duties span from booking and releasing inmates to ensuring their wellbeing, tasks she performs with unwavering patience and a deep sense of responsibility.

Source of Career Pride: Fruge joined the Sheriff's Department straight out of high school, and she's remained with LASD her entire career. She's honed her communications skills over the decades and treats inmates with respect, a challenging yet rewarding aspect of her job. Her sister and brother have also served the County.

Retirement Plans: Inspired by her mother, her personal hero, Fruge plans to retire in six years to pursue passions in fitness and teach classes like Zumba and kickboxing. She also looks forward to traveling, cycling, watching movies, and enjoying the beach.





November 28, 2023

TO: Each Trustee,
Board of Retirement
Board of Investments

FROM: Santos H. Kreimann *SHK*
Chief Executive Officer

SUBJECT: **CHIEF EXECUTIVE OFFICER'S REPORT – DECEMBER 2023**

The following Chief Executive Officer's Report highlights key operational and administrative activities that have taken place during the past month.

Strategic Plan (Action Planning)

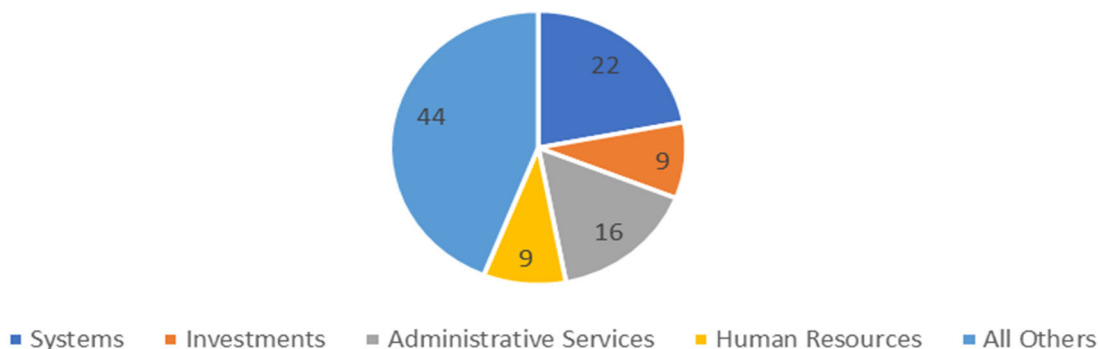
We are now at the stage of beginning to set up Action Planning teams for the various strategic objectives outlined with the Board of Retirement's approved Strategic Plan. During our LACERA Management Offsite in October, the team began to map out the strategic objectives over the next five years. The follow-up to that process is to develop action plans for strategic objectives identified within the first year and begin to execute on those action plans over the next year. The LACERA management team will provide the Board of Retirement with a quarterly update on our strategic planning activities beginning April of 2024.

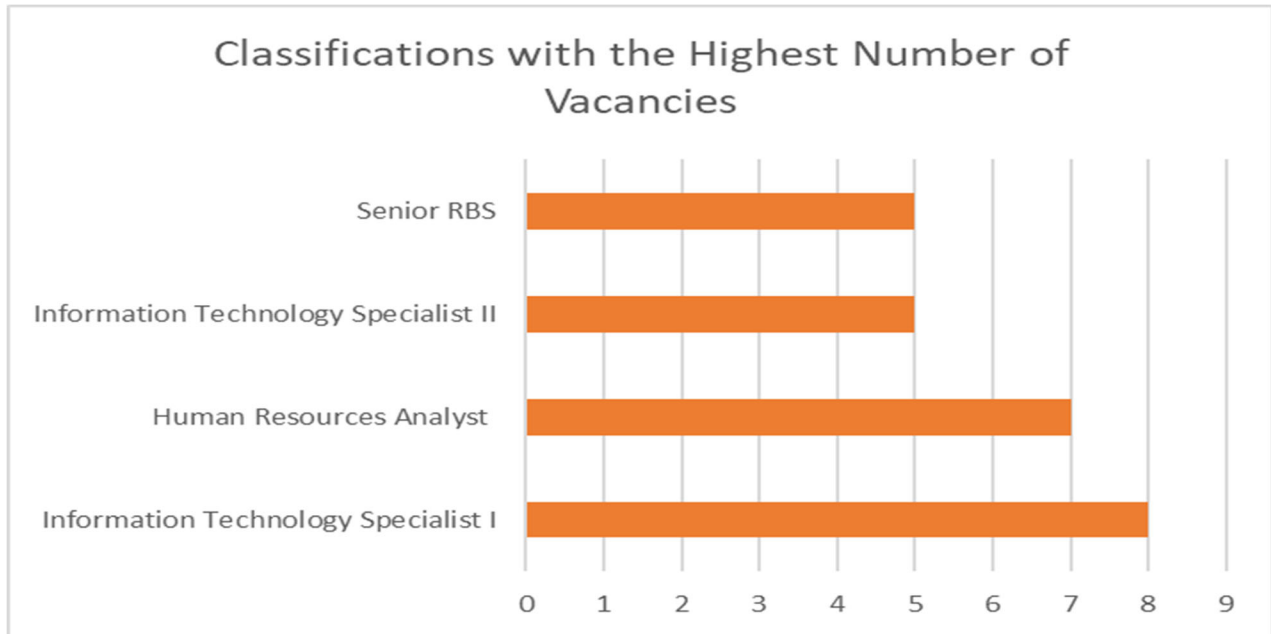
Recruitment Updates

LACERA has 534 budgeted positions, of which 114 are vacant (21% vacancy rate). Additionally, there are 7 over-hired positions (positions that temporary staff members are assigned to but are not permanently budgeted) in the Retirement Benefits Specialist I classification.

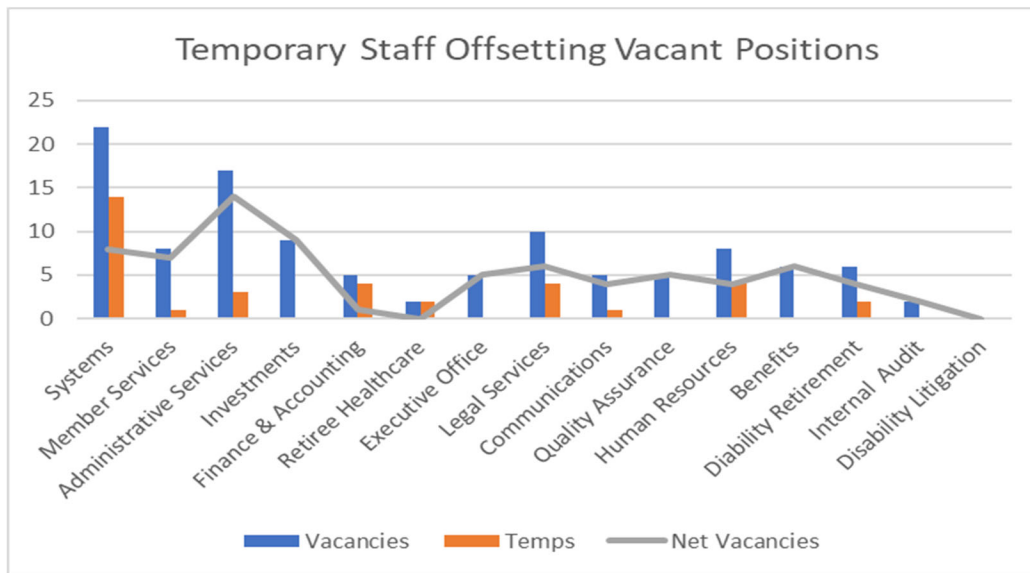
The Divisions with the highest number of vacancies, and the classifications with the highest number of vacancies, are shown below.

LACERA Divisions with Highest No. of Vacancies





The chart below highlights temporary hires across divisions to address critical vacancy needs in the short term.



External Recruitments

The Senior Investment Officer (Real Estate) and Finance Analyst III (Corporate Governance) recruitments have been posted with the assistance of EFL Associates.

The recruitment brochures for the following positions in the Legal Office continue to be open, with interviews being held as qualified candidates are identified:

- Senior Staff Counsel (Investments)
- Staff Counsel (Investments)
- Staff Counsel (Benefits)

The Senior Human Resources Analyst Eligible List was promulgated. Selection interviews are continuing.

The Human Resources Analyst Eligible List was promulgated. Selection interviews are currently in process.

Internal Recruitments

The Senior Investment Officer (Global Equities) recruitment has opened and the Finance Analyst III (Real Estate) recruitment has re-opened. Both recruitments will remain open until sufficient applications are received.

The Retirement Benefits Specialist I – (Temporary) Trainee examination was open for a week before being closed. We received four hundred and thirty-two (432) applications; the examination assessments are in process.

Resumes continue to be accepted for 14 Intern positions included in the Fiscal Year 2023-24 Adopted Budget. Six Interns worked over the summer in the first quarter of the fiscal year. Resumes have been reviewed and are being sent to the Divisions for consideration for assignments beginning in January as well as May/June.

In Development

The recruitments/assessments for the following classifications are currently in development in partnership with the various hiring divisions:

- Administrative Services Analyst I, II and III
- Chief Financial Officer

New Lists Promulgated, Hiring and Promotions

An open and promotional recruitment and examination process for Division Manager has been completed and resulted in the promotion of three internal candidates effective December 1, 2023.

The Senior Disability Retirement Specialist Eligible List was promulgated.

The Finance Analyst II examination continues to receive applications and selection interviews are continuing.

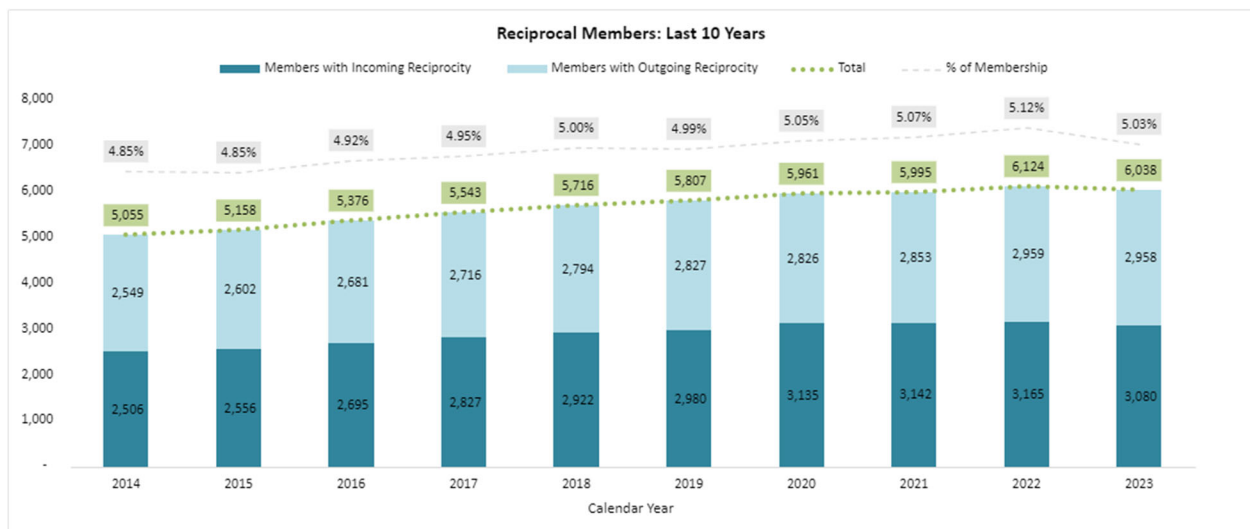
Two appointments for Information Technology Manager II (Project Management and Infrastructure) were made effective October 16, 2023, and November 1, 2023. Both are promotions as the candidates were internal. A third Information Technology Manager II position in the Business Solutions Unit was filled with an external appointment on November 1, 2023.

The Eligible Register for the Senior Staff Counsel (Benefits) was promulgated. An offer has been made and accepted; references checks are completed, and background is completed and pending final review and approval.

Reciprocal Membership Over the Years

At the November 2023 Board of Retirement meeting the Trustees requested an overview of LACERA Membership over the last 10 years. Reciprocity is a process whereby public servants in California can link service across two or more participating government organizations that allows them to preserve their age of entry (important for Legacy members) across multiple systems, use the combined service credit to meet retirement eligibility requirements, and allows them to use the highest final average compensation between the systems to calculate their benefits. The chart below provides an overview over the last ten years.

We generally look at members with reciprocity from two perspectives. Those that establish it as incoming new members (meaning they are joining LACERA after having served in another eligible organization) and those that establish reciprocity after leaving LACERA and going to another eligible organization. Over the last ten years, there has been a slight increase in the number of members who are reciprocal but overall reciprocal membership has hovered around 5% of our overall membership.



Retiree Healthcare

RHC 2024-2025 Renewal Process Timeline

LACERA's health plan vendor partners were sent our annual request for their 2024-2025 premium renewal proposals on September 25, 2023. Varying due dates for the return of their preliminary proposals were supplied ranging from October 20, 2023, through November 17, 2023.

As of the end of day on Friday, November 17, 2023, all preliminary proposals were received. Segal and staff are reviewing the preliminary proposals provided, with negotiations scheduled to begin thereafter.

Staff, along with Segal, expect to meet with each of our vendor partners to complete the renewal process on January 20th. The finalized 2024-2025 negotiated renewals are scheduled to be presented to the Insurance, Benefits, and Legislative Committee at the February 2024 meeting, and seeking final Board approval at the March 2024 meeting.

2024 Medicare Part B Premium Update

On October 12, 2023, the Center for Medicare & Medicaid Services (CMS) released the 2024 Medicare premiums and deductibles that will take effect on January 1, 2024. The standard Part B premium will increase from \$164.90 to \$174.70 per month, an increase of \$9.80 or nearly 6%. Staff reached out to both Segal and the plan sponsor, L.A. County, to begin the annual Board of Supervisors (BOS) approval process. Staff will promptly inform Trustees when this item will be placed on the BOS agenda for approval.

Last month staff reported that approval by the Board of Supervisors (BOS) for the 2024 standard Part B amount would appear on the December 19th BOS agenda. Since last reported, staff have been informed that this item will be presented earlier on the December 5, 2023, BOS agenda.

Upon receiving notification of approval by the BOS on December 5th, the website will be updated notifying members of the approval, followed by the annual mass mailing notification to approximately 39,000 retirees and eligible survivors on December 20th.

SHK
CEO report December 2023.doc

Attachments



CEO DASHBOARD



December 6, 2023

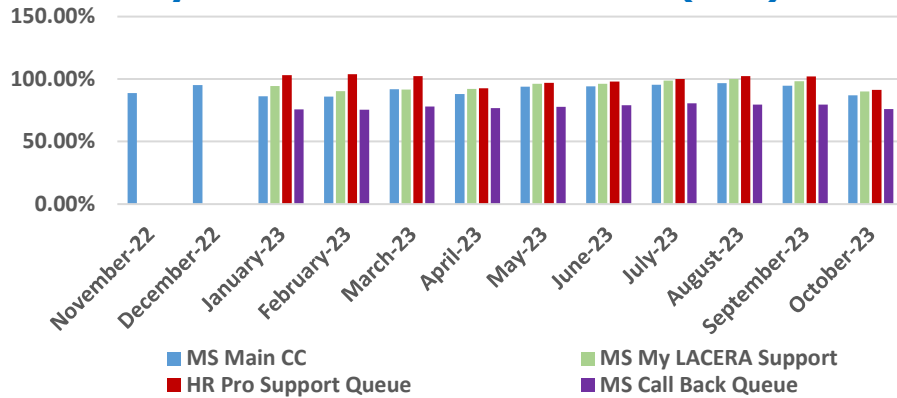


Striving for Excellence

Service Metrics Reported on a Fiscal Year Basis (July 1) Through: **October 2023**

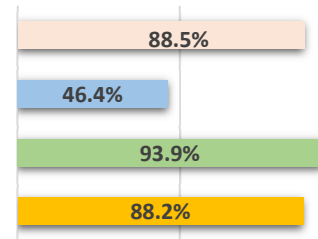
Events / Webinar Attendance Current Mo.: 1,627 Year-to-Date: 4,988	Events / Webinar Current Mo.: 26 Year-to-Date: 93	Webinar Satisfaction 0% Resp. Rate: 0% Change: 0%	Member Service Center Satisfaction 96.10% Resp. Rate: 19.5% Change: -0.11%	MS Main Queue Total Calls 8,675 Current Mo.: 8,675 3 Month Avg.: 8,738				
					Resp. Rate	Change	Resp. Rate	Change
					0%	0%	19.5%	-0.11%

Member Service Call Center Queue Key Performance Indicators (KPI)

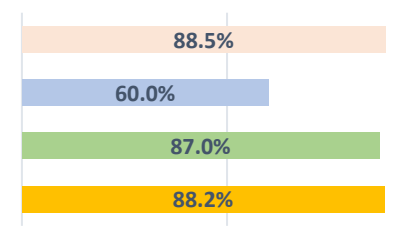


Key Performance Indicator (Components by Queue)

MSCC Main Queue



My LACERA Support Queue



Agent Utilization (Goal: 65%)

After Call Survey (Goal: 90%)

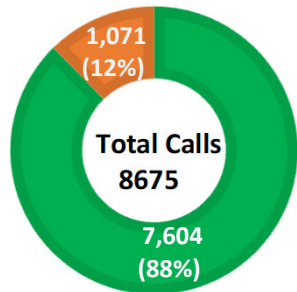
Grade of Service (Goal: 80% in 60 sec)

Call Monitoring (Goal: 95%)

Member Services

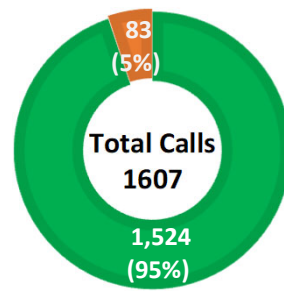
MSCC MAIN QUEUE

■ Calls Answered ■ Calls Abandoned



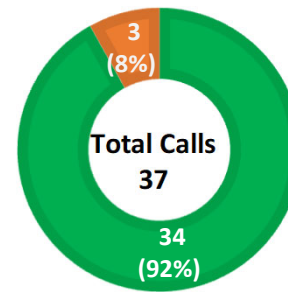
MY LACERA SUPPORT

■ Calls Answered ■ Calls Abandoned



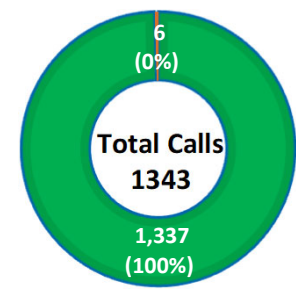
HR PRO SUPPORT

■ Calls Answered ■ Calls Abandoned



MS CALL BACK QUEUE

■ Calls Answered ■ Calls Abandoned



Queue KPI:	86.60%	Queue KPI:	90.10%	Queue KPI:	91.40%	Queue KPI:	76.02%
Avg. Speed of Answer	Average Duration	Avg. Speed of Answer	Average Duration	Avg. Speed of Answer	Average Duration	Avg. Speed of Answer	Average Duration
0:06:17	0:16:08	0:01:24	0:11:43	0:01:14	0:16:40	0:03:13	0:14:08



Striving for Excellence

Service Metrics Reported on a Fiscal Year Basis (July 1) Through: October 2023

TOP REASONS MEMBERS CONTACT MEMBER SERVICES

Member Services Call Center

Member Service Center (Outreach)

1. Retirement Counseling

1. Retirement Counseling

2. My LACERA

2. Retiree Healthcare

3. Workshops/Appointments

3. Power of Attorney

Contact Center Email/Secure Message Performance



Emails:

416



Secure Message

865

Est. Response Time (hours)

4:00:00

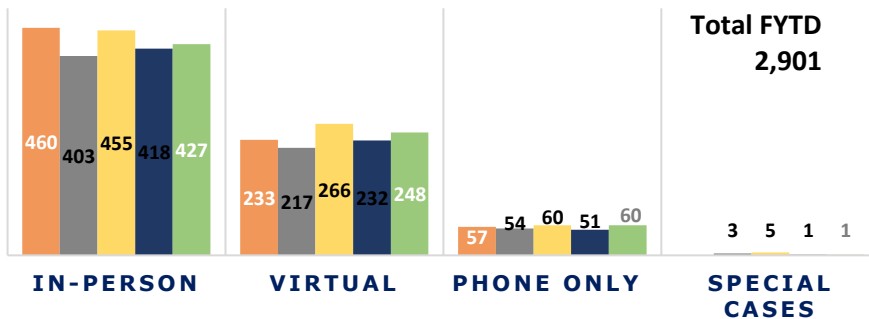
Est. Response Time (hours)

4:00:00

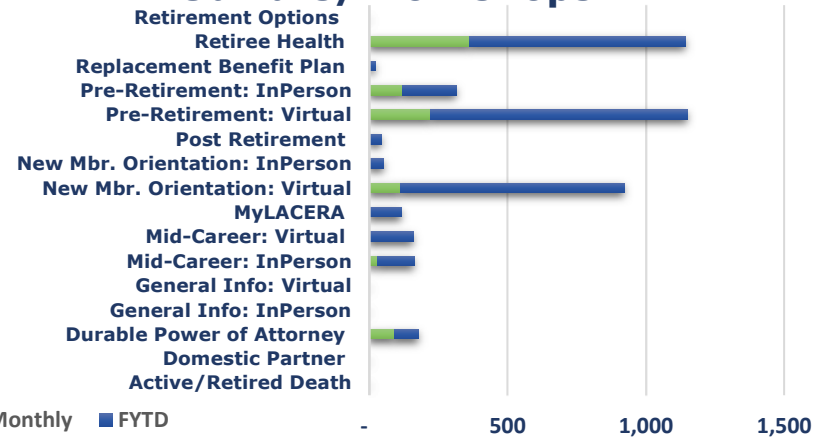
Member Service Center (Outreach)

Member Service Center Appointments

June July August September October



Members Served in Webinars/Workshops



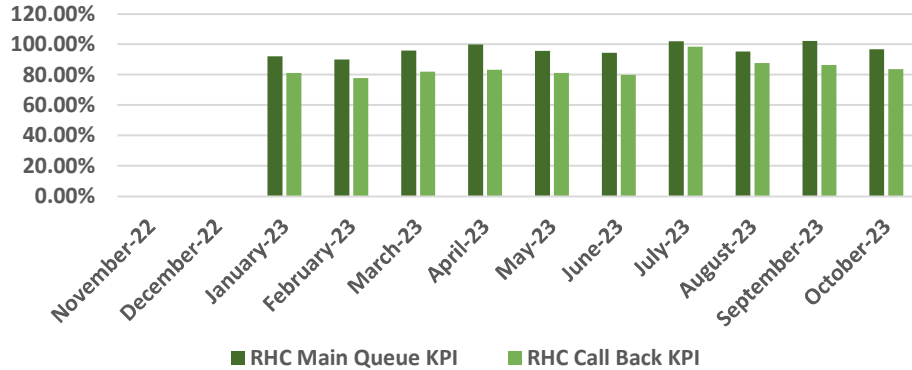
Member Services



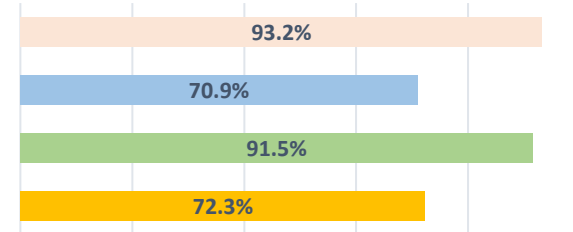
Striving for Excellence

Service Metrics Reported on a Fiscal Year Basis (July 1) Through: October 2023

RHC Call Center Queue Key Performance Indicator (KPI)



Key Performance Indicator (Components by Queue) Main RHC Call Center Queue

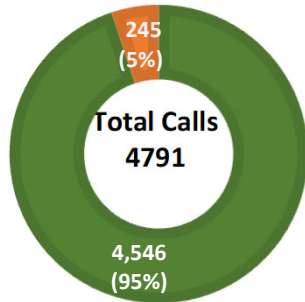


Agent Utilization (Goal:65%)	Grade of Service (Goal: 80% in 60 sec)
After Call Survey (Goal: 90%)	Call Monitoring (Goal: 95%)

Retiree Healthcare

RHC MAIN QUEUE

Calls Answered Calls Abandoned

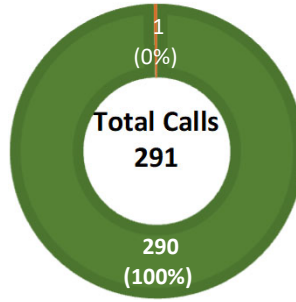


Queue KPI: 96.70%

Avg. Speed of Answer	Average Duration
0:02:28	0:12:01

RHC CALL BACK QUEUE

Calls Answered Calls Abandoned



Queue KPI: 83.70%

Avg. Speed of Answer	Average Duration
0:02:42	0:09:22

TOP RHC CALL TOPICS

1. Medical/Dental Enrollments
2. Medicare Part B
3. General Inquiries

RHC Email/Secure Message Performance



Emails:

355

Est. Response Time (hours)

72:00:00



Secure Message

397

Est. Response Time (hours)

24:00:00



Striving for Excellence

Service Metrics Reported on a Fiscal Year Basis (July 1) Through: **October 2023**

Applications 946

In Process
As Of
10/31/2023

■	948	Pending on:	9/30/2023
■	64	Received	
■	314	Year-to-Date	
■	0	Re-Opened	
■	0	Year-to-Date	
■	59	To Board - Initial	
■	203	Year-to-Date	
■	7	Closed	
■	31	Year-to-Date	

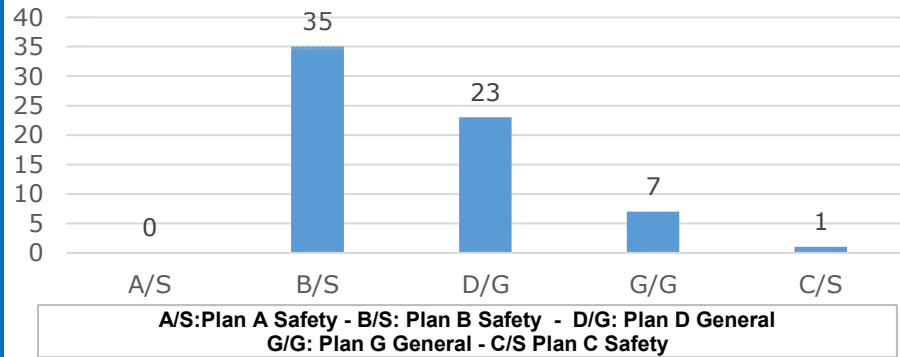
Appeals 69

In Process
As Of
10/31/2023

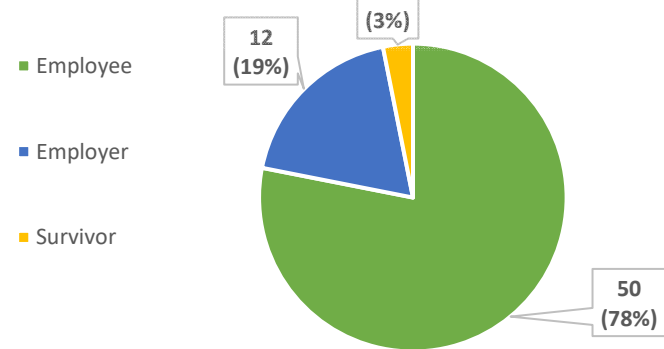
■	69	Pending on:	9/30/2023
■	1	Received	
■	4	Year-to-Date	
■	0	Admin Closed/Rule 32	
■	4	Year-to-Date	
■	1	Referee Recommended	
■	4	Year-to-Date	
■	0	Revised/Reconsidered for Granting	
■	0	Year-to-Date	

■ Pending: Applications In Process
 ■ Received: New Applications
 ■ Re-Opened: Apps Re-Opened
 ■ To Board: Presented to BOR
 ■ Closed: Incomplete/Withdrawn

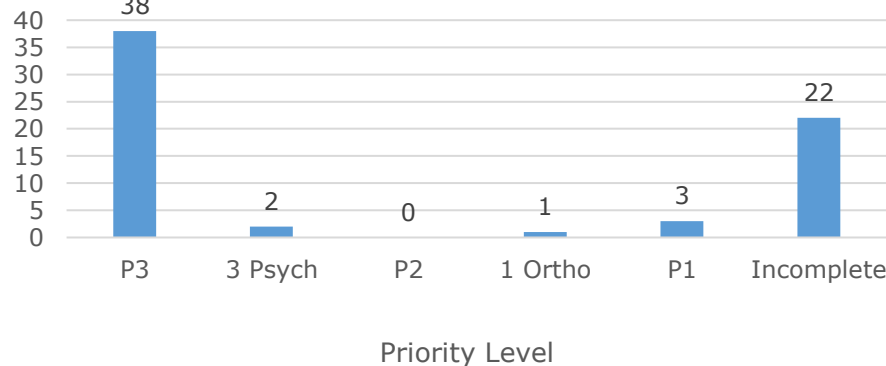
Applications Filed By Plan



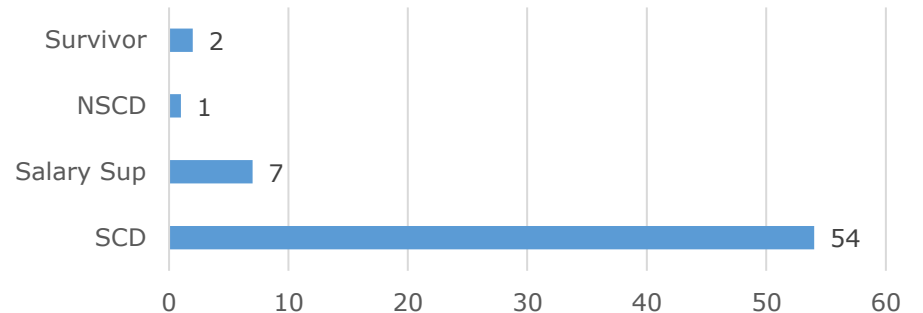
Applications Filed By Source



Applications Filed By Priority Level



Applications Filed By Type



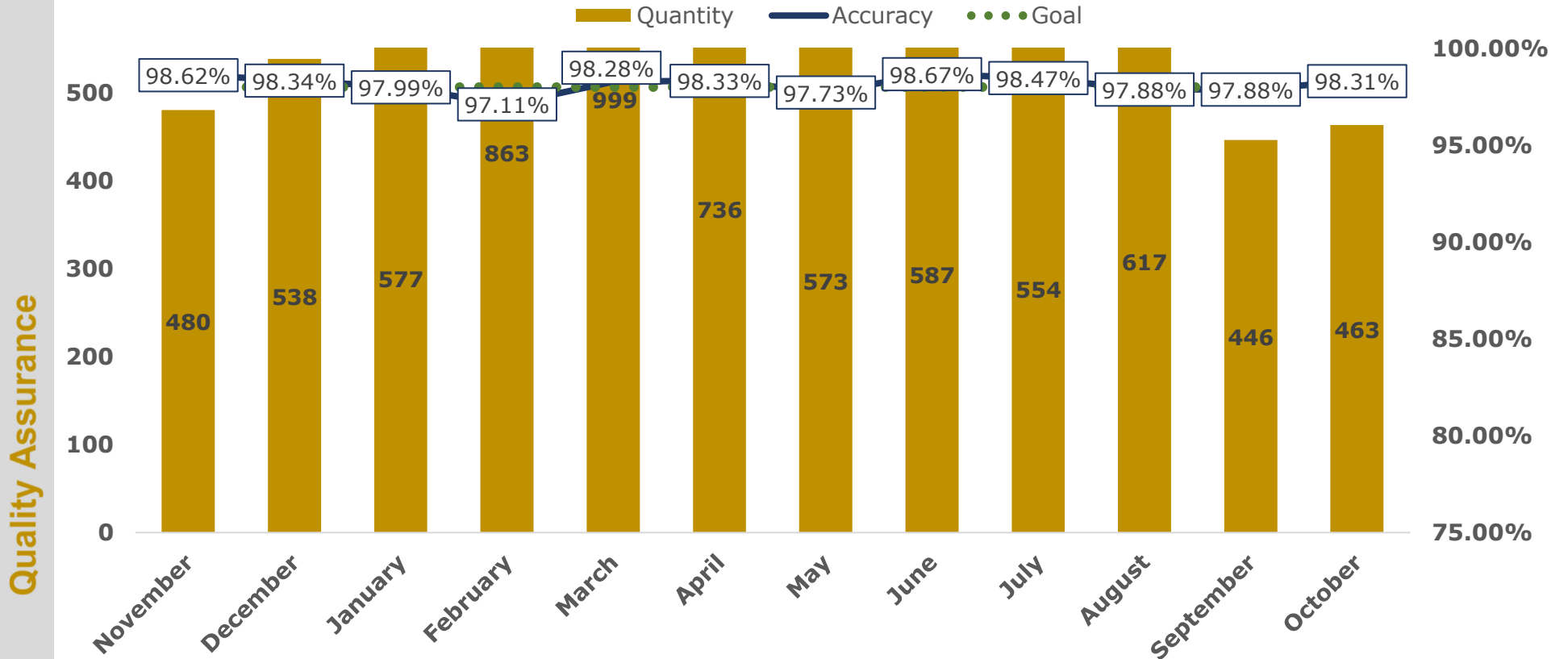
Disability



Striving for Excellence in Quality

Service Metrics Reported on a Fiscal Year Basis (July 1) Through: October 2023

Audits of Retirement Elections, Payment Contracts, & Data Entry Completed by QA (Goal: 98%)



September

98.31%



Retirement Elections

180 Samples
98.89% Accuracy

Payment Contracts

162 Samples
97.44% Accuracy

Data Entry

121 Samples
98.59% Accuracy

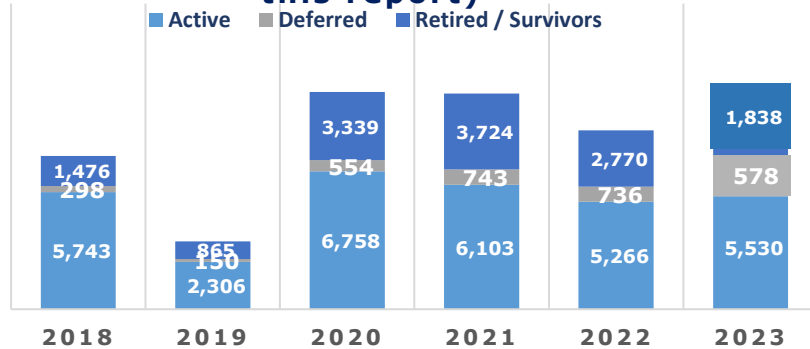


Service On-Line for All

Service Metrics Reported on a Fiscal Year Basis (July 1) Through: **October 2023**

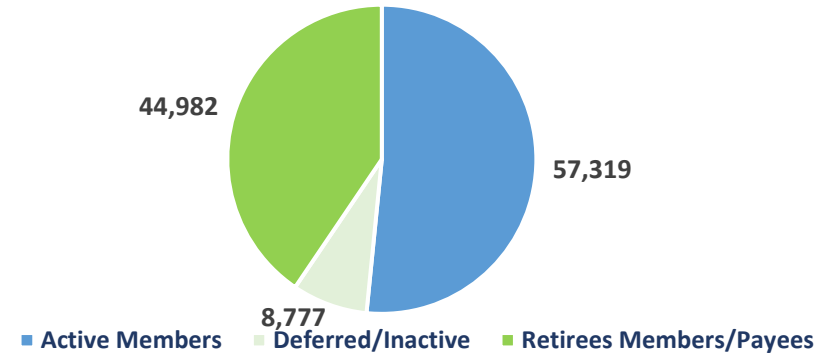
Serving Members Through LACERA.com and MyLACERA

My LACERA Annual Registration (as of the 15th of the month prior to this report)

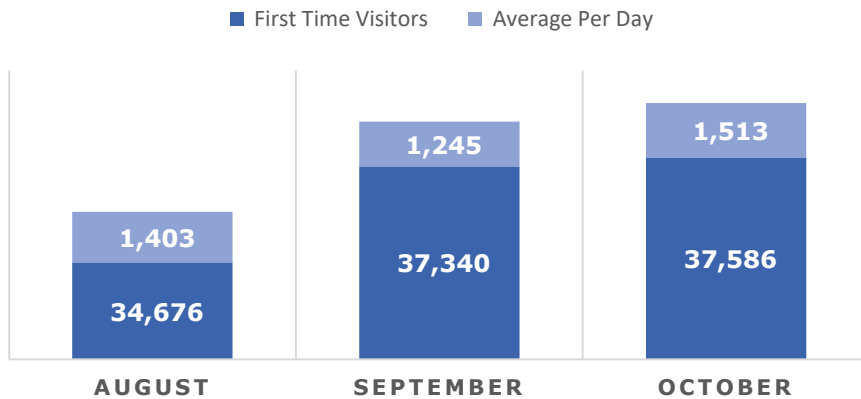


Registered Members / % Total **111,078** **58%**

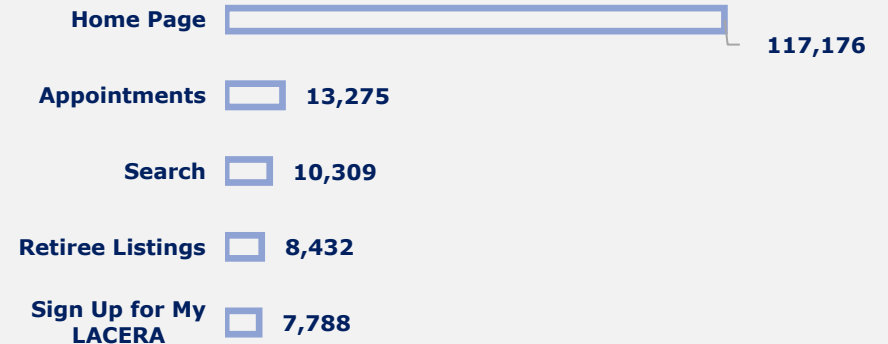
Total Registrations By Member Type



LACERA.com User Traffic



Top Five LACERA.com Page Views



Busiest Day of the Month:

Monday, 10/30/2023

Home Page Tile Views

	Views	% of Change
My LACERA	7,788	28%
Pre-Retirement Workshops	3,701	23%
Careers	3,791	7%
Investments	2,918	24%
Board Meetings	3,404	7%
Forms & Publications	259	26%

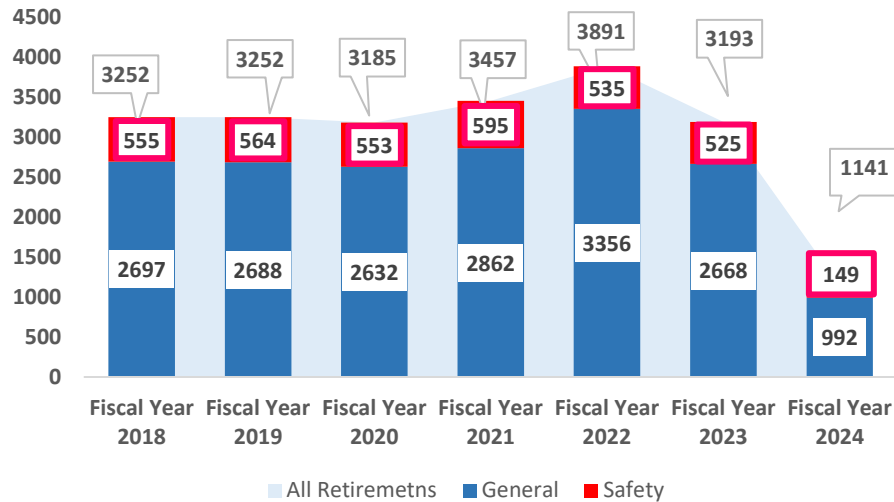


Member Snapshot

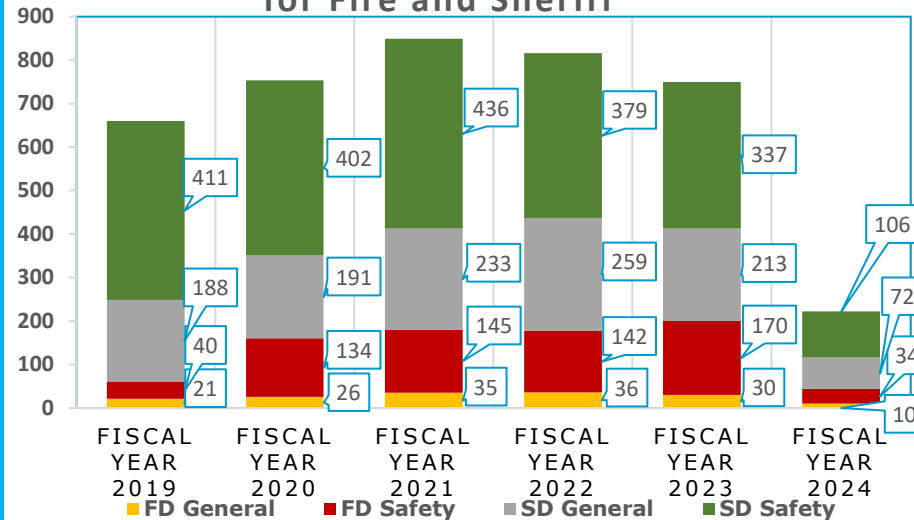
Membership Count as of: November 15, 2023

PLAN	ACTIVE		INACTIVE		RETIRED				Totals by Plan/Type
	Vested	Non-Vested	Vested	Non-Vested	Service	SCD - Disability	NSCD - Disability	Survivors	
General PLAN A	45	-	10	32	11,685	927	155	4,023	16,877
PLAN B	11	-	5	3	562	39	7	75	702
PLAN C	13	-	5	8	359	38	7	66	496
PLAN D	33,354	116	4,498	3,287	19,136	2,022	450	2,024	64,887
PLAN E	12,724	9	2,865	86	15,486	-	-	1,665	32,835
PLAN G	19,591	18,869	1,744	6,894	269	28	7	24	47,426
TOTAL GENERAL	65,738	18,994	9,127	10,310	47,497	3,054	626	7,877	163,223
Safety PLAN A	-	-	2	2	1,805	2,381	26	1,641	5,857
PLAN B	7,351	75	572	227	3,327	4,656	55	425	16,688
PLAN C	2,693	2,468	138	537	11	18	-	3	5,868
TOTAL SAFETY	10,044	2,543	712	766	5,143	7,055	81	2,069	28,413
TOTAL ALL TYPES	75,782	21,537	9,839	11,076	52,640	10,109	707	9,946	191,636

Total Retirements Compared by Type



General vs. Safety Retirements for Fire and Sheriff





Member Snapshot

Average Monthly Benefit Allowance Distribution 11/21/2023

	General	Safety	Total	%
\$0 to \$3,999	30,062	1,336	31,398	49.5%
\$4,000 to \$7,999	14,832	3,429	18,261	28.8%
\$8,000 to \$11,999	4,379	4,288	8,667	13.7%
\$12,000 to \$15,999	1,252	2,449	3,701	5.8%
\$16,000 to \$19,999	429	550	979	1.5%
\$20,000 to \$23,999	127	154	281	0.4%
\$24,000 to \$27,999	35	52	87	0.1%
> \$28,000	32	8	40	0.1%
Totals	51,148	12,266	63,414	100%

Average Monthly Benefit Amount:

\$ **4,868.00**

Healthcare Program

(Mo. Ending:10/31/2023)

	Employer	Member
Medical	\$213.3	\$15.1
Dental	\$16.6	\$1.5
Part B	\$30.9	\$0.0
Total	\$260.8	\$16.6

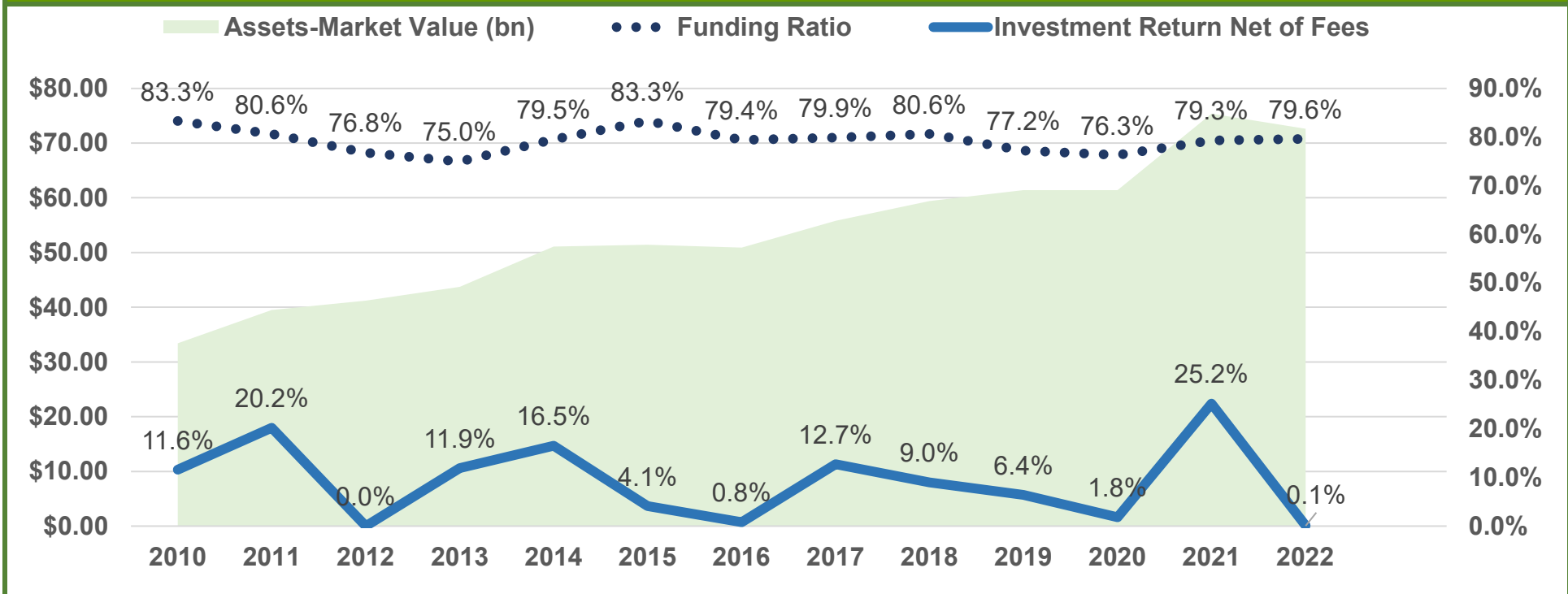
Health Care Enrollments

(Mo. Ending:10/31/2023)

Medical	55,538
Dental	57,493
Part B	38,321
LTC	482
Total	151,834

KEY FINANCIAL METRICS

Fiscal Year End Financial Update (as of 06/30/2022)





Key Financial Metrics

LACERA

The Los Angeles County Employees Retirement Association
Pension Dollar



10¢
Employee
Contributions

69¢
LACERA
Investment Earnings

21¢
Employer (County)
Contributions

FUNDING METRICS (as of 6/30/22)

Employer NC	11.12%
UAAL	14.72%
Assumed Rate	7.00%
Star Reserve	\$614m
Total Assets	\$70.3b

Contributions (as of 6/30/22)

	Employer	Member
Annual Add	\$2.2b	\$758.6m
% of Payroll	25.84%	8.21%

Investment Returns (as of 6/30/22)

	(Net of Fees)	
5 YR:	8.1%	10 YR: 8.6%

Retired Members Payroll (As of 10/31/2023)

Monthly Payroll	\$371.37m
Payroll YTD	\$1.5b
New Retired Payees Added	310
Seamless %	96.77%
New Seamless Payees Added	1,242
Seamless YTD	96.78%
By Check %	2.00%
By Direct Deposit %	98.00%

RETIREE PAYROLL BY YEAR





**QUIET PERIOD LIST FOR
TRUSTEES AND STAFF**

Last Update 11/27/2023

ADMINISTRATIVE/OPERATIONS

Solicitation Name	Issuing Division	Public Release Date	Solicitation Stage*	Bid Respondents*
RFP: Audit Committee Consultant	Internal Audit	9/06/2023	Vendor Selection	<ul style="list-style-type: none">• Audit and Risk Management Services• Mitchell Titus• Williams Adley
RFP: Policy Management Solution	Executive Office	2/3/2023	Soliciting Process	<ul style="list-style-type: none">• Compass 365• AuditBoard• LogicGate
RFI: Death Audit and Data Cleansing Services	Benefits	4/14/2023	Bid Review	<ul style="list-style-type: none">• PBI
RFP: Prepaid Debit Card Services	Benefits	6/15/2022 ISD's Website 08/2022	Contract Execution	<ul style="list-style-type: none">• Conduent
RFB: Classification and Compensation Study Services	Human Resources	8/24/2023	Vendor Selection	<ul style="list-style-type: none">• CBIZ• CPS-HR• McLagan• Global Governance Advisors

*Subject to change



INVESTMENTS

Solicitation Name	Public Release Date	Solicitation Stage*	Bid Respondents *
RFP: Commercial Real Estate Brokers	5/10/2023	Contract Execution	<ul style="list-style-type: none"> • CBRE Group • Eastdil
RFP: Real Assets Emerging Manager Program Discretionary Separate Account Manager	1/30/2023	Vendor Selection	<ul style="list-style-type: none"> • ACRES Capital • Aether Investment Partners • ORG Portfolio Management • Barings • Belay Investment Group • Encore Enterprises, Inc. • Stable • Cambridge Associates • GCM Grosvenor • The Townsend Group • Cypress Creek Partners • Hamilton Lane Advisors • Neuberger Berman Group • Wafra Inc. • Artemis Real Estate Partners • Hawkeye Partners, LP • BlackRock • Astarte Capital Partners • Bentall Green Oak • Clear Sky Advisers • Clear Investment Group • Poverni Sheikh Group • Trilogy • Stepstone • Oak Street • White Deer
RFP: Private Market Analytics Platform Search	8/11/2023	Vendor Selection	<ul style="list-style-type: none"> • BlackRock • Burgiss • CEPRES • Clearwater • Dynamo • Hamilton Lane • Nasdaq

*Subject to change

Date	Conference
December, 2023	
1	CALAPRS (California Association of Public Retirement Systems) Round Table – Benefits Virtual
6	Southeast Investors Annual Meeting Miami, FL
January, 2024	
22-24	NCPERS (National Conference on Public Employee Retirement Systems) Legislative Conference Washington D.C.
29-31	IFEBP (International Foundation of Employment Benefit Plans) Health Benefits Conference & Expo Clearwater, FL
February, 2024	
March, 2024	
2-5	CALAPRS (California Association of Public Retirement Systems) General Assembly 2024 Rancho Mirage, CA
4-6	Council of Institutional Investors (CII) Spring Conference Washington D.C.
6-7	IFEBP (International Foundation of Employment Benefit Plans) Investments Institute Rancho Mirage, CA
6-8	Pacific Pension Institute (PPI) Winter Roundtable Napa, CA
12-14	AHIP (America’s Health Insurance Plans) Medicare, Medicaid, Duals and Commercial Markets Forum Baltimore, MD
21-22	PREA (Pension Real Estate Association) Spring Conference Nashville, TN
April, 2024	
4-5	IFEBP (International Foundation of Employment Benefit Plans) Health Care Mgmt. Conference Rancho Mirage, CA
15-19	Investment Strategies & Portfolio Management Wharton School, University of Pennsylvania

Date	Conference
May, 2024	
6-7	IFEBP (International Foundation of Employment Benefit Plans) Washington Legislative Update Washington D.C.
7-10	SACRS Spring Conference Santa Barbara, CA
18-19	NCPERS (National Conference on Public Employee Retirement Systems) Trustee Educational Seminar (TEDS) Seattle, WA
18-19	NCPERS (National Conference on Public Employee Retirement Systems) Accredited Fiduciary (NAF) Program Seattle, WA
19-22	NCPERS (National Conference on Public Employee Retirement Systems) Annual Conference & Exhibition (ACE) Seattle, WA
29-30	thINc360 – The Healthcare Innovation Congress (formerly World Healthcare Congress) Washington D.C.
June, 2024	
11-13	AHIP (America’s Health Insurance Plans) 2024 Las Vegas, NV
10-12	National Association of Securities Professionals (NASP) Annual Financial Services Conference Atlanta, GA
July, 2024	
10-12	Pacific Pension Institute (PPI) Summer Roundtable Amsterdam, Netherlands
15-17	ICGN 2024 Annual Conference London, England
August, 2024	
18-20	NCPERS (National Conference on Public Employee Retirement Systems) Public Pension Funding Forum Boston, MA
September, 2024	
9-11	Council of Institutional Investors (CII) Fall Conference Brooklyn, NY
October, 2024	
6-9	National Association of Corporate Directors (NACD) Directors Summit 2024 Gaylord National Harbor, Washington D.C.

Date	Conference
October, 2024	
14-18	Investment Strategies & Portfolio Management Wharton School, University of Pennsylvania
23-25	PPI Asia Pacific Roundtable Hong Kong
23-25	PREA (Pension Real Estate Association) Annual Institutional Investor Conference Washington D.C.
23-25	Pacific Pension Institute (PPI) Asia Pacific Roundtable Hong Kong
26-27	NCPERS (National Conference on Public Employee Retirement Systems) Program for Advanced Trustee Studies (PATS) Palm Springs, CA
26-27	NCPERS (National Conference on Public Employee Retirement Systems) Accredited Fiduciary (NAF) Program Palm Springs, CA
27-30	NCPERS (National Conference on Public Employee Retirement Systems) Public Safety Conference Palm Springs, CA
November, 2024	
10-13	IFEBC (International Foundation of Employment Benefit Plans) Annual Employee Benefits Conference San Diego, CA
12-14	Institutional Limited Partners Association (ILPA) General Partner Summit New York, NY
December, 2024	

November 17, 2023

TO: Each Trustee,
Board of Retirement
Board of Investments

FROM: Joint Organizational Governance Committee
Herman B. Santos (BOI) Chair
David Green (BOI) Vice Chair
Gina Sanchez (BOI)
Onyx Jones (BOI)
Shawn Kehoe (BOR)
Alan Bernstein (BOR)
Elizabeth Greenwood (BOR)
Ronald Okum (BOR)

FOR: December 6, 2023 Board of Retirement Meeting
December 13, 2023 Board of Investments Meeting

SUBJECT: Revised Trustee Education and Travel Policies

RECOMMENDATION

That the Board of Retirement and Board of Investments approve the revised Trustee Education and Travel Policies.

LEGAL AUTHORITY

Under Section 7.2 of its Charter, the Joint Organizational Governance Committee (JOGC) has the responsibility to “assist in the development of and make recommendations with respect to all joint policies, such as ... education and travel.” The Board of Retirement and Board of Investments in turn have plenary authority and exclusive fiduciary responsibility for the administration of the system and may exercise that authority to approve reasonable policies governing Board operations, such as the Education and Travel Policies. Cal. Const., art. XVI, § 17.

DISCUSSION

In recent months, Trustees have raised questions about external educational opportunities for new Trustees before their term of office begins; this subject is not currently addressed in the Trustee Education and Travel Policies. Trustees have also raised questions regarding ambiguity in the current Trustee Travel Policy language as to the need for Board approval for travel to conferences on the pre-approved list attached as Appendix B to the Trustee Education Policy.

The attached proposed revised policies address both issues.¹ The notation format of the changes in both policies has been updated in the attachments so that changes recommended by the JOGC are clearly identified.

A. New Trustee External Educational Conferences.

Based on input provided by the JOGC, the Trustee Education Policy is proposed to be revised to give authority to each Board Chair, in consultation with the Chief Executive Officer (CEO), to approve new Trustees for attendance at reasonable external Educational Conferences after their election or appointment has been certified or approved by the Board of Supervisors and after they have completed all staff orientation already required by the Policy. Under the proposed language, eligible conferences include those already identified in the Policy as prerequisites for international travel: American Health Insurance Plans (AHIP) National Policy Forum or World Health Care Congress for Board of Retirement Trustees; the State Association of County Retirement Systems (SACRS) Public Pension Investment Management Program or the University of Pennsylvania Wharton School of Business Portfolio Concepts and Management course for Board of Investments Trustees. Approval may also be authorized to attend at other pre-approved Educational Conferences in Appendix B deemed appropriate as foundational to public pension fund governance and the role and responsibilities of new Trustees on the Board on which they will serve. See attached revised Trustee Education Policy, Sections III.B (page 2), III.E (page 3), the last paragraph of IV.C.2 (page 5), Section VIII (page 7), and Appendix B (pages 12).

The Trustee Travel Policy is proposed to be revised to confirm each Chair's authority, in consultation with the CEO, to approve reasonable travel expenses for attendance at the external Educational Conferences described above. See Trustee Travel Policy, Section III.A (page 4).

B. Approval Requirements.

The Trustee Travel Policy is revised to clarify that domestic travel to Educational Conferences on the pre-approved list, Appendix B to the Trustee Education Policy, is also

¹ The redlined copy of the Education Policy presented to the JOGC was inadvertently based on a prior version that did include the changes approved by the Boards at their September 2023 meetings (removal of Government Finance Officers Association (GFOA) conferences, seminars, and meetings, Harvard Law School Labor and Worklife Program conferences, seminars, and programs, and Milken Institute conferences, seminars, and meetings as pre-approved). The redline attached here deletes those conferences so that the comparison is to the correct current version. This does not change or affect the changes recommended by the JOGC as addressed in this memo.

Re: Revised Trustee Education and Travel Policies

November 17, 2023

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pre-approved subject to the other requirements of the Trustee Travel Policy. The Trustee Travel Policy is also clarified that each Chair, in consultation with the CEO, may approve reasonable travel for new Trustees to attend Educational Conferences under the provisions discussed in the preceding section of this memo. See Sections III.A (page 3) and III. E. ii (page 4). As presented to the JOGC, a corresponding change is also made in the Education Policy. See Section VII (page 7).

CONCLUSION

The JOGC recommends that the Board of Retirement and Board of Investments approve the revised Trustee Education and Travel Policies.

Attachments

c:	Santos H. Kreimann	Laura Guglielmo	Ted Granger
	Jonathan Grabel	JJ Popowich	Christina Logan
	Luis A. Lugo	Richard Bendall	Ervin Wu

**PROPOSED REVISIONS
TRUSTEE EDUCATION POLICY**



TRUSTEE EDUCATION POLICY

LACERA Board of Retirement & Board of Investments

Adopted ~~September 13, 2023~~ 2023

TRUSTEE EDUCATION POLICY

I. PURPOSE

The purpose of this policy is to align the elements of LACERA's Trustee education program with the Mission, Vision, Values, and work culture of the organization. More specifically, the program is intended to assist all Trustees to obtain knowledge and receive relevant information that will enhance their understanding of the issues facing LACERA and equip the Trustees to discharge and further their fiduciary duties for the sole benefit of active members, retirees, and their beneficiaries under a framework compliant with applicable law and policy, including the 24-hour biennial education requirement of Government Code Section 31522.8 and the beliefs set forth in LACERA's Investment Policy Statement. The program will be administered in a manner that can be overseen by the Board of Retirement and Board of Investments and understood by LACERA's members and other stakeholders as reasonable and cost-effective in fulfilling LACERA's Mission to Produce, Protect, and Provide the Promised Benefits. This policy applies to LACERA Trustees only.

"Educational Conferences" are those conferences, seminars, and meetings that have an educational purpose. "Administrative Meetings" are meetings attended by Trustees in their LACERA capacity and further LACERA's interests, including legislative advocacy, speaking engagements, including a domestic and international Educational Conference at which a Trustee gives a speech, positions in the administration of pension related organizations, and similar events.

II. PRINCIPLES

The following principles shall govern what, why, when, where, and how Trustee education is obtained and the interpretation of this policy.

A. *Performance of Fiduciary Duty.* Education is necessary and should be encouraged and undertaken in order that Trustees may obtain knowledge relevant to the proper performance of their fiduciary duty under the California Constitution, the County Employees Retirement Law of 1937 (CERL), and other applicable laws by a reasonable method and at reasonable cost for the value received, and further LACERA's interests. Specifically:

1. Duty of Loyalty. Education must assist the Trustees to perform their fiduciary duty of loyalty to "discharge their duties with respect to the system solely in the interest of, and for the exclusive purposes of providing benefits to, participants and their beneficiaries, minimizing employer contributions thereto, and defraying reasonable expenses of administering the system. A retirement board's duty to its participants and their beneficiaries shall take precedence over any other duty." Cal. Const., art. XVI, § 17(b); see Cal. Gov't Code § 31595(a).
2. Duty of Prudence. Education must assist the Trustees to perform their fiduciary duty of prudence to "discharge their duties with respect to the system with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like

capacity and familiar with these matters would use in the conduct of an enterprise with a like character and like aims.” Const., art. XVI, § 17(c); see Cal. Gov’t Code § 31595(b).

- B. Further a Common Foundation of Knowledge.** A foundation of common knowledge, or Trustee Competencies, relevant to LACERA and its Mission is necessary among all Trustees to fulfill their fiduciary duty.
- C. Opportunities for Enrichment.** The fiduciary value of education includes alternatives and choices for individual Trustees to pursue enrichment in areas of interest and specialization related to LACERA and its Mission, and to stay abreast of current developments.
- D. Sharing of Information.** Because education a group effort as well as an individual endeavor, Trustees are encouraged to share information and perspectives concerning the education they separately pursue with fellow Trustees. For this reason, education should also include the flexibility and opportunities for Trustees to network with and obtain relevant knowledge from others in the public pension and investment communities.
- E. Leverage LACERA Resources.** A concerted effort should be made to present educational presentations in the boardroom to take advantage of the expertise of LACERA staff, LACERA consultants, and other outside experts to create a shared educational environment for all Trustees to interact, question, and receive common benefit.
- F. Annual Review of Education and Needs.** The fiduciary value of Trustee education is enhanced by each Trustee, on an individual basis, reviewing their past education each year and planning in advance when possible, for how to meet their educational goals in the coming year. An annual review process recognizes that Trustees and their individual educational needs evolve over time, and no single method of educating Trustees is optimal. Instead, the ability of Trustees to develop flexible education plans for themselves and to employ a variety of methods is necessary and appropriate and will assist staff to source and provide appropriate choices and opportunities that meet Trustee needs.
- G. Transparency and Monitoring.** Trustee education and its fiduciary value and cost should be transparent to LACERA’s members and other stakeholders. The Boards should be provided with information on a periodic and consistent basis to enable effective oversight of the Trustee education program.

III. NEW TRUSTEE ORIENTATION AND SUPPORT

- A. Attendance.** Each new Trustee and alternate, including the Treasurer and Tax Collector’s Chief Deputy, shall attend orientation.
- B. Timing for Orientation.** Orientation should occur before a new Trustee attends their first Board meeting and must be completed before travel to Educational Conferences or Administrative Meetings will be approved.
- C. Development and Content.** Orientation will be developed and overseen by

the Chief Executive Officer. Orientation will, at a minimum, include an overview of LACERA's independence, Mission, organizational structure, and key functions, Board and Trustee responsibilities and fiduciary duty, pension benefits and member services, retiree healthcare and the OPEB Trust, investments, legal issues, conflicts of interest and ethics, strategic planning, budget, and accounting, actuarial matters and contribution-setting, internal audit, Trustee education, and Trustee technology, resources, and support.

D. *Orientation Materials.* At or before orientation, the following materials shall be made available to new Trustees in electronic format or such other format as a Trustee request:

1. A confidential roster of names, addresses, and contact information for the Board Trustees.
2. A confidential roster of names, addresses, and contact information for the Executive Management team.
3. Board agendas, minutes, policies and procedures, the strategic plan, applicable law, and other available resources, and how to access them.
4. Other relevant material requested by the new Trustee or deemed appropriate by the Chief Executive Officer, including a binder of materials covering the orientation topics listed in Section III(C).

E. *External Education Before Effective Date of Term.* Each Board Chair, in consultation with the Chief Executive Officer, may approve external Educational Conferences for new Trustees after their election has been certified or their appointment approved by the Board of Supervisors and before their term effective date only after the new Trustee has completed all staff orientation. Educational Conferences for new Trustees before their term effective date are limited to the courses identified for each Board in Section IV.C.2 and other courses in Appendix B deemed appropriate as foundational to public pension fund governance and their role and responsibilities on the Board on which they will serve.

E.F. *Mentoring.* The Chief Executive Officer will establish a formal mentorship program to assist interested Trustees. Any new Trustee may request a mentor to assist them in becoming familiar with their responsibilities on the Board. If a request is made, the Board Chair(s) will designate one experienced Trustee to be a mentor to the new Trustee for a period of one year.

F.G. *Returning Trustees.* Trustees who have previously served non-consecutive terms on the Boards shall attend orientation to refamiliarize themselves with the content described in Section III.C and changes to the system during their absence. The content of returning Trustee orientation will be developed by the Chief Executive Officer in collaboration with each returning Trustee.

IV. ONGOING TRUSTEE EDUCATION

A. Required Education. CERL requires that all Trustees receive a minimum of 24 hours of Trustee education within the first two years of assuming office and for every subsequent two-year period the Trustee continues to serve on the Board. This requirement sets a minimum standard. Trustees may obtain additional education consistent with the provisions of this policy.

B. Appropriate Subject Matter. All education must be relevant to the duties and responsibilities of Trustees. In accordance with CERL, the Boards identify knowledge in the matters and areas set forth in the Trustee Competencies stated in Appendix A as appropriate for required education. All Trustees must seek education in and should strive to have knowledge in these areas to assist in the performance of their fiduciary duty and delivering on LACERA's Mission. In addition to these areas, Trustees may obtain education in other areas relevant to their fiduciary responsibilities. Members of Board committees are encouraged to focus a portion of their education on the subject matter of their committee.

C. Methods of Education. Since no one method of education is optimal, a Trustee's annual education should include various methods. In considering the various methods, Trustees should weigh the costs and benefits of each method. Trustee education may be obtained through the following:

1. In-House Education. The Chief Executive Officer will obtain annual Board approval for a program of in-house education for Trustees during regularly scheduled Board meetings, offsites, and other settings as may be permissible under the Brown Act. Such education will be provided by staff, LACERA consultants, and outside experts, except that the Chief Investment Officer will be responsible to plan and oversee investment-related education. LACERA consultants will be required in their contracts to provide Trustee education.

In addition to such other in-house education as may be provided, the Trustees shall receive regular training from fiduciary counsel in (1) fiduciary duty, (2) ethics and conflicts of interest, (3) governance, and (4) the Brown Act and Public Records Act. The Chief Executive Officer will develop a fiduciary counsel training schedule.

2. In-Person External Educational Conferences. Trustees may pursue in-person external education as provided in this policy, including conferences, seminars, and meetings. The Chief Executive Officer will obtain annual Board approval, maintain, and update on a current basis, a list of external educational options, organized by subject matter, appropriate for Trustees. The conferences listed in Appendix B are pre-approved. Trustees may attend external education that meets the criteria of this policy without additional approval, subject to the Boards' Trustee Travel Policy, provided that all international education must be approved by the applicable Board. For purposes of this policy Mexico and Canada are not considered international locations.

Every Trustee is authorized to attend up to 4 in-person external education opportunities per fiscal year (of which no more than 1 may be international), and up to 6 if the Trustee is serving simultaneously on both Boards at any time during the fiscal year (of which no more than 1 may be international), except that a Board may approve education in excess of these limits upon good cause. External education must have at least 5 hours of educational content per day. "International" education is all education that takes place outside the United States, except Mexico and Canada. Two conferences separated by no more than one day, with no additional travel, count as one conference.

Conferences located in California are not subject to the hour and number limits stated in the preceding paragraph.

The Chief Executive Officer will maintain Domestic and International Education Priority Lists for each Board for use when attendance at an event is limited. Trustees will be offered the opportunity to attend based on their place on the appropriate priority list. Trustees on each Board initially will be placed on applicable lists in order of the start date of their earliest term of continuous service on the Board (for appointed Trustees, a gap of 18 months or less will not break continuity of service). Trustees with the same priority date will be given priority in alphabetical order. A Trustee who attends an event based on their priority will be placed at the bottom of the list. New Trustees with no prior Board service or a gap of more than 18 months will be placed at the top of the list to facilitate their education.

Prior to attending an international benefits conference, a Trustee is required to attend an American Health Insurance Plans (AHIP) National Policy Forum or World Health Care Congress. Prior to attending an international investment conference, a Trustee is required to attend the State Association of County Retirement Systems (SACRS) Public Pension Investment Management Program or the University of Pennsylvania Wharton School of Business Portfolio Concepts and Management course. These courses are within the limits described above in this Section IV.C.2.

3. Virtual Education and Self-Study. Trustees are encouraged to attend webinars and other forms of virtual education, self-study, and other forms of education that do not require travel relating to LACERA and the performance of a Trustee's duties, including the conferences described in Section IV.C.2 above and Appendix B when offered virtually. If attendance is limited at such education, the same priority list as described in Section IV.C.2 will be used. Attendance at such education is exempt from the limits stated in Section IV.C.2 as to the number of in-person educational opportunities that may be attended. Virtual education and self-study are not limited by cost.
4. Periodicals. Trustees are encouraged to read periodicals related to the performance of their fiduciary duties as a valuable method of keeping current on relevant news and pension and investment trends, including but

not limited to those selected from a list of pension and investment-related periodicals maintained by the Chief Executive Officer. All subscriptions must be arranged through the Executive Office, and LACERA will bear the expense. The Chief Executive Officer will annually review and update the periodical list with input from Trustees.

5. Evaluation. Trustees may complete and submit to the Chief Executive Officer for distribution to all Trustees, an evaluation or syllabus of all in-person external conferences and virtual education attended. A suggested sample evaluation form is attached as Appendix C. Trustees are also encouraged to share knowledge from education at Board meetings during a Report on Trustee Education agenda item or when relevant during specific agenda items.

D. Assessment and Planning. Trustees are encouraged to assess their educational status and needs against the Trustee Competencies in Appendix A at the beginning of each calendar year and to use such information as the basis for establishing the Trustee's own self-development goals and education plan for the year. A suggested sample education plan format is attached as Appendix D.

E. Reporting and Monitoring. All Trustee education will be reported to the Chief Executive Officer. The Chief Executive Officer shall provide the Boards quarterly reports concerning the amount and type of Trustee education and post them on lacera.com. In addition, in compliance with CERL, the Chief Executive Officer will annually provide the Boards and post on lacera.com a report of each Trustee's compliance with the education requirement described in Section IV.A of this policy.

V. ADMINISTRATIVE MEETINGS

The relevant Board will be informed of a Trustee's need to attend Administrative Meetings and provide advance approval on such terms as deemed appropriate.

VI. BROWN ACT COMPLIANCE

Attendance at external education and Administrative Meetings by more than four members of a Board is not a violation of this provision, provided that the members may not discuss any item of LACERA business.

VII. GIFTS AND CONFLICTS

The Boards desire to avoid even the appearance of impropriety in connection with education, and related expenses. The Boards acknowledge that acceptance of gifts of education and related expenses, such as registration, transportation, meals, and lodging by a public agency, though permitted under certain circumstances by applicable law, can create the appearance that LACERA encourages "pay to play" and may, unwittingly, create opportunities for undue influence on Trustees. This policy therefore does not permit LACERA as an entity to accept gifts of education, and related expenses. This policy does not prohibit certain payments for education and/or related expenses as part

of the negotiated consideration under agreements with vendors, consultants, and managers, although all such payments should be reviewed in advance with the Legal Division to ensure compliance with applicable law, regulations, and reporting.

Items provided during education may constitute reportable gifts.

Trustees should be familiar with the provisions of LACERA's Code of Ethical Conduct as it may apply to education and interaction with and items received from the sponsors or other attendees.

VIII. TRAVEL POLICY AND PROCEDURES

This policy is subject to and will be read and interpreted in conjunction with the Trustee Travel Policy. [All travel expenses for Educational Conferences and Administrative Meetings must comply with the Trustee Travel Policy.](#)

IX. OTHER CHARTERS AND POLICIES

To reconcile this policy with the Board Charters and other Board policies:

- A. *Prevention of Sexual Harassment.*** Training will be obtained by Trustees as provided in the Boards' Policy on Sexual Harassment Prevention Training for Board Members.
- B. *Board Charters.*** This policy constitutes the development policy and addresses Trustee education programs, as referenced in Section 6.1.4 of the Board of Retirement Charter, and Reserve Power 5 of the Board of Investments Powers Reserved and Delegated Authorities and Powers Reserved Defined.
- C. *Prior Board Educational Requirements Policies.*** This policy supersedes and replaces the LACERA Board of Retirement Board Member Educational Requirements Policy and LACERA Board of Investments Board Member Educational Requirements Policy, which are of no further force or effect.

X. POLICY PROVISIONS AND APPLICABLE LAW

- A. *Waiver of Policy Provisions.*** For good cause presented in writing, and in the exercise of its sound discretion, the Board of Retirement or the Board of Investments may waive compliance with specific requirements of this policy when in the best interest of LACERA.
- B. *Applicable Law.*** This policy is to be implemented in compliance with the relevant provisions of the California Government Code and other applicable law, and in harmony with existing philosophy, objectives, policies, and guidelines previously approved by the Board of Retirement and the Board of Investments.

XI. REVIEW

This policy shall be reviewed by the Joint Organizational Governance Committee, the

Board of Retirement, and the Board of Investments every three years or as needed and may be amended by both Boards at any time.

Policy History: Restated and Approved by the Board of Retirement and Board of Investments on December 16, 2020, and updated and approved by the Board of Retirement and Board of Investments on ~~September 6,~~ [2023](#) and ~~September 13,~~ [2023](#), respectively. Prior versions are superseded and of no effect as of the stated approval date.



APPENDIX A TRUSTEE COMPETENCIES

- **Governance**
 - Understanding Board function, processes, committee structure, exercise of discretion, delegation of responsibilities and oversight role.
 - Understanding the organizational structure and roles of staff and consultants, including the actuary, auditors, healthcare consultant, investment consultants, and fiduciary counsel,
 - Understanding the laws and rules governing the system.
 - Understanding the Boards' governing documents.
 - Understanding the system's independence under applicable laws.
 - Understanding best practices for public pension board governance.
 - Understanding information technology and data security.
 - Understanding the meaning and role of diversity, equity, and inclusion.
 - Understanding Robert's Rules of Order.

- **Fiduciary Duties and Responsibilities**
 - Understanding the duty of loyalty.
 - Understanding the duty of prudence.
 - Understanding the paramount fiduciary duty to members and beneficiaries.
 - Understanding the fiduciary duty to minimize employer contributions.
 - Understanding the fiduciary duty to defray the reasonable costs of administering the system.
 - Understanding how to delegate authority while retaining appropriate oversight.

- **Benefits Administration**
 - Service Retirement
 - Understanding the different plans available to employees and retirees.
 - Understanding how the system communicates with members.
 - Understanding the difference between the responsibility for plan design (plan sponsor) and plan administration (LACERA).
 - Understanding the administrative appeal process.
 - Disability Retirement
 - Understanding the qualifications for a disability retirement and the benefits that are provided.
 - Understanding the process that is followed in disability applications, from intake through determination of eligibility.
 - Understand the medical and legal issues that are discussed during consideration of disability matters.
 - Understanding the disability hearing and appeal process.
 - Understanding fair hearings and decision-making standards.
 - Retiree Healthcare
 - Understanding the healthcare program structure.

- Understanding the history, agreements, and relationship with the County and other participating employers in connection with the funding and administration of the program.
- ***Ethics, Conflicts of Interest, and Disclosures***
 - Understanding the Form 700 process, and Conflict of Interest Code.
 - Understanding applicable conflict of interest laws and the duty to avoid participating in a decision that affects a Trustee's economic interests.
 - Understanding the LACERA Code of Ethical Conduct.
 - Understanding the RFP quiet period and Trustee disclosure obligations.
- ***Open Meeting and Public Records***
 - Understanding the importance of transparency to stakeholders.
 - Understanding the notice requirement for meetings, including teleconference meetings under the Brown Act.
 - Understanding the limitations on discussing matters that have not been noticed on the agenda.
 - Understanding the circumstances under which communications outside of noticed meetings can be deemed to be a prohibited meeting under the law.
 - Understanding what may and may not be discussed during a closed session.
 - Understanding what constitutes a “public record” under the law and circumstances under which records must be disclosed or withheld.
- ***Financial Controls and Audits***
 - Understanding the role of LACERA staff, Internal Audit, the outside financial auditor, and the Audit Committee.
 - Understanding the Comprehensive Annual Financial Report (CAFR).
 - Understanding the concepts of “risk assessment” and developing internal controls to address those risks.
 - Understanding the responsibility for maintaining the security of confidential information kept by the system, including privacy rights.
 - Understanding vendor selection policy and practices.
- ***Pension Funding and Actuarial Process***
 - Understanding of how assets and liabilities of the system are calculated on an actuarial basis, and the role of actuarial consultants.
 - Understanding the difference and relationship between the actuarial value of assets and the market value of assets and the asset smoothing process.
 - Understanding how changes in actuarial assumptions have an impact on system assets and liabilities.
 - Understanding the nature of the plan sponsors’ funding obligations and the responsibility of the Board of Investments to determine the annual required contribution and employee contributions and provide oversight of the actuarial process.
 - Understanding OPEB pay-as-you-go and trust funding mechanisms for retiree healthcare, and the Board of Retirement’s oversight role.

- **Investments**

- Understanding the comprehensive nature of the investment process.
- Understanding portfolio construction.
- Understanding different asset categories and portfolio complexity.
- Understanding responsible stewardship of LACERA's investments in a manner that promotes and safeguards the economic interests of LACERA and its members, including robust investor rights, strong corporate governance practices and policies at the firms in which LACERA invests, and sound public policies governing financial markets help generate long-term economic performance.



APPENDIX B APPROVED EXTERNAL EDUCATIONAL CONFERENCES

The following list of approved external Educational Conferences is provided under Section IV.C.2 of the Trustee Education Policy as a resource to Trustees in selecting pre-approved education that will support required education, Trustee Competencies, and educational assessment and planning. Education is organized by primary subject matter, although some events may provide education in multiple areas. All conferences on this list are intended only to refer to domestic U.S. events.

Governance

National Association of Corporate Directors (NACD) conferences, seminars, and meetings

Pension Benefits and System Administration

California Association of Public Employee Retirement Systems (CALAPRS) conference, seminars, and meetings, including Principles of Pension Management Course

Koried conferences, seminars, and programs

National Conference on Public Employees Retirement Systems (NCPERS) conferences, seminars, and meetings

National Institute on Retirement Security (NIRS) conferences, seminars, and meetings

Public Retirement Journal conferences, seminars, and meetings

State Association of County Retirement Systems (SACRS) conferences, seminars, and meetings

Retiree Healthcare

America's Health Insurance Plans (AHIP) conferences, seminars, and meetings, including Annual Institute, Annual Medicare Conference, and Annual National Policy Forum

California Retired County Employees Association (CRCEA) semi-annual conferences

Federal and state legislative hearings on pension and retirement health care issues

International Foundation of Employee Benefit Plans (IFEBC) conferences, seminars, and meetings, including Annual Employee Benefits Conference, Annual Benefits Conference for Public Employees, Annual Health Care Cost Management Conference, Annual Investments Institute, ~~and~~ Annual Washington Legislative Update Conference, and New Trustee Institute

Investments

Association of Asian American Investment Managers conferences, seminars, and meetings

Association for Private Capital Investment in Latin America (LAVCA) conferences, seminars, and meetings

ColCapital educational conferences, seminars, and meetings

Council of Institutional Investors (CII) conferences, seminars, and meetings

Harvard Kennedy School, Trustee Leadership Forum for Retirement Security and Initiative for Responsible Investment

Harvard Law School Forum on Corporate Governance

Information Management Network (IMN) Beneficial Owners' International Securities Lending Summit Annual Conference

International Corporate Governance Network (ICGN) conferences, seminars, meetings

Institutional Limited Partners Association (ILPA) conferences, seminars, and meetings

National Association of Investment Companies conferences, seminars, and meetings

National Association of Securities Professionals (NASP) conferences, seminars, and meetings, including Annual Pension and Financial Services Conference

New America Alliance conferences, seminars, and meetings

Pacific Pension & Investment Institute (PPI) conferences, seminars, and meetings

Pension Bridge conferences, seminars, and meetings

Pension Real Estate Association (PREA) annual spring and fall conferences and institute

United Nations Principals of Responsible Investing (UNPRI) conferences, seminars, and meetings

University of Pennsylvania Wharton School's Pension Fund and Investment Management and the Portfolio Concepts and Management courses

Women in Institutional Investments Network conferences, seminars, and meetings

**APPENDIX C
SUGGESTED SAMPLE CONFERENCE EVALUATION FORM**

Under Section IV.C.5 of the Trustee Education Policy, Trustees are encouraged to complete an evaluation form or provide a syllabus for all in-person external conferences and virtual education attended.

TRUSTEE NAME:

CONFERENCE NAME:

CONFERENCE DATE:

RANKING 1-10:

1 (lowest) 2 3 4 5 6 7 8 9 10 (highest)

DO YOU RECOMMEND THE COURSE TO OTHER TRUSTEES? Yes No

WHY?

DESCRIPTION OF SUBJECT MATTER (attach syllabus if available):

HIGHLIGHTS:

WEAKNESSES:

Return to:

Board Offices

BoardOffices@lacera.com

**APPENDIX D
SUGGESTED TRUSTEE EDUCATION PLAN**

Under Section IV.D of the policy, Trustees are encouraged to assess their personal educational status and needs as against the Trustee Competencies in Appendix A at the beginning of each calendar year and to use such information as the basis for establishing the Trustee's own self-development goals and education for the year.

TRUSTEE NAME:

PLAN FOR YEAR: 20____

HAVE I COMPLETED MY 24 HOURS OF CERL-REQUIRED EDUCATION EVERY TWO YEARS? Yes No

FIVE AREAS WHERE I WOULD LIKE TO GET ADDITIONAL EDUCATION THIS YEAR TO HELP IN THE PERFORMANCE OF FIDUCIARY DUTY:

- 1.
- 2.
- 3.
- 4.
- 5.

SUGGESTIONS FOR INTERNAL EDUCATION I WOULD LIKE TO SEE THIS YEAR (you may email them to the CEO, skreimann@lacara.com):

IDEAS FOR EXTERNAL EDUCATION I WOULD LIKE TO PURSUE THIS YEAR:

ARE THERE ANY ADDITIONAL EDUCATIONAL RESOURCES I NEED FROM THE EXECUTIVE OFFICE THIS YEAR (you may email them to the CEO, skreimann@lacara.com):

**PROPOSED REVISIONS
TRUSTEE TRAVEL POLICY**



TRUSTEE TRAVEL POLICY

LACERA Board of Retirement & Board of Investments

Adopted ~~January 11,~~ 2023

TRUSTEE TRAVEL POLICY

I. PURPOSE

The purpose of this policy is to align travel by Trustees in connection with educational conferences and administrative meetings on LACERA's behalf with the Mission, Vision, Values, and work culture of the organization. The Board of Retirement and Board of Investments recognize that travel associated with education and administrative meetings on LACERA's behalf is a component of building the knowledge base and operational understanding of Trustees given their fiduciary responsibilities and will equip them to discharge their fiduciary duties for the sole benefit of active members, retirees, and their beneficiaries. To ensure incurring and paying travel expenses are allowed for only those expenses deemed reasonable and necessary for the proper administration of the system, the policy will be administered in a manner that can be overseen by the Boards and understood by LACERA members and other stakeholders as reasonable, cost effective, value-driven, and necessary to fulfill LACERA's Mission to Produce, Protect, and Provide the Promised Benefits.

This policy applies to travel in connection with Educational Conferences and Administrative Meetings. "Educational Conferences" are those conferences, seminars, and meetings that have an educational purpose. "Administrative Meetings" are meetings attended by Trustees in their LACERA capacity including Board and Committee meetings, and pension related organization meetings that furthers LACERA's interests. These interests may include but are not limited to, legislative advocacy, speaking engagements, including a domestic and international Educational Conference at which a Trustee gives a speech, positions in the administration of pension related organizations, and similar events. This policy applies to LACERA Trustees only.

II. PRINCIPLES

The following principles shall govern Trustee travel in connection with Educational Conferences and Administrative Meetings on LACERA's behalf and the interpretation of this policy.

A. *Performance of Fiduciary Duty.* Travel for educational conferences and administrative meetings in furtherance of LACERA's interests is necessary and should be encouraged and undertaken in order that Trustees may obtain and share knowledge relevant to the proper performance of their fiduciary duty under the California Constitution, the County Employees Retirement Law of 1937 (CERL), and other applicable laws by a reasonable method and at reasonable cost for the value received. Specifically:

1. Duty of Loyalty. Education and travel must assist the Trustees to perform their fiduciary duty of loyalty to "discharge their duties with respect to the system solely in the interest of, and for the exclusive purposes of providing benefits to, participants and their beneficiaries, minimizing employer contributions thereto, and defraying reasonable expenses of administering the system. A retirement board's duty to its participants and their beneficiaries shall take precedence over any other duty." Cal. Const., art. XVI, § 17(b); see Cal. Gov't Code § 31595(a).

TRUSTEE TRAVEL POLICY

2. Duty of Prudence. Education and travel must assist the Trustees to perform their fiduciary duty of prudence to “discharge their duties with respect to the system with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with these matters would use in the conduct of an enterprise with a like character and like aims.” Const., art. XVI, § 17(c); see Cal. Gov’t Code § 31595(b).

B. Focus on Mission. Trustees have a fiduciary duty to make policy decisions consistent with applicable law, including constraints imposed by the Fund’s budget. At the same time, travel may be necessary to support and enhance LACERA’s Mission to Produce, Protect and Provide the Promised Benefits on behalf of LACERA members.

Trustees are expected to be and believed to be mindful and financially prudent in all travel and trip-related expenditures that consume resources funded by LACERA members.

- i. All monies held in the Fund by LACERA are ultimately due and payable in the form of pension benefits to active and retired members. Therefore, all administrative, operational and travel expenditures should be able to withstand the scrutiny of our members, stakeholders, plan sponsors and the public at large, thereby minimizing any reputational risk to LACERA.
- ii. Trustees are accountable for their actions and responsible for appropriate use of organizational resources and establishing policy creating limits and constraining expenditures. Travel policies for staff can be more restrictive depending on circumstances and financial constraints.

C. Transparency. Travel administrative procedures and guidelines are established and carried out in a manner that is easy for members and all other stakeholders to identify actions taken by Trustees.

- i. Expenses incurred for travel and trips are clearly identifiable as business-related expenses only, not for personal expenses of the Trustee or any traveling companions.
- ii. Travel expenses and trip information are reported to LACERA members and stakeholders via a public forum.
- iii. Trustees recognize and accept their accountability and responsibility to LACERA members for travel and trip expenditures which are charged to LACERA.
- iv. All Trustees electronically acknowledge and sign a travel attestation document (Appendix B) provided by staff annually on a calendar year basis, confirming their commitment to act responsibly and prudently and in the best interest of LACERA members.

D. Simplicity, Uniformity and Consistency. Travel administrative procedures and guidelines for claiming and reimbursing expenses are designed to be simple, uniform, and consistent, and should not be overly onerous so as to negatively affect Trustees.

TRUSTEE TRAVEL POLICY

- i. Travel procedures should be a guide with simple, unambiguous rules for making and approving travel arrangements, and for the timely processing and accounting of trip related expenditures and reimbursements.
- ii. Travel expenditures are documented on expense claims that are clear and concise.
- iii. Travel expense reimbursement processes should be clear, consistent, transparent, convenient, efficient, and compliant with the Trustee Travel Policy.
- iv. Travel expense methods are simple and universally applied so the reimbursement claim process is streamlined (e.g., all meals are claimed under the Per Diem Method).
- v. Travel procedures, including administrative expense guidelines and reimbursement process, are maintained under the direction of the Chief Executive Officer (CEO) or their designee.

E. Ease of Execution. Travel administrative procedures and guidelines are established with administrative ease and designed to reduce the manual processes and the considerable effort required of staff. Processes related to travel reimbursements and processing expense claims should not be cumbersome and complicated for staff and Trustees.

- i. Travel accommodations and Trustee conveniences are streamlined and provide a group of appropriate choices instead a vast menu of options.
- ii. The process itself of conducting travel bookings and expense processing are considered a priority.
- iii. Expense categories, reimbursement process, and claim forms are periodically reviewed and updated by staff.
- iv. Trustees, not proxies, are responsible for obtaining, gathering, and submitting the appropriate documentation justifying expenditures in a timely manner.
- v. External providers including travel agents and other travel-related industry services are to be considered and integrated into the process for Trustees and administrative ease.
- vi. Technological tools for capturing and recording trip documentation are employed where reasonable and necessary considering cost implications.
- vii. Practices will periodically be reviewed to ensure best practices and industry norms are included within the Trustee Travel Policy.

III. TRUSTEE TRAVEL

A. Approval. [Trustee travel within the United States to the conferences listed in Appendix B to the Trustee Education Policy are pre-approved subject to this Policy.](#) All other travel requires approval of that Trustee's Board, except that Educational Conferences and Administrative Meetings in California where the total cost of attendance is no more than \$3,000 are pre-approved for attendance and reimbursement, provided that a Trustee may not incur over \$15,000 for all expenses of attending all such Educational Conferences and Administrative Meetings in a fiscal year without Board approval.

TRUSTEE TRAVEL POLICY

Each Chair, in consultation with the Chief Executive Officer, may approve reasonable new Trustee travel consistent with the terms of this Policy for attendance at Educational Conferences before the effective date of their term permitted under Section III.E of the Trustee Education Policy.

B. Cease Travel and Other Expenses. Trustees may consider whether and when to cease arranging future travel and expenses for Educational Conferences and Administrative Meetings once they become aware their term of service will end. In considering this issue, Trustees may consider the following factors: For appointed Trustees, awareness may occur in the final year of their appointment and after the Board of Supervisors votes on the next appointment, or when an appointed Trustee has been told they will not be reappointed. For elected Trustees, awareness may occur when an elected Trustee decides not to run for reelection or when, as a candidate, is replaced once election results are certified by the Board of Supervisors. For the Ex-Officio Trustee, this occurs once a retirement is announced.

C. Authorized Expenses. Authorized travel expenses shall be determined by the Boards as set forth in Appendix A. LACERA shall use reasonable efforts to promptly reimburse trustees in accordance with this policy and Appendix A.

D. Costs of Administration. Travel expenses for Trustees shall be administrative costs of the Fund and may not be paid through third party contracts. It is LACERA's policy that Trustees shall not accept gifts of travel. Gifts of travel, including transportation, lodging, and meals, may be reportable as gifts to individual Trustees if not paid by LACERA.

E. Claims for Reimbursement.

i. Submission. A travel expense reimbursement shall be claimed by completing an expense voucher form available from the Executive Board Assistants and submitting it to the appropriate authorizing person. Trustees may submit their expense reimbursements to their respective Executive Board Assistant. All expense reimbursement requests shall be accompanied by receipts and/or other reasonable documentation. Expense reimbursement records are subject to disclosure under the Public Records Act, with redaction of confidential information, such as personal addresses, telephone numbers, and credit card information. The deadline for submitting an education and travel reimbursement claim is 90 days after completing the education, or 30 days after the fiscal year-end, whichever comes first. Extensions to this deadline may be granted by the Board Chair.

ii. Approval Process. The Executive Board Assistants will receive and review, for compliance with this policy, all expense reimbursement requests prior to submission. The Financial and Accounting Services Division (FASD) will review expense reimbursement requests for compliance with this policy and

TRUSTEE TRAVEL POLICY

shall only process and use reasonable efforts to promptly pay those that are in compliance and approved by the CEO or their designee. FASD will notify the CEO or their designee of all deficiencies in a submission by a Trustee, and the CEO or their designee will in turn notify the respective Trustee. LACERA will not reimburse a Trustee for expenses that are not authorized under this policy unless specifically exempted and approved by that Trustee's Board, except that, without Board approval, each Board Chair or the Chief Executive Officer may authorize deviations of less than \$1,000 per trip from the expense limits in this policy and subject to subsequent review of all expenses for compliance with this policy.

F. Cancellation of Travel Arrangements.

- i. Responsibility for Timely Cancellation. Trustees are responsible for timely canceling travel arrangements made on behalf of the Trustee which will not be used so that no costs will be incurred by LACERA.
- ii. Responsibility for Costs Resulting from Untimely Cancellation. Trustees are responsible for all costs LACERA incurs as a result of the Trustee's failure to cancel travel arrangements before cancellation charges accrue, unless the failure to cancel was due to facts or circumstances beyond the Trustee's control. The Trustee must reimburse LACERA within 30 days after notification of the amount due. Notice will be provided by the Chief Executive Officer. If reimbursement is not made within such 30-day period, and payment is still due, the amount shall be deducted from any payment due the Trustee from LACERA. If a Trustee is enrolled for an Educational Conference or Administrative Meeting but fails to attend or timely cancel and LACERA incurs an expense as a result (e.g., conference registration, travel and lodging cancellation fees), that conference or meeting counts toward the limit under Section IV.C.2. of the Trustee Education Policy until the Trustee reimburses LACERA for all expenses incurred or cancellation is excused under Section III. F. iii. of this Trustee Travel Policy.
- iii. Approval of Cancellation Costs with Good Cause. If the Trustee believes the failure to cancel was due to facts or circumstances beyond their control, they must submit written justification to the Board Chair within 30 days after receiving notification of the cancellation expenses due. For Trustees, the Board Chair will approve or disapprove the excuse in writing to the Trustee, with a copy to the Executive Board Assistant. If the individual is a Board Chair, then the written excuse must be submitted to that Board's Vice Chair who will then approve or disapprove the excuse. If the individual is a Vice Chair simultaneously serving as the acting Chair, then the Vice Chair's written excuse must be submitted to that Board's Secretary who will then approve or disapprove the excuse. Should a Trustee disagree with the Board Officer's determination, the Trustee may request the Executive Board Assistant to agendize the matter for consideration by the full Board.

TRUSTEE TRAVEL POLICY

- G. Cash Advances.** Hotel and airfare shall be purchased in advance by the Executive Board Assistants, and no cash advances will be allowed for such expenses. Cash advances for permitted per diem expenses in accordance with this policy may be allowed by the Chief Executive Officer for good cause. Trustees will account for any per diem cash advance on their trip expense report upon completion of the travel.
- H. Expenses for Traveling Companions.** Travel expenses for family members and/or traveling companions are not reimbursable by LACERA.
- I. Additional Travel Days to Minimize Overall Travel Cost.** Travel resulting in arrival one day prior to and/or one day after an Educational Conference or Administrative Meeting will be reimbursed if reasonably necessary because of time constraints. Travel resulting in arrival two days prior to and/or one day after international travel will be reimbursed as reasonably necessary based on the location of the Educational Conference or Administrative Meeting. In addition, lodging and per diem for extra days prior to or after an Educational Conference or Administrative Meeting will be reimbursed if such extension results in lower overall trip costs. If a Trustee adds personal travel before or after a trip, the extra personal days outside of the above restrictions shall not be reimbursed. Written justification for travel expenses incurred prior to or after an Educational Conference or Administrative Meeting shall be submitted with the claim for reimbursement.
- J. Ground Transportation.** Trustees will be expected to use taxis or ride sharing services to and from domestic destinations. Limousine or executive car services shall not be used in domestic locations unless the cost for such services is comparable to that of taxi services and/or airport parking; they may be used without restriction in international locations. Reimbursement of rental vehicles require justification and prior approval from the Chief Executive Officer. When renting a vehicle, purchase of optional insurance is not necessary as LACERA's insurance will cover the same risks.
- K. International Travel Insurance.** LACERA will purchase travel insurance covering Trustees while traveling internationally on LACERA business. The insurance will include accident, medical, security assistance and evacuation, travel assistance, trip cancelation, interruption or delay, and baggage loss or delay coverage.
- L. Travel Reports.**
- i. Monthly. A monthly Travel Report shall be submitted to both Boards listing the current fiscal year's completed, anticipated, and canceled Education Conferences and Administrative Meetings (including whether excused under Section III. F. iii) for all Trustees on both Boards.

TRUSTEE TRAVEL POLICY

- ii. Quarterly. A quarterly Travel Report shall be submitted to both Boards listing education and administrative travel expenses paid/reimbursed by LACERA for all Trustee on both Boards. Such report shall identify whether each item of travel was for an Educational Conference or Administrative Meeting, the purpose, location, cost by expense category, and whether excused under Section III. F. iii.
- iii. Availability. The monthly and quarterly reports shall be agendized as reports for the Boards in the first month after they are available (and for privacy and personal security reasons, after travel has been completed) and shall be posted on lacera.com.

IV. ADMINISTRATIVE MEETINGS

The relevant Board will be informed of a Trustee's need to attend Administrative Meetings and provide advance approval of the cost on such terms as deemed appropriate. All LACERA Board and Committee meetings are approved as Administrative Meetings.

V. BROWN ACT COMPLIANCE

Attendance at external Education Conferences and Administrative Meetings by more than four Trustees of a Board is not a violation of this provision, provided that the Trustees may not discuss any item of LACERA business.

VI. GIFTS AND CONFLICTS

The Boards desire to avoid even the appearance of impropriety in connection with education, and related expenses. The Boards acknowledge that acceptance of gifts of education and related expenses, such as registration, transportation, meals, and lodging by a public agency, though permitted under certain circumstances by applicable law, can create the appearance that LACERA encourages "pay to play" and may, unwittingly, create opportunities for undue influence on Trustees. This policy therefore does not permit LACERA as an entity to accept gifts of education, and related expenses. This policy does not prohibit certain payments for education and/or related expenses as part of the negotiated consideration under agreements with vendors, consultants, and managers, although all such payments should be reviewed in advance with the Legal Division to ensure compliance with applicable law, regulations, and reporting.

Items provided during Educational Conferences and Administrative Meetings may constitute reportable gifts.

Trustees should be familiar with the provisions of LACERA's Code of Ethical Conduct as it may apply to certain education and administrative meeting interaction with and items received from the sponsors or other attendees.

TRUSTEE TRAVEL POLICY

The Boards acknowledge that international travel, though expensive, is increasingly necessary in light of today's global economy and LACERA's ongoing prudent investment of a substantial portion of its assets outside the United States.

VII. EDUCATION POLICY AND PROCEDURES

This policy is subject to and will be read and interpreted in conjunction with the Trustee Education Policy.

VIII. POLICY PROVISIONS AND APPLICABLE LAW

- A. Waiver of Policy Provisions.** For good cause presented in writing, and in the exercise of its sound discretion, the Board of Retirement or the Board of Investments may waive compliance with specific requirements of this policy when in the best interest of LACERA.
- B. Applicable Law.** This policy is to be implemented in compliance with the relevant provisions of the California Government Code and other applicable law, and in harmony with existing philosophy, objectives, policies and guidelines previously approved by the Board of Retirement and the Board of Investments.

IX. SUSTAINABILITY

Trustees are encouraged to consider sustainability in making education and travel choices, including whether and how to travel, the viability and efficacy of alternative forms of participation (such as geographically closer or virtual meetings), the impact of business class vs. coach, the number of trips taken, and the number of Trustees participating in a single event, avoidance of car transportation when possible, and obtaining an estimate of the carbon footprint of travel and lodging options through available online tools and inclusion of estimates in board recommendation memos.

X. REVIEW

This policy shall be reviewed by the Joint Organizational Governance Committee, the Board of Retirement, and the Board of Investments every three years or as needed and may be amended by both Boards at such time.

Policy History: Restated and Approved by the Board of Retirement and Board of Investments on December 16, 2020; updated and approved by the Board of Retirement and Board of Investments on May 5, 2022 and May 11, 2022, respectively; and updated and approved by the Board of Retirement and Board of Investments on [January 4, 2023](#), [2023](#) and [January 11, 2023](#), [2023](#), respectively. Prior versions are superseded and of no effect as of the stated approval date.

TRUSTEE TRAVEL POLICY

APPENDIX A REIMBURSEMENT SCHEDULE

Amounts which can be reimbursed for transportation, lodging, meals, and other covered items are indicated as follows:

I. TRANSPORTATION:

A. Airline Travel

1. Trustees will travel in coach/economy class except that they may travel in business class or its equivalent for:
 - a. Flights having (i) a scheduled non-stop flight time or total connecting travel time from original departing airport to the final destination airport of five hours or more, or (ii) a scheduled non-stop roundtrip flight time or total connecting roundtrip travel time of ten hours or more.
 - b. Red-eye flights. "Red-eye flights" are defined as flights in which a majority of the flight time occurs between 10:00 PM and 6:00 AM.
 - c. Flights arriving or departing at an international location, including Canada and Mexico.
2. LACERA will reimburse the additional cost of coach/economy class seats advertised as having additional leg room regardless of flight time.
3. Air travel will only be reimbursed at the lowest available non-refundable fare at the time of purchase (for class travel authorized under this Policy). Trustee may elect to fly on United, American, Delta, JetBlue, or Southwest Airlines for the dates and times of travel. Other carriers are authorized, but reimbursement shall not exceed the lowest non-refundable fare offered either amongst the five major airlines carriers mentioned above or three other major carriers who fly to selected destination.
4. Recognizing air carriers have begun charging for incidental items historically included in the ticket price (for example, checking luggage, providing pillows, blankets, and non-alcoholic beverages during flights, etc.), LACERA also will reimburse carrier charges for such incidental items upon submission of an itemized receipt. Alcoholic beverages will not be reimbursed.
5. Substantiation of airline travel shall include a copy of the ticket or E-mail confirmation showing the cost of the air travel.
6. Trustees traveling by air to conduct LACERA business may use only regularly scheduled airline services operating by an air carrier certified by the Federal

TRUSTEE TRAVEL POLICY

APPENDIX A REIMBURSEMENT SCHEDULE

Aviation Administration or comparable foreign authority. Trustees are prohibited from traveling on LACERA business via private aircraft, including but not limited to aircraft owned, leased, or rented by the individual Trustee. Persons traveling on LACERA business via private aircraft will be deemed to be acting outside the scope of their responsibilities and employment. They will not be covered by LACERA's liability insurance. Trustees may not use travel points to pay for LACERA travel. Any points earned on LACERA's credit card will be used at the Chief Executive Officer's discretion.

B. Other Common Carrier Travel

1. Travel permitted under this policy should be accomplished in the most cost-effective and efficient manner practicable, considering the costs of the mode of transportation, travel time, accommodations, and per diem.
2. Generally, air travel is the most cost-effective and efficient means for long distance travel, with "long distance travel" defined as a travel to a site more than 300 miles from LACERA's headquarters.
3. Where a traveler has special travel needs or concerns such that travel by air for long distance travel is not practicable, then the traveler may use an alternate common carrier (e.g., train or bus) and incur such reasonable expenses associated with that mode of travel (e.g., sleeper car, additional days of per diem).
4. Substantiation of other common carrier travel shall include a copy of the ticket or E-mail confirmation showing the cost of the travel.

II. LODGING:

A. Room Cost

Reimbursement is limited to a standard class single room rate, including mandatory taxes and hotel fees. Actual expenses for lodging will be reimbursed upon submittal of receipts. For example, room upgrades, and bed and breakfast additions will be at the expense of the Trustee, unless for good cause such as the unavailability of standard rooms and/or international destinations.

B. Government Rates

Trustees traveling on LACERA business should always request government rates when making reservations and/or checking in. LACERA recognizes that the governmental rate offered for local governmental entities like LACERA may be higher

TRUSTEE TRAVEL POLICY

APPENDIX A REIMBURSEMENT SCHEDULE

than the federal government rate, or may not be available at all, especially in connection with international travel.

C. Attendance at Educational Conferences and Administrative Meetings.

LACERA acknowledges that the cost of a standard room at an event hotel may exceed the standard lodging reimbursement rate. Nevertheless, Trustees attending events may stay at the designated hotel to promote convenient access, networking, and safety. Reimbursement for lodging at an event is limited to the standard room rate charged by the event hotel unless for good cause such as the unavailability of standard rooms and/or international destinations. When lodging at the event hotel is unavailable, reimbursement is limited to the best available rate for a standard room at a nearby hotel of comparable quality. The Trustee will be responsible for any excess cost.

D. Travel Not Connected with An Established Hotel Venue

The maximum lodging amounts are intended to cover the cost of lodging at adequate, suitable and moderately-priced facilities located near the destination city's airport or the specific area in the destination city where LACERA's business will be conducted without association with an established hotel venue. Reimbursement for lodging connected with such travel is limited to:

1. Domestic: Not more than three times the regular per diem rate for the location as established from time to time by the U.S. General Services Administration, found at www.gsa.gov (click on "per diem rates").
2. International: Not more than three times the rate for the location as established from time to time by the United States Department of State, found at: www.state.gov/m/a/als/prdm.

III. MEALS:

It is the policy's intent for the Trustee to be reimbursed for meals not pre-paid for by LACERA. As such, LACERA will not reimburse the Trustee for a meal which has been pre-paid for by LACERA (e.g., when conference registration includes meals), whether or not the Trustee consumed the meal, except where the Trustee could not consume the pre-paid meal because:

1. The Trustee has special dietary or medical concerns, or
2. It was reasonably necessary for the Trustee to conduct LACERA business while the pre-paid meal was being served.

TRUSTEE TRAVEL POLICY

APPENDIX A REIMBURSEMENT SCHEDULE

Written justification as to which of the above two exceptions applies will be provided with the reimbursement request. However, written justification for any dietary restrictions or medical concerns need only be provided once annually by the Trustee.

Likewise, LACERA will not reimburse the Trustee for a meal paid for by a third party unless approved by the Chief Executive Officer.

Meal Reimbursement

Reimbursement for meals shall be based on the "Per Diem Method" only as defined below.

A. The Per Diem Method

1. Under the Per Diem Method, the Trustee agrees to accept a flat rate for meals. Trustees are not required to submit receipts.
2. The per diem allowance will be computed using the Meals & Incidental Expenses rate (the "M&IE Rate") published by the Internal Revenue Service and in effect on the date of travel for the locality of travel.
3. The per diem allowance shall be claimed in accordance with the Meals & Incidental Expenses Breakdown ("M&IE Breakdown") per the IRS, based on the M&IE Rate. The portion of the per diem the Trustee receives depends upon when the travel occurs. For example, if the travel occurs during normal breakfast and lunch times, the Trustee receives the per diem for breakfast and lunch; if the travel occurs during normal lunch and dinner times, the Trustee receives the per diem for lunch and dinner, etc.

IV. PORTERAGE:

Porterage may not be claimed using the Per Diem Method, as the Per Diem Method's IRS tables already factor in porterage reimbursement.

V. PARKING:

Parking, including airport parking, will be reimbursed at actual rate (receipt required).

VI. MILEAGE:

Use of a personal vehicle will be reimbursed on a per mile basis at the rate approved by the Internal Revenue Service as of the date of travel.

TRUSTEE TRAVEL POLICY

APPENDIX A REIMBURSEMENT SCHEDULE

VII. OTHER BUSINESS EXPENSES:

Other covered business expenses reasonably incurred in connection with LACERA business, such as registration fees, business and personal telephone, fax, internet access, gym access (including the standard gym fee charged by the Trustee's hotel or, if hotel gym access is not available, the reasonable cost of daily access to a local gym or health facility), dry cleaning, and similar business expenses, shall be reimbursed upon submittal of receipts. Required vaccinations and required tests (such as PCR rapid tests for COVID-19) to enter or exit the origin or destination of travel or to comply with other requirements necessary to travel to or attend approved educational and administrative conferences, seminars, or meetings shall be reimbursed upon submittal of receipts. The cost of membership in TSA Pre, Global Entry, NEXUS, SENTRI, or other expedited security and border processing programs shall be reimbursed upon submittal of receipts. Technology needs, for both international and domestic travel, may be discussed with the LACERA Systems Division in advance to develop appropriate solutions for the Trustee's needs and to manage cost.

Reimbursement for lost or damaged property is subject to a separate policy to be developed.



TRUSTEE TRAVEL POLICY

**APPENDIX B
TRAVEL ATTESTATION**

As a LACERA Board Trustee, I acknowledge:

- a. I have received, read, and understand all of the provisions within the Trustee Travel Policy; and
- b. I attest my commitment to act responsibly and prudently in the best interest of LACERA members, in all travel-related matters.

LACERA Board

Name

Signature

Date



November 17, 2023

TO: Each Trustee
Board of Retirement
Board of Investments

FROM: Joint Organizational Governance Committee
Herman B. Santos (BOI) Chair
David Green (BOI) Vice Chair
Gina Sanchez (BOI)
Onyx Jones (BOI)
Shawn Kehoe (BOR)
Alan Bernstein (BOR)
Elizabeth Greenwood (BOR)
Ronald Okum (BOR)

FOR: December 6, 2023 Board of Retirement Meeting
December 13, 2023 Board of Investments Meeting

SUBJECT: Document Processing Center Classification and Compensation Study

RECOMMENDATION

It is recommended that the proposed classification and compensation changes be approved for implementation, including prompt incorporation of the changes into the County Salary Ordinance:

- Title change, description revision and salary change for the Document Processing Coordinator, LACERA classification, and
- Title change, description revision and salary change for the Document Processing Assistant, LACERA classification.

BACKGROUND

On April 27, 2023, LACERA Human Resources (HR) presented to the Joint Organizational Governance Committee (JOGC) recommendations to implement classification and compensation changes resulting from a June 2019 Study completed by Koff & Associates (Koff) on LACERA's Document Processing and Staff Assistant positions.

The study was precipitated by:

- the Side Letter Agreement with SEIU Local 721 (SEIU), dated February 14, 2019, to conduct a classification and compensation study of LACERA represented Document Processing Assistant, LACERA and Staff Assistant II, LACERA positions;

- the goal to ensure that class descriptions reflect current assignments, programs, responsibilities, and technology; and
- the desire to update LACERA's classification plan that will support LACERA's business and operational needs for the foreseeable future.

As part of the study, Koff reviewed the class specifications and compared the salary levels of LACERA's positions to a diverse peer group consistent with past studies, which included California-based public pension funds, Los Angeles County (LA County), and the private sector.

The Study included eighteen (18) positions in four (4) existing classifications. Recommendations addressing two (2) of the classifications (Staff Assistant I, LACERA and Staff Assistant II, LACERA) were approved by the Board of Retirement and Board of Investments on September 6, 2023, and September 13, 2023, respectively. The current recommendations address the remaining two (2) classifications. The classifications are represented by SEIU.

1. Document Processing Coordinator, LACERA
2. Document Processing Assistant, LACERA

CLASSIFICATION AND COMPENSATION CHANGES

Classification Recommendation

Based on the study findings, title changes and revisions were recommended to the Document Processing Coordinator, LACERA and Document Processing Assistant, LACERA classification specifications. The changes were presented in the April JOGC recommendations and in this memo as an outcome of the study.

The proposed class specification revisions are shown in **Attachment A**

SUMMARY OF PROPOSED CLASSIFICATION CHANGES

Item	Current Classification Title	Proposed Classification Title
0472	Document Processing Coordinator, LACERA	Document Processing Supervisor, LACERA
0471	Document Processing Assistant, LACERA	Document Processing Specialist, LACERA

Compensation Recommendation

LACERA recommends aligning the compensation for the studied positions to market rates while taking into consideration internal equity and sufficient salary differentials between positions. The original recommendation presented at the April 27, 2023, JOGC was no change to the salary for Document Processing Assistant, LACERA.

At the request of the Committee, updated market data was presented at the August 17, 2023, JOGC meeting.

Koff July 2023 Market Findings for 75th Percentile

Classification Title	# of Matches	Current Max Salary	75 th Percentile Salary	Top Monthly Salary % Above or Below 75 th Percentile
Disability Retirement Support Specialist (SA II)	8	\$7,402	\$7,191	2.9%
Document Processing Specialist (DPA)	8	\$5,372	\$5,281	1.7%
Document Processing Supervisor (DPC)	6	\$5,828	\$7,188	-23.3%
Staff Assistant I	13	\$6,122	\$5,943	2.9%
Staff Assistant II	10	\$7,402	\$6,907	6.7%
AVERAGE				-1.8%

Although the market data found that all studied classifications except for the Document Processing Supervisor, LACERA are at or above the 75th percentile, management was concerned that in this instance, the market data did not fully reflect the internal value LACERA puts on Document Processing Assistant, LACERA classification given their role in our member service processes.

On September 8, 2023, LACERA proposed to SEIU a salary increase of 2.24% for the Document Processing Specialist, LACERA. On September 18, 2023, SEIU verbally countered the proposal and requested a salary increase of 2.5% for the Document Processing Specialist, LACERA. LACERA management was agreeable to the request and accepted the proposal.

For the proposed Document Processing Supervisor, LACERA, HR recommends the standard 15% supervisor: subordinate salary differential for performing both administrative and technical supervision.

SUMMARY OF PROPOSED COMPENSATION CHANGES

Item	Classification Title	Current Sal Sch	Current Sal Max	Proposed Sal Sch	Proposed Sal Max	% Change
0472	Document Processing Supervisor, LACERA	86B NMO	\$5,827.55	89B NMO	\$6,321.73	8.48%
0471	Document Processing Specialist, LACERA	83B NMO	\$5,372.36	84A NMO	\$5,506.00	2.5%

*Note: LACERA Compensation effective 1/1/2023. Proposed compensation will be adjusted based on future MOU Agreements.

Implementation and Budget Impact

After commencement of the study, one position was added to the LACERA organization through the budget process and were not evaluated.

- In FY 2022–23, One (1) budgeted Document Processing Coordinator, LACERA position was allocated to the Document Processing Center. The position is currently vacant and the Division intends to utilize the position as a supervisor. It is recommended to include the position with the recommended changes for the Document Processing Coordinator, LACERA classification.

Based on the study findings and organizational changes since completion of the study, the following is the budget impact of the below recommended changes:

- Salary change for three (3) budgeted Document Processing Coordinator, LACERA positions being retitled to Document Processing Supervisor, LACERA.
- Salary change for eleven (11) budgeted Document Processing Assistant, LACERA positions being retitled to Document Processing Specialist, LACERA.

These changes are necessary to further LACERA's Mission to produce, protect, and provide the promised benefits and the Boards' paramount fiduciary duty to the fund's member and beneficiaries. These positions are tasked with processing key organizational documents, including primarily member documents, and proper classification of their work and compensation is necessary to ensure that this work is properly performed by highly qualified staff that LACERA is able to recruit, hire, motivate, and retain.

Implementation of the study findings as recommended will result in an annual combined budget increase for all staff in these positions of approximately \$55,000.

No. of Pos	Budgeted Position Title	SALARY (1/1/23)			Proposed Position Title	PROPOSED SALARY			TOTAL ANNUAL TOTAL BUDGET IMPACT
		Sch	Max Salary	Annual		Sch	Max Salary	Annual	w/Benefits @ 55%
3	Document Processing Coordinator	86B NMO	\$5,827.55	\$69,930.60	Document Processing Supervisor	89B NMO	\$6,321.73	\$75,860.76	\$27,575.24
11	Document Processing Assistant	83B NMO	\$5,372.36	\$64,468.32	Document Processing Specialist	94A	\$5,506.00	\$66,072.00	\$27,342.74
								TOTAL	\$54,917.98

PROCEDURE FOR ESTABLISHING CLASSIFICATIONS AND PAY RANGES

LACERA provides SEIU Local 721 (SEIU) notice and consultation regarding new classifications of which the primary duties are derived from represented classifications. The LACERA classifications currently addressed are represented. On October 6, 2023, SEIU provided written concurrence on the proposed classification and compensation changes to Document Processing Coordinator, LACERA and Document Processing Assistant, LACERA. Therefore, it is recommended that LACERA move forward with implementing the classification and compensation changes for these studied classifications.

Changes to classification titles and salary require LACERA Boards and County BOS approval due to revision in LACERA ordinance. Upon approval from the Board of Retirement and Board of Investments, Human Resources (HR) will prepare a memorandum to the Los Angeles County's Chief Executive Office (LACCEO) which will include the class specification and salary schedule. HR staff, with the LACERA Legal Office's review and participation, will also prepare and submit an ordinance amending Sections 6.28.050 and 6.127.010 of LACERA's Salary Code

Re: LACERA DPC Classification and Compensation Study

November 17, 2023

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to the Los Angeles County Counsel's Office and the Board of Supervisors for adoption. These actions will modify the Document Processing Coordinator, LACERA and Document Processing Assistant, LACERA classification titles, class descriptions, and compensation.

RECOMMENDATION

That the Board of Retirement and Board of Investments separately approve the classification and compensation changes, including prompt incorporation of the changes into the County Salary Ordinance:

- Title change, description revision and salary change for the Document Processing Coordinator, LACERA classification, and
- Title change, description revision and salary change for the Document Processing Assistant, LACERA classification.

cc: Steven P. Rice
Luis Lugo
Laura Guglielmo
JJ Popowich
Carly Ntoya

Attachments

ATTACHMENT

Last Update: 11/22/2022

CLASSIFICATION TITLE: Document Processing ~~Coordinator~~Supervisor, LACERA

ITEM NO: 0472

DEFINITION:

~~Coordinates~~Supervises the activities of staff engaged in the processing and imaging of member documents and business records; and ensures standard procedures and performance expectations are met for retirement documents at the Los Angeles County Employees Retirement Association (LACERA).

POSITION INFORMATION:

Positions allocable to this classification, under the supervision of an ~~Administrative Officer~~Supervising Administrative Assistant II, LACERA, are assigned in LACERA's Document Processing Center. This is the full supervisory-level classification in the Document Processing series that exercises independent judgment on diverse and specialized document processing, scanning, and indexing functions with accountability and ongoing decision-making responsibilities associated with the work.

~~Document Processing Supervisors plan, delegate, oversee, organize, prioritize, supervise, train, and evaluate the work of staff engaged in the processing, scanning, indexing, and mailing of member documents and business records to ensure accuracy, timeliness, and quality of all documents received. Work requires a thorough knowledge of document management systems, document capture software, document entry processes, document codes, related equipment, standards, procedures, and quality control. Incumbents must exercise initiative and independent judgment within defined LACERA and Document Processing Center policies and procedures. Incumbents must have a knowledge of the principles of supervision, supervisory policies, and practices, and be proficient in prioritizing a high volume of requests to complete work within time standards. provides general lead direction, plans, assigns, and trains staff responsible for document scanning/imaging and indexing and mail services duties. Incumbents work independently and require a thorough knowledge of scanning and imaging systems and equipment, standards, policies and procedures, quality control relating to the scanning and imaging of documents, and all aspects of mail service procedures and policies. Positions must exercise sound judgment and resolve problems related to document imaging/scanning duties and mail services, which include policy and procedural changes.~~

EXAMPLES OF ESSENTIAL JOB FUNCTIONS:

The following examples are intended to describe the general nature and level of work performed by persons assigned to each classification. Depending on the assignment, duties may include, but are not limited to the following:

Plans, delegates, oversees, prioritizes, organizes, supervises, train, and reviews the work of document processing staff; trains staff in work procedures; recommends rotation of staff between assignments; evaluates staff performance; counsels staff and effectively recommends initial disciplinary action; assists in selection and promotion.

Provides on-the-job and formalized training to assigned staff regarding how to prepare, analyze, scan, and index member documents and business records, and how to properly utilize office equipment and software applications; develops training plans; implements training procedures and standards; maintains training records; provides feedback to management regarding each trainee's job performance.

Participates in the development of goals, objectives, policies, and procedures for assigned services and programs; recommends and implements policies and procedures including standard operating procedures for assigned operations.

Monitors activities of the document processing unit; identifies opportunities for improving service delivery and streamlining procedures; provides recommendations concerning process changes; reviews recommendations with appropriate management staff; implements improvements.

Processes daily bank deposits; receives, processes, and verifies dollar amount of checks received from vendors, members, trustees, government agencies, and other third parties; identifies proper endorsements and signatures; codes checks as appropriate; ensures allocation to correct accounts; coordinates with other departments for special handling of checks; maintains appropriate records; calculates deposit balances; ensures balances match total deposits.

Verifies and processes daily LACERA warrants for mailings in accordance with established security procedures; uses specialized software to verify, process, and maintain check database; sorts, assembles, and prepares checks for mailing.

Performs quality assurance by effectively determining document quality and completeness by using specialized computer software to ensure accuracy, quality of image, and document type; corrects and documents errors for training and procedural improvements; ensures all documents received are legible and are processed and indexed accurately and in a timely fashion.

Runs summary reports, verifies accuracy, and provides additional analysis as necessary.

Answers and responds to phone calls and email requests from members as necessary.

May be required to perform other related duties as assigned.

~~Provides general lead direction, plans, assigns, trains, and determines work priorities for staff responsible for document scanning/imaging of member records, and the incoming and outgoing mail processes.~~

~~Performs routine quality assurance audits of imaging/scanning operations and mail services procedures.~~

~~Monitors and reviews the work of staff to ensure compliance with processing guidelines and deadlines.~~

~~Develops, revises, and instructs staff on procedures, policies, and quality control standards.~~

~~Prepares statistical reports related to workload and workflow processes.~~

~~Performs related work as required.~~

REQUIREMENTS:

TRAINING AND EXPERIENCE:

OPTION 1:

Three (3) year's responsible experience at the level of Document Processing Specialist, LACERA.

OPTION 2:

Completion of twelve (12) semester units in business administration, public administration, or related coursework from an accredited college or university -and- two (2) years of responsible experience in researching records, processing documents, and scanning and indexing documents. in document processing and mail services, one year of experience that must have been operating imaging and scanning equipment

LICENSE:

A valid California Class C Driver License or the ability to utilize an alternative method of transportation when needed to carry out job-related essential functions.

PHYSICAL CLASS II – Light: Light physical effort with light lifting to 10 pounds, some bending, stooping or squatting, and considerable walking.

CLASSIFICATION TITLE: Document Processing Supervisor, LACERA

ITEM NO: 0472

DEFINITION:

Supervises the activities of staff engaged in the processing and imaging of member documents and business records; and ensures standard procedures and performance expectations are met for the Los Angeles County Employees Retirement Association (LACERA).

POSITION INFORMATION:

Positions allocable to this classification, under the supervision of a Supervising Administrative Assistant II, LACERA, are assigned in LACERA's Document Processing Center. This is the full supervisory-level classification in the Document Processing series that exercises independent judgment on diverse and specialized document processing, scanning, and indexing functions with accountability and ongoing decision-making responsibilities associated with the work.

Document Processing Supervisors plan, delegate, oversee, organize, prioritize, supervise, train, and evaluate the work of staff engaged in the processing, scanning, indexing, and mailing of member documents and business records to ensure accuracy, timeliness, and quality of all documents received. Work requires a thorough knowledge of document management systems, document capture software, document entry processes, document codes, related equipment, standards, procedures, and quality control. Incumbents must exercise initiative and independent judgment within defined LACERA and Document Processing Center policies and procedures. Incumbents must have a knowledge of the principles of supervision, supervisory policies, and practices, and be proficient in prioritizing a high volume of requests to complete work within time standards.

EXAMPLES OF ESSENTIAL JOB FUNCTIONS:

The following examples are intended to describe the general nature and level of work performed by persons assigned to each classification. Depending on the assignment, duties may include, but are not limited to the following:

Plans, delegates, oversees, prioritizes, organizes, supervises, train, and reviews the work of document processing staff; trains staff in work procedures; recommends rotation of staff between assignments; evaluates staff performance; counsels staff and effectively recommends initial disciplinary action; assists in selection and promotion.

Provides on-the-job and formalized training to assigned staff regarding how to prepare, analyze, scan, and index member documents and business records, and how to properly utilize office equipment and software applications; develops training plans; implements training procedures and standards; maintains training records; provides feedback to management regarding each trainee's job performance.

Participates in the development of goals, objectives, policies, and procedures for assigned services and programs; recommends and implements policies and procedures including standard operating procedures for assigned operations.

Monitors activities of the document processing unit; identifies opportunities for improving service delivery and streamlining procedures; provides recommendations concerning process changes; reviews recommendations with appropriate management staff; implements improvements.

Processes daily bank deposits; receives, processes, and verifies dollar amount of checks received from vendors, members, trustees, government agencies, and other third parties; identifies proper endorsements and signatures; codes checks as appropriate; ensures allocation to correct accounts; coordinates with other departments for special handling of checks; maintains appropriate records; calculates deposit balances; ensures balances match total deposits.

Verifies and processes daily LACERA warrants for mailings in accordance with established security procedures; uses specialized software to verify, process, and maintain check database; sorts, assembles, and prepares checks for mailing.

Performs quality assurance by effectively determining document quality and completeness by using specialized computer software to ensure accuracy, quality of image, and document type; corrects and documents errors for training and procedural improvements; ensures all documents received are legible and are processed and indexed accurately and in a timely fashion.

Runs summary reports, verifies accuracy, and provides additional analysis as necessary.

Answers and responds to phone calls and email requests from members as necessary.

May be required to perform other related duties as assigned.

REQUIREMENTS:

TRAINING AND EXPERIENCE:

OPTION 1:

Three (3) years responsible experience at the level of Document Processing Specialist, LACERA.

OPTION 2:

Completion of twelve (12) semester units in business administration, public administration, or related coursework from an accredited college or university -and- two (2) years of responsible experience in researching records, processing documents, and scanning and indexing documents.

LICENSE:

A valid California Class C Driver License or the ability to utilize an alternative method of transportation when needed to carry out job-related essential functions.

PHYSICAL CLASS II – Light: Light physical effort with light lifting to 10 pounds, some bending, stooping or squatting, and considerable walking.

LAST UPDATE: 11/22/2022

CLASSIFICATION TITLE: Document Processing ~~Assistant~~Specialist, LACERA

ITEM NO: 0471

DEFINITION:

Provides administrative support with responsibility for the electronic imaging of member and business records; processes incoming mail; sorts, categorizes, creates, scans, and indexes batches of documents; reviews documents and images to ensure quality; and assembles and prepares system-generated letters and member correspondence for mailing ~~Performs document scanning/imaging and indexing of member retirement documents~~ for the Los Angeles County Employee Retirement Association (LACERA).

POSITION INFORMATION:

Positions allocable to this class, under the general supervision of a Document Processing Supervisor, are assigned to LACERA's Document Processing Center. This is a fully qualified journey-level classification in the Document Processing series which is responsible for independently performing specialized duties in support of division operations. Positions at this level are distinguished by the performance of the full range of duties as assigned, working independently, and exercising judgment and initiative within defined LACERA and Document Processing Center policies and procedures. Incumbents receive only occasional instruction or assistance as new or unusual situations arise and are fully aware of the operating procedures and policies of the work unit. This class is distinguished from the Document Processing Supervisor in that the latter is the full supervisory-level class in the series responsible for organizing, assigning, supervising, and reviewing the work of assigned staff involved in document processing operations.

Document Processing Specialists prepare, analyze, scan, and index all incoming documents from members, survivors, dependents, beneficiaries, legal counsel, third parties, and other LACERA divisions. This includes assigning relevant document coding and analyzing documents to ensure type, accuracy, and authenticity. Incumbents may assist in providing on the job training to less experienced staff. Work requires a thorough knowledge of document management systems, document entry processes, document codes, related equipment, standards, procedures, and quality control. Incumbents rely on experience and judgement to accurately identify documents, assign appropriate coding, and scan and index records and must be proficient in prioritizing a high volume of requests to complete work within time standards. ~~Positions allocable to this classification perform document imaging/scanning and indexing duties under the general lead of a Document Processing Coordinator, LACERA. Incumbents work independently and must have a thorough knowledge of scanning and imaging systems, document codes, equipment, standards, procedures, and quality control. Positions must exercise sound judgment and resolve problems related to the scanning and indexing of documents.~~

EXAMPLES OF ESSENTIAL JOB FUNCTIONS:

The following examples are intended to describe the general nature and level of work performed by persons assigned to each classification. Depending on the assignment, duties may include, but are not limited to the following:

Prepares batches of member documents received from members, survivors, dependents, beneficiaries, legal counsel, third parties, and other LACERA divisions; reviews documents to ensure appropriate information is present; determines which action needs to be taken for each document; queries document management system to verify member information and imaging procedures to verify appropriate stamps and codes to be utilized; assigns appropriate document stamps and bar codes to each document; mails pertinent records back to sender after processing; prepares documents for scanning, scans documents into specialized computer system, and assists with the quality control of documents.

Scans documents into specialized document management system; ensures documents align to a specific member; determines document quality and completeness by using specialized document capture software to ensure accuracy, quality of image, and document type; sets up, calibrates, adjusts, operates, and performs routine cleaning and maintenance of scanning/imaging equipment; operates multiple scanning machines simultaneously as needed.

Reviews and indexes electronic, imaged member documents and business records to ensure document quality, scanning accuracy, and indexing conformance to accepted standards through the utilization of document capture software; checks dates received and scanned of each document and revises electronic records as needed; ensures proper codes and stamps were used during document preparation phase; uploads indexed documents to centralized document management system; routes documents to other departments when additional action is required.

computerized, imaged documents to ensure accuracy and conformance to accepted standards through the utilization of specialized computer software. Runs summary reports for indexing and batching control purposes; verifies accuracy and provides additional analysis as necessary; provides information and makes suggestions regarding the development of standards and procedures for processing, scanning, and indexing of documents and records.

Queries centralized document management system to access and retrieve member records and files.

Receives, sorts, categorizes, processes, and distributes incoming mail; prepares correspondence for batch mailing; makes copies of documents; assembles and prepares system-generated member correspondence for mailing.

Sets up, adjusts, operates, and performs routine cleaning and maintenance of scanning/imaging equipment.

Provides information in the development of standards and procedures relating to the batching, scanning, and indexing of documents and records.

Operates other office equipment, computer, photocopier, and facsimile.

May retrieve and access file records as requested. Transports boxes containing member documents, copy center and mailroom supplies.

May assist in providing on-the-job training to less experienced staff and provide assistance in mail services operations.

May be required to process daily bank deposits; verify deposit amounts for checks made payable to LACERA; identify proper endorsements and signatures; calculate deposit balances; and ensure balances match total deposits.

May participate in testing new software applications and systems.

May perform other related duties as required.

REQUIREMENTS:

TRAINING AND EXPERIENCE:

OPTION 1:

Six months' experience utilizing computer applications AND One (1) year of experience as an Intermediate Clerk, LACERA or higher operating scanning/imaging equipment, operating scanning/imaging equipment in a production business or public entity OR

OPTION 2:

Eighteen (18) months clerical experience, with a least six-twelve (12) months' of responsible experience operating scanning/imaging equipment.

LICENSE:

A valid California Class C Driver License or the ability to utilize an alternative method of transportation when needed to carry out job-related essential functions.

PHYSICAL CLASS III – Moderate: Standing or walking most of the time, with bending, stooping, squatting, twisting, reaching, working on irregular surfaces, occasional lifting over 25 pounds, and frequent lifting of 10-25 pounds.

CLASSIFICATION TITLE: Document Processing Specialist, LACERA

ITEM NO: 0471

DEFINITION:

Provides administrative support with responsibility for the electronic imaging of member and business records; processes incoming mail; sorts, categorizes, creates, scans, and indexes batches of documents; reviews documents and images to ensure quality; and assembles and prepares system-generated letters and member correspondence for mailing for the Los Angeles County Employee Retirement Association (LACERA).

POSITION INFORMATION:

Positions allocable to this class, under the general supervision of a Document Processing Supervisor, are assigned to LACERA's Document Processing Center. This is a fully qualified journey-level classification in the Document Processing series which is responsible for independently performing specialized duties in support of division operations. Positions at this level are distinguished by the performance of the full range of duties as assigned, working independently, and exercising judgment and initiative within defined LACERA and Document Processing Center policies and procedures. Incumbents receive only occasional instruction or assistance as new or unusual situations arise and are fully aware of the operating procedures and policies of the work unit. This class is distinguished from the Document Processing Supervisor in that the latter is the full supervisory-level class in the series responsible for organizing, assigning, supervising, and reviewing the work of assigned staff involved in document processing operations.

Document Processing Specialists prepare, analyze, scan, and index all incoming documents from members, survivors, dependents, beneficiaries, legal counsel, third parties, and other LACERA divisions. This includes assigning relevant document coding and analyzing documents to ensure type, accuracy, and authenticity. Incumbents may assist in providing on the job training to less experienced staff. Work requires a thorough knowledge of document management systems, document entry processes, document codes, related equipment, standards, procedures, and quality control. Incumbents rely on experience and judgement to accurately identify documents, assign appropriate coding, and scan and index records and must be proficient in prioritizing a high volume of requests to complete work within time standards.

EXAMPLES OF ESSENTIAL JOB FUNCTIONS:

The following examples are intended to describe the general nature and level of work performed by persons assigned to each classification. Depending on the assignment, duties may include, but are not limited to the following:

Prepares batches of documents received from members, survivors, dependents, beneficiaries, legal counsel, third parties, and other LACERA divisions; reviews documents to ensure appropriate information is present; determines which action needs to be taken for each document; queries document management system to verify member information and imaging procedures to verify appropriate stamps and codes to be utilized; assigns appropriate document

stamps and bar codes to each document; mails pertinent records back to sender after processing; prepares documents for scanning.

Scans documents into specialized document management system; ensures documents align to a specific member; determines document quality and completeness by using specialized document capture software to ensure accuracy, quality of image, and document type; sets up, calibrates, adjusts, operates, and performs routine cleaning and maintenance of scanning/imaging equipment; operates multiple scanning machines simultaneously as needed.

Reviews and indexes electronic, imaged member documents and business records to ensure document quality, scanning accuracy, and indexing conformance to accepted standards through the utilization of document capture software; checks dates received and scanned of each document and revises electronic records as needed; ensures proper codes and stamps were used during document preparation phase; uploads indexed documents to centralized document management system; routes documents to other departments when additional action is required.

Runs summary reports for indexing and batching control purposes; verifies accuracy and provides additional analysis as necessary; provides information and makes suggestions regarding the development of standards and procedures for processing, scanning, and indexing of documents and records.

Queries centralized document management system to access and retrieve member records and files.

Receives, sorts, categorizes, processes, and distributes incoming mail; prepares correspondence for batch mailing; makes copies of documents; assembles and prepares system-generated member correspondence for mailing.

Transports boxes containing member documents, copy center and mailroom supplies.

May assist in providing on-the-job training to less experienced staff.

May be required to process daily bank deposits; verify deposit amounts for checks made payable to LACERA; identify proper endorsements and signatures; calculate deposit balances; and ensure balances match total deposits.

May participate in testing new software applications and systems.

May perform other related duties as required.

REQUIREMENTS:

TRAINING AND EXPERIENCE:

OPTION 1:

One (1) year of experience as an Intermediate Clerk, LACERA or higher operating scanning/imaging equipment.

OPTION 2:

Eighteen (18) months clerical experience, with a least twelve (12) months of responsible experience operating scanning/imaging equipment.

LICENSE:

A valid California Class C Driver License or the ability to utilize an alternative method of transportation when needed to carry out job-related essential functions.

PHYSICAL CLASS III – Moderate: Standing or walking most of the time, with bending, stooping, squatting, twisting, reaching, working on irregular surfaces, occasional lifting over 25 pounds, and frequent lifting of 10-25 pounds.



Koff & Associates
A Gallagher Company



Los Angeles County Employees Retirement System

Classification & Compensation Study for Document Processing Staff

Agenda

- Introduction
- Classification Study
- Compensation Study
- Questions?





Introduction

Introduction

- Koff & Associates (a Gallagher company) is a Human Resources consulting firm specializing in classification and compensation studies for public agencies in California.
- In May 2019, LACERA entered an agreement with K&A to conduct a Classification and Compensation Study for LACERA's Document Processing Staff.
- These Studies began in June 2019 and concluded in January 2020.
- K&A conducted a "refresher" salary survey in July 2023.
- Purpose of the Classification Study was to review & update classifications and job descriptions and ensure relevance and accuracy.
- Purpose of the Compensation Study was to ensure competitiveness when recruiting and recognize external and internal value of jobs.



A close-up, warm-toned photograph of a person's hands writing on a document. The document features a bar chart with blue bars and a table with numerical data. The person is holding a gold pen. In the background, another person's hands are visible near a laptop. The scene is brightly lit, suggesting a window with blinds. The text 'Classification Study Overview' is overlaid on the right side of the image.

Classification Study Overview

Year	2012	2013	2014	2015
1	100	100	100	100
2	100	100	100	100
3	100	100	100	100
4	100	100	100	100
5	100	100	100	100
6	100	100	100	100
7	100	100	100	100
8	100	100	100	100
9	100	100	100	100
10	100	100	100	100

Classification Study Methodology



Classification Study

KOFF Recommendations

Current Classification Title	# of Incumbents	Proposed Classification Title
Document Processing Assistant	0	Document Processing Specialist I
Document Processing Assistant	5	Document Processing Specialist II
Document Processing Assistant	2	Senior Document Processing Specialist
Document Processing Coordinator	2	Document Processing Supervisor
Staff Assistant II	5	Disability Retirement Support Specialist I
Staff Assistant II	2	Senior Typist Clerk
Staff Assistant I	2	Staff Assistant I (No Change)

Classification Study

LACERA Recommendations

- LACERA management approved moving forward with the following recommendations:
 - Upgrade of the Document Processing Coordinator classification to a Document Processing Supervisor, responsible for providing full administrative and technical supervision
 - Title change for the Document Processing Assistant to Document Processing Specialist (Equivalent to the Document Processing Specialist II)
 - Reclassification of recommended Staff Assistant II positions to the revised Disability Retirement Support Specialist based on duties performed
 - No title changes for the Staff Assistant I or II classifications.



Classification Study Recommendations Not Utilized by LACERA

- Create a Document Processing Specialist I classification to serve as a trainee. Intermediate Typist-Clerks were determined to be an appropriate feeder for the DPC.
- Reclass two (2) Staff Assistant II positions found performing at the level of Senior Typist-Clerk.

Classification Study

Recommendations Not Utilized by LACERA

- Create a Senior Document Processing Specialist classification.
 - DPC has a need for bona-fide supervisors to perform full-administrative and technical supervision. The Document Processing Supervisor is a working supervisor, technical expert, and responsible for administrative and technical supervision including providing formal training.
 - There are insufficient subordinate staff to support a lead level position. Currently, there are three (3) budgeted Document Processing Coordinators being reclassified to Supervisor, with a total of eleven (11) subordinate Document Processing Assistants - less than a 4:1 ratio.
 - Assisting with training is already included in the existing Document Processing Assistant class specification and in the proposed Document Processing Specialist.

Classification Study Budgeted Position Title Map

Current Classification Title	# of Positions	Proposed Budgeted Position
Document Processing Assistant	0	Intermediate Typist-Clerk
Document Processing Assistant	11	Document Processing Specialist
Document Processing Coordinator	3	Document Processing Supervisor
Staff Assistant II	6	Disability Retirement Support Specialist I
Staff Assistant II	2	No Change
Staff Assistant I	2	No Change

A close-up photograph of a person's hands writing on a document. The document features a bar chart with blue bars and a table with numerical data. The scene is set on a desk with a laptop and glasses in the background, illuminated by warm, natural light from a window. The text 'Compensation Study Overview' is overlaid on the right side of the image.

Compensation Study Overview

Year	2013	2014	2015
1	1,273	2,048	2,272
2	314	8,384	3,620
3	479	2,898	10,773
4	6,038	8,384	10,773
5	1,273	2,048	2,272
6	314	8,384	3,620
7	479	2,898	10,773
8	6,038	8,384	10,773
9	1,273	2,048	2,272
10	314	8,384	3,620



COMPARATOR
AGENCIES



BENCHMARK
CLASSIFICATIONS

Base
Salary
Survey –
Survey
Elements

LACERA Survey Comparator Agencies

1. California Public Employees' Retirement System
2. California State Teachers' Retirement System
3. City of Pasadena
4. County of Los Angeles
5. Economic Research Institute (database)
6. Los Angeles City Employees' Retirement System
7. Los Angeles Fire and Police Pensions
8. Metropolitan Water District of Southern California
9. Orange County Employees' Retirement System
10. San Bernardino County Employees' Retirement Association
11. San Diego County Employees Retirement Association
12. San Francisco Employees' Retirement System
13. State Compensation Insurance Fund

LACERA Benchmark Classifications included in Salary Survey

- Disability Retirement Support Specialist
- Document Processing Specialist
- Document Processing Supervisor
- Staff Assistant I
- Staff Assistant II

Data Collection

- Job/class descriptions
- MOU's (Labor Agreements)
- Organizational charts
- Salary information
- Description-to-description
- 70% match
- Follow-up

All analyses completed in-house

No questionnaires

2019 Market Findings - Overall

- Overall, LACERA's **Base Salaries** in **2020** for these surveyed classifications were an average of **8.1% *above the market average***
- Overall, LACERA's **Base Salaries** for these surveyed classifications were an average of **10.5% *above the market median***
- Overall, LACERA's **Base Salaries** for these surveyed classifications were an average of **-7.1% *below the 75th percentile in the market***

2019 Market Findings for Average

Classification Title	# of Matches	Current Max Salary	Average Max Salary	Top Monthly Salary % Above or Below Average
Disability Retirement Support Specialist	8	\$ 6,790	\$ 5,445	19.8%
Document Processing Specialist (DPA)	9	\$ 4,761	\$ 4,505	5.4%
Document Processing Supervisor (DPC)	6	\$ 5,165	\$ 5,369	-3.9%
Staff Assistant I	13	\$ 5,426	\$ 4,939	9.0%
Staff Assistant II	10	\$ 6,560	\$ 5,887	10.3%
AVERAGE				+8.1%

2019 Market Findings for Median

Classification Title	# of Matches	Current Max Salary	Median Max Salary	Top Monthly Salary % Above or Below Median
Disability Retirement Support Specialist	8	\$ 6,790	\$ 5,418	20.2%
Document Processing Specialist (DPA)	9	\$ 4,761	\$ 4,709	1.1%
Document Processing Supervisor (DPC)	6	\$ 5,165	\$ 4,762	7.8%
Staff Assistant I	13	\$ 5,426	\$ 4,713	13.1%
Staff Assistant II	10	\$ 6,560	\$ 5,896	10.1%
AVERAGE				+10.5%

2019 Market Findings for 75th Percentile

Classification Title	# of Matches	Current Max Salary	75 th Percentile Salary	Top Monthly Salary % Above or Below 75 th Percentile
Disability Retirement Support Specialist	8	\$ 6,790	\$ 6,744	0.7%
Document Processing Specialist (DPA)	9	\$ 4,761	\$ 4,716	0.9%
Document Processing Supervisor (DPC)	6	\$ 5,165	\$ 6,943	-34.4%
Staff Assistant I	13	\$ 5,426	\$ 5,497	-1.3%
Staff Assistant II	10	\$ 6,560	\$ 6,640	-1.2%
AVERAGE				-7.1%

2022 Compensation Study LACERA Recommendations

- Effective January 1, 2021, all studied classifications received a 2.75% half-step increase to their salary range in addition to a 2.5% cost of living adjustment (COLA).
- All market-data was aged based on LACERA's negotiated COLAs; however, the half-step pushed all studied classifications except for the Document Processing Supervisor above the target 75th percentile.
- As a result, no upward salary adjustments were proposed in 2022 except for the Document Processing Supervisor, which was recommended a standard 15% supervisor: subordinate salary differential.
- A salary adjustment to the Disability Retirement Support Specialist was recommended to align with the Staff Assistant II so there will be no reduction negatively impacting positions identified for reclassification.

2022 LACERA Recommendations Union Concurrence

- On December 22, 2022, SEIU provided verbal concurrence on classification and compensation changes proposed for Disability Retirement Support Specialist I, Document Processing Coordinator, Staff Assistant I, and Staff Assistant II, and deletion of the Disability Retirement Support Specialist II. SEIU did not provide concurrence for Document Processing Assistant.
- On January 30, 2023, SEIU proposed a 10% salary increase for Document Processing Assistant. On April 3, 2023, SEIU proposed a 5% salary increase for Document Processing Assistant. LACERA did not agree to the proposals as the MOU did not have a reopener and the increase was not supported by market-data.
- On April 14, 2023, SEIU provided a written concurrence for the classification and compensation changes for the Document Processing Supervisor and the Disability Retirement Support Specialist I. Written concurrence is not required to revised the class specifications for Staff Assistant I and II, or Document Processing Assistant as there was no change in terms of employment or salary proposed.

April 27, 2023 JOG-C Meeting

- Classification and Compensation Recommendations were presented to the Board Trustees for approval and implementation.
- Based on concerns presented by the Document Processing Assistants, the Executive Office was directed to meet with staff, refresh the market data, and reassess the compensation study recommendations.

2023 Compensation Study

Other Considerations

- On May 3, 2023, the Executive Office met with the Document Processing Assistants to discuss the compensation study recommendations provided by K&A.
- Staff compared duties performed by:
 - Office and Administrative Specialists at Minnesota Public Employees Retirement Association (MNPERA)
 - Intermediate Typist-Clerks and Ownership Clerks at the LA County Office of the Assessor, which use the same document processing equipment as LACERA
- It was found that although both agencies perform scanning and indexing of member documents and/or business records, they were not comparable due to specialized knowledge and responsibilities related to processing of retirement and refund applications or real property assessments.
- Updated July 2023 Market Data collected by K&A is in the next slides.

July 2023 Market Findings - Overall

- Overall, LACERA's **Base Salaries** in **2023** for these surveyed classifications were an average of **9.1% *above the market average***
- Overall, LACERA's **Base Salaries** for these surveyed classifications were an average of **10.8% *above the market median***
- Overall, LACERA's **Base Salaries** for these surveyed classifications were an average of **-1.8% *below the 75th percentile in the market***
- The next slides reflect the survey results – these are sorted by classifications which are furthest above the median to those that are furthest below the median

July 2023 Market Findings for Average

Classification Title	# of Matches	Current Max Salary	Average Max Salary	Top Monthly Salary % Above or Below Average
Disability Retirement Support Specialist (SA II)	8	\$7,402	\$6,029	18.5%
Document Processing Specialist (DPA)	8	\$5,372	\$5,027	6.4%
Document Processing Supervisor (DPC)	6	\$5,828	\$6,016	-3.2%
Staff Assistant I	13	\$6,122	\$5,420	11.5%
Staff Assistant II	10	\$7,402	\$6,491	12.3%
AVERAGE				9.1%

July 2023 Market Findings for Median

Classification Title	# of Matches	Current Max Salary	Median Max Salary	Top Monthly Salary % Above or Below Median
Disability Retirement Support Specialist (SA II)	8	\$7,402	\$6,126	17.2%
Document Processing Specialist (DPA)	8	\$5,372	\$5,041	6.2%
Document Processing Supervisor (DPC)	6	\$5,828	\$5,458	6.3%
Staff Assistant I	13	\$6,122	\$5,288	13.6%
Staff Assistant II	10	\$7,402	\$6,607	10.7%
AVERAGE				10.8%

July 2023 Market Findings for 75th Percentile

Classification Title	# of Matches	Current Max Salary	75 th Percentile Salary	Top Monthly Salary % Above or Below 75 th Percentile
Disability Retirement Support Specialist (SA II)	8	\$7,402	\$7,191	2.9%
Document Processing Specialist (DPA)	8	\$5,372	\$5,281	1.7%
Document Processing Supervisor (DPC)	6	\$5,828	\$7,188	-23.3%
Staff Assistant I	13	\$6,122	\$5,943	2.9%
Staff Assistant II	10	\$7,402	\$6,907	6.7%
AVERAGE				-1.8%

2023 Compensation Study LACERA Update

- A salary adjustment to the Disability Retirement Support Specialist was recommended and approved to align with the Staff Assistant II so there will be no reduction negatively impacting positions identified for reclassification.
- All studied classifications except the Document Processing Supervisor are above the 75th percentile.
- LACERA conferred with SEIU on potential impacts.
- A 2.5% salary adjustment to the Document Processing Specialist is recommended.
- These changes are necessary to further LACERA's Mission to produce, protect, and provide the promised benefits and the Boards' paramount fiduciary duty to the fund's members and beneficiaries



Koff & Associates
A Gallagher Company

Questions and Comments

Thank you!



November 17, 2023

TO: Each Trustee,
Board of Retirement
Board of Investments

FROM: Joint Organizational Governance Committee
Herman B. Santos (BOI) Chair
David Green (BOI) Vice Chair
Gina Sanchez (BOI)
Onyx Jones (BOI)
Shawn Kehoe (BOR)
Alan Bernstein (BOR)
Elizabeth Greenwood (BOR)
Ronald Okum (BOR)

FOR: December 6, 2023 Board of Retirement Meeting
December 13, 2023 Board of Investments Meeting

SUBJECT: Chief Executive Officer Salary Designation Authority Upon Appointment of
External Candidates

RECOMMENDATION

That the Board of Retirement and Board of Investments separately approve amendments to the LACERA portion of the Los Angeles County Salary Ordinance, Sections 6.127.040 M 1 for Tier I and 6.127.040 P 1 for Tier II, to permit LACERA's Chief Executive Officer (CEO) to designate a Salary upon appointment of persons not employed by the County or LACERA to positions at any rate or step within the applicable Salary range, provided that for Tier I, as is currently provided for Tier II, the CEO makes a written finding based on factors to justify hiring above the minimum Salary range and with periodic reporting to the Boards, and further approve implementation of the amendments.

LEGAL AUTHORITY

Under Section 7.1 of its Charter, the Joint Organizational Governance Committee (JOGC) has the responsibility to, "Review and make recommendation on Staff Member requests related to: . . . Approval of compensation level and range changes for existing positions that require changes to the County Code."

The authority of the Board of Retirement and Board of Investments to address the CEO's authority with respect to salary setting for staff is based on the Boards' "plenary authority" and "sole and exclusive responsibility to administer the system in a manner that will assure prompt delivery of benefits and related services to the participants and their beneficiaries" under Article XVI, Section 17 of the California Constitution. The Boards'

authority is further based on California Government Code Section 31522.1 of the County Employees Retirement Law of 1937 (CERL) to “appoint such administrative, technical, and clerical staff personnel as are required to accomplish the necessary work of the boards.”

DISCUSSION

In the County Salary Ordinance, the LACERA Boards’ statutory appointing authority is delegated to the CEO for all staff, other than the Chief Executive Officer and the Chief, Internal Audit. (Salary Ordinance, Section 6.127.040 B 1.)¹ The CEO’s appointing authority under the Salary Ordinance includes the ability to set staff salaries.

However, as explained below, there are inconsistencies and limitations in the CEO’s authority as to new staff hires such that the CEO has full authority to designate salary at any point within the permitted range for some staff but, for two categories (external MAPP Tier I and Tier II appointees not previously employed by the County or LACERA), the CEO’s salary designations for new external hires requires approval of both Boards if they exceed Level 12.

The proposal in this memo makes the CEO’s authority uniform by eliminating the need to obtain Board approval of certain CEO salary designations upon appointment of new Tier I and Tier II external candidates. This proposal will make the CEO’s salary designation authority the same for MAPP and non-MAPP hires, internal and external candidate hires, and Tier I and Tier II.

A. Step Pay Plan

Under the Salary Ordinance, LACERA’s CEO may, notwithstanding certain other provisions in the Ordinance, “approve step placement of an employee of the Los Angeles County Employees Retirement Association at **any step within the salary range** for the position which he or she holds, provided that placements made pursuant to this section are reported to the boards of retirement and investments on a periodic basis.” (Salary Ordinance, Section 6.127.030 A [emphasis added].) Thus, for internal or external hires under step pay plans, the CEO has full salary authority within the range, subject to periodic reporting to the Boards. Board approval is not required.

B. MAPP Tier I

The Salary Ordinance provides that, for promotional appointments to Tier I, “A person

¹ By policy, both Boards reserve the right to provide input on personnel matters relating to Chief Counsel. By policy, the Board of Investments reserves the right to provide input on personnel matters relating to the Chief Investment Officer. The CEO remains the appointing authority for both positions.

being promoted from another position in county or LACERA service shall be compensated at **a salary within the Salary range of the higher position . . .**” (Salary Ordinance, Section 6.127.040 M 2 [emphasis added].) Thus, the CEO’s salary designation authority for promotional Tier I candidates is unlimited within the assigned range and not subject to Board approval at any level in the range. There is also no requirement for a memo of justification or notice to the Boards.

However, for appointments of persons not currently employed by LACERA, the Ordinance provides, “The retirement administrator may designate a salary at any rate within the first three quartiles of the Salary range established for the position to which the person is being appointed. **Appointment at a salary rate within the fourth quartile of the Salary range shall require prior approval by the board of retirement and board of investments jointly.**” (Salary Ordinance, Section 6.127.040 M 1 [emphasis added].) Under this language, for highly compensated external Tier I hires, the hiring process includes the additional hurdle of obtaining joint board approval for the salary if it is in the fourth quartile of the range.

C. MAPP Tier II

The MAPP Tier II language in the Ordinance is similar but not identical to Tier I.

The Salary Ordinance provides that, for promotional appointments to Tier II, “A person being promoted from another position in county or LACERA service shall be compensated at **a salary within the Salary range of the higher position . . .**” (Salary Ordinance, Section 6.127.040 P 2 [emphasis added].) Thus, the CEO’s salary designation for promotional Tier II candidates is unlimited and not subject to Board approval. There is also no requirement for a memo of justification or notice to the Boards. This is the same as for Tier I.²

However, for Tier II appointments of persons not currently employed by the county or LACERA, the Ordinance provides, “the retirement administrator may designate any step up to and including step 12 of the Salary range established for the position to which the person is being appointed, provided the retirement administrator makes a written finding based on an analysis of factors to justify hiring above the minimum of the Salary range. **Appointment to a salary rate greater than step 12 shall require prior approval of the board of retirement and board of investments jointly.**” (Salary Ordinance, Section 6.127.040 P 1 [emphasis added].) Under this language, for highly compensated external Tier II hires, the hiring process includes the additional hurdle of obtaining joint board approval for the salary and also a memo of justification. The Tier II process also requires

² Note there are different requirements in the cited Ordinance section for Y-Rate employees, which are not covered here.

as internal memo of findings not in the Tier I Ordinance language.

D. Proposal and Justification

The differing standards for the CEO's salary designation authority and other aspects of the process for Step Pay, Tier I, and Tier II hires create the following concerns:

- Inconsistent levels and standards for the CEO's salary designation authority.
- Administrative burden of administering five different systems (one for Step Pay and two each for Tier I and Tier II).
- External Tier I and Tier II candidates are exposed to a public Board review process that delays hires due to the need to arrange two Board meetings, may cause candidates to have personal concerns and also unnecessary difficulties in terms of the timing of their notice to current employers, and may be a disincentive to quality candidates.
- The Board review process takes up agenda time and involves the Boards in a staff salary approval process for some candidates that is prudently uniformly delegated to the CEO, who if the appointing authority for MAPP Tier I and Tier II LACERA staff and oversees the hiring process and has a greater level of knowledge concerning individual hires than the Boards can achieve.
- There is no basis for the different internal written justification requirements for Tier I and Tier II.
- There is no basis for the different requirements for informal periodic Board notification of appointments and salaries.

To eliminate these concerns and create uniform CEO salary designation authority and a uniform, consistent, and transparent process, the JOGC proposes the attached revisions to the Tier I and Tier II Ordinances, Sections 6.127.040 M 1 and P 1, which will grant the CEO authority to make appointments at any rate or step within the range for a position, eliminate Board approval, require uniform internal justification where it is not already required,³ and require uniform periodic reporting to the Boards.

CONCLUSION

For these reasons, the JOGC recommends that the Board of Retirement and Board of Investments separately approve amendments to the LACERA portion of the Los Angeles County Salary Ordinance, Sections 6.127.040 M 1 for Tier I and 6.127.040 P 1 for Tier II, to permit LACERA's Chief Executive Officer (CEO) to designate a Salary upon

³ Although the Ordinance language is currently different with regard to internal written justification for hires and their salaries, in practice such justification memos are prepared for all hires. In this sense, the proposed change on this point documents an alignment of the Ordinance language with existing practice.

Re: CEO Salary Designation Authority Upon Appointment of External Candidates

November 17, 2023

Page 5 of 5

appointment of persons not employed by the County or LACERA to positions at any rate or step within the applicable Salary range, provided that for Tier I, as is currently provided for Tier II, the CEO makes a written finding based on factors to justify hiring above the minimum Salary range and with periodic reporting to the Boards, and further approve implementation of the amendments.

Attachment

c: Santos H. Kreimann Luis A. Lugo Laura Guglielmo Ted Granger
 Jonathan Grabel JJ Popowich Carly Ntoya, Ph.D. Jasmine Bath

SALARY ORDINANCE COMPARISON AND PROPOSED CHANGES

Salary Ordinance Section 6.127.030 - Additional information.

[No changes proposed.]

- A. Step Pay Plan. Notwithstanding Section 6.08.010, by specific action, any person designated to act as Retirement Administrator pursuant to Section 6.127.020 of this code may approve step placement of an employee of the Los Angeles County Employees Retirement Association at any step within the salary range for the position which he or she holds, provided that placements made pursuant to this section are reported to the boards of retirement and investments on a periodic basis. The succeeding step advancement in such a case will be made thereafter on a yearly basis unless an exception is specifically authorized by the retirement administrator.

Salary Ordinance Section 6.127.040 - LACERA Tier I and Tier II Management Appraisal and Performance Plan.

[Proposed Changes are Indicated.]

- M. Tier I establishment of salary upon appointment. A person appointed to a class or position designated as participating in Tier I of the Plan shall be paid as follows, provided that placements made pursuant to this section are reported to the boards of retirement and investments on a periodic basis:
1. Appointment of Persons Not Currently Employed by the county or LACERA. The retirement administrator may designate a salary at any rate within ~~the first three quartiles of~~ the Salary range established for the position to which the person is being appointed, provided the retirement administrator makes a written finding based on an analysis of factors to justify hiring above the minimum of the Salary range. Appointment at a salary rate within the fourth quartile of the Salary range shall require prior approval by the board of retirement and board of investments jointly.
- P. Tier II establishment of step placement upon appointment. A person appointed to a class or position designated as participating in the Tier II Management Appraisal and Performance Plan shall be paid as follows, provided that placements made pursuant to this section are reported to the boards of retirement and investments on a periodic basis:
1. Appointment of Persons Not Employed by the county or LACERA. For persons not employed by the county or LACERA and who are appointed to positions participating in the Tier II Management Appraisal and Performance Plan, the retirement administrator may designate any step ~~up to and including step 12~~ of the Salary range established for the position to which the person is being appointed, provided the retirement administrator makes a written finding based on an analysis of factors to justify hiring above the minimum of the Salary range. ~~Appointment to a salary rate greater than step 12 shall require prior approval of the board of retirement and board of investments jointly.~~



December 1, 2023

TO: Each Trustee,
Board of Investments

FOR: Board of Investments Meeting of December 13, 2023

SUBJECT: 2024 Infrastructure Investor Global Summit in Berlin, Germany
March 18 - 21, 2024

The 2024 Infrastructure Investor Global Summit will be held in Berlin, Germany on March 18 - 21, 2024. This Summit will provide an opportunity to connect with the world's leading institutional investors actively allocating to infrastructure. Inspirational out-of-industry keynote speakers and the industry's best and brightest will lead the discussions, shaping the future of the asset class.

The main conference highlights include the following:

- A transitioning world beyond energy – how infrastructure investing is influencing global developments
- Expectations vs reality: how are private infrastructure valuations playing out
- Achieving systematic value creation as an active infrastructure asset manager

Following are approximate conference and travel costs:

Registration: \$5,895.00 (Fee includes annual membership)

Hotel: \$285.00 daily rate (plus taxes and fees) **Additional Travel Days:** 3

Airfare: \$5,000.00 - \$7,500.00 **Ground Transportation:** \$60.00 per day

Per Diem & Incidentals: \$133.00 per day
(The registration fee includes most meals)

Approximate Cost Per Traveler: \$14,000- \$16,500.00

If the registration fee is insufficient to pay the cost of the meals provided by the conference sponsor, LACERA must reimburse the sponsor for the actual cost of the meals, less any registration fee paid. Otherwise, the attendee will be deemed to have received a gift equal to the value of the meals, less any registration fee paid, under California's Political Reform Act.

IT IS THEREFORE RECOMMENDED THAT YOUR BOARD:

Approve attendance of Trustees at the 2024 Infrastructure Investor Global Summit in Berlin, Germany on March 18 - 21, 2024, and approve reimbursement of all travel costs incurred in accordance with LACERA's Trustee Education and Trustee Travel Policies.



**Infrastructure
Investor
Network**

Global Summit

2024 Agenda

Monday 18 March

[Emerging Markets Forum](#) | [ESG & Sustainability Forum](#) | [Digital Infrastructure Forum](#)

Tuesday 19 March

[Global Investor Forum – Day one](#)

Wednesday 20 March

[Global Investor Forum – Day two](#)

Thursday 21 March

[Investor Council](#) | [Infrastructure Debt Forum](#) | [Energy Transition Forum](#)

Monday 18 March

Emerging Markets Forum	ESG & Sustainability Forum	Digital Infrastructure Forum
<p>09:10 - 09:30 Introduction from Infrastructure Investor and welcome from the chair</p>	<p>09:10 – 09:30 Introduction from Infrastructure Investor and welcome from the chair</p>	<p>09:10 – 09:30 Introduction from Infrastructure Investor and Welcome from the chair</p>
<p>09:30 – 10:15 Panel: Mobilising capital in emerging markets</p> <ul style="list-style-type: none"> • How to define the “emerging markets” – by ideology or geography? • Exploring how certain markets are navigating the “globalisation” trend, steering away from the traditional larger players • The evolving role of MDBs in emerging market investments and the role of planning, connecting and financing instruments to coordinate public and private finance and to tap on the climate finance <p>Chandra Reddy, Corporate Advisory and Principal Investments, Beyond Advisory</p>	<p>09:30 – 10:15 Panel: To what extent can traditional infrastructure “be green”</p> <ul style="list-style-type: none"> • Dissecting traditional transport infrastructure such as airports, ports and shipping and their sustainability credentials • Exploring the decarbonisation pathways of electricity, gas and water networks • How the decarbonisation agenda could change the definition of infrastructure <p>Moderated by: Simon Whistler, Head of Real Assets, Principles for Responsible Investment</p>	<p>09:30 – 10:15 Opening Panel: Macroeconomic opportunities and challenges in digital infrastructure</p> <ul style="list-style-type: none"> • How digital infrastructure is faring in the high inflation and interest rates era • How the digital players are navigating the demand to meet the growth • Looking through the crystal ball: what’s next for the digital infrastructure sphere <p>Omar Jaffrey, Managing Partner and Sole Founder, Palistar Capital LP Mamoun Jamai, Head of Digital Infrastructure, Abu Dhabi Investment Authority</p>
<p>10:15 – 11:00 Panel: Unlocking growth potential: Exploring the role of Public-Private Partnership Projects</p> <ul style="list-style-type: none"> • The impact of government policies and changes in regulations on the P3 market • Identifying the common challenges, risks, and barriers faced in implementing P3 projects in emerging markets, such as political and regulatory factors • Future Trends: Exploring emerging trends, innovations, and technologies such as green infrastructure, digitalisation, and risk-sharing mechanisms that can revolutionise the P3 market in emerging markets 	<p>10:15 – 11:00 Panel: Making ESG data useful</p> <ul style="list-style-type: none"> • How the infrastructure industry is moving closer to standardisation of ESG data • The importance of streamlined data and how to avoid the overburdening of assets with multiple data requests • How infrastructure GPs and LPs work together to analyse data <p>Moderated by: Afolabi Oliver, Director, Operational Due Diligence, ESG Officer, Aksia</p>	<p>10:15 – 11:00 Panel: Discussing the significance of investing in digital tower infrastructure for the telecommunications industry</p> <ul style="list-style-type: none"> • Exploring what specific requirements and challenges are associated with implementing 5G/6G capabilities on towers • Discussing the importance of tower performance, managing power supply and backup systems • Analysing the role of technologies like small cells in enhancing digital tower infrastructure for future needs

For information on how to join the Global Summit, please [get in touch](#) with a member of the team.

<p>Burcu Geris, Deputy CEO and CFO, TAV Airports Dr. Neslihan Vural, Director of Finance, Istanbul Metropolitan Municipality</p>		
<p>11:00 – 11:30 Coffee and networking</p>		
<p>11:30 – 12:15 LP Panel: Bridging the infrastructure financing gap in emerging markets.</p> <ul style="list-style-type: none"> • How the megatrends (decarbonisation, tech innovation and demographic shifts) are reshaping the investment landscape in the emerging economies • Exploring how the diversified nature of emerging markets can act as a hedge against times of turbulent investment performance • How LPs manage the challenges of conducting due diligence, evaluating project risks, and meeting project ESG standards <p>Moderated by: Ben Agyeman, Senior Advisor, Kreen Ltd Jochen Von Frowein, Director, Infrastructure & Energy, Global Equity, DEG</p>	<p>11:30 – 12:15 Panel: How sustainability and ESG are a key pillar in value creation</p> <ul style="list-style-type: none"> • Exploring value-creation opportunities in promoting positive environmental and social sustainability characteristics • How can value be created from mitigating ESG risks • Case studies on when ESG considerations in infrastructure have enhanced resilience and longevity of assets <p>Moderated by: Ulla Agesen, Head of Infrastructure, NIO Sam Lissner, Principal, Ridgewood Infrastructure</p>	<p>11:30 – 12:15 Panel: Unleashing the potential: investing in data centres for future growth</p> <ul style="list-style-type: none"> • Discovering the increasing need for data centre infrastructure investments and how to ensure resiliency amongst the newer models in an ever-shifting business landscape • How the current market environment has changed data centre investment and what investors plan to do about legacy data centre assets • Exploring the criticality of a secure and reliable power supply for data centres and the increasing regulations around it <p>Canan Anli, Senior Advisor, PMP Strategy Fabio Fontana, CEO ZeroPoint DC Chief Growth Officer, Tonomus, NEOM Ljudmila Popva, Director Digital Infrastructure, NIBC</p>

For information on how to join the Global Summit, please [get in touch](#) with a member of the team.

<p>12:15 – 13:00 Panel: Adapting to uncertainty: Effective strategies for managing risk in the current climate</p> <ul style="list-style-type: none"> • How to mitigate associated risks such as volatility, political instability and legal frameworks • Governments, MDBs and DFIs partnership to de-risk at the macro level - are these de-risking instruments robust and fit-for-purpose for investors and financiers • Navigating regulatory changes in an uncertain environment <p>Rajesh Hemnani, Investment Manager, Infrastructure Equity, Asia, British International Investment Sundeep Malik, Head International Portfolio Development, International Business, Zurich Airport International AG</p>	<p>12:15 – 13:00 Panel: How to define and finance nature-based solutions</p> <ul style="list-style-type: none"> • How to define nature-based solutions and the role they play in tackling issues such as climate change, biodiversity loss and natural disasters • Exploring the benefits and challenges associated with nature-based solutions in terms of funding and cost-effective solutions, policy frameworks etc • Looking through the crystal ball – what the outlook and potential for nature-based solutions (including emerging trends, scalability and their role in achieving global sustainability goals) looks like <p>Moderated by: Jemima Atkins, Investment Professional, Pioneer Point Partners</p>	<p>12:15 – 13:00 Panel: AI - Looking beyond the buzzword</p> <ul style="list-style-type: none"> • How existing players are keeping up with the new wave of AI • What AI means for infrastructure investors • Discussing the challenges and benefits of integrating AI into urban infrastructure frameworks
<p>13:00 – 14:00 Networking lunch</p>		
<p>14:00 – 14:45 Panel: Sustainability in emerging markets: driving positive change and economic growth</p> <ul style="list-style-type: none"> • Accessing clean and affordable energy in emerging markets • Navigating climate assessment KPIs in emerging economies • Addressing the importance of sustainable social development projects such as hospitals • Inclusiveness supporting resilience and sustainability in cities <p>Thomas Walenta, Principal and Co-Head for Asia-Pacific and Europe, Fund of Funds, responsAbility Investments AG</p>	<p>14:00 – 14:40 Panel: Navigating the maze of ESG regulations</p> <ul style="list-style-type: none"> • Exploring the methodologies and criteria used to evaluate sustainability labelling and ESG risks • Navigating compliance and best practises – discussing the implications for investors and how to incorporate sustainable regulations into their investment strategies • Comparing the challenges and opportunities of the different reporting frameworks and standards and how they contribute to market transparency, investor confidence and risk management <p>Dr. Barbara Weber, Founder & Managing Partner, B Capital Partners</p>	<p>14:00 – 14:40 Panel: Driving growth: unleashing the role of fibre investments</p> <ul style="list-style-type: none"> • The importance of fibre investment for economic growth and innovation • How the role of wholesale in acting as protection over fibre overbuild and the different strategies and models • The role of public-private partnerships in driving investment into fibre <p>Nic Diloretta, Managing Director, Head of Real Assets, Aksia</p>

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<p>14:45 – 15:00 Presentation</p>	<p>14:40 - 15:00 Fireside Chat</p>	<p>14:40 – 15:00 Fireside chat: How do we tackle the AI beast from a sustainability standpoint within the data centre sector?</p> <p>M.Sc. Isabelle Kemlin, Business and Innovation Executive / Vice Chair of the Board, RISE – Research Institutes of Sweden / Swedish Datacenter Industry</p>
<p>15:00 – 15:30 Coffee & networking</p>		
<p>15:30 – 16:05 Panel: Adapting to a changing climate in the emerging markets</p> <ul style="list-style-type: none"> • How to develop innovative financial instruments such as climate funds, risk-sharing mechanisms etc to help mobilize the necessary funds for adaptation measures • Ecosystem-based approaches: conserving and restoring ecosystems to provide nature buffers against extreme weather events and preserve biodiversity • Investing in effective early warning systems and coordinated responses mechanisms to reduce disaster risk <p>Marieta Stefanova, Sustainable Finance Associate, SYSTEMIQ</p>	<p>15:30 - 16:05 Panel: The role of impact investment in infrastructure</p> <ul style="list-style-type: none"> • Exploring the methodologies for impact measurement, the integration of impact data into investment decision-making and the role of impact assessments in driving sustainable development through infrastructure projects • What an impact portfolio should look like – exploring the roles of development finance institutions, public-private partnerships, green bonds etc • How infrastructure impact funds are faring in comparison to other alternative asset impact funds 	<p>15:30 – 16:05 Panel: Navigating the roadmap to sustainable digital infrastructure</p> <ul style="list-style-type: none"> • Exploring the benefits, challenges and potential strategies for achieving sustainability across digital infrastructure assets incorporating the social benefits of connectivity • The importance of monitoring and transparently reporting the environmental impact of digital infrastructure projects • Investigating the challenges and opportunities of managing electronic waste <p>Bethany Brantley, Head of ESG, IPI Partners</p>
<p>16:05 – 16:35 Panel: Exploring how connectivity can accelerate development in emerging economies</p> <ul style="list-style-type: none"> • Exploring innovative technologies to create a more level playing field for digital infrastructure assets in emerging economies • The introduction of AI and the role it has to play • How to navigate power shortages and regional challenges when it comes to digital infrastructure development 	<p>16:05 – 16:35 LP views on sustainability and ESG topics</p> <ul style="list-style-type: none"> • How LPs aim to drive positive change when engaging with GPs • LP perspectives on GPs' best practise ESG approach • Exploring how investors are advocating for improved ESG reporting and transparency <p>Moderated by: Mark Weisdorf, Chair of Investment Committee, IST3 Infrastruktur Global Melisa Simic, Senior Director, ESG Integration Infrastructure, Nuveen Infrastructure</p>	<p>16:05 – 16:35 LP Panel: Revolutionising institutional investment in digital infrastructure</p> <ul style="list-style-type: none"> • Best practises and success stories of institutional digital infrastructure initiatives • Dissecting the disconnect between distressed listed valuations and private valuations which are still at a significant premium in comparison • Discussing the extent of which the economic environment is affecting institutional capital

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Hans-Peter Egler, Director, Sustainable Infrastructure / Technical Assistance, South Pole Group		activity and commitment to digital infrastructure Fred Robert, Senior Principal, Global Infrastructure, Investment Management Corporation of Ontario
16:35 – 17:20 Case study debate: Which countries provides the most attractive infrastructure investment opportunities? <i>Representatives from different emerging countries will argue why their respective countries are providing the most opportunity across different infrastructure assets.</i>	16:35 – 17:20 Investor and Manager Scenario Session: Deal or No Deal <i>The session will highlight the increased role of ESG in due diligence. A fund manager and an institutional investor will discuss a hypothetical investment opportunity with ESG issues. They will ask the questions they would ask in a real investment situation with specific infrastructure assets and reflect on the ESG risk of the investment. The audience will then be given the opportunity to quiz the presenters on their decisions and decide whether they would themselves invest.</i>	16:35 – 17:20 Polling debate: The next frontier for digital and smart infrastructure <i>Each participant will champion the merits of technologies and developments that they believe will be paramount in the evolution of digital infrastructure assets as we know them. These include:</i> <ul style="list-style-type: none"> • Edge computing • Small-cell technology • Satellites • Cloud technology
17:20 Closing comments from the chair	17:20 Closing comments from the chair	17:20 Closing comments from the chair
17:30 Members' Welcome Drinks Reception		

Tuesday 19 March Global Investor Forum

08:30 – 08:45

Welcome from Infrastructure Investor and the Chair

08:45 – 09:25

Opening keynote panel: Back to the future – embracing infrastructure’s key strengths in a challenging environment

For information on how to join the Global Summit, please [get in touch](#) with a member of the team.

- Why will infrastructure prove a safe and enticing haven for investors in a challenging investment environment?
- How are managers faring when it comes to bouncing back from a difficult fundraising period?
- Digitalisation, climate mitigation, decarbonisation & more: reasons for investors to be excited about infrastructure in 2024 and beyond

09:25 – 10:05

Panel: Optimising your approach as long-term infrastructure investors

- How is the asset class reacting to short and long-term market tailwinds?
- Utilising expertise and resource to invest in sustainable and effective infrastructure in a rapidly changing technological environment
- How to manage through short-term volatility to achieve your long-term goals

Moderated by: Thomas Fisher, Partner, Infrastructure M&A, **Clifford Chance**

10:05 – 10:45

Panel: Achieving a just and effective global energy transition

- Energy transition funds – proving immune to challenging market dynamics and fundraising challenges?
- Investors' role and responsibility in a just transition
- How the world is shaping up for net zero as we edge closer to 2030 and key transition goals

Marco van Daele, Co-CEO & CIO, **SUSI Partners**
Shami Nissan, Partner, Head of Sustainability, **Actis**

10:45 – 11:10

Coffee and networking

11:10 – 11:50

Panel: A transitioning world beyond energy – how infrastructure investing is influencing global developments

- What responsibility do private investors have in society when it comes to safeguarding stable, sustainable decision-making in infrastructure investment?
- What must investors and fund managers do to make a positive difference in a world of rapidly evolving social dynamics?
- How infrastructure players are finding a balance amidst price shocks, geopolitical instability and climate change

11:50 – 12:30

Panel: The changing face of the global infrastructure fund market

- Analysing the impact of recent consolidations, emerging managers and other GP activity in an ever-dynamic market
- ELTIFs, increasing democratisation and other dynamics that are slowly transforming the fund market
- How are increasingly sophisticated investors reacting to these changes?

12:30 – 13:10

Panel: Finding relative value across the infrastructure spectrum

- How to appeal to increasingly selective investors in a dislocated market
- Pricing power, risk-adjusted returns, liquidity pressures and other considerations

For information on how to join the Global Summit, please [get in touch](#) with a member of the team.

- The importance of portfolio diversification in the quest for relative value

13:10 – 13:30
Fireside Chat

13:30 – 14:30
Networking lunch

13:30
Streams begin: Stream A in Ballroom, Stream B in Corinth

Stream A: Global Investor Forum	Stream B: Assets in focus
<p>14:30 - 15:10 Debate: The attractiveness of infrastructure debt against equity: assessing viability and finding value</p> <ul style="list-style-type: none"> • The long-term equity play vs debt advantages in a high-rate environment • How are investors getting creative with project financing? • What strategies are proving most appealing across both debt and equity? 	<p>14:30 - 15:10 Panel: Future-proofing traditional transportation assets</p> <ul style="list-style-type: none"> • Gearing transportation infrastructure towards a decarbonised future • Anticipating shifting behaviours towards travel to take advantage of opportunities in transport • Where in the world are investors looking to invest in this sector? <p>Dr Stefan Hasenböhler, Head of Infrastructure, Partner, CEO, Reichmuth & Co Investment Management AG</p>
<p>15:10 - 15.50 Panel: Infrastructure secondaries taking centre stage in 2024 & beyond?</p> <ul style="list-style-type: none"> • Valuations, high-rates, denominator effect - assessing the market dynamics driving secondaries activity • What role will infrastructure secondaries have in investor portfolios in the future? • How will secondaries continue to stay relevant and appealing in an ever-changing market environment? 	<p>15:10 - 15.50 Panel: Finding the opportunity gap in essential utilities</p> <ul style="list-style-type: none"> • Assessing the shortcomings of short-term thinking and struggles of water infrastructure and other essential assets • The opportunity gap: where can private investors step in? • The intersection of public and private: how can PPPs and other investment structures purposefully service essential infrastructure across the globe?
<p style="text-align: center;">15:50 – 16:20 Coffee and networking</p>	

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<p>16:20 – 17:00</p> <p>Panel: The rise of impact strategies across global private infrastructure</p> <ul style="list-style-type: none"> Analysing the rise of impact funds across private markets and how they manifest themselves in infrastructure How are these funds playing their part in investor portfolios alongside existing sustainably-minded investments? Ensuring these investments are economically sustainable and inflation-linked as well as delivering true environmental impact <p>Alexandra von Bernstorff, Managing Partner, Luxcara</p>	<p>16:20 – 17:00</p> <p>Panel: Investor roles & responsibility in shaping social infrastructure</p> <ul style="list-style-type: none"> What, when and where? Assessing appeal for social infrastructure assets in 2024 and beyond Considering responsibility and ethics when it comes to private investment in social infrastructure
<p>17:00 – 17:40</p> <p>Panel: Investor perspectives on the infrastructure market</p> <ul style="list-style-type: none"> Valuations, cost of debt and more -how have the past 12 months played out in comparison to investor expectations? How are investors viewing an ever-changing GP market amidst significant consolidations, acquisitions and the emergence of new managers? The denominator effect, liquidity pressures and other factors at the fore of current investor portfolio decision-making <p>Michela Bariletti, Chief Credit Officer, The Phoenix Group Lea Dubourg-Hrachovec, Managing Director and Head of Europe, BCI – Infrastructure & Renewable Resources</p>	<p>17:00 – 17:40</p> <p>Panel: Re-thinking energy asset exposure in a complex transition era</p> <ul style="list-style-type: none"> How are investors re-thinking their exposure to gas and fossil fuels alongside renewables? Is green energy investment truly less risky at present? Supply chain issues and more: how investors can navigate the hurdles currently impacting certain green energy assets

17:40 – 18:15

Keynote speech

18:15 Drinks reception

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Wednesday 20 March
Global Investor Forum

08:45 – 08:50

Chair's welcome back

08:50 – 09:10

Opening fireside chat

09:10 – 09:50

Global keynote panel: Addressing climate change and embracing mitigation and adaptation

- Action plans, funds and specialist vehicles: what is being done on climate beyond energy transition in the private infrastructure market?
- Reality checks – where do we truly stand on climate change and what infrastructure investors can do to develop resilience as well as invest in transition
- Integrating climate risk and adapting existing investment processes for funds and investors

09:50 – 10:30

Keynote speech: Peter Frankopan, Professor of Global History at Oxford University

10:30 – 10:50

Coffee and networking

10:50 – 11:30

Panel: Expectations vs reality: how are private infrastructure valuations playing out?

- With valuations still relatively high, is this artificial and can we expect a softening?
- Assessing the impact of a disconnect between public and private market infrastructure valuations
- How are managers keeping increasingly sophisticated investors well informed on performance and valuations?

Renaud de Matherel, Partner & Executive Chairman, **Cube Infrastructure Managers**

11:30 – 11:50

Fireside Chat

11:50 – 12:30

Panel: Strategy considerations – what's the flavour of the month for investors?

- What strategies are proving most appealing to private and institutional investors at a time where the denominator effect is still having an impact?
- Core funds – in a challenging environment, how are managers making the numbers stack up?
- High-growth strategies – is there room for these in investor portfolios at present? What other new strategies are available?

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12:30 - 13:10

Panel: Geopolitical risk on the rise – considerations for investors

- Elections, conflicts and instability: assessing the geopolitical arena and how it is impacting private infrastructure investing
- Diversifying supply chains and more – what the West and infrastructure investors can do to mitigate these risks
- Deglobalisation: a trend that is shaping current and future infrastructure investment decisions?

13:10 – 14:10

Networking lunch

14:10

Streams begin: Stream A in Ballroom, Stream B in Corinth

Stream A: Global Investor Forum	Stream B: Future of Infrastructure
<p>14:10 - 14:50 Panel: Achieving systematic value creation as an active infrastructure asset manager</p> <ul style="list-style-type: none">• How to effectively allocate resource and expertise to achieve successful active asset management• Reaping the rewards of efficient value creation in uncertain times• Digging into the details: procurement, ESG efficiencies, digitalization and more <p>Ross Posner, Managing Partner, Ridgewood Infrastructure</p>	<p>14:10 - 14:50 Panel: How infrastructure must improve its' DE&I efforts to build a better future</p> <ul style="list-style-type: none">• How does private infrastructure shape up against other asset classes when it comes to DE&I in 2024?• Case studies – what organisations are actively doing to improve their DE&I beyond box-ticking
<p>14:50 - 15.15 Fireside chat</p>	<p>14:50 - 15.15 Fireside chat: AI & technological development – defining a new era of infrastructure?</p> <ul style="list-style-type: none">• Moving with the times - how are players in the market using AI and machine learning to develop their infrastructure investment capabilities?• AI data demand – digital infrastructure's role in meeting these needs• How are portfolio companies and infrastructure assets embracing AI and technological development?
<p>15:15 – 15:40 Coffee and networking</p>	

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<p>15:40 – 16:20</p> <p>Panel: Overcoming risk assessment challenges to be a successful green investor</p> <ul style="list-style-type: none"> • Amidst issues in floating wind and other green asset investments, how are investors adapting their risk measurement and mitigation? • Renewables 2.0 – how can investors be comfortable in embracing green hydrogen, long-term storage, geothermal energy and other emerging green assets? • Greenwashing and other risk factors associated with sustainable investments 	<p>15:40 – 16:20</p> <p>Panel: New living: how infrastructure must support an evolving way of life</p> <ul style="list-style-type: none"> • Connectivity, smart cities and more: how populations are determining investment opportunities in infrastructure • Finding the balance between embracing risk and achieving returns and profitability • Broadening horizons – what new infrastructure assets are emerging that will require private investment?
<p>16:20 – 17:00</p> <p>Debate: Emerging managers making their mark?</p> <ul style="list-style-type: none"> • What can new and emerging infrastructure managers offer investors that more established names might not? • How have these fund managers have overcome a difficult fundraising environment to thrive and survive? • What role can they play in key global developments when it comes to energy transition, improved connectivity and more? 	<p>16:20 – 17:00</p> <p>Panel: Embracing the ever-expanding digital infrastructure spectrum</p> <ul style="list-style-type: none"> • Assessing where the boundaries will be pushed to next in the digital infrastructure space • PPP projects, co-investments and more – how are investors getting creative when it comes to investing in a more connected and digitalised future? • Stranded data-centres, out-dated technology... how can investors and managers mitigate these risks and turn them into opportunities? <p>Omar Jaffrey, Managing Partner and Sole Founder, Palistar Capital LP</p>

17:00 – 17:45
Keynote

17:45 Drinks Reception

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Thursday 21 March

Investor Council	Infrastructure Debt Forum	Energy Transition Forum
<p>08:00 – 08:45 Investor Council breakfast and exclusive presentation Private and institutional investors can join this off-the-record peer-to-peer session over breakfast and refreshments. They will then be able to enjoy the following short presentation (with Q&A):</p> <p>Presentation: Infrastructure Investor Exclusive Latest Data Presentation PEI's Tom Zimmermann, Senior Research Manager, will give a data-driven presentation on the latest fundraising figures and LP sentiments in the private infrastructure world. Interactive Q&A will follow.</p> <p>Tom Zimmermann, Senior Research Manager, Fundraising, PEI Group</p>	<p>08:00 – 08:45 Investor Council breakfast and welcome</p>	<p>08:00 – 08:45 Investor Council breakfast and welcome</p>
	<p>08:45 – 09:00 Introduction from Infrastructure Investor and welcome from the chair</p>	<p>08:45 – 09:00 Introduction from Infrastructure Investor and welcome from the chair</p>
	<p>09:00 – 09:40 Opening panel: Finding relative value in a dislocated market</p> <ul style="list-style-type: none"> • With high interest rates and inflation, where is best to invest when it comes to debt? • Are risk-adjusted returns in the current environment tempting more investors and managers to turn to debt over equity? • How are funds handling competition from banks offering attractive short-term loans? 	<p>09:00 – 09:40 Panel: Investing in energy: opportunities in infrastructure created by the transition</p> <ul style="list-style-type: none"> • How is the macro environment impacting the energy transition agenda? • Decarbonising the economy beyond just renewables • The impact of deglobalisation on transition efforts across the world <p>Henrik Lundin, Chief Investment Officer, IMAS Foundation Ionna Trofimova Elliot, Director, Borderless Renewables</p>

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	<p>09:40 – 10:20 Panel: Green investments and renewables: a no-brainer for debt investors?</p> <ul style="list-style-type: none"> • The tailwinds and trends that are making green debt investments particularly appealing for investors • Infrastructure debt's crucial role in net zero and decarbonisation targets • Not all plain sailing – assessing and mitigating risks around supply chains, cost increases and more <p>Vivek Sapra, Senior Advisor, Infrastructure Investments, Ampega Asset Management Matt Toolan, Head of Energy, Renewables & Infrastructure, AIB UK</p>	<p>09:40 – 10:20 Panel: Exploring the bankability of battery storage</p> <ul style="list-style-type: none"> • Capitalising on market forces to make the most of battery energy storage system investment opportunities • Accessing the various revenue opportunities associated with battery storage whilst mitigating risk • The viability of long-term battery storage investment <p>Dr. Nicolai Herrmann, Partner, Enervis Energy Advisors Jan-Phillip Kock, Investment Strategy Manager, Encavis AG Irina Torelli, VP, B Capital Partners</p>
	<p>10:20 – 11:00 Panel: How infrastructure debt managers can stand out from the crowd in 2024 and beyond</p> <ul style="list-style-type: none"> • In a challenging but opportunity-laden debt market, how are fund managers differentiating themselves? • Improving traditionally poor engagement with investors when it comes to debt products • Understanding investor expectations around ESG reporting and transparency 	<p>10:20 – 11:00 Panel: A transitional game-changer? Will green hydrogen live up to the hype?</p> <ul style="list-style-type: none"> • How can green hydrogen genuinely bridge the gap between the renewable and industrial worlds? • What are different jurisdictions doing to incentivize investment? What else is required for green hydrogen to truly take off and reach it's potential? • Reality checks – addressing the practical challenges around green hydrogen replacing gas or blue/grey hydrogen
<p>11:00 – 11:30 Coffee and networking</p>		

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	<p>11:30 – 12:10</p> <p>Polling debate: Where in the world? <i>In this interactive format, we'll hear from four infrastructure debt leaders representing different regions, discussing why their region offers the most appealing debt investment opportunities. The audience will have the chance to take part in Q&A and voting.</i></p> <p>Regions represented will include:</p> <ul style="list-style-type: none"> • EMEA • North America • Nordics • APAC <p>Moderated by: Alex Bebov, Managing Partner, BAC Securities</p>	<p>11:30 – 12:10</p> <p>Panel: Discussing evolving business models for investing in EV Charging</p> <ul style="list-style-type: none"> • Electrifying the transport sector – how can investors ensure infrastructure isn't left behind? • How are investment considerations and business models evolving? • Working with grid operators in various jurisdictions to cover all bases in the evolution of electric vehicles
<p>12:00 – 12:20</p> <p>Exclusive LP interview An influential institutional investor provides an insight into their infrastructure investment portfolio in this off-the-record discussion. Interactive Q&A will follow.</p>	<p>12:10 – 12:40</p> <p>Presentation</p>	<p>12:10 – 12:40</p> <p>Investment case study</p>
<p>12:20 – 13:00</p> <p>Investor Council: Investment Committee Two hand-picked fund managers will present investment case studies in this exclusive, data-driven and interactive format. Hosted by two experts, you'll have the chance to ask questions, share your thoughts and vote on the transactions in our very own investment committee.</p>	<p>12:40 – 13:00</p> <p>LP interview</p>	<p>12:40 – 13:00</p> <p>Fireside Chat: National Infrastructure Commission</p> <p>James Heath, CEO, National Infrastructure Commission</p>
<p>13:00 – 14:00</p> <p>Coffee and networking</p>		
	<p>14:00 – 14:40</p> <p>Panel: Investor perspectives in the credit market</p> <ul style="list-style-type: none"> • Manager and fund selection – appetite for meeting new managers versus existing 	<p>14:00 – 14:40</p> <p>Panel: Value creation opportunities from improving assets energy consumption</p> <ul style="list-style-type: none"> • Opportunities in decarbonising data centres and other infrastructure assets

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	<ul style="list-style-type: none"> • How has the denominator effect impacted different types of infrastructure debt investors? • Long-term strategizing when it comes to infrastructure debt allocations <p>Markus Schaen, Principal Fixed Income Portfolio Manager, MN</p>	<ul style="list-style-type: none"> • How an active governance strategy can play an integral role in energy-related value creation • Resource, expertise and other elements required to succeed
	<p>14:40 – 15:20</p> <p>Panel: Digital infrastructure – still front of mind for debt investors?</p> <ul style="list-style-type: none"> • Overcoming current challenges in the sector: data centre sustainability; fibre overbuild and repricing; slowing deal rates and more • Does AI truly represent more opportunity for investors in digital infrastructure? If so, how? • Co-investments, public-private partnerships and more: how investors are getting creative in the digital infrastructure market 	<p>14:40 – 15:20</p> <p>Integrating renewables into a balanced grid</p> <ul style="list-style-type: none"> • How are investors stabilising and balancing the grid through increasing capacities for renewables? • Assessing how this challenge is playing out across the globe and in different regions • The continued role of gas and other fossil fuels in a realistic re-balancing <p>Moderated by: Olivia Eijking, Director/Founder, Kreen Limited Matthew Mendes, Managing Director, Head of Infrastructure, Investment Management Corporation of Ontario (IMCO)</p>
	<p>15:20 – 16:00</p> <p>Closing panel: Overcoming fundraising challenges and understanding investor appetite in the debt market</p> <ul style="list-style-type: none"> • Lessons learnt from a difficult year for infrastructure fundraising • How has investor appetite shifted, and are allocations reflecting that? • Reasons to be optimistic for debt capital raising in 2024 and beyond 	<p>15:20 – 16:00</p> <p>Back-to-back LP case studies: How institutional and private investors are driving the transition across the globe</p> <ul style="list-style-type: none"> • Case Study 1: UTIMCO's three "pillars" to Energy Transition infrastructure investing: • UTIMCO's Matt Saverin (Director, Real Assets) will discuss the implications and macro considerations with respect to decarbonization • What are UTIMCO's key pillars to Energy Transition infrastructure investing? • What are the benefits to having flexibility in approach when assessing decarbonization more broadly? <p>Matt Saverin, Director, UTIMCO</p>
	<p>16:00 – 16:10</p> <p>Closing comments from the chair</p>	<p>16:00 – 16:10</p> <p>Closing comments from the chair</p>


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Join the event

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November 30, 2023

TO: Trustees - Board of Investments

FROM: Jonathan Grabel 
Chief Investment Officer

Steven Rice 
Chief Counsel

Scott Zdrzil 
Principal Investment Officer

FOR: December 13, 2023, Board of Investments Meeting

SUBJECT: **Revised Board of Investments Charter**

RECOMMENDATION

Approve a revised Board of Investments Charter.

BACKGROUND

At the Board's November 2023 meeting, Trustees unanimously approved a revised Investment Policy Statement (IPS) and eliminated the Board of Investments Powers Reserved and Delegated Authorities policy (Powers Reserved) and the Board of Investments Powers Reserved Defined policy (Powers Defined). As part of its presentation to the Board, staff indicated that if the Board took action to adopt the revised IPS, staff would return at a subsequent Board meeting to propose revisions to the Board of Investments Charter to reflect the Board's November actions.

Staff is proposing revisions to the Board of Investments Charter with three objectives:

1. Affirm and incorporate existing roles for the Board to approve the IPS and adopt policies establishing delegated authorities;
2. Incorporate existing statutory authorities and roles previously articulated in the Powers Reserved and Powers Defined policies; and
3. Modify some language for consistency and policy harmonization.

Staff notes that no revisions are intended to introduce new powers or remove existing authorities in the Board Charter.

Trustees - Board of Investments

November 30, 2023

Page 2 of 2

Attached to this memo are:

Attachment 1: Background and summary of the proposed revised Charter

Attachment 2: Clean copy of the proposed revised Charter

Attachment 3: Color-coded redline of the proposed Charter

Attachment 4: Current Charter, as adopted in 2020

Attachment 5: Powers Reserved policy (eliminated November 2023)

Attachment 6: Powers Defined policy (eliminated November 2023)

Attachments

Summary of Proposed Revised Board of Investments Charter

Board of Investments
December 13, 2023

Recommendation and Background



Recommendation

That the Board adopt a revised Board of Investments Charter

Background

At the November 8, 2023, Board of Investments (BOI) meeting, Trustees received a report on a delegated authority framework and unanimously approved a motion that:

1. Approved a revised Investment Policy Statement (IPS) that
 - incorporates the delegated authority framework, and
 - incorporates provisions from two policies that articulate Board and staff roles (the BOI Powers Reserved Defined and BOI Powers Reserved and Delegated policies) to harmonize LACERA's governing policies; and
2. Eliminated the BOI Powers Reserved Defined and BOI Powers Reserved and Delegated policies

As part of the November Board delegated authority report, staff indicated that if the Board adopted the revised IPS and eliminated the BOI Powers Reserved Defined and BOI Powers Reserved and Delegated policies, staff would present a revised Board of Investments Charter to reflect the Board's action.

This powerpoint summarizes the modifications being proposed to the Board of Investments Charter for Trustees' consideration.

Summary of Proposed Charter Modifications



The proposed revisions in the draft revised Charter fall into the three categories outlined below

No revisions introduce new powers or remove existing authorities in the Board's Charter

1. **Affirm:** Incorporates existing roles to adopt the Investment Policy Statement and establish delegated authorities
 - Explicitly states the Board's authority to establish the Investment Policy Statements for the Fund and the OPEB Trust and approve policies defining the Board's delegations to staff (Sections 6.1.3 and 6.2.2 on pages 8-9 of the clean copy)
 - Modifications affirm the Board's authority in the Charter as a governing document while enabling the Board to edit any aspect of the Investment Policy Statements as part of its routine policy review without needing to revise the Charter
2. **Harmonize and Clarify:** Incorporate Board statutory roles from eliminated policies, reinforcing the Charter and IPS as key policies
 - Incorporates statutory authorities and responsibilities previously articulated in the Powers Reserved and Delegated policies related to governance, strategy, investments, risk and compliance, and administration (see Section 6 "Duties and Responsibilities" on page 8)
 - Affirms the Charter, Bylaws, and IPS as core governing and guiding policies
3. **Consistency:** Modify language and content for conformity
 - Addresses some inconsistencies in acronyms used, capitalization, and outdated policy references
 - Conforms the outline to mirror the format used in the Board of Retirement Charter to enhance legibility (current version uses whole numbers/integers for both main sections and subsections; the draft uses "Section 1, subsection 1.1," etc.)

[CLEAN COPY FOR BOARD REVIEW]

[Final document formatting to be completed if approved]

LOS ANGELES COUNTY
EMPLOYEES RETIREMENT
ASSOCIATION
LACERA

Board of Investments Charter
Role of Chair/Vice Chair/Secretary

Revised by the Board of Investments on [insert date of approval]

LACERA
Board of Investments Charter

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1. Overview of the Board of Investments

In 1937, Los Angeles County (County) established a pension trust fund (Fund) to provide defined retirement and death benefits to eligible County employees to be governed by the County Employees Retirement Law of 1937. In 1938, the Los Angeles County Employees Retirement Association (LACERA) was introduced to administer it. Since 1971, LACERA has also administered the Retiree Healthcare Benefits Program, on behalf of and through contractual agreement with Los Angeles County.

LACERA is an independent governmental entity, separate and distinct from the County, which administers and manages the Fund for the County and outside districts. LACERA is one of the largest retirement systems in America. The Board of Investments (BOI or Board) has fiduciary responsibility to administer the Fund in the best interests of participants and their beneficiaries in order to provide them with a financially sound retirement. LACERA also administers the Retiree Healthcare Benefits Program, which is subsidized by the County and other participating employers.

LACERA is governed by two Boards. Both Boards include a mix of appointed, elected and an ex-officio member, the sitting County Treasurer-Tax Collector. The Board of Retirement is responsible for the overall management of the retirement system and the LACERA-administered Retiree Healthcare Benefits Program. The BOI is responsible for determining LACERA's investment objectives, strategies, and policies as well as exercising authority and control over the investment management of the Fund.

LACERA is a public pension system created in accordance with the County Employees Retirement Law of 1937 (the '37 Act or CERL) and administered pursuant to the '37 Act and the California Public Employees' Pension Reform Act of 2013 (PEPRA). The BOI was established in 1971 by the Los Angeles County Board of Supervisors. The BOI "shall be responsible for all investments of the retirement system." CERL, Section 31520.2(b). The BOI has joint authority with the Board of Retirement over shared responsibilities, including, for example: the appointment and evaluation of the Chief Executive Officer (CEO); classification and compensation of personnel; and, adoption of LACERA's administrative budget.

The BOI also invests and manages Other Postemployment Benefits Program (OPEB Trust) assets for participating employers.

2. Fiduciary and Co-Fiduciary Duties of the Board of Investments

The members of the BOI recognize that they serve as fiduciaries of the Fund, with fiduciary duties as defined in the California Constitution and CERL. The Trustees have fiduciary duties both individually and collectively as the BOI.

In the exercise of their individual and collective fiduciary duties, the Trustees and the BOI may, under the California Constitution and CERL, delegate to staff, outside consultants and vendors, and other fiduciaries, while recognizing that the ultimate fiduciary responsibility of the BOI and its individual Trustees for the Fund is non-delegable. The BOI and the Trustees exercise their fiduciary duties with respect to

delegated matters by having adequate processes in place to oversee their delegates, which processes should include reporting by and active monitoring and questioning of delegates.

One of BOI's primary responsibilities is the prudent investment of Fund assets. In addition, the BOI is required to exercise the care, skills, prudence and diligence that a prudent person acting in like capacity and familiar with such matters would use in the conduct of an enterprise of like character and with like aims. As part of this duty, the BOI must diversify the investments of the Fund in accordance with prudent investment standards.

The BOI also has a fiduciary duty of undivided loyalty, and must be impartial in the exercise of such duty in regard to any divergent interests of various groups of members of the Fund, as all Fund assets must be used for the exclusive benefit of the Fund's covered members and their beneficiaries. No part of the corpus or income of the trust may be used for or diverted to any purpose other than for the exclusive benefit of the members and beneficiaries of each Fund.

In the exercise of his or her individual fiduciary responsibilities, a Trustee cannot knowingly participate in, or act to conceal, a breach of fiduciary duties by another Trustee, enable another Trustee to breach their fiduciary duties by failing to exercise reasonable care and prudence, or fail to take reasonable steps to report or remedy a breach of duty by another Trustee when it is known or should have been known or suspected under the circumstances.

Further, the BOI and its members must observe laws applicable to the Fund and to their conduct as Trustees. They may not engage in any related party transactions with the Fund or plan sponsor that are prohibited by the California Constitution, CERL, and other applicable laws.

They are also bound to observe applicable standards of conduct and limitations on conflicts of interest that are prohibited by the Political Reform Act of 1974 and other applicable laws. BOI members or anyone acting on their behalf must comply with these provisions.

Additionally, BOI members who come into possession of material non-public information concerning a publicly traded company via their BOI service must safeguard such information and not intentionally or inadvertently communicate it to any person unless the person needs to know for legitimate fund-related reasons, in accordance with provisions and trading restrictions articulated in LACERA's Code of Ethical Conduct.

3. Expectations of Trustees

To be effective as a BOI and as individual Trustees, and in recognition of their fiduciary and co-fiduciary duties, Trustees should:

- 3.1. Appropriately prepare for and attend the entirety of each BOI meeting and of each committee meeting of which they are a member;
- 3.2. Provide proactive input to the BOI and committees to aid their deliberations;

- 3.3. Be respectful of their fellow members and of staff while giving firm and clear direction;
- 3.4. Be respectful of majority decisions, without compromising their ability to properly advocate for the things they believe are in the organization's interests;
- 3.5. Be respectful of the roles of the Chair/Vice Chair/Secretary in their efforts to facilitate the effectiveness of the BOI in achieving its objectives;
- 3.6. Maintain a sense of professional, personal decorum and collegiality amongst the Trustees; and,
- 3.7. Diligently avoid conflicts of interest and adhere to LACERA's Code of Ethical Conduct, Conflict of Interest Code, and all other applicable laws, regulations, policies, and procedures.

4. The Role of the Chair and Vice Chair

See BOI Bylaws for the:

- A. Election of Chair;
- B. Election of Vice Chair;
- C. Election of Secretary;
- D. Election of BOI representation on the Audit Committee; and,
- E. Filling of Vacancy in Office.

Overall, the Chair (and in the absence of the Chair, the Vice Chair), should facilitate the BOI deliberations and preside over its meetings, coordinate the setting of its agenda, and ensure the BOI is an effective working group in making progress on the BOI's duties and objectives. The Chair should promote a culture of openness, respect and debate, and ensure there is effective open communication. The Chair should ensure that all BOI members receive accurate, timely and clear information.

Activities of the Chair (Vice Chair) include the following:

- 4.1. Facilitate and preside over BOI meetings
- 4.2. Coordinate the setting of agendas
- 4.3. Liaise with staff through the CEO
- 4.4. Facilitate the establishment of the BOI's major policy goals and objectives
- 4.5. Coordinate the BOI's self-assessment of its effectiveness
- 4.6. Coordinate the CEO's annual performance review and input into the CEO's performance review of the Chief Investment Officer (CIO) and Chief Counsel
- 4.7. Coordinate sharing of leading practices

- 4.8. Making appointments to committees
- 4.9. Oversee the effectiveness of stakeholder relations
- 4.10. Coordinate with the Chair of the Board of Retirement concerning matters of common interest

Frequently Used Terms

- Facilitate means to make (an action or process) easy or easier.
- Coordinate means to bring the different elements of (a complex activity or organization) into a relationship that will ensure efficiency or harmony.
- Liaise means to establish a working relationship, typically in order to cooperate on a matter of mutual concern.
- Ensure means make certain that (something) shall occur or be the case.

4.1. Facilitate and preside over Board meeting

- 4.1.1. In consultation with the BOI, the CIO, and the CEO, schedule dates, times and location for BOI meetings.
- 4.1.2. Facilitate and preside over BOI meetings to enable effective and efficient functioning of such meetings including:
 - 4.1.2.1. Ensure that discussion on agenda items is on topic, productive and professional;
 - 4.1.2.2. Ensure there is sufficient time during the meeting to fully discuss agenda items; and,
 - 4.1.2.3. Ensure that all meetings are conducted in a manner consistent with the Brown Act and Robert's Rules of Order.
- 4.1.3. Ensure meetings are called and held in accordance with LACERA's BOI Bylaws, except that the Chair, in consultation with the Vice Chair, CEO and CIO, may cancel or postpone Board meetings and, in further consultation with the Committee Chair, committee meetings when LACERA may not safely conduct regular operations because there is a declared national, state, County of Los Angeles, or City of Pasadena state of emergency or other governmental directive or when there is a natural disaster or other extraordinary circumstances. The Chair will schedule a Board meeting for the earliest available date to address with the Board the circumstances and the schedule for the Board and committee meetings. In such circumstances, the Chair will be responsible for facilitating the normal operations of the Board to the extent possible.

- 4.1.4. Ensure the meeting agenda and relevant documents are circulated to the members of the BOI in advance of the BOI meeting and in compliance with the Brown Act to ensure sufficient preparation time.
- 4.1.5. Chair and facilitate the BOI meetings ensuring respectful debate such that all voices and opinions are heard.
- 4.1.6. Ensure meetings are run and votes are taken in accordance with agreed upon rules of order / procedure.
- 4.1.7. Call special meetings of the BOI when warranted.
- 4.1.8. Chair Executive sessions of the BOI.

4.2 Coordinate the setting of agendas

- 4.2.1. Facilitate the BOI in setting the strategy and policy of the BOI every three years or as warranted.
- 4.2.2. In consultation with the Vice Chair, CEO, and CIO, coordinate and confirm an agenda for each BOI meeting (refer to the BOI Bylaws for rules regarding placing an item on the agenda).
- 4.2.3. Plan agendas that facilitate the flow of work and the effectiveness of the achievement of the BOI's goals and objectives.
- 4.2.4. Communicate with Committee Chairs in setting the committee agendas and integrating the activities of the committees with the objectives of the BOI as a whole.

4.3 Liaise with Staff through the CEO

- 4.3.1. Liaise with staff through the CEO to keep an overview of the system's affairs and to provide BOI support as appropriate.
- 4.3.2. Monitor that BOI requests are implemented by staff and reported back and confirmed to the BOI.

4.4 Facilitate the establishment of the BOI's major policy goals and objectives

- 4.4.1. Facilitate the Board's oversight of the investment program's strategic planning, as conducted by the CIO in conjunction with the CEO, including ensuring the strategic plan identifies policy goals, objectives, and measurable performance indicators for the year.
- 4.4.2. Coordinate with BOR to ensure the BOI's goals and objectives link to LACERA's overall strategic plan.

4.5 Coordinate the Board of Investments' self-assessment of its effectiveness

- 4.5.1. On at least an annual basis, coordinate the BOI's self-assessment of the effectiveness of its performance in achieving its objectives, its committees, and its use of consultants.
- 4.5.2. The BOI Chair and the CEO and the Chief Counsel should annually evaluate the training requirements/program for the Trustees and put forth any revisions as necessary to the full BOI.

4.6 Coordinate executive annual performance reviews

- 4.6.1 Facilitate the annual performance review of the CEO with the BOI, including coordinating with the BOR and any other BOI direct reports and/or ensuring there is a capable process to do so.
- 4.6.2. Coordinate with the BOR to establish annual goals for the CEO and other BOI direct reports.
- 4.6.3. Ensure the CEO's performance goals are linked to the strategic plan.
- 4.6.4. Facilitate the BOI's input into the CEO's performance review of the CIO and Chief Counsel.

4.7 Coordinate the sharing of leading practices

- 4.7.1. Coordinate the sharing and timely advice on leading and prevailing practices regarding public pension fund and investment activities.
- 4.7.2. Oversee the CEO's coordination of the BOI training with staff and consultants.

4.8 Make appointments to committees

- 4.8.1. Appoint Committee Chairs and Vice Chairs (Standing and Ad Hoc in accordance with the Bylaws).
- 4.8.2. Appoint members to committees as detailed in the Bylaws.
- 4.8.3. Coordinate reporting from Committee Chairs to the BOI on committee actions and agendas.
- 4.8.4. Provide leadership and ensure committee members are aware of their obligations and comply with their responsibilities.

4.9 Oversee the effectiveness of stakeholder relations

- 4.9.1. Ensure the BOI, staff and consultants develop and manage key stakeholder relationships.
- 4.9.2. Be a spokesperson for matters agreed upon by the BOI, in accordance with LACERA media and communications policies.

4.9.3. Act as an ambassador for the organization as agreed upon by the BOI.

4.10 Coordinate with the Chair of the Board of Retirement concerning matters of common interest

4.10.1. Ensure the Board of Retirement and Board of Investments openly communicate, have consensus on their respective separate jurisdictions as well as joint jurisdictions, and otherwise work well together in furtherance of LACERA's mission.

5. The Role of the Secretary

5.1. The Secretary is responsible for ensuring that accurate and sufficient documentation exists to meet legal requirements, and to enable the public to determine when, how, and by whom the BOI's business was conducted.

5.2. Upon the BOI approving the BOI meeting minutes, the Secretary will join the BOI Chair in signing the minutes as evidence of their authenticity and completeness.

5.3. In the absence of the Chair and Vice Chair, the Secretary will call the meeting to order, presiding until the Chair or Vice Chair is present.

5.4. The Secretary will conduct the Officer elections as detailed in the Bylaws.

6. Duties and Responsibilities of the BOI

6.1 Governance and Strategy

6.1.1 The BOI is responsible for establishing and approving the Board Charter, Regulations (Bylaws), and other governance principles and policies, as appropriate.

6.1.2 The BOI sets and approves the Board's committee structure, roles, and governance provisions.

6.1.3 The BOI approves policies defining Board delegations to staff.

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6.1.5 The BOI establishes Board-related travel and event participation guidelines.

6.1.6 The BOI oversees a strategic planning process and the effectiveness of its strategic planning process, as facilitated by the Chair and conducted by the CEO and CIO.

6.2 Investment of the Fund and OPEB Trust

- 6.2.1 The BOI oversees all aspects of LACERA's investment program, including performance, risk profile, actuarial valuations and pension soundness, and other powers as defined in Board-approved policies and directives.
- 6.2.2 The BOI approves Investment Policy Statements, including any guiding investment beliefs, for the Fund and OPEB Trust, and exercises powers defined in the Investment Policy Statements, including approving investment allocations, benchmark targets, and investment risk profiles and mitigation strategies. For the Fund, the BOI approves any expected rate of return upon conducting an asset/liability study, actuarial assumptions (discount rate), and actuarial policies (funding policy).
- 6.2.3 The BOI ensures receipt of information and adequate opportunities for all Trustees to participate in discussion of items.

6.3 Reassurance, Risk, and Compliance

- 6.3.1 The BOI oversees pension actuarial audits, triennial investigations of pension experience, and title holding audits and performs duties to support internal audits as outlined in LACERA's internal audit policies and procedures.
- 6.3.2 The BOI oversees investment-related enterprise-wide risk frameworks and management, as conducted by the CIO and responsible parties defined in LACERA policies, and in consideration of agencywide policies and efforts to ensure adherence to enterprise risk management, compliance, crisis management, and business continuity planning.

6.4 Administration

- 6.4.1 The BOI approves LACERA's Budget Policy jointly with the Board of Retirement, approves annual budgets and any midyear adjustments to LACERA budgets consistent with the parameters defined in the Budget Policy, and takes any other actions in accordance with the Budget Policy. The BOI also has joint responsibility with the Board of Retirement for the approval of employment classifications and salaries.
- 6.4.2 The BOI provides input into the CEO's performance review of the CIO. The BOI hires, terminates, and conducts performance reviews of the CEO jointly with the Board of Retirement and provides input into the CEO's performance review of the Chief Counsel, in accordance with Board-approved policies.
- 6.4.3 The BOI jointly with the Board of Retirement has the responsibility to appoint, discipline, and remove the Chief Audit Executive, upon recommendation of the Audit Committee.

7. Expectations of Committees

To be effective as a committee, committees should:

- 7.1. Develop and pursue agendas to make timely and substantive progress on issues within the committee's area of responsibility, with the goal of providing effective assistance to the full BOI in pursuing its work;
- 7.2. Provide ample opportunity for input by all Trustees both verbally and in writing (even if they are not members of the committee) during the course of its deliberations;
- 7.3. Once a decision has been made and recommended by the committee, the Committee Chair shall oversee staff in the preparation of executive summaries to the full BOI of issues considered by the committee. Such summaries should include a high-level description of:
 - The issue(s) being addressed;
 - A brief background;
 - The due diligence process used to arrive at the committee's recommendation;
 - The options available to the BOI (the least it could do to the most it could do);
 - The pros and cons of the main points including sharing dissenting opinions when making recommendations to the BOI;
 - The risks of action and inaction; and,
 - Its recommendation to the BOI.

8. Policy Review

- 8.1. BOI shall review and update this Charter at least once every three years; and
- 8.2. BOI shall direct staff to review policies related to BOI conduct, roles, and responsibilities at a frequency agreed upon by the BOI.

[COLOR-CODED REDLINE FOR BOARD REVIEW]

LOS ANGELES COUNTY
EMPLOYEES RETIREMENT
ASSOCIATION
LACERA

Board of Investments Charter
Role of Chair/Vice Chair~~Vice-Chair~~/Secretary

~~Board of Investments on May 10, 2016~~

Revised by the Board of Investments on ~~May 13, 2020~~ [to be dated upon approval]

Red font represents proposed modifications to reflect the Board's role to establish delegated authorities
Green font represents proposed incorporation of statutory authority and Powers Reserved policies
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**LACERA
Board of Investments Charter**

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1. Overview of the Board of Investments

In 1937, Los Angeles County (County) established a pension trust fund (Fund) to provide defined retirement and death benefits to eligible County employees to be governed by the County Employees Retirement Law of 1937. In 1938, the Los Angeles County Employees Retirement Association (LACERA) was introduced to administer it. Since 1971, LACERA has also administered the Retiree Healthcare Benefits Program, on behalf of and through contractual agreement with Los Angeles County.

LACERA is an independent governmental entity, separate and distinct from the County, which administers and manages the Fund for the County and outside districts. LACERA is one of the largest retirement systems in America. The Board of Investments (BOI or Board) has fiduciary responsibility to administer the Fundfunds in the best interests of participants and their beneficiaries in order to provide them with a financially sound retirement. LACERA also administers the Retiree Healthcare Benefits Program, which is subsidized by the County and other participating employers.

LACERA is governed by two Boards. Both Boards include a mix of appointed, elected and an ex-officio member, the sitting County Treasurer-Tax Collector. The Board of Retirement is responsible for the overall management of the retirement system and the LACERA-administered Retiree -Healthcare Benefits Program. The BOI is responsible for determining LACERA's investment objectives, strategies, and policies as well as exercising authority and control over the investment management of the Fund.

LACERA is a public pension system created in accordance with the County Employees Retirement Law of 1937 (the '37 Act or CERL) and administered pursuant to the '37 Act and the California Public Employees' Pension Reform Act of 2013 (PEPRA). The BOI (~~BOI~~) was established in 1971 by the Los Angeles County Board of Supervisors. The BOI "shall be responsible for all investments of the retirement system." CERL, Section 31520.2(b). The BOI has joint authority with the Board of Retirement over shared responsibilities, including, for example: the appointment and evaluation of the Chief Executive Officer (CEO); classification and compensation of personnel; and, adoption of LACERA's administrative budget.

The BOI also invests and manages Other Postemployment Benefits Program (OPEB Trust) ~~trust~~ assets for participating employers.

2. Fiduciary and Co-Fiduciary Duties of the Board of Investments

The members of the BOI recognize that they serve as fiduciaries of the Fund, with fiduciary duties as defined in the California Constitution and CERL. The ~~Trustees~~ have fiduciary duties both individually and collectively as thea BOI.

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In the exercise of their individual and collective fiduciary duties, the ~~Trustees~~ and the BOI may, under the California Constitution and CERL, delegate to staff, outside consultants and vendors, and other fiduciaries, while recognizing that the ultimate fiduciary responsibility of the BOI and its individual ~~Trustees~~ for the ~~Fund~~ is non-delegable. The BOI and the ~~Trustees~~ exercise their fiduciary duties with respect to delegated matters by having adequate processes in place to oversee their delegates, which processes should include reporting by and active monitoring and questioning of delegates.

One of BOI's primary responsibilities is the prudent investment of Fund assets. In addition, the BOI is required to exercise the care, skills, prudence and diligence that a prudent person acting in like capacity and familiar with such matters would use in the conduct of an enterprise of like character and with like aims. As part of this duty, the BOI must diversify the investments of the Fund in accordance with prudent investment standards.

The BOI also has a fiduciary duty of undivided loyalty, and must be impartial in the exercise of such duty in regard to any divergent interests of various groups of members of the Fund, as all Fund assets must be used for the exclusive benefit of the Fund's covered members and their beneficiaries. No part of the corpus or income of the trust may be used for or diverted to any purpose other than for the exclusive benefit of the members and beneficiaries of each Fund.

In the exercise of his or her individual fiduciary responsibilities, a ~~Trustee~~ cannot knowingly participate in, or act to conceal, a breach of fiduciary duties by another ~~Trustee~~, enable another ~~Trustee~~ to breach their fiduciary duties by failing to exercise reasonable care and prudence, or fail to take reasonable steps to report or remedy a breach of duty by another ~~Trustee~~ when it is known or should have been known or suspected under the circumstances.

Further, the BOI and its members must observe laws applicable to the Fund and to their conduct as Trustees. They may not engage in any related party transactions with the Fund or plan sponsor that are prohibited by the California Constitution, CERL, and other applicable laws.

They are also bound to observe applicable standards of conduct and limitations on conflicts of interest that are prohibited by the Political Reform Act of 1974 and other applicable laws. BOI members or anyone acting on their behalf must comply with these provisions.

Additionally, BOI members who come into possession of material non-public information concerning a publicly traded company via their BOI service must safeguard such information and not intentionally or inadvertently communicate it to any person unless the person needs to know for legitimate fund-related reasons, in accordance with provisions and trading restrictions articulated in LACERA's Code of Ethical Conduct. ~~See additional restrictions in the Board Trading Policy.~~

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3. Expectations of Trustees

To be effective as a BOI and as individual Trustees, and in recognition of their fiduciary and co-fiduciary duties, Trustees should:

- 1- 3.1 Appropriately prepare for and attend the entirety of each BOI meeting and of each ~~€~~committee meeting of which they are a member;
- 2- 3.2 Provide proactive input to the BOI and ~~€~~committees to aid their deliberations;
- 3- 3.3 Be respectful of their fellow members and of staff while giving firm and clear direction;
- 4- 3.4 Be respectful of majority decisions, without compromising their ability to properly advocate for the things they believe are in the organization's interests;
- 5- 3.5 Be respectful of the roles of the Chair/~~Vice Chair~~~~Vice-Chair~~/Secretary in their efforts to facilitate the effectiveness of the BOI in achieving its objectives; ~~and,~~
- 6- 3.6 Maintain a sense of professional, personal decorum and collegiality amongst the ~~€~~Trustees; ~~and,-~~
- 7- 3.7 Diligently avoid conflicts of interest and adhere to ~~the code of ethics~~ LACERA's Code of Ethical Conduct, Conflict of Interest Code, and all other applicable laws, regulations, policies, and procedures.

4. The Role of the Chair and Vice Chair ~~Vice-Chair~~

See BOI Bylaws for the:

- A. Election of Chair;
- B. Election of Vice Chair;
- C. Election of Secretary;
- D. Election of BOI representation on the Audit Committee ~~Member~~; and,
- E. Filling of Vacancy in Office.

Overall, the Chair (and in the absence of the Chair, the Vice Chair~~Vice-Chair~~), should facilitate the BOI deliberations and preside over its meetings, coordinate the setting of its agenda, and ensure the BOI is an effective working group in making progress on the BOI's duties and objectives. The Chair should promote a culture of openness, respect and debate, and ensure there is effective open communication. The Chair should ensure that all BOI members receive accurate, timely and clear information.

Activities of the Chair (Vice Chair ~~Vice-Chair~~) include the following:

- 1- 4.1 Facilitate and preside over BOI meetings

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- ~~2.~~ 4.2 Coordinate the setting of agendas
- ~~3.~~ 4.3 Liaise with staff through the CEO Chief Executive Officer
- ~~4.~~ 4.4 Facilitate the establishment of the BOI's major policy goals and objectives
- ~~5.~~ 4.5 Coordinate the BOI's self-assessment of its effectiveness
- ~~6.~~ 4.6 Coordinate the CEO's annual performance review and input into the CEO's performance review of the Chief Investment Officer (CIO) and Chief Counsel
- ~~7.~~ 4.7 Coordinate sharing of leading practices
- ~~8.~~ 4.8 Making appointments to committees
- ~~9.~~ 4.9 Oversee the effectiveness of stakeholder relations
- ~~10.~~ 4.10 Coordinate with the Chair of the Board of Retirement concerning matters of common interest

Frequently Used Terms

- Facilitate means to make (an action or process) easy or easier.
- Coordinate means to bring the different elements of (a complex activity or organization) into a relationship that will ensure efficiency or harmony.
- Liaise means to establish a working relationship, typically in order to cooperate on a matter of mutual concern.
- Ensure means make certain that (something) shall occur or be the case.

~~1.~~ 4.1 Facilitate and preside over Board meetings

- ~~1.~~ 4.1.1. In consultation with the BOI, the CIO, and the CEO, schedule dates, times and location for BOI meetings.
- ~~2.~~ 4.1.2. Facilitate and preside over BOI meetings to enable effective and efficient functioning of such meetings including:
 - ~~2.1~~ 4.1.2.1. Ensure that discussion on agenda items is on topic, productive and professional;
 - ~~2.2~~ 4.1.2.2 Ensure there is sufficient time during the meeting to fully discuss agenda items; and,
 - ~~2.3~~ 4.1.2.3. Ensure that all meetings are conducted in a manner consistent with the Brown Act and Robert's Rules of Order.

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- ~~3.~~ 4.1.3. Ensure meetings are called and held in accordance with LACERA's BOI ~~Bylaws by-laws~~, except that the Chair, in consultation with the Vice Chair, CEO, and CIO ~~and the Chief Executive Officer and Chief Investment Officer~~, may cancel or postpone Board meetings and, in further consultation with the ~~€~~Committee ~~€~~Chair, committee meetings when LACERA may not safely conduct regular operations because there is a declared national, state, County of Los Angeles, or City of Pasadena state of emergency or other governmental directive or when there is a natural disaster or other extraordinary circumstances. The Chair will schedule a Board meeting for the earliest available date to address with the Board the circumstances and the schedule for the Board and committee meetings. In such circumstances, the Chair will be responsible for facilitating the normal operations of the Board to the extent possible.
- ~~4.~~ 4.1.4. Ensure the meeting agenda and relevant documents are circulated to the members of the BOI in advance of the BOI meeting and in compliance with the Brown Act to ensure sufficient preparation time.
- ~~5.~~ 4.1.5. Chair and facilitate the BOI meetings ensuring respectful debate such that all voices and opinions are heard.
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- ~~7.~~ 4.1.7. Call special meetings of the BOI when warranted.
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 - ~~2.~~ 4.2.2. In consultation with the Vice Chair, CEO, and CIO, coordinate and confirm an agenda for each BOI meeting (refer to the BOI Bylaws for rules regarding placing an item on the agenda).
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 2. ~~Oversee that these goals and objectives link to the Fund's strategic plan and are measurable.~~
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6. Duties and Responsibilities of the BOI

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Purple font represents proposed modification for consistency in terms or clean-up

6.3.1. The BOI oversees pension actuarial audits, triennial investigations of pension experience, and title holding audits and performs duties to support internal audits as outlined in LACERA's internal audit policies and procedures.

6.3.2. The BOI oversees investment-related enterprise-wide risk frameworks and management, as conducted by the CIO and responsible parties defined in LACERA policies, and in consideration of agencywide policies and efforts to ensure adherence to enterprise risk management, compliance, crisis management, and business continuity planning.

4- 6.4. Administration

6.4.1. The BOI approves LACERA's Budget Policy jointly with the Board of Retirement, approves annual budgets and any midyear adjustments to LACERA budgets consistent with the parameters defined in the Budget Policy, and takes any other actions in accordance with the Budget Policy. The BOI also has joint responsibility with the Board of Retirement for the approval of employment classifications and salaries.

6.4.2. The BOI provides input into the CEO's performance review of the CIO. The BOI hires, terminates, and conducts performance reviews of the CEO jointly with the Board of Retirement and provides input into the CEO's performance review of the Chief Counsel, in accordance with Board-approved policies.

6.4.3. The BOI jointly with the Board of Retirement has the responsibility to appoint, discipline, and remove the Chief Audit Executive, upon recommendation of the Audit Committee.

7. Expectations of Committees

To be effective as a €committee, €committees should:

4- 7.1. Develop and pursue agendas to make timely and substantive progress on issues within the €committee's area of responsibility, with the goal of providing effective assistance to the full BOI in pursuing its work;

2- 7.2. Provide ample opportunity for input by all Trustees both verbally and in writing (even if they are not members of the €committee) during the course of its deliberations;

3- 7.3. Once a decision has been made and recommended by the committee, the €Committee €Chair shall oversee staff in the preparation of executive summaries to the full BOI of issues considered by the €committee. Such summaries should include a high-level description of:

- The issue(s) being addressed;

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Purple font represents proposed modification for consistency in terms or clean-up

- A brief background;
- The due diligence process used to arrive at the ~~Committee's~~ recommendation;
- The options available to the BOI (the least it could do to the most it could do);
- The pros and cons of the main points including sharing dissenting opinions when making recommendations to the BOI;
- The risks of action and inaction; and,
- Its recommendation to the BOI.

8. Policy Review

- ~~1.~~ 8.1. BOI shall review and update ~~of~~ this ~~Charter~~ at least once every three years; and
- ~~2.~~ 8.2. BOI shall direct staff to review policies related to BOI conduct, roles, and responsibilities ~~and powers reserved~~ at a frequency agreed upon by the BOI.

Red font represents proposed modifications to reflect the Board's role to establish delegated authorities
 Green font represents proposed incorporation of statutory authority and Powers Reserved policies
 Purple font represents proposed modification for consistency in terms or clean-up

[Current Board of Investments Charter]

LOS ANGELES COUNTY EMPLOYEES RETIREMENT ASSOCIATION LACERA

Board of Investments Charter
Role of Chair/Vice-Chair/Secretary

by

Board of Investments on May 10, 2016
Revised by the Board of Investments on May 13, 2020

**LACERA
Board of Investments Charter**

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1. Overview of the LACERA Board of Investments

In 1937, Los Angeles County (County) established a pension trust fund (Fund) to provide defined retirement and death benefits to eligible County employees to be governed by the County Employees Retirement Law of 1937. In 1938, the Los Angeles County Employees Retirement Association (LACERA) was introduced to administer it. Since 1971, LACERA has also administered the Retiree Healthcare Benefits Program, on behalf of and through contractual agreement with Los Angeles County.

LACERA is an independent governmental entity, separate and distinct from the County, which administers and manages the Fund for the County and outside districts. LACERA is one of the largest county retirement systems in America. The Board of Investments (BOI) has a fiduciary responsibility to administer the funds in the best interests of participants and their beneficiaries in order to provide them with a financially sound retirement. LACERA also administers the Retiree Healthcare Benefits Program, which is subsidized by the County and other participating employers.

LACERA is governed by two Boards. Both Boards include a mix of appointed, elected and an ex-officio member, the sitting County Treasurer-Tax Collector. The Board of Retirement is responsible for the overall management of the retirement system and the LACERA-administered Retiree Healthcare Benefits Program. The BOI is responsible for determining LACERA's investment objectives, strategies, and policies as well as exercising authority and control over the investment management of the Fund.

LACERA is a public pension system created in accordance with the County Employees Retirement Law of 1937 (the '37 Act or CERL) and administered pursuant to the '37 Act and the California Public Employees' Pension Reform Act of 2013 (PEPRA). The BOI (BOI) was established in 1971 by the Los Angeles County Board of Supervisors. The BOI "shall be responsible for all investments of the retirement system." CERL, Section 31520.2(b). The BOI has joint authority with the Board of Retirement over shared responsibilities, including, for example: the appointment and evaluation of the CEO; classification and compensation of personnel; and, adoption of LACERA's administrative budget.

The BOI also invests and manages the Other Postemployment Benefits Program (OPEB) trust assets for participating employers.

2. Fiduciary and Co-Fiduciary Duties of the Board of Investments

The members of the BOI recognize that they serve as fiduciaries of the Fund, with fiduciary duties as defined in the California Constitution and CERL. The trustees have fiduciary duties both individually and collectively as a BOI.

In the exercise of their individual and collective fiduciary duties, the trustees and the BOI may, under the California Constitution and CERL, delegate to staff, outside consultants and vendors, and other fiduciaries, while recognizing that the ultimate fiduciary responsibility of the BOI and its individual trustees for the fund is non-delegable. The BOI and the trustees exercise their fiduciary duties with respect to delegated matters by having adequate processes in place to oversee their delegates, which processes should include reporting by and active monitoring and questioning of delegates.

One of BOI's primary responsibilities is the prudent investment of Fund assets. In addition, the BOI is required to exercise the care, skill, prudence and diligence that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of like character and with like aims. As part of this duty, the BOI must diversify the investments of the Fund in accordance with prudent investment standards.

The BOI also has a fiduciary duty of undivided loyalty, and must be impartial in the exercise of such duty in regard to any divergent interests of various groups of members of the Fund, as all Fund assets must be used for the exclusive benefit of the Fund's covered members and their beneficiaries. No part of the corpus or income of the trust may be used for or diverted to any purpose other than for the exclusive benefit of the members and beneficiaries of each Fund.

In the exercise of his or her individual fiduciary responsibilities, a trustee cannot knowingly participate in, or act to conceal, a breach of fiduciary duties by another trustee, enable another trustee to breach their fiduciary duties by failing to exercise reasonable care and prudence, or fail to take reasonable steps to report or remedy a breach of duty by another trustee when it is known or should have been known or suspected under the circumstances.

Further, the BOI and its members must observe laws applicable to the Fund and to their conduct as Trustees. They may not engage in any related party transactions with the Fund or plan sponsor that are prohibited by California Constitution, CERL, and other applicable laws.

They are also bound to observe applicable standards of conduct and limitations on conflicts of interest that are prohibited by the Political Reform Act of 1974 and other

applicable laws. BOI members or anyone acting on their behalf must comply with these provisions.

Additionally, BOI members who come into possession of material non-public information concerning a publicly traded company via their BOI service must safeguard such information and not intentionally or inadvertently communicate it to any person unless the person needs to know for legitimate fund-related reasons. See additional restrictions in the Board Trading Policy.

3. Expectations of Trustees

To be effective as a BOI and as individual Trustees, and in recognition of their fiduciary and co-fiduciary duties, Trustees should:

1. Appropriately prepare for and attend the entirety of each BOI meeting and of each Committee meeting of which they are a member;
2. Provide proactive input to the BOI and Committees to aid their deliberations;
3. Be respectful of their fellow members and of staff while giving firm and clear direction;
4. Be respectful of majority decisions, without compromising their ability to properly advocate for the things they believe are in the organization's interests;
5. Be respectful of the roles of the Chair/ Vice-Chair/ Secretary in their efforts to facilitate the effectiveness of the BOI in achieving its objectives; and,
6. Maintain a sense of professional, personal decorum and collegiality amongst the trustees.
7. Diligently avoid conflicts of interest and adhere to the code of ethics.

4. The Role of the Chair and Vice-Chair

See BOI Bylaws for the:

- A. Election of Chair;
- B. Election of Vice Chair;
- C. Election of Secretary;
- D. Election of Audit Committee Member; and,
- E. Filling of Vacancy in Office.

Overall, the Chair (and in the absence of the Chair, the Vice-Chair), should facilitate the BOI deliberations and preside over its meetings, coordinate the setting of its agenda, and ensure the BOI is an effective working group in making progress on the BOI's duties and objectives. The Chair should promote a culture of openness, respect and debate, and ensure there is effective open communication. The Chair should ensure that all BOI members receive accurate, timely and clear information.

Activities of the Chair (Vice-Chair) include the following:

1. Facilitate and preside over BOI meetings
2. Coordinate the setting of agendas
3. Liaise with staff through the Chief Executive Officer
4. Facilitate the establishment of the BOI's major policy goals and objectives
5. Coordinate the BOI's self-assessment of its effectiveness
6. Coordinate the CEO's annual performance review
7. Coordinate sharing of leading practices
8. Make appointments to committees
9. Oversee the effectiveness of stakeholder relations
10. Coordinate with the Chair of the Board of Retirement concerning matters of common interest

Frequently Used Terms

- ⁵ Facilitate means to make (an action or process) easy or easier.

- **Coordinate** means to bring the different elements of (a complex activity or organization) into a relationship that will ensure efficiency or harmony.
- **Liaise** means to establish a working relationship, typically in order to cooperate on a matter of mutual concern.
- **Ensure** means make certain that (something) shall occur or be the case.

1. Facilitate and preside over Board meetings

1. In consultation with the BOI, the CIO, and the CEO, schedule dates, times and location for BOI meetings.
 2. Facilitate and preside over BOI meetings to enable effective and efficient functioning of such meetings including:
 - 2.1. Ensure that discussion on agenda items is on topic, productive and professional;
 - 2.2. Ensure there is sufficient time during the meeting to fully discuss agenda items; and,
 - 2.3. Ensure that all meetings are conducted in a manner consistent with the Brown Act and Robert's Rules of Order
 3. Ensure meetings are called and held in accordance with LACERA's BOI by-laws, except that the Chair, in consultation with the Vice Chair and the Chief Executive Officer and Chief Investment Officer, may cancel or postpone Board meetings and, in further consultation with the committee chair, committee meetings when LACERA may not safely conduct regular operations because there is a declared national, state, County of Los Angeles, or City of Pasadena state of emergency or other governmental directive or when there is a natural disaster or other extraordinary circumstances. The Chair will schedule a Board meeting for the earliest available date to address with the Board the circumstances and the schedule for Board and committee meetings. In such circumstances, the Chair will be responsible for facilitating the normal operations of the Board to the extent possible.
 4. Ensure the meeting agenda and relevant documents are circulated to the members of the BOI in advance of the BOI meeting and in compliance with the Brown Act to ensure sufficient preparation time.
 5. Chair and facilitate the BOI meetings ensuring respectful debate such that all voices and opinions are heard.
 6. Ensure meetings are run and votes are taken in accordance with agreed upon rules of order / procedure.
-
7. Call special meetings of the BOI when warranted.
 8. Chair Executive sessions of the BOI.

2. Coordinate the setting of agendas

1. Facilitate the BOI in setting the strategy and policy of the BOI every three years or as warranted.
2. In consultation with the Vice Chair, CEO, and CIO, coordinate and confirm an agenda for each BOI meeting (refer to the BOI Bylaws for rules regarding placing an item on the agenda).
3. Plan agendas that facilitate the flow of work and the effectiveness of the achievement of the BOI's goals and objectives.
4. Communicate with Committee Chairs in setting the Committee agendas and integrating the activities of the Committees with the objectives of the BOI as a whole.

3. Liaise with Staff through the Chief Executive Officer

1. Liaise with staff through the Chief Executive Officer to keep an overview of the system's affairs and to provide BOI support as appropriate.
2. Monitor that BOI requests are implemented by staff, and reported back and confirmed to the BOI.

4. Facilitate the establishment of the BOI's major policy goals and objectives

1. Ensure the BOI identifies policy goals and objectives for the year.
2. Oversee that these goals and objectives link to the Fund's strategic plan and are measurable.
3. Coordinate with BOR to ensure the BOI's goals and objectives link to LACERA's overall strategic plan.

5. Coordinate the BOI's self-assessment of its effectiveness

1. On at least an annual basis, coordinate the BOI's self-assessment of the effectiveness of its performance in achieving its objectives, its committees, its use of consultants.

2. The BOI Chair and the CEO and the Chief Counsel should annually evaluate the training requirements/program for the trustees and put forth any revisions as necessary to the full Board.

6. Coordinate the CEO's annual performance review

1. Coordinate the annual performance review of the CEO with the BOR and any other BOI direct reports and/or ensure there is a capable process to do so.
2. Coordinate with the BOR to establish annual goals for the CEO and other BOI direct reports.
3. Ensure the CEO's performance goals are linked to the strategic plan.

7. Coordinate the sharing of leading practices

1. Coordinate the sharing and timely advice on leading and prevailing practices regarding public pension fund and investment activities.
2. Oversee the CEO's coordination of the BOI training with staff and consultants.

8. Make appointments to committees

1. Appoint Committee Chairs and Vice-Chairs (Standing and Ad Hoc in accordance with Bylaws).
2. Appoint members to committees as detailed in the bylaws.
3. Coordinate committee chair reporting to the BOI on committee actions and agendas.
4. Provide leadership and ensure committee members are aware of their obligations and comply with their responsibilities.

9. Oversee the effectiveness of stakeholder relations

-
1. ~~Ensure the BOI, staff and consultants develop and manage key stakeholder relationships.~~
 2. Be the BOI spokesperson for matters agreed upon by the BOI.

3. Act as an ambassador for the organization as agreed upon by the BOI.
10. Coordinate with the Chair of the Board of Retirement concerning matters of common interest
 1. Ensure the two Boards openly communicate, have consensus on their respective separate jurisdictions as well as joint jurisdictions, and otherwise work well together in furtherance of LACERA's mission.

5. The Role of the Secretary

1. The Secretary is responsible for ensuring accurate and sufficient documentation exists to meet legal requirements, and to enable the public to determine when, how, and by whom the BOI's business was conducted.
2. Upon the BOI approving the BOI meeting minutes, the Secretary will join the BOI Chair in signing the minutes as evidence of their authenticity and completeness.
3. In the absence of the Chair and Vice-Chair, the Secretary will call the meeting to order, presiding until the Chair or Vice-Chair is present.
4. The Secretary will conduct the Officer elections as detailed in the bylaws.

6. Duties and Responsibilities of the BOI

Specific Powers Reserved to be added after BOI approval (see separate document)

1. Governance and Strategy
2. Investment (For both the Fund and OPEB)
3. Reassurance, Risk and Compliance
4. Administration

7. Expectations of Committees

To be effective as a Committee, Committees should:

1. Develop and pursue agendas to make timely and substantive progress on issues ~~within the Committee's area of responsibility, with the goal of providing effective assistance to the full BOI in pursuing its work;~~

2. Provide ample opportunity for input by all Trustees both verbally and in writing (even if they are not members of the Committee) during the course of its deliberations;
3. Once a decision has been made and recommended by the committee, the committee chair shall oversee staff in the preparation of executive summaries to the full BOI of issues considered by the Committee. Such summaries should include a high level description of:
 - The issue(s) being addressed;
 - A brief background;
 - The due diligence process used to arrive at the Committee's recommendation;
 - The options available to the BOI (the least it could do to the most it could do);
 - The pros and cons of the main options including sharing dissenting opinions when making recommendations to the BOI;
 - The risks of action and inaction; and,
 - Its recommendations to the BOI.

8. Policy Review

1. BOI shall review and update of this charter at least once every three years; and
2. BOI shall direct staff to review policies related to BOI conduct and powers reserved at a frequency agreed upon by the BOI.

**[Included for Reference]
[Policy Eliminated by Board Action at November 2023 Meeting]**

**LOS ANGELES COUNTY
EMPLOYEES RETIREMENT
ASSOCIATION
LACERA**

**Board of Investments
Powers Reserved and Delegated Authorities**

Adopted by the Board of Investments on October 12, 2016

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LACERA

Powers Reserved and Delegated Authorities

Overview

In May 2016, the Board agreed to the Powers Reserved for the Board. The Board has assigned certain authorities to the CEO. This document, aligns these authorities to the Powers Reserved.

Level of Involvement

Given its overall responsibility and accountability, the BOI has determined the level of its involvement in the exercise of various powers / authorities. The following framework uses three levels of involvement which reflect largely the degree of involvement:

Power	Description
Conduct	The Board itself performs the tasks described. This is the highest level of involvement. The Board or its Committees (standing or ad hoc) is actively involved in doing the work, e.g., writing the requirements, conducting due diligence, selecting and interviewing finalists, making the recommendation to the full Board for Approval.
Approve or Set	The Board retains final decision authority on prudently delegated activities to approve or set policies and limits, e.g., Asset Allocation. Once approved, the Board must then Oversee to ensure that actual practice reflects policy.
Oversee	The Board has a minimum legal duty to monitor and question. The Board reserves the power to oversee that prudently delegated authorities are properly exercised, appropriate policies and controls are in place and delegates (CEO/staff) are held accountable for performance. Oversee does not constitute close supervision and day to day management.

LACERA

Powers Reserved and Delegated Authorities

LEGEND

The following table has been developed based on input from the Board of Investments (BOI). Powers Reserved that are joint with the Board of Retirement (BOR) have not been discussed with the Board of Retirement and were not part of the scope of this review.

A = Approves final decision based upon recommendations from CEO and others.

O = Oversees, monitors and questions activities in delegated authorities.

C = Conducts activity and has the authority to make decisions within certain parameters.

R = Makes recommendations to the body with authority for approval.

Note: CIO authorities indicated are delegated from the CEO; the CEO retains responsibility

LACERA

Powers Reserved and Delegated Authorities

#	Powers Reserved for Board	Board	Committee	CEO	CIO	Others
	Governance and Strategy					
1	Approve powers reserved for the Board of Investments	A		R		
2	Approve Board charter	A		R		
3	Approve Board committee structure, roles and charters	A	R	R		
4	Approve Board delegations to staff	A		R		
5	Approve Board development policy and education programs	A		R		
6	Approve Board governance principles and policies	A		R		
7	Conduct Board self-assessment of its effectiveness	C				
8	Oversee strategic planning process	O		C	C	
9	Oversee the effectiveness of Board of Investments strategic plans	O		C	C	
10	Oversee Board stakeholder engagement program	O		C		
11	Oversee Board business planning process and business plans	O		C	C	
	Investments					
12	Approve investment policy statement	A	O		R	R: General
13	Approve investment beliefs	A			R	R: General
14	Approve investment allocations and benchmark targets	A			R	R: General
15	Approve expected rate of return (asset/liability study)	A			R	R: General
16	Approve actuarial assumptions (discount rate)	A				C: Actuarial
17	Approve actuarial policies	A				C: Actuarial
18	Approve investment risk appetite and strategy (e.g., Hedge funds/ risk parity)	A	O		R	R
19	Approve the Investment organization structure (budget)	A		R		
20	Approve Investment organization performance metrics	A	O		R	R: General
21	Approve investment related legislative policy	A		R		
22	Conduct selection of investment consultants and advisors	C				
23	Oversee overall investment organization performance	O		C		
24	Oversee effectiveness of investment risk management	O			C	
25	Oversee liquidity plans	O			C	
26	Oversee investment performance	O			C	C
27	Oversee due diligence (investment and operational)	O			C	C: Various
28	Approve selection of investment managers or funds	A			R	R: Various
29	Oversee private asset valuations	O			C	C
30	Oversee investment operations and cost effectiveness	O			C	
31	Oversee actuarial valuations and employer rate setting	O				C: Actuarial
32	Oversee pension soundness	O				C: Actuarial

LACERA Powers Reserved and Delegated Authorities

Reassurance, Risk and Compliance						
33	Oversee internal audits	O				C: Internal Audit
34	Oversee actuarial audits	O				C: Internal Audit
35	Oversee title holding audits	O				C: Internal Audit
36	Oversee investment-related enterprise-wide risk framework and management	O			C	
37	Oversee investment controls and compliance (checks and balances)	O			C	
Administration						
38	Approve staff classification and compensation	A		R		
39	Approve litigation and settlements related to investments	A		R		
40	Approve budget process and budgets	A		R		
41	Conduct hiring, evaluation, compensation, firing of the CEO	C				
42	Oversee human resource policies for investment operations (excluding compensation)	O		C		
43	Oversee accounting policies for investment activities	O			C	
44	Oversee the CEO's effectiveness in hiring/firing and management of performance for senior Investment executives	O		C	R	
45	Oversee investment management succession planning	O		C	C	
46	Oversee disclosures of investment fees and expenses	O			C	
47	Oversee information technology plans and budgets / cyber security for Investments	O		C		
48	Oversee business continuity plans for Investment operations	O			C	

Approved by the Board of Investments October 12, 2016

Note: Reference September 14, 2016 Board of Investment memorandum for detail regarding Power #28 Approve Selection of Investment Managers or Funds . Excerpt on following pages.

LACERA

Powers Reserved and Delegated Authorities

Power Reserved #28 - Board Approves the Manager and Fund Selection.

This is the current power reserved by the Board for all asset classes. In general, the Board has delegated the tasks of developing solicitation materials, identifying investment opportunities, due diligence, and contract execution. The Board retains the power to approve certain milestones during the process including selecting the investment manager or fund based upon the established written record or finalist interviews. It is important to highlight the Board's use of its consultants as additional experts in reviewing the written record and conducting finalist interviews.

Key: A = Approves, C = Conducts, O = Oversees, R = Recommends

Investment Manager Selection Process Summary

	Investment Manager Selection Task	Board	Committee	CIO	Staff	Consultant
1	Approve RFP	A	R	O	C	R
2	Due Diligence			O	C	C
3	Manager Selection	A		R	R	R
4	Investment Execution			O	C	
5	Investment Monitoring	O	O	O	C	C
6	Termination	A		R	R	R

Investment Manager Selection Process Detail

	Investment Manager Selection Task	Board	Committee	CIO	Staff	Consultant
1	Determine Manager Type			O	C	R
2	Determine Allocation			O	C	R
3	Determine MQ, Evaluation Criteria, SOW			O	C	R
4	Recommendation to issue RFP		C	R	R	R
5	Approval to issue RFP	A	R	R	R	R
6	Issue RFP				C	
7	Score RFP Submissions				C	
8	Document RFP Score Results				C	
9	Eliminate Less Qualified Firms			O	C	R
10	Interview More Qualified Firms In-House				C	C
11	Score In-House Interview Results				C	
12	Document In-House Interview Score Results				C	
13	Eliminate Less Qualified Firms			O	C	R
14	Interview More Qualified Firms On-Site				C	C
15	Score On-Site Interview Results				C	
16	Document On-Site Interview Score Results				C	
17	Finalist Firms Recommendation			O	C	C
18	Finalist Firms Interview	C		R	R	R
19	Manager Selection	A		R	R	R
20	Contract Execution			A	C	
21	Manager Funding			O	C	
22	Performance Monitoring	O	O	O	C	C
23	Manager Operational Relationship			O	C	
24	Maintain Watch List	O	O	O	C	R
25	Termination	A	R	R	R	R
26	Transition Management			O	C	R

LACERA

Powers Reserved and Delegated Authorities

Key: A = Approves, C = Conducts, O = Oversees, R = Recommends

Investment Fund Selection Process Summary

	Investment Fund Selection Task	Board	Committee	CIO	Staff	Consultant
1	Deal Sourcing				C	C
2	Due Diligence				C	C
3	Investment Fund Approval	A		R	R	R
4	Investment Execution			O	C	
5	Investment Monitoring	O	O	O	C	C

Investment Fund Selection Process Summary

	Investment Fund Selection Task	Board	Committee	CIO	Staff	Consultant
1	Deal Sourcing				C	C
2	Deal Flow Evaluation				C	C
3	Document Evaluation				C	C
4	Eliminate Less Desirable Deals				C	R
5	Preliminary Due Diligence				C	C
6	Manager Meeting				C	C
7	Document Due Diligence				C	C
8	Eliminate Less Desirable Manager				C	R
9	Manager On-Site Due Diligence				C	C
10	Investment Memorandum				C	C
11	Investment Memorandum Review			C		
12	Investment Fund Approval	A			R	R
13	Contract Execution			A	C	
14	Performance Monitoring	O	O	O	C	C
15	Annual Partnership Meeting				C	
16	Advisory Board Participation				C	

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**[Included for Reference]
[Policy Eliminated by Board Action at November 2023 Meeting]**

**LOS ANGELES COUNTY
EMPLOYEES RETIREMENT
ASSOCIATION
LACERA**

**Board of Investments
Powers Reserved Defined**

Adopted by Board of Investments on May 10, 2016
Amended by the Board of Investments on October 12, 2016

LACERA
Powers Reserved for the Board of Investments

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LACERA

Powers Reserved for the Board of Investments

Introduction

The Meaning of Governance

Overall responsibility and accountability for LACERA's investments and organizational performance rests with the Trustees of the Board of Investments (Board). Since Governance is fundamentally about decision-making, it raises some fundamental questions:

- What are the key decisions?
- Who gets to make them?
- Using what criteria?
- What are the priorities?
- What is the highest and best use of limited Board time?
- Where should Trustees focus given their limited time?

What is a Power Reserved?

Within the framework of its governing legislation, a Power Reserved is a decision authority, other action or responsibility which a Board chooses to retain solely for itself. The Board will reserve for itself a number of powers or decision authorities. In certain cases, these powers are shared with the Board of Retirement, for example:

- the appointment of the CEO;
- classification and compensation of personnel; and
- adoption of LACERA's annual budget.

Role of Committees

In many organizations, the bulk of the work of the Board is assigned to Committees (standing or ad hoc) and supported by staff and consultants. Work is assigned to Committees but authorities are generally not delegated. Committees are intended to do the work and make recommendations to the full Board for its Approval.

LACERA

Powers Reserved for the Board of Investments

Prudent Delegation

The Board may prudently delegate authorities to the CEO (and thereby the staff) and consultants if it establishes a robust process for selection, instruction, reporting, monitoring, questioning and evaluation of their qualifications, goals and results. Under the fiduciary standard applicable to LACERA, practices of similar prudent Trustees provide relevant guidance and many delegate to committees, staff, advisors and managers.

By prudently delegating, instructing and monitoring delegates that have more time and access to expertise, the Board can improve its effectiveness. In the absence of full-time, expert attention to Investments, it may be prudent for Trustees to delegate regardless of their individual level of expertise.

Level of Involvement

Given its overall responsibility and accountability, the Board has determined the level of its involvement in the exercise of various powers / authorities. The following framework uses three levels of involvement:

Power	Description
Conduct	The Board itself performs the tasks described. This is the highest level of involvement. The Board or its Committees (standing or ad hoc) is actively involved in doing the work, e.g., writing the requirements, conducting due diligence, selecting and interviewing finalists, making the recommendation to the full Board for Approval.
Approve or Set	The Board retains final decision authority on prudently delegated activities to approve or set policies and limits, e.g., Asset Allocation. Once approved, the Board must then Oversee to ensure that actual practice reflects policy.
Oversee	The Board has a minimum legal duty to monitor and question. The Board reserves the power to oversee that prudently delegated authorities are properly exercised, appropriate policies and controls are in place and delegates (CEO/staff) are held accountable for performance. Oversee does not constitute close supervision and day to day management

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Powers Reserved for the Board of Investments

The Board reserves the power to change its level of involvement based on changing circumstances. There are a number of important policy areas that the Board will want to approve and then prudently delegate and oversee.

Categories of Authorities

There are 48 specific authorities organized into four categories of decisions:

1. Governance and Strategy
2. Investment
3. Reassurance, Risk and Compliance
4. Administration

Category of Authority	Definition
Governance and Strategy	key decision-making powers, including powers reserved for the Board; Board, Committee and organizational structures; officer role descriptions; policies and strategic direction-setting; implementation of strategy; planning for achieving goals; and providing the people and tools necessary to execute plan including delegations of authority and engagement of stakeholders
Investment	investment policies and actuarial matters, including determination of pension obligations and liabilities and pension soundness; investment beliefs; Investment Policy Statement; roles and responsibilities of the Board, consultants, and staff in connection with the purchase, sale, and monitoring of investments; expectations as to frequency and general content of investment reporting; policy statement re: goals and objectives and the selection and processing of investments to achieve expected returns on assets with acceptable levels of risk; oversight of investment performance, operations and risk
Reassurance, Risk and Compliance	independent reasonable reassurance (e.g., internal / external audit, counsel, and third parties such as consultants) that management's reports are reliable, due diligence is robust and risk mitigation, compliance and control processes are performing as expected
Administration of the investment operations	Human Resources policies and activities related to overseeing the investment operations in conjunction and coordination with the Board of Retirement for the hiring, evaluation and compensation of staff to ensure an appropriately skilled and resourced organization; Finance and Accounting policies and processes of recording and reporting on financial and business operations; Information Technology includes computers, networks and software designed to process and protect private and business critical data and produce timely information and insight for decision-making; and decisions to commence or settle legal disputes

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Powers Reserved for the Board of Investments

Powers Reserved for the Board of Investments

The following list of Powers Reserved takes into account the unique legislative framework of the Board using a set of leading practices and input from Funston Advisory Services, Meketa Consultants and the CEO, followed by a survey of Trustees and individual interviews.

#	Powers Reserved for Board	Definition
Governance and Strategy		
1	Approve powers reserved for the Board of Investments	the decision authorities and activities reserved exclusively for the Board
2	Approve Board charter	the purpose, roles, responsibilities, and processes of the Board (individually and collectively) and management in setting the direction, the management and control of the organization, role of officers (chair, vice-chair, secretary)
3	Approve Board committee structure, roles and charters	standing and ad hoc committees and their purpose/mission, authority and responsibilities, qualifications and composition; term and method of appointment; method of electing or appointing chair and vice chair; core processes; how and when meetings will be held; what constitutes a quorum; and how meeting minutes will be written and approved; qualifications and expectations as to time, participation and preparation
4	Approve Board delegations to staff	establishes a superior-subordinate relationship; defines assignment of day-to-day duties and management of the organization; granting of decision-making authority; responsibility and accountability
5	Approve Board development policy and education programs	establishes means to determine qualifying programs, sets policy for the type, location and budget of education for the Trustees to ensure compliance with regulations and maintaining the skill and knowledge necessary to continuously improve the effectiveness and efficiency of each trustee and the Board as a whole
6	Approve Board governance principles and policies	the framework for the governance of the organization, including principles and policies such as: leadership; setting of Board agendas; access to senior management; bylaws; strategic planning process; standards of conduct, including respectful relations with other Trustees and staff and compliance with conflict of interest laws and regulations; placement agent policy; SEC compliance policy; referral of investment opportunities, management selection and vendor contacts; fiduciary review policy

LACERA

Powers Reserved for the Board of Investments

#	Powers Reserved for Board	Definition
7	Conduct Board self-assessment of its effectiveness	conduct a self-assessment of the effectiveness of the Board in relation to factors such as strategy and implementation, fiduciary and co-fiduciary duties, ethics and conflicts of interest, risk and crisis management, decision-making discipline and Board dynamics <i>Trustee Commentary: The process and timing of self-assessment still needs to be determined, e.g., use of a third party facilitator, whether or not to have 360° feedback, public disclosures policy, inventory of skills matched to policy issues and continuing education.</i>
8	Oversee strategic planning process	a long-term view of the investment-related changes required to successfully adapt to the ecosystem; the resources required; the authority and accountability to make needed changes; and, provide input to the strategic planning process
9	Oversee the effectiveness of the Board of Investments strategic plans	the effectiveness of the organization in achieving its strategic objectives
10	Oversee stakeholder engagement program	the approach for engaging stakeholders who affect or are affected by the Investment program. Design and execution should be the responsibility of the CEO
11	Oversee business planning process and business plans	a formal statement of investment-related operational business goals, reasons they are attainable, and plans for reaching them; it may also contain background information about the organization or team attempting to reach those goals
Investment		
12	Approve investment policy statement	the Investment Policy Statement is a comprehensive document which typically contains: 1. statement of investment goal(s), purpose, or mission; 2. identification of investment decision maker(s); 3. statement on investment performance measurement (benchmarking); 4. statement on managing risks of individual securities; 5. statement on managing risk of overall portfolio; 6. money manager guidelines; 7. guidelines for other investment professionals; 8. legal standards; 9. investment cost management; and 10. transacting or brokering trades
13	Approve investment beliefs	investment beliefs provide direction for the investment organization, investment policies and actions of investment personnel by acting as a guide for the management and administration of the assets in a consistent manner that reflects the views of the Board; the statements can also address investment organization, investment process, financial markets, sustainability and governance, and other types of investment beliefs

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Powers Reserved for the Board of Investments

#	Powers Reserved for Board	Definition
14	Approve investment allocations and benchmark targets	the implementation of an investment strategy that attempts to balance risk versus reward by adjusting the percentage of each asset in an investment portfolio according to the investor's risk tolerance, goals and investment time frame
15	Approve expected rate of return	the long-term rate of return expected to be achieved by the investment portfolio
16	Approve actuarial assumptions	the planning assumptions used by the actuary to calculate projected future liabilities of the defined benefit plan, including economic assumptions (e.g., discount rate, inflation rate, salary scale) and demographics assumptions (e.g., withdrawals and terminations, mortality, retirement, disability)
17	Approve actuarial policies	policies which determine: 1. the actuarial cost method used to allocate benefits to each year; 2. the asset smoothing method to reduce the effect of short-term market volatility; and 3. the amortization policy which determines the length of time to extinguish any unfunded liability or surplus
18	Approve investment risk appetite and strategy	the amount of risk the investment organization is allowed to take and the means to ensure it remains within those limits
19	Approve the Investment organization structure through the budget process	the organizational hierarchy and structure to facilitate the effectiveness and efficiency of the investment organization to fulfill its function
20	Approve Investment organization performance metrics	the metrics to be used to gauge performance of the Investment organization
21	Approve investment related legislative policy	the approach for responding to legislative initiatives which distinguishes between advocacy, position-taking, and information for decision-making
22	Conduct selection of investment consultants and advisors	conduct the search and selection process for hiring the general investment consultant and specialty investment consultants to the Board, and manage and monitor the relationship

LACERA

Powers Reserved for the Board of Investments

#	Powers Reserved for Board	Definition
23	Oversee overall investment organization performance	actual performance and outcomes of the investment organization compared to expected performance, including achievement of strategic goals, cost management vs. budget, development of organizational capabilities, reputation with stakeholders, etc.
24	Oversee effectiveness of investment risk management	the process of monitoring to ensure risk limits are not exceeded, surprises are avoided, variability remains within control
25	Oversee liquidity plans	part of the near-term finance planning with the task of the exact medium-term, short-term, and daily coordination between in- and out-payments
26	Oversee investment performance	actual Fund performance compared to expected performance, including net-of fees returns compared to selected benchmarks and expected returns over varying time frames
27	Oversee due diligence (investment and operational)	oversee the due diligence (investment and operational) processes to select investment managers and funds that offer the best fit with the investment beliefs and objectives for the Fund
28	Approve selection of investment managers or funds	the actual selection of investment managers and funds that offer the best fit with the investment beliefs and objectives for the fund
29	Oversee private asset valuation	the process for periodically determining the valuation of individual investments; can involve reconciling different valuations provided by the custodian, general partners or other third parties
30	Oversee investment operations and cost effectiveness	the range of activities involved in selecting and monitoring investments, negotiating investment-related fees, and maintaining cost effective Fund infrastructure
31	Oversee actuarial valuations and employer rate setting	determining the contributions estimated to be necessary for funding the plan's benefits and providing information about the plan's current funded status
32	Oversee pension soundness	whether planned contributions plus expected investment income are sufficient to meet projected benefits plus expenses at a point in time

LACERA

Powers Reserved for the Board of Investments

#	Powers Reserved for Board	Definition
Reassurance, Risk and Compliance		
33	Oversee internal audits	independent reassurance provided by internal auditors on the reliability of management's assurances about performance and risk (related to investment operations) in collaboration with Audit Committee
34	Oversee actuarial audits	tool for monitoring the quality of actuarial services performed on behalf of the pension plan. An actuarial audit involves engaging the services of an outside actuary (reviewing actuary) to scrutinize the work of the plan's consulting actuary
35	Oversee title holding audits	tool for monitoring the quality and reliability of reports of title holding assets
36	Oversee investment-related enterprise-wide risk framework and management	a comprehensive process for identifying, assessing, controlling and monitoring investment-related risk; includes operational risk (the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events), legal risk, strategic risk, reputational risk, liquidity risk, etc.
37	Oversee investment controls and compliance	monitoring the quality of asset management accounts, processes and systems with the aim of ensuring compliance with policies and regulations, including conformity in fulfilling investment policy requirements, such as restricted securities, concentration limits, basket clause and other defined limitations
Administration of the Investment Operations		
38	Approve staff classification and compensation	the policy which describes the classification and amount of money and benefits to be paid to attract and retain qualified personnel (shared with Board of Retirement)
39	Approve litigation and settlements related to investments	decisions to commence and settle litigation, and resolution of other investment-related legal disputes
40	Approve budget process and budgets	the process for developing an annual budget for the organization, including both operational and capital needs, and obtaining approval (shared with Board of Retirement)

LACERA

Powers Reserved for the Board of Investments

#	Powers Reserved for Board	Definition
41	Conduct hiring, evaluation, compensation, firing of the CEO	the process of hiring, compensating, evaluating, terminating and ensuring appropriate succession planning for the CEO (shared with Board of Retirement)
42	Oversee human resource policies (excluding compensation)	formal rules and guidelines to hire, train, assess, reward and retain members of the workforce should be determined by the CEO who has authority to run operations. The Board will oversee their effectiveness
43	Oversee accounting policies for investment activities	the policies affecting the systematic and comprehensive recording of financial transactions and the process of summarizing, analyzing and reporting these transactions that complies with the accounting requirements promulgated by the Governmental Accounting Standards Board (GASB)
44	Oversee the CEO's effectiveness in hiring/firing and management of performance for senior Investment executives	the process of hiring, compensating, evaluating, terminating and ensuring appropriate succession planning for senior Investment executives
45	Oversee investment management succession planning	process for developing internal people with the potential to fill key business leadership positions in the organization; succession planning increases the availability of experienced and capable employees that are prepared to assume these roles as they become available
46	Oversee disclosures of investment fees and expenses	the process of disclosing management, performance, carried interest, partnership fees, and other fees paid to external investment managers to manage investments on behalf of the Fund
47	Oversee information technology plans and budgets / cyber security for Investments	the system or systems used to gather, store and retrieve information for decision-making and ensure its safe keeping
48	Oversee business continuity plans for Investment operations	plans and procedures to ensure the continuity of operations in the event of a natural or man-made disaster or other business interruption

November 16, 2023

TO: Trustees – Board of Investments

FROM: Hedge Funds, Credit, and Real Assets Consultant(s) Search
Evaluation Team *VM* *J*

FOR: December 13, 2023 Board of Investments Meeting

SUBJECT: **HEDGE FUNDS, CREDIT, AND REAL ASSETS CONSULTANT(S) –
REQUEST FOR PROPOSAL, MINIMUM QUALIFICATIONS, AND
SCOPE OF WORK**

RECOMMENDATION

Approve the proposed hedge funds, credit, and real assets consultant(s) search Minimum Qualifications, Evaluation Criteria, and Scope of Work.

BACKGROUND

Staff prepared materials related to the Hedge Funds, Credit, and Real Assets Consultant(s) RFP for discussion with the Board of Investments. **ATTACHMENT 1** describes the recommended search criteria in compliance with the Procurement Policy for Investment-Related Services. This includes: (i) structure of the evaluation team; (ii) the selection authority; (iii) search timing; (iv) minimum qualifications; (v) evaluation criteria; and (vi) scope of work summary.

Attachment

Noted and Reviewed:



Jonathan Grabel
Chief Investment Officer

Hedge Funds, Credit, and Real Assets Consulting Services - Request for Proposal Minimum Qualifications

Board of Investments Meeting
December 13, 2023

Recommendation and Background



Recommendation

- Approve the proposed minimum qualifications, evaluation criteria, and scope of work for a hedge funds, credit, and real assets¹ consultant(s) Request for Proposal (“RFP”).

Background

- The last hedge funds, illiquid credit, and real assets consultant search was conducted in 2018 via a Request for Proposal (“RFP”) which went through a competitive search process
- The Albourne Group (“Albourne”) was selected by the Board in February of 2019 and retained in June of 2019 as LACERA’s consultant for all three mandates: hedge funds, illiquid credit, and real assets
- The agreement with Albourne has a 5-year term which expires in June 2024 and allows for optional extensions of up to two years
- For this prospective RFP, we are recommending that the scope of work of the prospective consultant for illiquid credit be expanded to cover the entire credit category (liquid credit and illiquid credit) and for private real assets to be expanded to cover the public market real assets categories of public market infrastructure equities, public natural resources equities, and commodity futures. This would be a change from LACERA’s existing consulting mandates which covers illiquid credit and private real assets. LACERA’s general consultant currently covers liquid credit and public market strategies in real assets. The next slide discusses the rationale for the proposed change

¹ Real assets excludes real estate. LACERA has a separate consultant that advises on LACERA’s real estate portfolio

Combining Coverage for Liquid + Illiquid Credit and Public Market + Private Real Assets

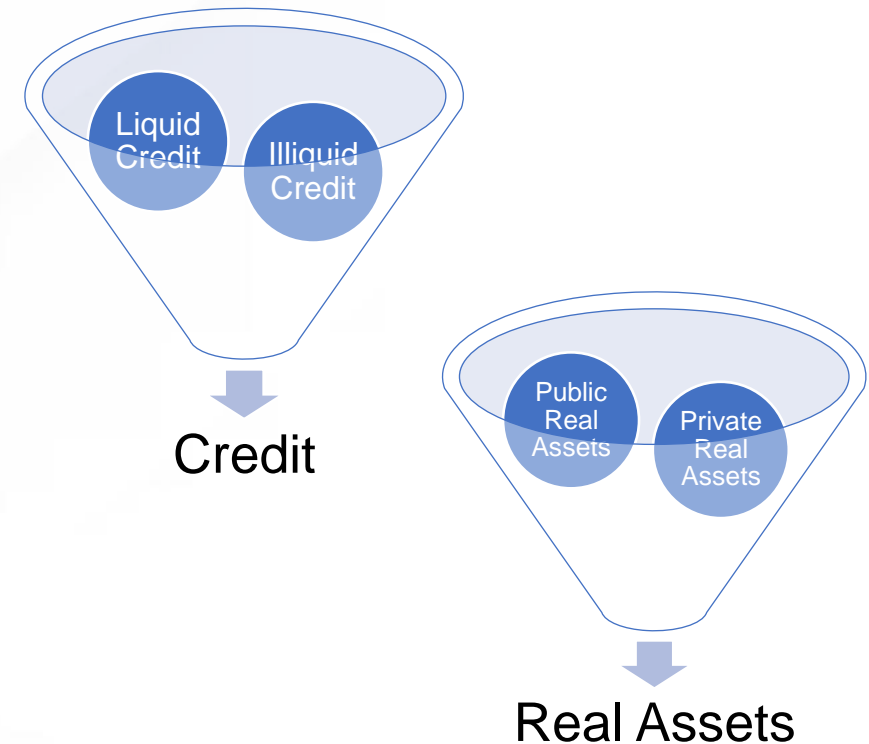


Having a single consultant relationship to advise on each of the two following LACERA portfolios can provide for seamless and effective coverage within each asset category:

- combined liquid and illiquid credit
- combined public and private real assets

Rationale

- With the rise in private or “illiquid” credit as a source of borrowing for public and private businesses, the characteristics of public or “liquid” credit and illiquid credit markets have been converging
- In environments when credit markets are under stress, public credit can sometimes become as illiquid as some sectors of private credit
- Having liquid and illiquid credit investments within a single credit mandate can provide managers flexibility and the ability to achieve higher risk adjusted returns
- The implementation of the real assets structure requires dependence on both public market strategies as well as private investments that can be interrelated or quite different
- Having a credit consultant and real assets consultant that is an expert across liquid and illiquid credit and public and private real assets, respectively, can provide insights into the relative attractiveness of either market in a variety of environments



Scope of Services Summary



Strategic Consulting

- Provide recurring recommendations for policy, objectives and strategy that are consistent with the Investment Policy Statement
- Provide the Board of Investments with independent assessment of staff's implementation of Board approved policies and guidelines that relate to hedge funds, credit, and real assets investments
- Provide attribution analysis and quarterly reports on the hedge funds, credit, and real assets portfolios
- Conduct comprehensive written research, analysis, and advice on specific investment and operational topics and issues

Sourcing and Due Diligence

- Conduct independent evaluations and provide concurrence memos on hedge funds, credit, and real assets investments

Meeting Attendance:

- Attend Board of Investments meetings, annual off-site meetings, Board of Investments committee meetings and other meetings as requested by LACERA

Collaboration with Board, Staff, and General Consultant

- Provide educational workshops to the Board
- Collaborate with LACERA's general consultant providing ongoing advice and technical support in the establishment and refinement of portfolio asset allocation, investment goals and objectives, and Investment office policies and procedures.

Evaluation Criteria



All responses received shall be subject to evaluation on the following six categories:

1. Organization
2. Professional Staff
3. Technology
4. Servicing Capabilities
 - Investment/Market Research
 - Operational Due Diligence
 - Back and Middle Office
5. Conflicts of Interest
6. Fees

Proposed Minimum Qualifications



In order to be eligible, respondents must meet the following Minimum Qualifications (“MQs”):

1. Must be registered as an investment advisor under the Investment Advisers Act of 1940.
2. Must have at least three (3) public defined benefit pension plan clients, each with total plan assets of at least \$10 billion as of December 31, 2023
3. Must have five (5) years of experience in providing direct investment and due diligence investment consulting services to U.S. tax-exempt clients
4. The consulting firm must maintain or have access to a database(s) with sufficient breadth to assist, when necessary, with manager research and analysis
5. Must currently have at least \$1 billion of hedge funds, credit, and/or real asset assets under advisement, depending on the consulting mandate(s) to which the firm is responding (hedge funds, credit, and/or real assets)
6. Must acknowledge that in the event it is awarded a contract under this RFP, candidate firm(s) will be disqualified from serving as an active manager of any portfolio for LACERA
7. Must agree to be a fiduciary to LACERA under California and other applicable law.

Evaluation Process



Proposed Evaluation Team includes members across the real assets and credit and risk mitigation teams. At the discretion of the Board Chair, select Trustee(s) may be included in the interview phase



The evaluation can result in a recommendation(s) for the same consultant or different consultants to advise on one, two, or three mandates (hedge funds, credit, real assets)

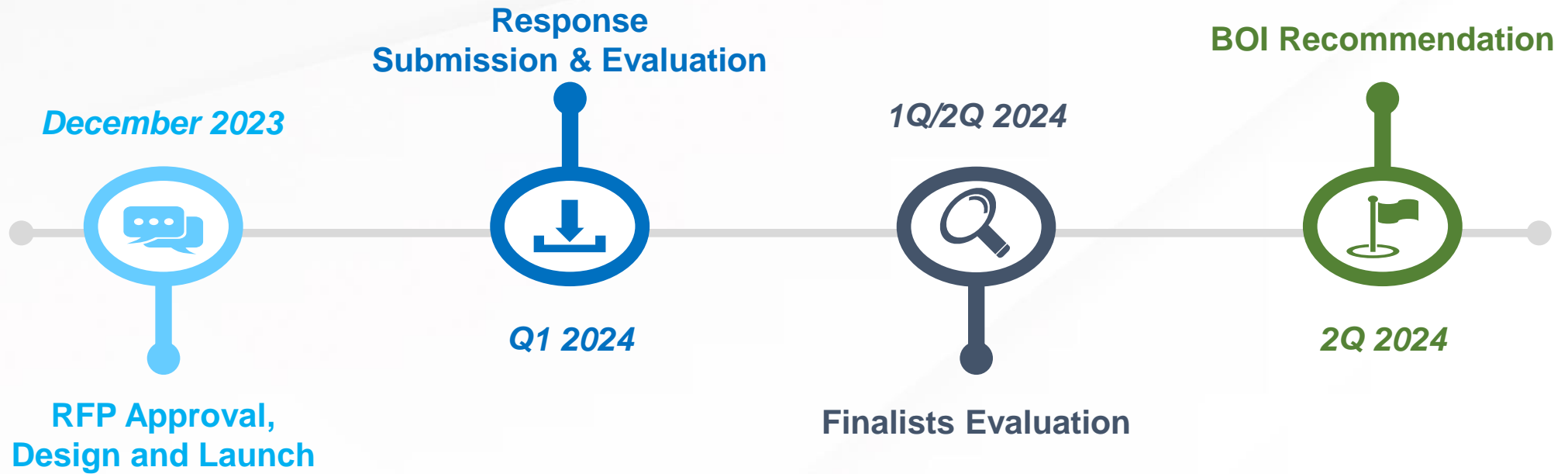


Final scores, evaluation review, and recommendation(s) will be provided to the Board of Investments



The RFP selection authority is the Board of Investments

RFP Search Timeline



Conclusion



Recommendation

- Approve the proposed minimum qualifications, evaluation criteria, and scope of work for a hedge funds, credit, and real assets consultant(s) Request for Proposal (“RFP”).

November 29, 2023

TO: Trustees – Board of Investments

FROM: Jonathan Grabel^{JG} Chief Investment Officer
Tim Filla, Meketa Investment Group
Managing Principal

Jude Pérez^{JP} Deputy Chief Investment Officer
Esmeralda del Bosque^{ES} Principal Investment Officer

FOR: December 13, 2023, Board of Investments Meeting

SUBJECT: **OPEB TRUST INVESTMENT POLICY STATEMENT:
DELEGATED AUTHORITY REVISIONS**

RECOMMENDATION

Approve the redlined OPEB Trust Investment Policy Statement (**Attachment A**).

BACKGROUND

At the November 2023 Board of Investments (“BOI”) meeting, Meketa Investment Group (“Meketa”) and staff presented a draft delegated authority framework for Trustees’ consideration (**Attachment B**). The recommendation was the culmination of a multi-month process to review LACERA’s governance structure and was developed by Meketa, in conjunction with a cross-functional internal team from the Investment Division, and with the input of the Chief Counsel and the Board’s fiduciary counsel, Ashley Dunning, of Nossaman LLP. The package included a redlined Investment Policy Statement (“IPS”) for the Pension Fund, including a draft new investment belief, updates to Board and staff roles, and incorporated text from LACERA’s Powers Defined and Powers Reserved policies.

At that meeting, Trustees approved the framework and draft IPS redline with two additional modifications to the IPS. Notably, in its Board presentation, staff highlighted that with Board approval of the delegated authority framework, a series of documents and key governing policies would be revised, including the OPEB Trust Policy Statement which would incorporate the two edits made by the Board.

SUMMARY

Immediately following the Board’s approval of the Pension Fund IPS (with the aforementioned modifications), staff created a redline version of the OPEB Trust IPS utilizing the Pension Fund as a model. All changes made to the Pension Fund IPS are reflected in the draft OPEB Trust IPS with three adjustments:

Each Trustees – Board of Investments

November 29, 2023

Page 2 of 2

1. References to the Pension Fund were replaced with the OPEB Trust, where appropriate.
2. In section IV, “Roles and Responsibilities” the description of Board duties includes language on the Board of Retirement (“BOR”) to reflect the BOR’s actuarial-related duties for the OPEB Trust.
3. In Section IV, “Roles and Responsibilities” the Staff section has been revised to incorporate the two Pension IPS additions requested by the Board during the November 2023 meeting.

Attachments

Red font = proposed new text or deletions

Green font = content transferred from the Powers Reserved and Powers Defined Policies

Purple font = content transferred from IPS and IPS Appendix B

Blue font = Trustee additions from November Board meeting

DRAFT REDLINE

Investment Policy Statement

OPEB Master Trust

Restated January 20, 2023

[Note that, if adopted, this document will be formatted for consistency.]



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List of Attachments **23**

- Corporate Governance and Stewardship Principles
- Responsible Contractor Policy
- Emerging Manager Policy Placement Agent Policy
- Placement Agent Policy
- Private Equity Privatization Policy
- Procurement Policy for Investment-Related Services

Red font = proposed new text or deletions

Green font = content transferred from the Powers Reserved and Powers Defined Policies

Purple font = content transferred from IPS and IPS Appendix B

Blue font = Trustee additions from November Board meeting

About LACERA and the OPEB Trust

The Los Angeles County Employees Retirement Association (“LACERA”) administers a defined benefit retirement plan (the “Fund”) and has been appointed as the Investment Manager for the Los Angeles County’s, LACERA’s, and Los Angeles County Superior Court’s Other Post-Employment Benefit Trusts (“Trust[s]”), which are the participating employers under the LACERA Master Trust (“OPEB Trust”).

The Los Angeles County Board of Supervisors established LACERA by ordinance in 1937-. LACERA has operated since 1938, and today, serves over 170,000 active and retired members.

LACERA’s mission is to “produce, protect, and provide the promised benefits to our Members.” LACERA aims to fulfill its mission through prudent investment and conservation of plan assets, in accordance with its Investment Beliefs and in consideration of actuarial analysis.

LACERA’s Board of Investments (the “Board”) is responsible for establishing LACERA’s investment policy and objectives, as well as exercising oversight of the investment management for both the Fund and the OPEB Trust.

The County of Los Angeles (“County”) established the OPEB Trust for the purpose of pre-funding the Retiree Healthcare Benefits Program (“OPEB Program”). The OPEB Trust serves as a funding tool for the participating employers to hold and invest assets used to pay OPEB Program benefits, such as medical, dental and vision.

In 2012, the County Board of Supervisors approved entering into a Trust and Investment Services Agreement with the LACERA Board to serve as trustee and investment manager for two participating employers: Los Angeles County and LACERA. In 2016, the governing body of the Los Angeles Superior Court approved a similar agreement, and the Board of Supervisors in turn approved amending the County agreement to include the Superior Court as a third participant in a pooled investment structure through the OPEB Master Trust Declaration.

LACERA MISSION STATEMENT

We Produce, Protect, and Provide
the Promised Benefits to our
Members

Statement of Purpose

The OPEB Trust Investment Policy Statement (the “IPS”) defines the framework by which LACERA manages the assets of the OPEB Trust in order to fulfill its mission. The document provides the primary guidance for OPEB Trust investment activities by outlining the philosophy and structure of the OPEB Trust investment program, describing the general process by which assets are managed, and defining the key roles and responsibilities for the investment program.

The IPS is in furtherance of the OPEB Trust’s purpose to permit the co-investing and commingling the assets of the participating Trusts for investments purposes. The ultimate purpose of the investment program is to fund and pay benefits under the OPEB Program.

Legal Authority

Article 8 .6 of the County Employees Retirement Law of 1937, as amended (California Government Code Sections 31694 - 31694 .5) (“CERL”) provides authority to governing bodies of the County and Superior Court to establish a Trust to fund an OPEB Program and for the Board of Investments to be appointed and serve as Trustee, investment manager and/or third-party administrator for such Trust-. The County and Court Trust agreements were established pursuant to this legal authority and approved by the Board of Investments-. LACERA, in turn, used its authority to create the Master Trust to facilitate the investment of the County, Court, and LACERA funds set aside for the OPEB Program-. Under the OPEB Trust Declaration, the Board of Investments has “sole and exclusive authority, control over and responsibility for directing the investment and management of” OPEB Trust assets-. The Board of Investments is a fiduciary in performing its responsibilities as Trustees-. The Trust documents provide for the Board of Investments to adopt investment policies and asset allocation formula as the Board sees fit in the performance of its duties to fulfill the purpose of the Trusts.

LACERA’s governing statutes create a legal framework within which this IPS must be interpreted and implemented by the Board in approaching its decisions-. Under the OPEB Trust Declaration, the Board is independent and has sole and exclusive legal responsibility over investment of OPEB Trust assets, including the establishment of the investment policy and asset allocation.

A. Fiduciary Duty

The Board and its Trustees are fiduciaries under the Trust documents and applicable by law, making decisions for the benefit of the Trusts as a whole without other concerns or outside influence-. All Trustees, whether they are elected, appointed, or ex officio, have the same fiduciary duty under the law-. This fiduciary duty has two components:

- i. *Duty of Loyalty*-. Under the duty of loyalty, Trustees have the sole and exclusive responsibility to administer the OPEB Trust in the interest of and for the exclusive purpose of providing benefits to the participating employers’ participants in the OPEB Program and their beneficiaries-. In making every decision, the Board must act according to a three-pronged legal formula that balances the interests of OPEB Trust stakeholders: (1) solely in the interest of providing OPEB Program benefits to Program participants and beneficiaries, (2) to minimize employer contributions necessary to fund the OPEB Program, and (3) to defray the expenses of administering the OPEB Trust-. The Board’s duty to participants and their beneficiaries takes precedence over any other duty.
- ii. *Duty of Prudence*. Trustees must discharge their duties with the care, skill, prudence, and diligence that a prudent fiduciary familiar with the matters and the circumstances of each particular decision would use in the conduct of a similar enterprise with like aims-. The Board must diversify OPEB Trust investments so as to minimize risk of loss and maximize the rate of return, unless under the circumstances it is clearly prudent not to do so-. The Board may invest or delegate the authority to invest OPEB Trust assets through the purchase, holding, or sale of any form or type of investment, financial instrument, or financial transaction when prudent in the informed opinion of the Board.

iii. In order to exercise its fiduciary duties, the Board has the responsibility to stay informed and affirmatively conduct oversight of the OPEB Trust investment program, including receiving, reviewing, and engaging on investment performance and compliance information and reports.

B. Ethics and Code of Conflicts

The Board and LACERA staff must refrain from personal activity that could conflict with the proper management of the OPEB Trust investment program, or that could impair their ability to make decisions in compliance with fiduciary duty. Further details are defined in LACERA's Code of Ethical Conduct, Conflict of Interest Code, the Political Reform Act, Fair Political Practices Commission regulations, and other applicable law.

C. Process

Because the Board is a governing body of a public agency, the Board and its Trustees must conduct business according to the State of California Ralph M. Brown Act, which provides that Board meetings, deliberations, and actions must be public unless subject to a specific closed session exception. The Board may go into closed session to discuss the purchase and sale of particular, specific OPEB Trust investments under the Brown Act.

Investment Policy

I. Investment Philosophy and Strategy

A. Objectives of the Investment Program

LACERA follows a carefully planned and executed strategic investment program in order to:

- i. **Produce** the promised benefits for OPEB Trust participants and beneficiaries by achieving the OPEB Trust assumed rate of return on a total return basis over the long-term, consistent with LACERA's mission;
- ii. **Protect** the promised benefits on behalf of OPEB Trust participants and beneficiaries by mitigating investment risks through diversification and other means, consistent with LACERA's mission; and
- iii. **Provide** the promised benefits for OPEB Trust participants and beneficiaries, in part by ensuring adequate liquidity, consistent with LACERA's mission.

B. Investment Beliefs

The Board has adopted the following investment beliefs ("Investment Beliefs") to describe its core beliefs and underlying assumptions about how capital markets operate. Collectively, the Investment Beliefs provide a framework to guide LACERA's investment decisions in a manner consistent with the Fund's nature as an institutional investor with a long-term investment horizon in order to achieve the Fund's objectives defined above.

i. Strategic Asset Allocation

Long-term strategic asset allocation will be the primary determinant of OPEB Trust risk/return outcomes.

- a. It is important that LACERA be forward-looking, as its investment horizon spans decades, if not indefinitely, into the future.
- b. Strategic asset allocation has a greater effect on return variability than asset class investment structure or manager selection.
- c. Strategic asset allocation is a critical source of investment diversification to optimize growth and mitigate risk across the total Fund.
- d. Strategic asset allocation must carefully consider plan liabilities, actuarial assumptions, and capital market assumptions.
- e. Rebalancing the portfolio is a key aspect of prudent long-term strategic asset allocation policy.

ii. Market Dynamics

Capital market efficiencies inform LACERA's strategic asset allocation and portfolio construction.

- a. The efficiency of financial markets may vary by market segment, geographic region, geopolitical regimes, and across public versus private markets.

- b . Market transparency, the regulatory environment, behavioral finance factors, and investment time horizons may influence and shape market efficiency.
- c . LACERA’s investment processes should be adequately nimble to prudently capture attractive investment opportunities.

iii. Return

Risk and return are expected to be positively correlated over long-term periods-. Returns can be enhanced through active strategies, illiquid investments, and leverage; however, such strategies need to be balanced with LACERA’s risk tolerances, portfolio objectives, and liquidity needs.

- a . Active strategies will be used when they are expected to add value net-of-fees while adjusting for risk-.
- b . The total capital allocated to illiquid strategies must be kept at a prudent level.
- c . Liquid assets serve a critical role to fund benefit payments and rebalance the portfolio.

iv. Risk

Risk is a broad term used to capture the concept of uncertainty-. No single metric adequately conveys risk-. LACERA will evaluate risk holistically, incorporating quantitative measures and qualitative assessments in managing its portfolio-. Monitoring and managing risk is a key focus for LACERA-. Risk that is not expected to be rewarded over the long-term, or mitigated through diversification, will be minimized.

Risks confronted by LACERA include, but are not limited to:

- a . Investment Risks (macroeconomic, volatility, leverage, illiquidity, geography, currency, political, credit, environmental, social, and governance); and
- b . Operational Risks (valuation, counterparty, benchmarking, business continuity, talent management, cybersecurity, reputational, fraud, regulatory, and conflicts of interest).

v. Governance

Strong governance is critical for LACERA to achieve its investment objectives.

Strategic direction-setting by the Board, prudent delegation of day-to-day portfolio management, and effective organizational controls and oversight are important components of strong governance.

vi. Stewardship

LACERA recognizes that environmental, social, and corporate governance factors (ESG) may present financial risks and opportunities for the Fund.. LACERA seeks to identify, evaluate, and manage financially relevant ESG factors in its investment process—including portfolio construction, investment due diligence, and stewardship strategies—to safeguard and enhance Fund performance.

vii. Terms

Investment outcomes are determined by risk, returns, and costs.. All three must be managed, and each mandate should be structured with the best possible terms available across the total Fund to enhance future outcomes.

- a . The breadth of LACERA’s presence in financial markets is an asset to influence terms and fees:
- b . Consideration of net-of-fees returns is an integral part of a successful long-term investment strategy - c.
- c . Costs, fees, and terms should be actively monitored and negotiated to the greatest extent possible.

viii. Productivity

People and resources matter. Constructive talent management, efficient operations and procedures, and a commitment to ongoing education and improvement are essential to optimizing LACERA's investment performance.

- a. Human Capital: Trustees and staff are vital to executing LACERA's investment program. LACERA must cultivate a talented and collaborative workforce that is inclusive of diverse perspectives and backgrounds and demonstrates a steadfast commitment to high ethical conduct.
- b. Education: In an increasingly complex and dynamic investment universe, continued education on investment concepts and investment strategies within that universe is fundamental for long-term success.
- c. Operations: Strong operational processes and sufficient resources can maximize efficiency, mitigate risks, and optimize investment performance.

C. Strategic Asset Allocation

LACERA fundamentally believes long-term strategic asset allocation will be the primary determinant of risk/return outcomes, and therefore establishes a strategic asset allocation to meet its mission and investment objectives.

The OPEB Trust strategic asset allocation categorizes capital outlays into four groups, defined by the function each allocation is intended to serve in the portfolio: (1) Growth, (2) Credit, (3) Real Assets and Inflation Hedges, and (4) Risk Reduction and Mitigation. The functional categories include various asset classes that represent the risk/return characteristics of each area. LACERA expects the four functional categories to diversify the OPEB Trust and optimize upside growth while mitigating downside risk. The asset allocation determines what proportion of the OPEB Trust are allocated to each functional category and underlying asset class, including target weights and allowable ranges as a percentage of the OPEB Trust.

In order to determine the OPEB Trust strategic asset allocation, LACERA conducts a comprehensive asset allocation study every three to five years, or at the Board's request. The asset allocation study considers a number of factors, such as:

- A projection of actuarial assets, liabilities, benefits payments, contributions, and the actuarial rate of return for the OPEB Trust, as well as its current and projected funded status.
- Historical results and expected long-term capital market risk, return, and correlation forecasts.
- An assessment of future economic conditions, including inflation and interest rate levels.
- Various risk/return scenarios.
- OPEB Trust liquidity requirements.

Approved asset allocation and benchmarks for the OPEB Trust are detailed in the tables of the Appendix.

D. Overview of Strategic Asset Allocation

LACERA groups asset classes into the following functional categories:

i. Growth

- a. Role in the portfolio: The role of assets in this category is to be the primary driver of long-term total returns for the OPEB Trust.

- b. Asset Classes: Global Equity and Private Equity.
- c. Investment Approach: Growth assets generally represent equity or equity-like interests in current and future income streams-. Growth assets include public and private market strategies that include both liquid and illiquid investments-. The OPEB Trust utilizes passive strategies in relatively efficient segments of the market for global equity and employs active strategies in relatively less efficient market segments including private equity.
- d. Risk Factors: Growth assets are primarily equity ownership positions that tend to perform well in times of positive economic growth-. They are highly sensitive to economic conditions and are subject to potential loss in value based on a number of factors-. For example, growth assets may be sensitive to inflation and generally perform poorly in times of high and unexpected inflation-. To a lesser extent, growth assets may be sensitive to interest rates due to the use of leverage in certain strategies as well as the relationship between interest rates and the discount rates used to price securities.

ii. Credit

- a. Role in the portfolio: LACERA expects assets categorized as Credit to produce current income and moderate long-term total returns-. Credit has more moderate levels of risk than assets categorized as Growth, and, accordingly, provides incremental diversification to the OPEB Trust.
- b. Asset Classes: Liquid Credit (High Yield, Bank Loans, Emerging Market Debt), and Illiquid Credit.
- c. Investment Approach: Credit assets are generally fixed claims on assets or income streams of an issuer (e.g., government, corporation, asset-backed securities)-. The category is composed of certain fixed income, real estate, and private debt investments-. Investment strategies within this category may have a specific mandate or be multi-strategy-. The investment strategies may be liquid, illiquid, or a combination of both, depending on the nature and terms of the specific investment vehicle-. The OPEB Trust employs passive strategies for the more efficient segments of the credit market and may employ active strategies in certain segments that are relatively less efficient.
- d. Risk Factors: The primary risk for owners of Credit assets is the failure of the borrower to make timely payments of interest and principal-. There are three elements of credit risk: the risk of default, the risk of a credit downgrade, and spread risk, which is the risk that investors may demand greater compensation for bearing the first two types of risk-. Bonds with credit risk offer a yield premium over government bonds to compensate investors for the additional risk-. Bonds with greater credit risk (i.e., bonds with lower credit ratings) are typically less liquid than higher quality bonds.

iii. Real Assets and Inflation Hedges

- a. Role in the portfolio: LACERA expects assets in this category to provide income as well as a hedge against inflation, while diversifying the OPEB Trust due to the assumed low correlation of returns between these assets and other asset classes.
- b. Asset classes: Private Real Estate, Natural Resources, Commodities, Private Infrastructure, and Treasury Inflation-Protected Securities (“TIPS”).
- c. Investment Approach: Real Assets generally include physical assets, such as real estate and infrastructure, or securities whose value is derived from a physical asset, such as commodities or natural resources-. Assets in this category may be invested in both public and private investments and may be liquid or illiquid, as well as passively or actively managed-.

- d . Risk Factors: Real Assets and Inflation Hedges are sensitive to inflation-. The primary risk for owners of real assets/inflation hedges is that they fail to provide a hedge against long-term changes in inflation-. A secondary risk is loss of principal-. The value of real estate and natural resources assets may fall, particularly during an economic downturn, but also due to idiosyncratic aspects of each asset-. Diversification may offset asset-specific risk-. Foreign assets are also subject to currency movements against the U .S . dollar-. TIPS are exposed to liquidity risk, as they tend to be less liquid than nominally U.S. Treasuries, particularly during a market environment in which there is a flight to safety.

iv. Risk Reduction and Mitigation

- a . Role in the portfolio: LACERA expects assets in this category to provide moderate amounts of current income by generating a modest level of return while also reducing risks for the OPEB Trust, in part by preserving capital in the event of a downturn in equity markets-. LACERA anticipates that assets in this category will have a low level of volatility and a low correlation to Growth assets, thereby providing downside protection-. In the event of a market correction, these assets could also provide a source of liquidity for benefit payments.
- b. Asset classes: Investment Grade Bonds, Long-Term Government Bonds, and Cash.
- c . Investment Approach: The category is composed of investment grade bonds, long-term government bonds, and cash-. Cash is the least volatile asset class, as well as the most liquid; the flexibility it provides during periods of market decline helps to mitigate risk-. Investment grade bonds comprise a mix of U .S . Treasuries, corporate debt, and other bonds of high quality, typically rated “BBB” or above by rating agencies-. High quality bonds would be expected to protect the OPEB Trust by retaining or increasing their value during a market correction.
- d . Risk Factors: The primary risk factor for Risk Reduction and Mitigation Assets is that they will fail to provide the anticipated level of protection during market downturns-. Assets in this category are also subject to additional risks-. For example, investment grade bonds are sensitive to fluctuations in interest rates and have some risk of default-. Cash can include short-term instruments and vehicles where there is a low probability of loss of principal.

E. Performance Objectives

The OPEB Trust’s long-term performance objective is to generate risk-adjusted returns that meet or exceed its defined actuarial target as well as its policy benchmark, net-of-fees, over the OPEB Trust designated investment time horizon-. The OPEB Trust’s policy benchmarks at the total OPEB Trust level, the functional category level, and the asset class level can be found in the Appendix.

F. Rebalancing

LACERA considers rebalancing the OPEB Trust a key aspect of prudent long-term portfolio management-. LACERA rebalances the OPEB Trust portfolio in accordance with established guidelines and procedures to adhere to its approved strategic asset allocation, consistent with the OPEB Trust stated Investment Beliefs-. The approved ranges for each functional asset category and underlying asset class are defined in the Appendix.

G. Responsible Stewardship and Beneficial Ownership Rights

In pursuing its investment program, and as part of mitigating risks associated with the OPEB Trust investments, LACERA seeks to manage its investments in a manner that promotes and safeguards the economic interests of its participants, consistent with LACERA’s mission-. LACERA prudently exercises its rights as an investor to support policies and practices at companies in which LACERA invests, as well as public policies governing financial markets, that are consistent with the OPEB Trust’s economic interests-. In doing so, LACERA aims to

promote sustainable, long-term value on behalf of its participants and enhance LACERA's ability to fulfill its mission. LACERA has therefore adopted Corporate Governance and Stewardship Principles (see Attachments). Beneficial ownership rights pertaining to the OPEB Trust investments, including, but not limited to, proxy voting where LACERA has retained voting authority, are managed in accordance with LACERA's Corporate Governance and Stewardship Principles.

H. Integration of Environmental, Social, and Governance (ESG) Factors

LACERA recognizes that environmental, social, and governance factors may influence the risk-return profile and financial performance of investments. Financially material ESG factors may vary by industry, geographic exposure, business strategy, investment time horizon, and other variables. LACERA endeavors to identify, assess, and manage relevant ESG factors in its market research, portfolio construction, and throughout its investment process in furtherance of its mission and fiduciary duties. Careful consideration of ESG factors throughout LACERA's investment process aims to generate sustainable investment returns. LACERA assesses and monitors all investment partners on their capacity and skill in evaluating ESG risks and opportunities in a compelling manner to enhance LACERA's risk-adjusted returns.

I. Diversity, Equity, and Inclusion

LACERA values diversity, equity, and inclusion, and believes that effectively accessing and managing diverse talent leads to improved outcomes. LACERA considers diversity broadly, inclusive of—but not limited to—professional backgrounds, age, experience, race, sexual orientation, gender, gender identity, disability status, military service, ethnicity, national origin, and culture. LACERA expects external asset managers and other third-party providers to respect and reflect LACERA's value of diversity, equity, and inclusion. LACERA's ongoing monitoring of third-party service providers incorporates an assessment of vendors' commitment to, adherence with, and track record of accessing and retaining diverse workforces in an inclusive and equitable manner.

II. Investment Process

The following sections articulate the general parameters and processes by which LACERA executes its investment strategy, in accordance with its fiduciary duties, ~~in adherence to established policies and procedures~~.

A. Structure Review

After an asset allocation study apportions capital across categories, LACERA conducts a ~~S~~structure ~~R~~review to address how to implement each asset category. A ~~S~~structure ~~R~~review establishes the framework for each asset category by addressing its role and expected risk profile within a total Fund context. The ~~S~~structure ~~R~~review evaluates the objectives, portfolio composition, related strategic initiatives, and how the portfolio may evolve in the near to medium term. These reviews are presented to the Board for its approval no less frequently than the comprehensive asset allocation study conducted for the OPEB Trust, or at the Board's request. To assist the Board and staff in carrying out their duties, Structure Reviews provide guidelines, including, but not limited to, Board-approved benchmarks, subcategory target allocation ranges, geographic market target allocation ranges, and any pertinent parameters on asset manager diversification relevant to the asset category.

B. Investment Management

i. Investment Agreements

~~Board-A~~approved investment recommendations are subject to negotiation and execution of an agreement that, in the judgment of LACERA's Chief Investment Officer and Chief Counsel, includes all terms necessary to provide adequate protection for the OPEB Trust's interests under the circumstances of the transaction, including, but not limited to, an appropriate standard of care on the part of the investment manager.

ii. Selection and Monitoring

LACERA may utilize internal resources or externally managed portfolios implemented by asset management firms and service providers to effectuate the OPEB Trust investment program. In determining whether to use internal or external resources to implement a specific investment mandate, strategy, or investment-related service, LACERA takes into consideration numerous factors, including, but not limited to, return expectations, associated risks, compliance requirements, and expenses related to the specific strategy or service.

LACERA has adopted formal procedures to guide the selection, appointment, and monitoring of external managers and service providers. LACERA expects any external party that manages assets on behalf of the OPEB Trust to serve as a fiduciary.

iii. Costs

LACERA considers the costs and expenses related to executing its investment program to be a crucial component of its fiduciary duty and an important element in determining its strategic asset allocation. In all aspects and functions of its investment program, LACERA seeks to actively identify, assess, and monitor expenses. LACERA expects that the economic terms and conditions by which any external party is compensated for investment-related services should promote an alignment of interests between the

OPEB Trust and the external party in fulfilling LACERA's mission and investment objectives-. Accordingly, LACERA diligently attends to and negotiates the economic terms of investment services rendered to the OPEB Trust -.

C. Liquidity Management and Other Investment Functions

The following sections provide the general guiding principles and parameters for certain components of LACERA's investment process, including liquidity management, the use of derivative instruments, securities lending, and certain prohibited transactions.

i. Liquidity and Cash Management

Effective cash management is integral to LACERA's investment process. LACERA strives to maintain appropriate levels of liquidity—i.e., the ability to convert investments into cash—in order to meet immediate or short-term obligations and liabilities, such as satisfying a request by a participating employer to fund OPEB Program participant benefits, meeting capital calls, and rebalancing the portfolio per the strategic asset allocation-. LACERA manages liquidity by monitoring the aggregate liquidity and liquidity risk exposures of the OPEB Trust-.

ii. Derivatives Management

LACERA may employ derivative instruments to hedge or gain exposure to certain investments-. A derivative is a financial instrument that derives its value from an underlying asset which represents direct ownership of a security or a direct obligation of an issuer-. Derivatives may be exchange-traded or traded over the counter (OTC)-. LACERA expects that any use of derivatives by external managers must adhere to LACERA's policies and investment guidelines.

iii. Prohibited Transactions

LACERA prohibits the following transactions unless stated otherwise in the investment management agreement:

- a. "Prohibited transactions" as defined under the Employee Retirement Income Security Act of 1974 (ERISA)
- b. Transactions that involve a broker acting as a "principal," where such broker is also the investment manager (or an entity related to the investment manager) who is making the transaction
- c. Any or all applicable investment activities forbidden by the United States Securities and Exchange Commission or other applicable governing bodies
- d. Any acts or omissions that violate state and local laws regarding conflicts of interest and disclosures

LACERA does not lever the OPEB Trust investment portfolio as a whole-. However, leverage is implicit in many investment strategies-. LACERA expects that any use of leverage by external managers must adhere to LACERA's established policies and investment guidelines.

III. Risk Management

LACERA manages risk by establishing and adhering to investment guidelines, pursuing multiple approaches to diversification (such as asset class, geography, liquidity profile, currency, and degree of active management), and conducting regular measurement and analytical exercises. LACERA assumes certain risks to achieve sufficient returns to meet the OPEB Trust's financial obligations and investment objectives. Investment risks pertain to the prospect of a permanent loss of capital or of not meeting objectives within the designated timeframe. LACERA seeks to mitigate the impact of a drawdown to the OPEB Trust in order to accomplish its investment objectives, reduce volatility, and avoid increased contributions to the OPEB Trust from the participating employers.

A. Philosophy and Objectives

LACERA considers risk multi-faceted and, therefore, views risk from multiple perspectives. Risk may vary and evolve over time, across sectors or geographic exposures, and depends on the nature and terms of the investment vehicle that LACERA deploys to implement OPEB Trust investment strategies. Risk may be systematic (i.e., present across the market) or unsystematic (i.e., specific to a particular investment strategy). A risk may pertain to and potentially impact the OPEB Trust, a functional asset category, or individual underlying asset classes.

LACERA seeks to diligently identify, assess, and monitor relevant investment risks throughout the investment process, from determining its strategic asset allocation to ongoing evaluation and monitoring of OPEB Trust performance. This helps to ensure that risks assumed by the OPEB Trust are intentional and adequately compensated.

B. Approach

The OPEB Trust strategic asset allocation attempts to position the OPEB Trust to capture growth while mitigating large drawdowns. LACERA's investment strategy is designed to take intentional risk, called active risk, in order to achieve commensurate investment results. LACERA may define expectations for active return earned per unit of active risk taken for various investment strategies and portfolios.

LACERA seeks to identify and acknowledge the sources and types of risk inherent in each investment strategy. However, LACERA also recognizes that even sophisticated risk measurement techniques may not detect certain risks, including extreme events, in advance. Accordingly, risk models may only provide limited predictive qualities. LACERA endeavors to test and challenge investment strategies and assumptions prior to a capital outlay as well as for ongoing monitoring.

LACERA measures investment risk using multiple metrics on both an absolute and relative basis at all relevant levels (i.e., total OPEB Trust, functional asset categories, and underlying asset classes). LACERA also strives to employ stress testing, scenario analyses, and broader financial and economic analyses to understand current and potential risks related to its investment strategy and decisions. LACERA selects appropriate benchmarks to assess and determine whether investment risks taken by the OPEB Trust are appropriate in order to achieve expected investment returns.

LACERA may establish a risk budget to set active risk targets for each functional asset category and underlying asset classes. LACERA aims to minimize unintended risk caused by asset allocation drift or other factors.

IV. Roles and Responsibilities

LACERA has established the following roles and responsibilities to implement its investment program, all of which must be performed under the terms of the Trust documents and the Board's fiduciary duty as defined above.

The duties explained below apply to the Board, staff, and various external parties who collectively oversee and administer the functions necessary for LACERA to accomplish its investment objectives.

The overview outlined below is further complemented by the following documents: ~~Board of Investments Charter, Board of Investments Powers Reserved Defined, Board of Investments Powers Reserved and Delegated Authorities, and the Board of Investments Regulations, (previously referred to as "Bylaws".) Roles and responsibilities are performed in a manner consistent with these governance documents and other Board policies and the Board's Funding Policy, among other policies adopted by the Board.~~

A. Board of Investments

i. Board

Under Trust Agreements entered into by the Board of Investments with the County of Los Angeles and the Los Angeles Superior Court pursuant to California Government Code Sections 31694-31694.5 of the County Employees Retirement Law of 1937 (CERL), the Board is a fiduciary with respect to the OPEB Trust, with exclusive responsibility and authority for its investment and management. The Board's fiduciary duty includes the obligation to:

1. Discharge their duties solely in the interest of, and for the exclusive purpose of, providing benefits to Participants under the OPEB Program, minimizing Employer contributions necessary to fund the OPEB Program, and defraying reasonable expenses of the Trust;
2. Discharge their duties with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims and in accordance with the terms of the Trust; and-
3. Diversify the investments of the Trust so as to minimize the risk of loss and to maximize the rate of return, unless under the circumstances it is clearly not prudent to do so.

Specific responsibilities over the OPEB Program, including, but not limited to, the responsibilities for actuarial studies and assumption setting, are overseen by the Board of Retirement and considered by the Board of Investments when making investment-related decisions and managing the Trusts.

In fulfillment of its exclusive fiduciary duty, the Board performs the following roles:

- Approves LACERA's Investment Policy Statement, including establishing the Investment Beliefs that frame it, to guide implementation of the Trust's investment program.
- Approves a strategic asset allocation for the Trust, including, but not limited to, investment allocations, and benchmark targets within defined asset categories.
- Approves Structure Reviews for each defined asset category of the Trust's strategic asset allocation, including, but not limited to, establishing the following: investment allocations within defined investible categories; target allocations and ranges; benchmarks by which to measure and monitor performance; and other portfolio guidelines.
- Actively reviews, monitors, and questions the investment and administration of the portfolio, requests such information as may be necessary to perform its responsibilities, and responds to issues relative to

the portfolio and its administration as may periodically arise.

- Performs additional investment and management functions, as defined in the Trust Agreements and Board policies and direction, and as necessary to perform its responsibilities under the Trust Agreements.

The Board is vested under the Trust Agreements, consistent with CERL with the authority to delegate certain responsibilities, including the authority to invest, when prudent in the informed opinion of the Board. The Board exercises oversight of all aspects of the investment program. In the exercise of this authority, the Board:

- Selects, approves, and reviews investment consultants, actuaries, and fiduciary counsel (consistent with LACERA's Policy on Fiduciary Counsel) to provide research, analysis, and recommendations to assist the Board in making prudent and informed decisions in line with its fiduciary duties.
- —The Board delegates to the Chief Investment Officer ("CIO") the authority to select, fund, and terminate asset managers consistent with fulfilling the provisions and guidelines as approved by the Board and defined in this IPS, the strategic asset allocation, Asset Class Structure Reviews, and other Board-approved policies.

The Board has the affirmative exclusive fiduciary responsibility of the Board is to oversee the ensure prudent investment and management of the OPEB Trust in compliance with this IPS, other Board policies and directives, and all applicable federal and state laws and regulations concerning the OPEB Trust created under CERL. The Board has the duty to stay informed, including requesting, receiving, and reviewing information, and to monitor and make inquiries based on that information to assist it its responsibility of conducting oversight of the investment program. To that end, the Board receives and has the duty to receive and review annual and quarterly reports of Trust performance (including asset categories and asset managers), as well as investment risks and compliance to prudently inform the Board's oversight. The Board may request staff and investment consultants to inform and make recommendations on any matters pertinent to LACERA's investment operations. The Board may also delegate specific authorities to the CIO, as further outlined in the IPS.

ii. Committees

To assist the Board in carrying out its duties, the Board may establish one or more committees ("Committee"). A Committee makes recommendations to the Board on investment actions related to its area of focus. A Committee may request staff and investment consultants to inform and make recommendations to it on matters pertinent to the OPEB Trust investment program.

B. Staff

LACERA staff implement Board-approved policies in adherence to fiduciary duties, LACERA's Code of Ethical Conduct, and the LACERA Conflict of Interest Code. Staff are charged with the responsibility of providing the Board with information to assist Trustees in exercising their roles and responsibilities and fulfilling their fiduciary duties.

i. Chief Executive Officer

The Board and LACERA'S Board of Retirement jointly appoint the Chief Executive Officer ("CEO"). The CEO is responsible for planning, organizing, and administering the operations of LACERA under policy guidance and direction from the Board and the Board of Retirement. The CEO exercises administrative oversight of the CIO, excluding investment decisions delegated to the CIO. The Board provides input to the CEO in the CEO's oversight of the CIO.

ii. Chief Investment Officer and Investment Staff

The CIO and investment staff manage the portfolio according to the Board's policies, advise and inform the Board about investments, assist with development and review of investment policies and procedures, oversee operational aspects of the OPEB Trust, report on the progress of the OPEB Trust in meeting its investment objectives, make any appropriate recommendations, and monitor and report to the Board on the performance of the OPEB Trust relative to the appropriate benchmarks-. The Board has delegated ~~specific investment authority and the following~~ responsibilities directly to the CIO: ~~as described in this IPS-~~

- Conduct searches for external asset managers in line with LACERA's Board-approved Procurement Policy to provide investment services.
- Approve the selection and termination of external asset managers, with the concurrence of relevant Board-approved investment consultants for the asset class, to implement Board-approved —strategic asset allocation—— and asset category Structure Review investment guidelines. The CIO also has authority to approve temporary variances from asset-level program and investment manager guidelines.
- Approve co-investments, secondary transactions, re-ups, and advisory board seats in adherence with Board-approved strategic asset allocations and asset category Structure Review investment guidelines.
- Approve, or delegate authority to sign, all investment-related contracts and agreements necessary to implement Board-approved strategic asset allocations and Structure Reviews that, in line with the Board-approved Procurement Policy and in the judgment of the CIO and Chief Counsel, provide adequate protection for LACERA's interests, including an appropriate standard of care on the part of each manager.
- Approve rebalancing the Fund in order to raise cash for benefit payments, adjust investment exposures, or pay operational expenses while adhering to investment policy targets outlined within Board-approved strategic asset allocations and asset category Structure Review investment guidelines.
- Approve actions as outlined in the Board-approved Procurement Policy.
- Approve limiting or freezing manager trading activity. Such actions are reported to the Board as reasonably practical and no later than the next scheduled meeting of the Board.
- Approve actions not otherwise specifically delegated, in concurrence with the CEO and the Chair of the Board, when deemed necessary in the best interest of the Fund and when there is not enough time to take the action to the full Board. Such actions are reported as reasonably practical to the full Board, and no later than the next scheduled meeting of the Board.
- Oversee an annual self-evaluation process for internal investment committees.

The CIO is authorized and directed to interact with and communicate directly with the Board regarding all investment-related matters. The internal investment staff reports to the CIO, who in turn reports to the CEO, with input of the Board. The CEO does not have any authority over any and all investment decisions that are delegated to the CIO.

LACERA's Board-approved Crisis Plan provides guidance in the event that the CIO is not available to implement delegated authorities.

iii. Chief Counsel and Legal Staff

The Office of Chief Counsel and legal staff (Legal Counsel) are primarily responsible for legal issues concerning the investment program and advise the Board, CEO, CIO, and staff on investment-related legal matters-. Legal Counsel advises the Board in performing its fiduciary responsibility-. In addition to reliance upon internal resources for such matters and on fiduciary counsel, the Chief Counsel or designee within the Legal Office may retain other external legal counsel, when deemed necessary and appropriate, to advise staff, negotiate and prepare contracts on investment-related matters and individual

transactions, and provide other investment legal advice to protect LACERA's interests.

C. Third Party Service Providers

LACERA may engage external service providers, as described below, to implement the OPEB Trust investment program. All service providers, unless otherwise not applicable, are expected to serve as fiduciaries to the OPEB Trust in fulfilling their contracted services. Third party service providers must refrain from gift-giving or other efforts that may jeopardize the impartiality, or appearance thereof, of LACERA's Board and staff.

i. Investment Consultants

An investment consultant works for the Board in the oversight and implementation of investment objectives. In meeting the Board's objectives, investment consultants may work with staff and investment managers. The Board's general investment consultant provides advice and recommendations to the Board or Committee regarding OPEB Trust strategic objectives, risks, oversight, and implementation of investment objectives. Investment consultants, both general and specialized, provide advice and recommendations regarding strategic asset allocation, portfolio implementation, and oversight of the OPEB Trust to the Board, CIO, and staff. Investment consultants provide analysis, advice, and recommendations to staff on asset manager selection and monitoring. Investment consultants report to the Board or the Committee, as directed, and serve as an independent resource accountable to the Board. Investment consultants have a fiduciary duty to LACERA and must report economic interests and conflicts in accordance with California law and LACERA policy, including the Code of Ethical Conduct and filing of Form 700s.

ii. Custodian Bank

The Custodian Bank ("Bank") serves as a fiduciary in the safekeeping of OPEB Trust assets. The Bank is responsible for maintaining the OPEB Trust's official accounting book of record, including the ongoing pricing and valuation of all assets, collection of income generated by those assets, any corporate action notification, and performance calculation. The Bank cooperates with and provides assistance to staff and investment managers in the reconciliation process. LACERA may opt to designate other duties to the Bank as stipulated in the professional services agreement. LACERA's investment office works with LACERA's accounting division to manage the custodial relationship.

iii. Investment Managers

Investment managers, ~~are selected by the Board and~~, subject to the terms and conditions of this IPS and applicable laws and regulations, serve LACERA through contracts that specify investment guidelines, administrative requirements, responsibilities, investment fees, and performance expectations for management of each mandate. Investment managers provide reporting for the OPEB Trust to LACERA on the performance of specific investment mandates in adherence to established guidelines and agreements. Staff and consultants synthesize investment managers' performance for presentation to the Board in accordance with established performance monitoring and oversight procedures. Investment managers should accept a fiduciary duty to LACERA, must report economic interests and conflicts in accordance with California law and LACERA policy, including the Code of Ethical Conduct and filing of Form 700s, and enforce their own diversity, ethics, and sexual harassment policies.

iv. Other Third Party Service Providers

Additional third-party service providers may be retained, subject to the terms and conditions of LACERA's established policies and procedures, in order to perform other duties to assist in the administration of the OPEB Trust.

D. Participating Employers

The Participating Employers, the County, the Court, and LACERA, have those roles and responsibilities set forth in the County and Court Trust agreements and the Master Trust Declaration, including the right to determine contributions made. The Participating Employers have given the fiduciary responsibility over investments and disbursements to the Board of Investments, according to the terms set forth in the Trust documents.

V. Policy Review

The Board reviews the Investment Policy Statement upon approval of any new strategic asset allocation, or at the discretion of the Board.

Appendix

A. Investment Tables

Table 1: Approved Asset Allocation

Asset Class	Target Allocation (%)	Allocation Range +/- (%)	Target Allocation (Step I) 10/1/2021	Target Allocation (Step II) 7/1/2022	Target Allocation (Step III) 7/1/2023
Growth	45	+/-10	50	48	45
Global Equity	40	+/-10	50	45	40
Private Equity	5	+/-5	0	3	5
Credit	18	+/-5	20	20	18
Liquid Credit	13	+/-5	20	17	13
Illiquid Credit	5	+/-5	0	3	5
Real Assets and Inflation Hedges	20	+/-5	20	20	20
Real Estate	8	+/-4	10	9	8
Natural Resources	2	+/-2	0	1	2
Commodities	2	+/-2	4	3	2
Infrastructure	2	+/-2	0	1	2
TIPS	6	+/-4	6	6	6
Risk Reduction and Mitigation	17	+/-6	10	14	17
Investment Grade Bonds	10	+/-4	8	9	10
Long-term Government Bonds	5	+/-5	0	3	5
Cash	2	+/-2	2	2	2
TOTAL FUND	100		100	100	100

Table 2: Benchmark Table

Asset Class	Benchmark
Growth	Custom Blend
Global Equity	MSCI ACWI IMI Net
Private Equity	MSCI ACWI IMI + 200 bps (3-Month lagged)
Credit	Custom Blend
Liquid Credit	38% BBg Barc U.S. Corporate High Yield; 46% Credit Suisse Leveraged Loans; 8% JP Morgan EMBI GD; 4% JP Morgan GBI-EM GD; 4% JP Morgan CEMBI BD
Illiquid Credit	Custom Liquid Credit Benchmark + 150 bps (1-month lagged)
Real Assets and Inflation Hedges	Custom Blend
Real Estate	75% NFI ODCE; 25% DJ US Select Real Estate (Private 3-Month lagged)
Natural Resources	S&P Global Natural Resources TR
Commodities	Bloomberg Commodity TR
Infrastructure	Dow Jones Brookfield Global Composite Infrastructure TR
TIPS	BBg Barc US TIPS
Risk Reduction and Mitigation	Custom Blend
Investment Grade Bonds	BBg Barc US Aggregate TR
Long-term Government Bonds	BBg Barc U.S. Long Treasury Bond
Cash	FTSE 3-Month US Treasury Bill
TOTAL FUND	Custom Blended Policy Benchmark

B. Chief Investment Officer Delegated Authorities

The Board has delegated to the CIO the following authorities in accordance with Board-approved asset class specific program parameters. CIO actions will be reported to Trustees consistent with the reporting provisions below, or in a timely manner.

Total Fund

<p>General Authorities</p>	<p>Authority to limit or freeze manager trading activity pending discussion and action by the Board. Such actions shall be reported as an informational item as reasonably practicable to the Board, and no later than the next scheduled meeting of the Board.</p> <p>Authority to take actions not otherwise specifically delegated, in concurrence with the CEO and the Chair of the Board, when deemed necessary in the best interest of the OPEB Trust and when there is not enough time to take the action to the full Board. Such actions shall be reported as an informational item as soon as reasonably practicable to the full Board, and no later than the next scheduled meeting of the Board.</p> <p>Authority to rebalance the OPEB Trust in order to raise cash for satisfying a participating employer’s request, adjust investment exposures, or pay operational expenses while adhering to investment policy targets. Rebalancing may include increasing or decreasing all Board-approved mandates.</p> <p>Authority to take actions as specified in LACERA’s Procurement Policy.</p>
<p>Approval of Variances</p>	<p>Authority to approve temporary variances from asset-level program and investment manager guidelines.</p>
<p>Contract Authorities</p>	<p>Authority to sign, or delegate authority to sign, all investment-related contracts and agreements necessary to implement Board-approved action. Thereafter, during the original term, authority to sign all amendments and modifications with respect to such contracts and agreements and make all decisions with respect to their day-to-day operation and implementation where the investment mandate remains substantially unchanged. Upon expiration of a contract or agreement for Board-approved mandates, an extension or modification may only be made with Board approval or as outlined in LACERA’s Procurement Policy.</p> <p>Authority to approve reductions to investment manager fee schedules and service provider costs.</p> <p>Authority to negotiate and execute investment agreements that, in the judgment of the CIO and Chief Counsel, provide adequate protection for LACERA’s interests, including an appropriate standard of care on the part of each manager</p>

Asset Class Specific

<p>Private Equity</p>	<p>Authority to approve the purchase or sale of any existing fund investment within the Private-Equity portfolio.</p> <p>Authority to approve co-investments, secondary transactions, re-ups, and advisory board seats.</p>
<p>Real Estate</p>	<p>Authority to approve the purchase or sale of any existing fund investment within the Real-Estate portfolio.</p> <p>Authority to approve co-investments, secondary transactions, re-ups, and advisory board seats.</p>
<p>Real Assets (ex-Real Estate)</p>	<p>Authority to approve the purchase or sale of any existing fund investment within the Real-Assets portfolio.</p> <p>Authority to approve co-investments, secondary transactions, re-ups, and advisory board seats.</p>
<p>Credit</p>	<p>Authority to approve the purchase or sale of any existing fund investment within the Credit portfolio.</p> <p>Authority to approve co-investments, secondary transactions, re-ups, and advisory board seats.</p>


In the event the CIO is not available, and time is of the essence in making a decision, LACERA will follow the Board-approved Crisis Response Plan. The Board will receive written notification of all such actions.

List of Attachments

- Corporate Governance and Stewardship Principles
- Responsible Contractor Policy
- Emerging Manager Policy
- Placement Agent Policy
- Private Equity Privatization Policy
- Procurement Policy for Investment-Related Services

October 31, 2023

TO: Trustees – Board of Investments

FROM: Jonathan Grabel 
Chief Investment Officer

Tim Filla, Meketa Investment Group
Managing Principal

Jude Pérez 
Deputy Chief Investment Officer

Cheryl Lu 
Investment Officer

Scott Zdrazil 
Principal Investment Officer

Quoc Nguyen 
Investment Officer

Cindy Rivera 
Investment Officer

FOR: November 8, 2023, Board of Investments Meeting

SUBJECT: **Governance Review and Delegated Authority Framework**

The Board of Investments (Board) initiated a process to conduct a governance review with its investment consultant, Meketa Investment Group, in early 2023. The governance review has included discussion of prospectively revising LACERA's delegated authorities in its investment program. The review has included a Trustee survey, Board self-evaluation conducted at the Board's September 2023 off-site, overview of public pension governance models, and peer reviews conducted by Meketa Investment Group discussed at the October 2023 meeting.

As a follow-up to the Board's October 2023 meeting, Meketa Investment Group and staff have prepared a draft delegated authority framework for Trustee's consideration, as presented in the attached materials. The draft delegated authority was developed by Meketa Investment Group, in conjunction with a cross-functional internal team from the Investment Division, and with the input of the Chief Counsel and the Board's fiduciary counsel, Ashley Dunn, of Nossaman LLP. Fiduciary counsel will participate and be available for questions at the November 8th meeting.

Attachments include:

Attachment 1: Discussion presentation, outlining the guiding principles and structure of the draft delegated authority framework.

Attachment 2: A redlined Investment Policy Statement, including a draft new investment belief and text changes to Board and staff roles that, if adopted, would enact the draft delegated authority framework. The redline also incorporates text from LACERA's Powers Defined and Powers Reserved policies to consolidate and harmonize governing policies, if adopted.

Each Trustee – Board of Investments

October 31, 2023

Page 2 of 2

Attachment 3: Copies of the current investment guidelines governing each asset class, as defined in LACERA's Board-approved Structure Reviews for each asset class.

Attachment 4: Copies of LACERA Powers Defined and Powers Reserved policies.

Attachment 5: Mapping of where roles defined in LACERA's Powers Reserved Policy are found in other LACERA policies, legal authorities, or are proposed to be incorporated into the redlined Investment Policy Statement.

Attachments

Proposed Delegated Authority Framework

2023 Board of Investments

November 8, 2023

Table of Contents



1. Review of Fiduciary Duties Guiding Deliberation of Delegation
2. Objectives and Guiding Principles that Guided the Draft Delegated Authority Framework
 - Recap of Key Objectives in Refreshing Delegated Authorities, from Recent Board Discussions
 - Guiding Principles that the Draft Delegated Authority Framework Aims to Achieve
3. Proposed Revised Investment Belief
4. Proposed Delegated Authority Framework
 - Summary of existing investment parameters in LACERA asset category Structure Reviews
 - Summary of draft redline modifications to the Investment Policy Statement
5. Next Steps

Governance Review Background and Timeline

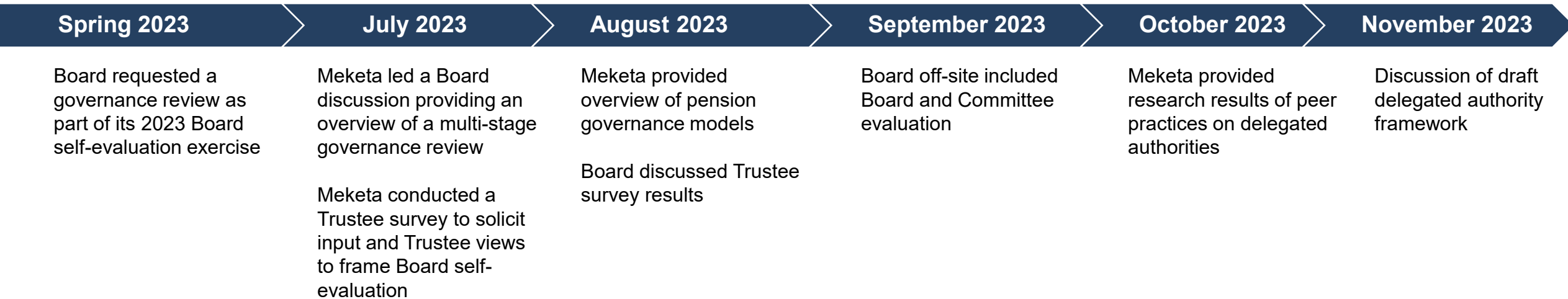


The Board requested a governance review in Spring of 2023

Meketa has led a multi-stage process to solicit Trustee input with an aim of ensuring that LACERA's governance model reflects the evolution of LACERA and positions the Fund for success as the Fund grows

The governance review is part of LACERA's Strategic Plan to move from "Allocator to Best-in-Class Investor" by, in part, ensuring our investment processes are "fit for purpose"

Governance Review Timeline



Fiduciary Framework Regarding Delegation



The California Constitution, the County Employees Retirement Law of 1937 (CERL), and trust law provide legal parameters to guide the Board's discussion of determining whether, when, how, and to whom to delegate any of its plenary authority consistent with its fiduciary responsibilities:

1. Duty of Care: The Board must act with prudence

"The members of the retirement board of a public pension or retirement system **shall discharge their duties with respect to the system with the care, skill, prudence, and diligence** under circumstances then prevailing that a prudent person acting in a like capacity and familiar with these matters would use in the conduct of an enterprise of a like character and with like aims."

California Constitution, Section 17(c)

2. Prudent Delegation: The Board may delegate certain responsibilities, including the authority to invest, when prudent in the informed opinion of the Board

"...the Board may in its discretion, invest, or delegate the authority to invest, the assets of the fund through the purchase, holding, or sale of any form or type of investment, financial instrument, or financial transaction **when prudent in the informed opinion of the board.**"

CERL, Section 31595; see also Rest. 3d Trusts

3. Oversight: The Board has the affirmative responsibility to request and receive information to enable prudent oversight

"The board of investments shall be responsible for all investments of the retirement system."

CERL, Section 31520.2(b)

To position the Board to exercise prudence with respect to delegations, the Board must ensure any delegation of its authority has appropriate checks and balances and enables the Board to fulfill its duty to request, receive, review and comment upon information to exercise its responsibility to conduct oversight of the investment program.

Recap of Objectives in Considering Framework



Recent guided discussions between Trustees and Meketa have identified and discussed several key objectives as Trustees deliberate re-calibrating “when” and “how” to delegate authority

1. Ensure Robust Alignment with Fiduciary Duty

- Fiduciary duty includes determining whether and when to delegate authorities to skilled professionals and consultants as part of prudent Fund administration

2. Emphasize Strong “Best-in-Class” Governance to Further LACERA’s Strategic Plan from “Allocator to Best-in-Class Investor”

- Optimize both the Board’s roles and the role of staff to collectively achieve LACERA’s mission and investment objectives
- Reinforce the Board of Investments as a policy-setting body with clear oversight
- Optimize Board time on critical matters
- Cognizant of trendline among peers regarding delegation

3. Maximize Efficiencies

- Enhance time for Board to focus on setting policy, overseeing risks, and monitoring investment performance
- Ensure LACERA authorities enable timely execution of market opportunities within established policy, asset allocation, and structure review investment guidelines

4. Position LACERA for Future Durable Growth and Success

- “Fit for purpose” decision-making structure to facilitate stable and durable growth as LACERA increases fund size and complexity

5. Optimize Talent Management

- Consider where alignment with peers on delegated authority may impact LACERA’s success on talent attraction, competition, and engagement

6. Capitalize on LACERA’s Recent Evolution and Track Record of Delegation

- LACERA has recently expanded a range of delegated authority (i.e., private market co-investments and fund re-ups, secondary sales executions, proxy voting and corporate governance initiatives, credit functional asset category, OPEB manager selections)

Guiding Principles in Developing Framework



In drafting a delegated authority framework, Meketa and staff aimed to align the framework with the following guiding principles:

1. Clarity in Objectives, Roles, Parameters, and Controls

- Position delegation framework to anticipate what can be anticipated (asset manager hiring, termination)
- Remain dynamic for any unforeseen decisions that must be efficiently made (i.e., market or manager disruptions, as well as opportunities)
- Optimize decision-making structure

2. Checks-and-Balances

- Ensure roles and responsibilities empower the Board to exercise its fiduciary duties
- Maintain internal committee structures that incorporate diverse experiences and viewpoints to enhance decisions
- Strong investment consultant roles to advise Board on policies, asset allocation, and portfolio monitoring, as well as reviewing and concurring on manager selection

3. Clear and Harmonized Policies

- Avoid unnecessary policy proliferation
- Ensure Trustees, staff, and stakeholders can reference clear policy guidance
- Maintain the Investment Policy Statement as the main, authoritative document guiding the investment program

4. Effective Board Oversight

- Ensure Board is in position to exercise fiduciary duty to monitor fund, including policy implementation, fund and manager performance, risk and compliance

5. Durable, Forward-Looking, and Dynamic

- Aim for a stable framework that will stand the test of time
- Anticipate what can be practically anticipated while positioning the Fund to be dynamic as it increases in size

Proposed Revised Investment Belief



At the October 2023 Board meeting, Trustees highlighted in the Meketa peer review that some peers reference delegation in their investment beliefs

Trustees discussed considering an additional Investment Belief to be incorporated into the beliefs that frame LACERA's Investment Policy Statement

The draft investment belief below is included in the redlined Investment Policy Statement (Attachment 2) on page 4 for Trustee consideration



Draft Investment Belief addressing Governance

“Strong governance is critical for LACERA to achieve its investment objectives.

Strategic direction-setting by the Board, prudent delegation of day-to-day portfolio management, and effective organizational controls and oversight are important components of strong governance.”

Draft Delegated Authority Framework



1. Investment Policy Statement

- BOI approves IPS, including investment beliefs
- IPS defines the framework by which the BOI manages the assets of LACERA

2. Strategic Asset Allocation

- BOI approves SAA every three to five years or as needed
- Includes investment allocations and benchmark targets with defined asset categories

3. Asset Class Structure Reviews

- BOI approves investment guidelines for each functional asset category every two years or as needed
- Includes investment allocations, benchmark targets and investment guidelines for each asset category



4. Staff-Led Sourcing and Due Diligence

- Staff conducts due diligence and analysis on manager selection, rebalancing and terminations consistent with Board-approved Structure Review guidelines
- External consultants conduct independent due diligence for all manager selections

5. Internal Committee Approval and Consultant Concurrence

- Internal committee processes must adhere to well-defined and documented governance procedures
- Affirmative approval of internal committee is required for manager selection and termination of existing managers
- Concurrence from external consultant must be obtained for manager selection and termination

6. CIO Approval

- CIO may only approve investment-related actions that comply with the policies, SAA and guidelines approved by BOI
- Prior internal committee approval is required before CIO can approve new investments and terminations

7. Continuous Board Oversight and Monitoring

- CIO-authorized investments promptly reported to BOI
- CIO-sourced investment opportunities require BOI review and approval
- Quarterly compliance monitor with delegation reports to BOI
- Quarterly and annual performance reporting and manager scorecards
- BOI oversight of programmatic topics such as fee reporting & T.I.D.E. updates
- Annual CIO performance review

Summary of Structure Review Provisions



Under the draft delegation authority framework, the same Board-approved Structure Review investment guidelines would apply

The Board reviews and approves investment guidelines for each asset class in LACERA's Structure Review

Structure Reviews establish parameters that currently guide staff and investment consultants in sourcing and evaluating prospective mandates

Structure Review guidelines typically address:

- ✓ Subcategory target allocation ranges (i.e., active vs. passive global equity; private equity buyout vs. venture)
- ✓ Geographic market target allocation ranges (i.e., U.S. vs non-U.S. vs emerging market)
- ✓ Permissible investment size/range
- ✓ Target/permissible tracking error
- ✓ Manager diversification and parameters on asset concentration within a single asset manager
- ✓ Leverage restrictions*
- ✓ Fund concentration
- ✓ Active risk
- ✓ Capital deployment pacing parameters
- ✓ Prohibited investment types (i.e., private equity hostile takeovers and privatization of public sector jobs)
- ✓ Economic substitution provisions (i.e., Board-approved tobacco, Sudan, Iran restrictions)

* Limitations on total Fund leverage are outlined in the Board-approved Investment Policy Statement

Key Current Thematic Board Reporting



The Board currently reviews reporting on fund performance and implementation of investment policies in critical areas

This reporting solicits Trustee feedback and aims to position the Board to exercise its fiduciary duties for Fund oversight



Chief Investment Officer Report
(monthly)



Asset Manager Fee Analysis
(annual)



Performance Reporting
(annual and quarterly)



Investment Consultant Performance Reviews
(annual)



Risk Reporting
(quarterly)



LACERA Towards Inclusion Diversity and Equity (TIDE)
(annual)



Compliance Reporting
(quarterly)



Proxy Voting Results and Trendlines
(annual)



Manager Scorecards
(annual and quarterly)



Corporate Governance and Stewardship Update
(annual)

Summary of Draft IPS Modifications



Draft Investment Policy Statement (IPS) redlines (**Attachment 2**) are intended to:

- Maintain the Investment Policy Statement and Board Charter as LACERA’s core policies guiding investment administration
- Optimize Board and staff roles by explicitly defining the Board’s role in policy setting and oversight
- Further harmonize LACERA policies by integrating Powers Reserved and Powers Defined into the IPS’s “Roles and Responsibilities” section
- Draft changes also incorporate explicit Board roles that are not in current LACERA policies but defined in California Constitution and CERL

Summary of Redlines in IPS Board Roles

Summary of Redlines in IPS CIO/Staff Roles

	Transferred from Powers Defined and Reserved Policies	Defined in Law but Not Explicit in Current Policies
Conduct asset/liability study	X	
Approve County and member contributions	X	
Approve Fund’s expected rate of return	X	
Approve Investment Policy Statement	X	
Approve Strategic Asset Allocation	X	
Approve Structure Reviews		X
Approved investment consultants	X	
Reviews, monitors, and questions administration of the portfolio	X	
Performs functions defined in BOI Charter	X	

	Transferred from IPS Appendix B Delegated Authorities	Draft New Role
Conducts manager searches in line with Board-approved Procurement Policy	X	
Approve asset manager selection and termination with consultant concurrence		X
Approve co-investments and secondaries within Board-approved structure review guidelines	X	
Approve investment contracts with Legal review	X	
Approve rebalancing consistent with IPS/SAA	X	
Approve limiting or freezing manager trading	X	
Approve time-sensitive actions with CEO and Board Chair concurrence, when necessary for the Fund’s best interests; with Board reporting	X	
Follow Board-approved Crisis Response Plan in the event the CIO is incapacitated	X	

Q&A on Delegated Authority Framework Controls



The draft delegated authority framework tries to contemplate a range of “checks-and-balances” to mitigate unintended consequences

See below for some Q & A’s to illustrate several key controls

1. Could a CIO exert undue influence to direct an investment to a favored asset manager?	The draft framework includes several measures intended to mitigate: <ul style="list-style-type: none">• CIO-sourced investment opportunities need Board approval• Every investment must comply with the Board-approved strategic asset allocation, asset category structure reviews investment guidelines, and Procurement Policy• Internal committees must approve each investment mandate or manager termination• The Board’s investment consultants must independently evaluate and concur with each investment mandate approval or termination (with certain exceptions previously approved by the Board)• The Board would receive a full report of each approved new investment mandate• The Board is selected by and accountable to the Board. CIO performance is formally reviewed annually by the Board.
2. Could a CIO invest in a new, innovative asset category not approved in the IPS or asset allocation?	No. Any unapproved asset category would need to be brought to the Board for consideration.
3. Could the Framework tilt LACERA’s investment exposures to heightened geopolitical risks?	No. The Board approves asset allocation benchmarks which set permissible geographic exposures and establishes geographic exposure ranges in asset category structure reviews. LACERA is also bound by Office of Foreign Assets Control (OFAC) restrictions.
4. What guardrails are there on manager concentration?	Board-approved structure reviews have limitations on asset concentration for managers in the asset class.
5. Could the Board revise a delegated authority in the future?	Yes. The delegated authority framework with its checks-and-balances is intended to be durable. However, the IPS can be reviewed and revised at any time at the Board’s discretion. The draft redlined IPS includes a new Section V stating that the IPS is typically reviewed after every Strategic Asset Allocation exercise and “at the Board’s discretion.”

Considers LACERA Strategic Initiatives



Proposed delegated authority framework aligns with Board approved strategic initiatives and is consistent with LACERA's journey from "Allocator to Best-in-Class Investor"

LACERA's Strategic Initiatives

Optimize Investment Model



Strengthen Influence on Fees and Cost of Capital



Maximize Stewardship and Ownership Rights



LACERA T.I.D.E.



Enhance Operational Effectiveness



Benefits that align with the Board's established strategic initiatives

- Elevating Board resources to focus on policy setting and guideline establishment can strengthen long-term strategic goals
- Allows for costs, fees, and terms to be actively monitored and negotiated timelier, further aligning with LACERA's Investment Beliefs
- Allows LACERA to continue exercising effective ownership rights over investments, ensuring the Fund's financial interests are protected and maximized
- Elevates the role of LACERA T.I.D.E by facilitating strategic programmatic reviews and updates with the Board
- Provides for nimble and more efficient execution of Board-approved work plans and strategic asset allocation targets



1. Incorporate any Trustee feedback in prospective recommendation for Board consideration to:
 - Adopt revised Investment Policy Statement (including any revised investment belief, roles, and responsibilities)
 - Incorporate key provisions of the Board Powers Defined and Reserved into the IPS

2. Prepare any requisite modifications to other key governing policies for Trustee consideration, if the draft delegated authority framework is approved
 - Board of Investments Charter
 - Procurement Policy for Investment-Related Services
 - OPEB Investment Policy Statement

3. Revise Structure Review Guidelines for Consistent, Harmonized Provisions and Formatting

Red font = proposed new text or deletions

Green font = content transferred from the Powers Reserved and Powers Defined Policies

Purple font = Content transferred from IPS and IPS Appendix B



DRAFT REDLINE

Investment Policy Statement

Restated November 8, 2018

Revised December 11, 2019

Revised August 11, 2021

Revised December 14, 2022

[Note that, if adopted, this document will be formatted for consistency.]



L/CERA

Red font = proposed new text or deletions

Green font = content transferred from the Powers Reserved and Powers Defined Policies

Purple font = Content transferred from IPS and IPS Appendix B

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Corporate Governance and Stewardship Principles
Responsible Contractor Policy
Emerging Manager Policy
Placement Agent Policy
Private Equity Privatization Policy
Procurement Policy for Investment-Related Services

About LACERA

The Los Angeles County Employees Retirement Association (“LACERA”) administers a defined benefit retirement plan (the “Fund”) and other post-employment benefits (“OPEB” or the “Trust”) for employees of Los Angeles County and certain other districts.

The Los Angeles County Board of Supervisors established LACERA by ordinance in 1937. LACERA has operated since 1938, and today, serves over 170,000 active and retired members.

LACERA’s mission is to “produce, protect, and provide the promised benefits.” LACERA aims to fulfill its mission through prudent investment and conservation of plan assets, in accordance with its Investment Beliefs and in consideration of actuarial analysis.

LACERA MISSION STATEMENT

**We Produce, Protect, and Provide
the Promised Benefits**

LACERA’s Board of Investments (the “Board”) is responsible for establishing LACERA’s investment policy and objectives, as well as exercising oversight of the investment management for both the Fund and the Trust.

Statement of Purpose

LACERA's Investment Policy Statement (the "IPS") defines the framework by which LACERA manages the assets of the Fund in order to fulfill its mission. The document provides the primary guidance for LACERA's investment activities by outlining the philosophy and structure of LACERA's investment program, describing the general process by which assets are managed, and defining the key roles and responsibilities in LACERA's investment program.

Legal Authority

The California Constitution and LACERA's governing statutes create a legal framework within which this IPS must be interpreted and implemented by the Board in approaching its decisions. The Board is independent and has sole and exclusive legal responsibility over investment of the Fund's assets.

A. Fiduciary Duty

The Board and its members are fiduciaries, making decisions for the benefit of the Fund as a whole without other concerns or outside influence. All Board members, whether they are elected, appointed, or ex officio, have the same fiduciary duty under the law. This fiduciary duty has two components:

- *Duty of Loyalty.* Under the duty of loyalty, Board members have the sole and exclusive responsibility to administer the Fund to ensure prompt delivery of benefits to members and their beneficiaries. In making every decision, the Board must act according to a three-pronged legal formula that balances the interests of the Fund's stakeholders: (1) solely in the interest of providing benefits to members and beneficiaries, (2) to minimize employer contributions, and (3) to defray the expenses of administering the Fund. The Board's duty to members and their beneficiaries takes precedence over any other duty.
- *Duty of Prudence.* Board members must discharge their duties with the care, skill, prudence, and diligence that a prudent fiduciary familiar with the matters and the circumstances of each particular decision would use in the conduct of a similar enterprise with like aims. The Board must diversify fund investments so as to minimize risk of loss and maximize the rate of return, unless under the circumstances it is clearly prudent not to do so. The Board may invest or delegate the authority to invest Fund assets through the purchase, holding, or sale of any form or type of investment, financial instrument, or financial transaction when prudent in the informed opinion of the Board.

In order to exercise its fiduciary duties, the Board has the responsibility to stay informed and affirmatively conduct oversight of LACERA's investment program, including receiving, reviewing, and engaging on investment performance and compliance information and reports.

B. Ethics and Code of Conflicts

The Board and LACERA staff must refrain from personal activity that could conflict with the proper management of the investment program, or that could impair their ability to make decisions in compliance with fiduciary duty. Further details are defined in LACERA's Code of Ethical Conduct, Conflict of Interest Code, the Political Reform Act, Fair Political Practices Commission regulations, and other applicable law.

C. Process

Because the Board is a governing body of a public agency, the Board and its members must conduct business according to the State of California Ralph M. Brown Act, which provides that Board meetings, deliberations, and actions must be public unless subject to a specific closed session exception. The Board may go into closed session to discuss the purchase and sale of particular, specific investments under the Brown Act.

Investment Policy

I. Investment Philosophy and Strategy

A. Objectives of the Investment Program

LACERA follows a carefully planned and executed strategic investment program in order to:

- i. **Produce** the promised benefits for LACERA members and beneficiaries by achieving the Fund's assumed rate of return on a total return basis over the long-term, consistent with LACERA's mission;
- ii. **Protect** the promised benefits on behalf of LACERA members and beneficiaries by mitigating investment risks through Fund diversification and other means, consistent with LACERA's mission; and
- iii. **Provide** the promised benefits for LACERA members and beneficiaries, in part by ensuring adequate liquidity, consistent with LACERA's mission

B. Investment Beliefs

The Board has adopted the following investment beliefs ("Investment Beliefs") to describe its core beliefs and underlying assumptions about how capital markets operate. Collectively, the Investment Beliefs provide a framework to guide LACERA's investment decisions in a manner consistent with the Fund's nature as an institutional investor with a long-term investment horizon in order to achieve the Fund's objectives defined above.

i. Strategic Asset Allocation

Long-term strategic asset allocation will be the primary determinant of LACERA's risk/return outcomes.

- a. It is important that LACERA be forward-looking, as its investment horizon spans decades, if not indefinitely, into the future.
- b. Strategic asset allocation has a greater effect on return variability than asset class investment structure or manager selection.
- c. Strategic asset allocation is a critical source of investment diversification to optimize growth and mitigate risk across the total Fund.
- d. Strategic asset allocation must carefully consider plan liabilities, actuarial assumptions, and capital market assumptions.
- e. Rebalancing the portfolio is a key aspect of prudent long-term strategic asset allocation policy.

ii. Market Dynamics

Capital market efficiencies inform LACERA's strategic asset allocation and portfolio construction.

- a. The efficiency of financial markets may vary by market segment, geographic region, geopolitical regimes, and across public versus private markets.
- b. Market transparency, the regulatory environment, behavioral finance factors, and investment time horizons may influence and shape market efficiency.

- c. LACERA's investment processes should be adequately nimble to prudently capture attractive investment opportunities.

iii. Return

Risk and return are expected to be positively correlated over long-term periods. Returns can be enhanced through active strategies, illiquid investments, and leverage; however, such strategies need to be balanced with LACERA's risk tolerances, portfolio objectives, and liquidity needs.

- a. Active strategies will be used when they are expected to add value net-of-fees while adjusting for risk.
- b. The total capital allocated to illiquid strategies must be kept at a prudent level.
- c. Liquid assets serve a critical role to fund benefit payments and rebalance the portfolio.

iv. Risk

Risk is a broad term used to capture the concept of uncertainty. No single metric adequately conveys risk. LACERA will evaluate risk holistically, incorporating quantitative measures and qualitative assessments in managing its portfolio. Monitoring and managing risk is a key focus for LACERA. Risk that is not expected to be rewarded over the long-term, or mitigated through diversification, will be minimized.

Risks confronted by LACERA include, but are not limited to:

- a. Investment Risks (macroeconomic, volatility, leverage, illiquidity, geography, currency, political, credit, environmental, social, and governance); and
- b. Operational Risks (valuation, counterparty, benchmarking, business continuity, talent management, cybersecurity, reputational, fraud, regulatory, and conflicts of interest).

v. Governance

Strong governance is critical for LACERA to achieve its investment objectives.

Strategic direction-setting by the Board, prudent delegation of day-to-day portfolio management, and effective organizational controls and oversight are important components of strong governance.

v.vi. Stewardship

LACERA recognizes that environmental, social, and corporate governance factors (ESG) may present financial risks and opportunities for the Fund. LACERA seeks to identify, evaluate, and manage financially relevant ESG factors in its investment process—including portfolio construction, investment due diligence, and stewardship strategies—to safeguard and enhance Fund performance.

vi.vii. Terms

Investment outcomes are determined by risk, returns, and costs. All three must be managed, and each mandate should be structured with the best possible terms available across the total Fund to enhance future outcomes.

- a. The breadth of LACERA's presence in financial markets is an asset to influence terms and fees.
- b. Consideration of net-of-fees returns is an integral part of a successful long-term investment strategy.
- c. Costs, fees, and terms should be actively monitored and negotiated to the greatest extent possible.

vii.viii. Productivity

People and resources matter. Constructive talent management, efficient operations and procedures, and a commitment to ongoing education and improvement are essential to optimizing LACERA's investment performance.

- a. Human Capital: Trustees and staff are vital to executing LACERA's investment program. LACERA must cultivate a talented and collaborative workforce that is inclusive of diverse perspectives and backgrounds and demonstrates a steadfast commitment to high ethical conduct.
- b. Education: In an increasingly complex and dynamic investment universe, continued education on investment concepts and investment strategies within that universe is fundamental for long-term success.
- c. Operations: Strong operational processes and sufficient resources can maximize efficiency, mitigate risks, and optimize investment performance.

C. Strategic Asset Allocation

LACERA fundamentally believes long-term strategic asset allocation will be the primary determinant of risk/ return outcomes, and therefore establishes a strategic asset allocation to meet its mission and investment objectives.

LACERA's strategic asset allocation categorizes capital outlays into five groups, defined by the function each allocation is intended to serve in the portfolio: (1) Growth, (2) Credit, (3) Real Assets and Inflation Hedges, (4) Risk Reduction and Mitigation, and (5) Overlays and Hedges. The functional categories include various asset classes that represent the risk/return characteristics of each area.

LACERA expects the five functional categories to diversify the Fund and optimize upside growth while mitigating downside risk .The asset allocation determines what proportion of the Fund is allocated to each functional category and underlying asset class, including target weights and allowable ranges as a percentage of the Fund.

In order to determine its strategic asset allocation, LACERA conducts a comprehensive asset allocation study every three to five years, or at the Board's request .The asset allocation study considers a number of factors, such as:

- A projection of actuarial assets, liabilities, benefits payments, contributions, and the actuarial rate of return for the Fund, as well as its current and projected funded status.
- Historical results and expected long-term capital market risk, return, and correlation forecasts.
- An assessment of future economic conditions, including inflation and interest rate levels.
- Various risk/return scenarios.
- The Fund's liquidity requirements.

LACERA's approved asset allocation and benchmarks are detailed in the tables of the Appendix.

D. Overview of Strategic Asset Allocation

LACERA groups asset classes into the following functional categories:

i. Growth

- a. Role in the portfolio: The role of assets in this category is to be the primary driver of long-term total returns for the Fund.
- b. Asset Classes: Global Equity, Private Equity, and Non-Core Private Real Estate.
- c. Investment Approach: Growth assets generally represent equity or equity-like interests in current and future income streams. Growth assets include public and private market strategies that include both liquid and illiquid investments. LACERA utilizes passive strategies in relatively efficient segments of

the market for global equity. LACERA employs active strategies in relatively less efficient market segments of global equities, as well as in private equity and non-core private real estate.

- d. Risk Factors: Growth assets are primarily equity ownership positions that tend to perform well in times of positive economic growth. They are highly sensitive to economic conditions and are subject to potential loss in value based on a number of factors. For example, growth assets may be sensitive to inflation and generally perform poorly in times of high and unexpected inflation. To a lesser extent, growth assets may be sensitive to interest rates due to the use of leverage in certain strategies as well as the relationship between interest rates and the discount rates used to price securities.

ii. Credit

- a. Role in the portfolio: LACERA expects assets categorized as Credit to produce current income and moderate long-term total returns. Credit has more moderate levels of risk than assets categorized as Growth, and, accordingly, provides incremental diversification to the total Fund.
- b. Asset Classes: Liquid Credit (High Yield, Bank Loans, Emerging Market Debt), and Illiquid Credit.
- c. Investment Approach: Credit assets are generally fixed claims on assets or income streams of an issuer (e.g., government, corporation, asset-backed securities). The category is composed of certain fixed income, hedge funds, real estate, and private debt investments. Investment strategies within this category may have a specific mandate or be multi-strategy. The investment strategies may be liquid, illiquid, or a combination of both, depending on the nature and terms of the specific investment vehicle. LACERA employs active strategies across all asset classes within the Credit category but may employ passive strategies in certain segments that are relatively more efficient.
- d. Risk Factors: The primary risk for owners of Credit assets is the failure of the borrower to make timely payments of interest and principal. There are three elements of credit risk: the risk of default, the risk of a credit downgrade, and spread risk, which is the risk that investors may demand greater compensation for bearing the first two types of risk. Bonds with credit risk offer a yield premium over government bonds to compensate investors for the additional risk. Bonds with greater credit risk (i.e., bonds with lower credit ratings) are typically less liquid than higher quality bonds.

iii. Real Assets and Inflation Hedges

- a. Role in the portfolio: LACERA expects assets in this category to provide income as well as a hedge against inflation, while diversifying the Fund due to the assumed low correlation of returns between these assets and other asset classes.
- b. Asset classes: Core Private Real Estate, Natural Resources & Commodities, Infrastructure, and Treasury Inflation-Protected Securities ("TIPS").
- c. Investment Approach: Real Assets generally include physical assets, such as real estate and infrastructure, or securities whose value is derived from a physical asset, such as commodities or natural resources. Assets in this category may be invested in both public and private investments and may be liquid or illiquid, as well as passively or actively managed.
- d. Risk Factors: Real Assets and Inflation Hedges are sensitive to inflation. The primary risk for owners of real assets/inflation hedges is that they fail to provide a hedge against long-term changes in inflation. A secondary risk is loss of principal. The value of real estate and natural resources assets may fall, particularly during an economic downturn, but also due to idiosyncratic aspects of each asset. Diversification may offset asset-specific risk. Foreign assets are also subject to currency movements against the U.S. dollar. TIPS are exposed to liquidity risk, as they tend to be less liquid than nominally U.S. Treasuries, particularly during a market environment in which there is a flight to safety.

iv. Risk Reduction and Mitigation

- a. Role in the portfolio: LACERA expects assets in this category to provide moderate amounts of current income by generating a modest level of return while also reducing total Fund risks, in part by preserving capital in the event of a downturn in equity markets. LACERA anticipates that assets in this category will have a low level of volatility and a low correlation to Growth assets, thereby providing downside protection. In the event of a market correction, these assets could also provide a source of liquidity for benefit payments.
- b. Asset classes: Investment Grade Bonds, Diversified Hedge Fund Portfolio, Long-Term Government Bonds, and Cash.
- c. Investment Approach: The category is composed of investment grade bonds, diversified hedge funds, long-term government bonds, and cash. Cash is the least volatile asset class, as well as the most liquid; the flexibility it provides during periods of market decline helps to mitigate risk. Investment grade bonds comprise a mix of U.S. Treasuries, corporate debt, and other bonds of high quality, typically rated “BBB” or above by rating agencies. High quality bonds would be expected to protect the total Fund by retaining or increasing their value during a market correction. Diversified hedge funds comprise a variety of hedged investments, such as relative value, arbitrage, and long/short strategies within a diversified portfolio. They would be expected to produce returns at or above high-grade bond portfolios, with equal or lower volatility, and be largely uncorrelated with other portfolio assets.
- d. Risk Factors: The primary risk factor for Risk Reduction and Mitigation Assets is that they will fail to provide the anticipated level of protection during market downturns. Assets in this category are also subject to additional risks. For example, investment grade bonds are sensitive to fluctuations in interest rates and have some risk of default. Cash can include short-term instruments and vehicles where there is a low probability of loss of principal.

v. Overlays and Hedges

- a. Role in the portfolio: The category consists of overlays and hedges as a distinct functional category LACERA expects exposures in this group to assist in adhering to total Fund policy allocation targets, meeting asset class-specific objectives, and managing portfolio risk.
- b. Asset classes: Total Fund and all BOI approved asset classes may be utilized or subject to overlays and hedging strategies.
- c. Investment Approach: The category is composed of derivatives and synthetic replication investment vehicles that emulate LACERA’s physical assets, holdings, foreign currency, or market exposures via overlay and hedging programs. The separation of these mandates into one category allows for increased ability to monitor exposures across the total Fund and enhances the ability to evaluate performance, attribution, portfolio impacts, and risk drivers across individual asset categories and the total Fund.
- d. Risk Factors: The primary risk factors for Overlays and Hedges are exposure mismatch and benchmarking. Best efforts will be made to replicate LACERA’s underlying exposures and risk; however, there may be instances when the vehicles used will not mirror a given asset, causing an exposure mismatch. Another consideration is benchmarking. Benchmarking overlay and hedging programs is challenging as positions are often resized more frequently than underlying physical exposures, and mandates may be used to achieve multiple objectives or be a temporary portfolio construction tool.

E. Performance Objectives

The Fund's long-term performance objective is to generate risk-adjusted returns that meet or exceed its defined actuarial target as well as its policy benchmark, net-of-fees, over the Fund's designated investment time horizon. LACERA's policy benchmarks at the total Fund level, the functional category level, and the asset class level can be found in the Appendix.

F. Rebalancing

LACERA considers rebalancing the Fund a key aspect of prudent long-term portfolio management. LACERA rebalances the Fund's portfolio in accordance with established guidelines and procedures to adhere to its approved strategic asset allocation, consistent with the Fund's stated Investment Beliefs. The approved ranges for each functional asset category and underlying asset class are defined in the Appendix.

G. Responsible Stewardship and Beneficial Ownership Rights

In pursuing its investment program, and as part of mitigating risks associated with LACERA's investments, LACERA seeks to manage its investments in a manner that promotes and safeguards the economic interests of LACERA and its members, consistent with LACERA's mission. LACERA prudently exercises its rights as an investor to support policies and practices at companies in which LACERA invests, as well as public policies governing financial markets, that are consistent with LACERA's economic interests. In doing so, LACERA aims to promote sustainable, long-term value on behalf of its members and enhance LACERA's ability to fulfill its mission. LACERA has therefore adopted Corporate Governance and Stewardship Principles (see Attachments). Beneficial ownership rights pertaining to LACERA's investments, including, but not limited to proxy voting, are managed in accordance with LACERA's Corporate Governance and Stewardship Principles.

H. Integration of Environmental, Social, and Governance (ESG) Factors

LACERA recognizes that environmental, social, and governance factors may influence the risk-return profile and financial performance of investments. Financially material ESG factors may vary by industry, geographic exposure, business strategy, investment time horizon, and other variables. LACERA endeavors to identify, assess, and manage relevant ESG factors in its market research, portfolio construction, and throughout its investment process in furtherance of its mission and fiduciary duties. Careful consideration of ESG factors throughout LACERA's investment process aims to generate sustainable investment returns. LACERA assesses and monitors all investment partners on their capacity and skill in evaluating ESG risks and opportunities in a compelling manner to enhance LACERA's risk-adjusted returns.

I. Diversity, Equity, and Inclusion

LACERA values diversity, equity, and inclusion, and believes that effectively accessing and managing diverse talent leads to improved outcomes. LACERA considers diversity broadly, inclusive of—but not limited to—professional backgrounds, age, experience, race, sexual orientation, gender, gender identity, disability status, military service, ethnicity, national origin, and culture. LACERA expects external asset managers and other third party providers to respect and reflect LACERA's value of diversity, equity, and inclusion. LACERA's ongoing monitoring of third party service providers incorporates an assessment of vendors' commitment to, adherence with, and track record of accessing and retaining diverse workforces in an inclusive and equitable manner.

II. Investment Process

The following sections articulate the general parameters and processes by which LACERA executes its investment strategy, in accordance with its fiduciary duties, ~~in adherence to established policies and procedures.~~

A. Structure Review

After an asset allocation study apportions capital across categories, LACERA conducts a Sstructure Rreview to address how to implement each asset category. A Sstructure Rreview establishes the framework for each asset category by addressing its role and expected risk profile within a total Fund context. The Sstructure Rreview evaluates the objectives, portfolio composition, related strategic initiatives, and how the portfolio may evolve in the near to medium term. These reviews are presented to the Board for its approval no less frequently than the comprehensive asset allocation study conducted for the total Fund, or at the Board's request. To assist the Board and staff in carrying out their duties, Structure Reviews provide guidelines, including but not limited to Board-approved benchmarks, subcategory target allocation ranges, geographic market target allocation ranges, and any pertinent parameters on asset manager diversification relevant to the asset category.

B. Investment Management

i. Investment Agreements

~~Board-a~~Approved investment recommendations are subject to negotiation and execution of an agreement that, in the judgment of LACERA's Chief Investment Officer and Chief Counsel, includes all terms necessary to provide adequate protection for LACERA's interests under the circumstances of the transaction, including but not limited to an appropriate standard of care on the part of the investment manager.

ii. Selection and Monitoring

LACERA may utilize internal resources or externally managed portfolios implemented by asset management firms and service providers to effectuate LACERA's investment program. In determining whether to use internal or external resources to implement a specific investment mandate, strategy, or investment-related service, LACERA takes into consideration numerous factors, including, but not limited to, return expectations, associated risks, compliance requirements, and expenses related to the specific strategy or service.

LACERA has adopted formal procedures to guide the selection, appointment, and monitoring of external managers and service providers. LACERA expects any external party that manages Fund assets on behalf of LACERA to serve as a fiduciary.

iii. Costs

LACERA considers the costs and expenses related to executing its investment program to be a crucial component of its fiduciary duty and an important element in determining its strategic asset allocation. In all aspects and functions of its investment program, LACERA seeks to actively identify, assess, and monitor expenses. LACERA expects that the economic terms and conditions by which any external party is compensated for investment-related services should promote an alignment of interests between LACERA and the external party in fulfilling LACERA's mission and investment objectives. Accordingly, LACERA diligently attends to and negotiates the economic terms of investment services rendered to the Fund.

C. **Liquidity Management and Other Investment Functions**

The following sections provide the general guiding principles and parameters for certain components of LACERA's investment process, including liquidity management, the use of derivative instruments, securities lending, and certain prohibited transactions.

i. **Liquidity and Cash Management**

Effective cash management is integral to LACERA's investment process. LACERA strives to maintain appropriate levels of liquidity—i.e., the ability to convert investments into cash—in order to meet immediate or short-term obligations and liabilities, such as funding member benefits, meeting capital calls, and rebalancing the portfolio per the strategic asset allocation. LACERA manages liquidity by monitoring the Fund's aggregate liquidity and liquidity risk exposures.

ii. **Derivatives Management**

LACERA may employ derivative instruments to hedge or gain exposure to certain investments. A derivative is a financial instrument that derives its value from an underlying asset which represents direct ownership of a security or a direct obligation of an issuer. Derivatives may be exchange-traded or traded over the counter (OTC). LACERA expects that any use of derivatives by external managers must adhere to LACERA's policies and investment guidelines.

iii. **Securities Lending**

LACERA may lend designated securities to provide the Fund with additional income generation and offset administrative expenses. LACERA lends eligible securities (both U.S. and Non-U.S. equities and bonds) to approved and qualified borrowers, subject to the terms and conditions specified in LACERA's contract agreements. Any securities lending activity is expected to be transparent to LACERA's external investment managers and should not impede or otherwise impair the investment management process.

iv. **Prohibited Transactions**

LACERA prohibits the following transactions unless stated otherwise in the investment management agreement:

- "Prohibited transactions" as defined under the Employee Retirement Income Security Act of 1974 (ERISA)
- Transactions that involve a broker acting as a "principal," where such broker is also the investment manager (or an entity related to the investment manager) who is making the transaction
- Any or all applicable investment activities forbidden by the United States Securities and Exchange Commission or other applicable governing bodies
- Any acts or omissions that violate state and local laws regarding conflicts of interest and disclosures

LACERA does not lever the Fund's investment portfolio as a whole. However, leverage is implicit in many investment strategies. LACERA expects that any use of leverage by external managers must adhere to LACERA's established policies and investment guidelines.

III. Risk Management

LACERA manages risk by establishing and adhering to investment guidelines, pursuing multiple approaches to diversification (such as asset class, geography, liquidity profile, currency, and degree of active management), and conducting regular measurement and analytical exercises. LACERA assumes certain risks to achieve sufficient returns to meet the Fund's financial obligations and investment objectives. Investment risks pertain to the prospect of a permanent loss of capital or of not meeting objectives within the designated timeframe. LACERA seeks to mitigate the impact of a drawdown to the Fund in order to accomplish its investment objectives, reduce volatility, and avoid increased contributions to the Fund from the plan sponsor or employees.

A. Philosophy and Objectives

LACERA considers risk multi-faceted and, therefore, views risk from multiple perspectives. Risk may vary and evolve over time, across sectors or geographic exposures, and depends on the nature and terms of the investment vehicle that LACERA deploys to implement the Fund's investment strategies. Risk may be systematic (i.e. present across the market) or unsystematic (i.e., specific to a particular investment strategy). A risk may pertain to and potentially impact the total Fund, a functional asset category, or individual underlying asset classes.

LACERA seeks to diligently identify, assess, and monitor relevant investment risks throughout the investment process, from determining its strategic asset allocation to ongoing evaluation and monitoring of the Fund's performance. This helps to ensure that risks assumed by the Fund are intentional and adequately compensated.

B. Approach

LACERA's strategic asset allocation attempts to position the Fund to capture growth while mitigating large drawdowns. LACERA's investment strategy is designed to take intentional risk, called active risk, in order to achieve commensurate investment results. LACERA may define expectations for active return earned per unit of active risk taken for various investment strategies and portfolios.

LACERA seeks to identify and acknowledge the sources and types of risk inherent in each investment strategy. However, LACERA also recognizes that even sophisticated risk measurement techniques may not detect certain risks, including extreme events, in advance. Accordingly, risk models may only provide limited predictive qualities. LACERA endeavors to test and challenge investment strategies and assumptions prior to a capital outlay as well as for ongoing monitoring.

LACERA measures investment risk using multiple metrics on both an absolute and relative basis at all relevant levels (i.e., total Fund, functional asset categories, and underlying asset classes). LACERA also strives to employ stress testing, scenario analyses, and broader financial and economic analyses to understand current and potential risks related to its investment strategy and decisions. LACERA selects appropriate benchmarks to assess and determine whether investment risks taken by the Fund are appropriate in order to achieve expected investment returns.

LACERA may establish a risk budget to set active risk targets for each functional asset category and underlying asset classes. LACERA aims to minimize unintended risk caused by asset allocation drift or other factors.

IV. Roles and Responsibilities

LACERA has established the following roles and responsibilities to implement its investment program. The duties explained below apply to the Board, staff, and various external parties who collectively oversee and administer the functions necessary for LACERA to accomplish its investment objectives.

The overview outlined below is further complemented by the following documents: ~~(Board of Investments Charter, Board of Investments Powers Reserved Defined, Board of Investments Powers Reserved and Delegated Authorities, and the Board of Investments Regulations (previously referred to as "Bylaws"), and the Board's Funding Policy, among other policies adopted by the Board.~~

A. Board of Investments

i. Board

The Board is vested by the California Constitution and the County Employees Retirement Law (CERL) with the authority and fiduciary responsibility for LACERA's investment program. The exclusive fiduciary responsibility of the Board is to ensure prudent investment and management of the Fund so as to provide for the timely payment of benefits to members and their beneficiaries, minimize employer contributions, and defray the reasonable cost of administration, with the duty to members being paramount. It is the responsibility of the Board to ensure that LACERA employees administer Fund investments at reasonable cost, while preserving the quality of investments.

The Board has the duty to ensure that the portfolio's investments are diversified so as to minimize the risk of loss and maximize the rate of return, unless under the circumstances it is clearly not prudent to do so. The Board has the sole and exclusive power to provide for actuarial services in order to ensure the competency of system assets, which in turn informs the Board's exercise of its responsibility for investment of assets. In determining the Fund's strategic asset allocation and investment guidelines, the Board may permit the investment of fund assets in any form or type of investment deemed prudent.

In fulfillment of its plenary authority and fiduciary duties, the Board performs the following roles:

- Undertakes an informed investigation and evaluation of the Fund's financial obligations by conducting periodic asset/liability studies and actuarial analysis and approves LACERA's Funding Policy.
- Upon investigation, valuation, and recommendation of a qualified actuary, the Board recommends to the Board of Supervisors the rates of interest, rates of contributions of members, and in county and district appropriations as are necessary in advance of each fiscal year.
- Approves the Fund's expected rate of return.
- Approves LACERA's Investment Policy Statement, including establishing the Investment Beliefs that frame it, to guide implementation of LACERA's investment program.
- Approves a strategic asset allocation for the Fund, including but not limited to investment allocations, and benchmark targets within defined asset categories.
- Approves Structure Reviews for each defined asset category of LACERA's strategic asset allocation, including but not limited to establishing investment allocations within defined investible categories, target allocations and ranges, benchmarks by which to measure and monitor performance, and other portfolio guidelines.
- Actively reviews, monitors, and questions the investment and administration of the portfolio, requests such information as may be necessary to perform its responsibilities, and responds to issues relative to the portfolio and its administration as may arise from time to time.
- Performs additional administrative functions, as defined in the Board of Investments Charter and Board policies and direction and as necessary to perform its responsibilities under this policy.

The Board is vested under CERL with the authority to delegate certain responsibilities, including the authority to invest, when prudent in the informed opinion of the Board. The Board exercises oversight of all aspects of the investment program.

- The Board selects, approves, and reviews investment consultants, actuaries, and fiduciary counsel (consistent with LACERA's Policy on Fiduciary Counsel) to provide research, analysis, and recommendations to assist the Board in making prudent and informed decisions in line with its fiduciary duties.
- The Board delegates to the Chief Investment Officer ("CIO") the authority to select, fund, and terminate asset managers consistent with fulfilling the provisions and guidelines as approved by the Board and defined in this IPS, the strategic asset allocation, Asset Class Structure Reviews, and other Board-approved policies.

The Board has the affirmative responsibility to oversees the management of the Fund in compliance with all aspects of this IPS and other Board policies and directives and all applicable federal and state laws and regulations concerning the administration of a government pension plan. The Board has the duty to stay informed, including requesting, receiving, and reviewing information and to monitor and make inquiries based on that information to assist in its responsibility to conduct oversight of the investment program. To that end, the Board receives and has the duty to receive and review annual and quarterly reports of Fund performance (including asset categories and asset managers), as well as investment risks and compliance to prudently inform the Board's oversight. The Board may request staff and investment consultants to inform and make recommendations on any matters pertinent to LACERA's investment operations. The Board may also delegate specific authorities to the Chief Investment Officer ("CIO"), as further outlined in the Appendix.

ii. Committees

To assist the Board in carrying out its duties, the Board may establish one or more committees ("Committee"). A Committee makes recommendations to the Board on investment actions related to its area of focus. A Committee may request staff and investment consultants to inform and make recommendations to it on matters pertinent to LACERA's investment program.

B. Staff

LACERA staff implement Board-approved policies in adherence to fiduciary duties, LACERA's Code of Ethical Conduct and the LACERA Conflict of Interest Code. Staff are charged with the responsibility to provide the Board with information to assist Trustees in exercising their roles and responsibilities and fulfill their fiduciary duties.

i. Chief Executive Officer

The Board and LACERA'S Board of Retirement jointly appoint the Chief Executive Officer ("CEO"). The CEO is responsible for planning, organizing, and administering the operations of LACERA under policy guidance and direction from the Board and the Board of Retirement. The CEO exercises administrative oversight of the CIO, excluding investment decisions delegated to the CIO. The Board provides input to the CEO in the CEO's oversight of the CIO.

ii. Chief Investment Officer and Investment Staff

~~The CIO and staff assist the Board in performing its fiduciary duty. The internal investment staff reports to the CIO, who in turn reports to the CEO, with the input of the Board. The CIO, with the assistance of staff, has the responsibility and authority to assist the Board in establishing investment and administrative policies. The CIO and staff are responsible for implementing the policies and programs established by the Board. The CIO has primary responsibility for the implementation of the Board's investment decisions.~~

The CIO and investment staff manage the portfolio according to the Board's policies, advise and inform the Board about investments, assist with development and review of investment policies and procedures, oversee operational aspects of the Fund, report on the progress of the Fund in meeting its investment objectives, and monitor and report to the Board on the performance of the Fund relative to the appropriate benchmarks. The Board has delegated specific investment authority and responsibility directly to the CIO: ~~as described in the Appendix.~~

- Conduct searches for external asset managers in line with LACERA's Board-approved Procurement Policy to provide investment services.
- Approve the selection and termination of external asset managers, with the concurrence of relevant Board-approved investment consultants for the asset class, to implement Board-approved strategic asset allocation and asset category Structure Review investment guidelines. The CIO also has authority to approve temporary variances from asset-level program and investment manager guidelines.
- Approve co-investments, secondary transactions, re-ups, and advisory board seats in adherence to Board-approved strategic asset allocations and asset category Structure Review investment guidelines.
- Approve, or delegate authority to sign, all investment related contracts and agreements necessary to implement Board-approved strategic asset allocations and Structure Reviews, in line with the Board-approved Procurement Policy and that in the judgment of the CIO and Chief Counsel, provide adequate protection for LACERA's interests, including an appropriate standard of care on the part of each manager.
- Authorize the formation, dissolution of, and designate officers for the Title Holding Companies of real estate portfolio holdings.
- Approve rebalancing the Fund in order to raise cash for benefit payments, adjust investment exposures, or pay operational expenses while adhering to investment policy targets outlined within Board-approved strategic asset allocations and asset category Structure Review investment guidelines.
- Approve actions as outlined in the Board-approved Procurement Policy.
- Approve limiting or freezing manager trading activity. Such actions are reported to the Board as reasonably practical and no later than the next scheduled meeting of the Board.
- Approve actions not otherwise specifically delegated, in concurrence with the CEO and the Chair of the Board, when deemed necessary in the best interest of the Fund and when there is not enough time to take the action to the full Board. Such actions are reported as reasonably practical to the full Board, and no later than the next scheduled meeting of the Board.

The CIO is authorized and directed to interact with and communicate directly with the Board regarding all investment-related matters. The internal investment staff reports to the CIO, who in turn reports to the CEO, with input of the Board. The CEO does not have any authority over any and all investment decisions that are delegated to the CIO.

LACERA's Board-approved Crisis Plan provides guidance in the event that the CIO is not available to implement delegated authorities.

iii. Chief Counsel and Legal Staff

The Office of Chief Counsel and legal staff (Legal Counsel) are primarily responsible for legal issues concerning the investment program and advise the Board, CEO, CIO, and staff on investment-related legal matters. Legal Counsel advises the Board in performing its fiduciary responsibility. In addition to reliance upon internal resources for such matters and on fiduciary counsel, the Chief Counsel or designee within the

Legal Office may retain other external legal counsel, when deemed necessary and appropriate, to advise staff, negotiate and prepare contracts on investment-related matters and individual transactions, and provide other investment legal advice to protect LACERA's interests, including its status as a tax-exempt government plan.

C. Third Party Service Providers

LACERA may engage external service providers, as described below, to implement its investment program. All service providers, unless otherwise not applicable, are expected to serve as fiduciaries to the Fund in fulfilling their contracted services. Third party service providers must refrain from gift-giving or other efforts that may jeopardize the impartiality, or appearance thereof, of LACERA's Board and staff.

i. Investment Consultants

An investment consultant works for the Board in the oversight and implementation of investment objectives. In meeting the Board's objectives, investment consultants may work with staff and investment managers. The Board's general investment consultant provides advice and recommendations to the Board or Committee regarding LACERA's strategic objectives, risks, oversight, and implementation of investment objectives. Investment consultants, both general and specialized, provide advice and recommendations regarding strategic asset allocation, portfolio implementation, and oversight of the Fund to the Board, CIO, and staff. Investment consultants provide analysis, advice, and recommendations to staff on asset manager selection and monitoring. Investment consultants report to the Board or the Committee, as directed, and serve as an independent resource accountable to the Board. Investment consultants have a fiduciary duty to LACERA and must report economic interests and conflicts in accordance with California law and LACERA policy, including the Code of Ethical Conduct and filing of Form 700s.

ii. Custodian Bank

The Custodian Bank ("Bank") serves as a fiduciary in the safekeeping of Fund assets. The Bank is responsible for maintaining the Fund's official accounting book of record, including the ongoing pricing and valuation of all assets, collection of income generated by those assets, any corporate action notification, and performance calculation. The Bank cooperates with and provides assistance to staff and investment managers in the reconciliation process. LACERA may opt to designate other duties to the Bank as stipulated in the professional services agreement. LACERA's investment office works with LACERA's accounting division to manage the custodial relationship.

iii. Investment Managers

Investment managers ~~are selected by the Board and~~, subject to the terms and conditions of this IPS and applicable laws and regulations, serve LACERA through contracts that specify investment guidelines, administrative requirements, responsibilities, investment fees, and performance expectations for management of each mandate. Investment managers provide reporting to LACERA on the performance of specific investment mandates in adherence to established guidelines and agreements. Staff and consultants synthesize investment managers' performance for presentation to the Board in accordance with established performance monitoring and oversight procedures. Investment managers should accept a fiduciary duty to LACERA, must report economic interests and conflicts in accordance with California law and LACERA policy, including the Code of Ethical Conduct and filing of Form 700s, and enforce their own diversity, ethics, and sexual harassment policies.

iv. Other Third Party Service Providers

Additional third-party service providers may be retained, subject to the terms and conditions of LACERA's established policies and procedures, in order to perform other duties to assist in the administration of the Fund.

Red font = proposed new text or deletions

Green font = content transferred from the Powers Reserved and Powers Defined Policies

Purple font = Content transferred from IPS and IPS Appendix B

V. Policy Review

The Board reviews the Investment Policy Statement upon approval of any new strategic asset allocation, or at the discretion of the Board.

Appendix

A. Investment Tables

Table 1: Approved Asset Allocation

Asset Class	Target Allocation (%)	Allocation Range +/- (%)	Target Allocation (½ Step) 10/1/2021
Growth	53	+/-8	51
Global Equity	32	+/-7	34
Private Equity	17	+3/-5	14
Non-Core Private Real Estate	4	+/-2	3
Credit	11	+/-3	11
Liquid Credit	4	+/-3	6
Illiquid Credit	7	+/-3	5
Real Assets and Inflation Hedges	17	+/-3	17
Core Real Estate	6	+/-3	6
Natural Resources & Commodities	3	+/-2	4
Infrastructure	5	+1/-3	4
TIPS	3	+/-3	3
Risk Reduction and Mitigation	19	+/-6	21
Investment Grade Bonds	7	+/-6	13
Diversified Hedge Funds	6	+2/-4	5
Long-term Government Bonds	5	+/-5	2
Cash	1	+2/-1	1
Overlays and Hedges	0		0
Cash Overlay	0		0
Currency Hedge	0		0
TOTAL FUND	100.0		100.0

Table 2: Benchmark Table

Asset Class	Benchmark
Growth	Custom Blend
Global Equity	MSCI ACWI IMI Net
Private Equity	MSCI ACWI IMI + 200 bps (3-Month lagged)
Non-Core Real Estate	NFI ODCE + 225 bps (3-Month lagged)
Credit	Custom Blend
Liquid Credit	40% BBg Barc U.S. Corporate High Yield; 40% Credit Suisse Leveraged Loans; 10% JP Morgan EMBI GD; 5% JP Morgan GBI-EM GD; 5% JP Morgan CEMBI BD
Illiquid Credit	Custom Liquid Credit Benchmark + 150 bps (1-Month lagged)
Real Assets and Inflation Hedges	Custom Blend
Core Real Estate	NFI ODCE (3-Month lagged)
Natural Resources & Commodities	33% Bloomberg Commodity; 66% S&P Global Natural Resources TR
Infrastructure	Dow Jones Brookfield Global Composite Infrastructure TR
TIPS	BBg Barc U.S. TIPS
Risk Reduction and Mitigation	Custom Blend
Investment Grade Bonds	BBg Barc U.S. Aggregate TR
Diversified Hedge Funds	FTSE 3-Month US Treasury Bill + 250 bps (1-Month lagged)
Long-term Government Bonds	BBg Barc U.S. Long Treasury Bond
Cash	FTSE 3-Month U.S. Treasury Bill
Overlays and Hedges	N/A
Cash Overlay	—
Currency Hedge	—
TOTAL FUND	Custom Blended Policy Benchmark

B. Chief Investment Officer Delegated Authorities

The Board has delegated to the CIO the following authorities in accordance with Board-approved asset class specific program parameters. CIO actions will be reported to Trustees consistent with the reporting provisions below, or in a timely manner

Total Fund

<p>General Authorities</p>	<p>Authority to limit or freeze manager trading activity pending discussion and action by the Board. Such actions shall be reported as an informational item as reasonably practicable to the Board, and no later than the next scheduled meeting of the Board.</p> <p>Authority to take actions not otherwise specifically delegated, in concurrence with the CEO and the Chair of the Board, when deemed necessary in the best interest of the Fund and when there is not enough time to take the action to the full Board. Such actions shall be reported as an informational item as soon as reasonably practicable to the full Board, and no later than the next scheduled meeting of the Board.</p> <p>Authority to rebalance the Fund in order to raise cash for benefit payments, adjust investment exposures, or pay operational expenses while adhering to investment policy targets. Rebalancing may include increasing or decreasing all Board-approved mandates.</p> <p>Authority to take actions as specified in LACERA's Procurement Policy.</p>
<p>Approval of Variances</p>	<p>Authority to approve temporary variances from asset level program and investment manager guidelines.</p>
<p>Contract Authorities</p>	<p>Authority to sign, or delegate authority to sign, all investment-related contracts and agreements necessary to implement Board-approved action. Thereafter, during the original term, authority to sign all amendments and modifications with respect to such contracts and agreements and make all decisions with respect to their day-to-day operation and implementation where the investment mandate remains substantially unchanged. Upon expiration of a contract or agreement for Board-approved mandates, an extension or modification may only be made with Board approval or as outlined in LACERA's Procurement Policy.</p> <p>Authority to approve reductions to investment manager fee schedules and service provider costs.</p> <p>Authority to negotiate and execute investment agreements that, in the judgment of the CIO and Chief Counsel, provide adequate protection for LACERA's interests, including an appropriate standard of care on the part of each manager.</p>

Asset Class Specific

<p>Private Equity</p>	<p>Authority to approve the purchase or sale of any existing fund investment within the Private-Equity portfolio.</p> <p>Authority to approve co-investments, secondary transactions, re-ups, and advisory board seats.</p>
<p>Real Estate</p>	<p>Authority to approve the purchase or sale of any existing fund investment within the Real-Estate portfolio.</p> <p>Authority to authorize the formation, dissolution of, and designate officers for Title Holding Companies.</p> <p>Authority to approve co-investments, secondary transactions, re-ups, and advisory board seats.</p>
<p>Real Assets (ex-Real Estate)</p>	<p>Authority to approve the purchase or sale of any existing fund investment within the Real-Assets portfolio.</p> <p>Authority to approve co-investments, secondary transactions, re-ups, and advisory board seats.</p>
<p>Credit</p>	<p>Authority to approve the purchase or sale of any existing fund investment within the Credit portfolio.</p> <p>Authority to approve co-investments, secondary transactions, re-ups, and advisory board seats.</p>
<p>Hedge Funds (Including Equity)</p>	<p>Authority to approve the purchase or sale of any existing fund investment.</p> <p>Authority to approve co-investments, secondary transactions, re-ups, and advisory board seats.</p> <p>Authority to terminate a hedge fund manager.</p>

~~In the event the CIO is not available, and time is of the essence in making a decision, LACERA will follow the Board-approved Crisis Response Plan. The Board will receive written notification of all such actions.~~

List of Attachments

Corporate Governance and Stewardship Principles
Responsible Contractor Policy
Emerging Manager Policy
Placement Agent Policy
Private Equity Privatization Policy
Procurement Policy for Investment-Related Service

Current Investment Guidelines By Asset Class

Private Equity (Structure Review approved 12/14/2022)

Limit	Minimum	Maximum	Notes
Investment Size	\$5 million	10% of LACERA's MV plus undrawn commitments	
Single Partnership		50% of total commitments from all LPs	Does not apply to separate accounts
General Partner		10% of LACERA's MV plus undrawn commitments	Applies to aggregate across multiple funds

	Parameter	Target Allocation Ranges ¹
Sub-Asset Class	Buyouts	50-85%
	Venture Capital/Growth Equity	15-30%
	Co-Inv/FoF/Sec ³	10-30%
Geography	Non-United States	20-45%
	Emerging Markets	0-15%

¹ LACERA allows staff and the PEA(s) some latitude outside of the ranges. In the short term, LACERA does not wish to have staff, or its PEA(s), constrained by the designated ranges; i.e., fulfilling target allocations will not drive the investment recommendation process. LACERA will invest consistently over time to gain the proper exposures.

² Reports shall include information on general market environment and expected opportunities, portfolio composition, performance summary, and recent activity.

³ Staff and PEA propose extending range for Co-Investment/FoF/Secondaries from 10-25% to 10-30%.

	Co-Investment Parameters	Secondary Purchase Parameters
Sourcing	<ul style="list-style-type: none"> Co-investments offered by Board-approved managers so long as the manager is currently managing capital on behalf of LACERA¹; or Co-investments alongside a Board-approved discretionary PE manager, PE consultant, or their approved managers 	<ul style="list-style-type: none"> A private equity fund in which LACERA is an existing investor; or A private equity fund or vehicle that is managed by a manager of the same institutional quality as those LACERA has previously committed to
Investment Size	\$130 million maximum	\$130 million maximum ²
Geography	Global with non-U.S. investments subject to: <ul style="list-style-type: none"> Maximum \$130 million investment size Total PE portfolio international exposure target allocation range of 20-45% applies (includes primary funds, co-investments and secondaries) 	
Deal Types	Buyout and growth capital ³ transactions only	
Annual Capital Deployment	Up to 30% of annual private equity target allocation	
Annual Capital Confirmation	Third party confirms LACERA's due diligence was satisfactorily followed	Third party secondary advisor confirms valuation
Investment Limitations		<ul style="list-style-type: none"> 10% of LACERA's PE portfolio market value plus unfunded commitments at the time of purchase

¹ Includes funds approved by the CIO through LACERA's private equity fund re-up procedure.

² Excludes amounts rolled over from primary funds in conjunction with a continuation vehicle secondary transaction.

³ Growth capital includes high growth pre-EBITDA companies with a liquidity event expected in the next two years.

Secondary Sale Guidelines	
Secondary Disposition Guidelines	<ul style="list-style-type: none"> • All sales must provide strategic, tactical, and/or economic benefits that assist LACERA in meeting its investment goals • The program will consider selling undesired holdings that include both mature secondaries and hybrid secondaries <ul style="list-style-type: none"> ○ Sell determinations will fall under the following criteria: <ul style="list-style-type: none"> ▪ <i>Poor Performing</i>: Poor performing assets that have little to no potential to materially improve the future performance of the private equity program ▪ <i>Tail Ends</i>: Mature assets that have provided a significant portion of their potential performance, whether attractive or poor, and the remainder of the assets have little to no potential to materially improve the future performance of the private equity program. These assets will typically have little value remaining in the capital account and/or few holdings remaining in the fund ▪ <i>Non-strategic</i>: Assets that have an investment focus that is no longer a strategic part of LACERA's investment objectives and there is little to no potential to materially improve the future performance of the private equity program ▪ <i>Strategic</i>: Assets that can help improve the overall purchase prices and returns associated with the secondary sale • The secondary sale program will opportunistically consider the sale of single limited partnership interests and portions of partnership interests as well as portfolios of multiple limited partnership interests. Portfolio sales will be considered when the aggregated benefit to the private equity program is more attractive than individual dispositions

Prohibited Investment Type	Description	Notes
Hostile Takeovers	LACERA avoids investment strategies that primarily involve hostile takeovers, defined as acquisitions opposed by the board of directors of the target company	
Privatization	<p>LACERA does not aim to promote privatization of public jobs through its private equity investment program. It is highly unlikely that LACERA would invest in private equity investments that are dependent on privatization strategies.</p> <p>When performing due diligence prior to making the initial investment in a domestic partnership, staff and/or PEA, as applicable, will use reasonable efforts to ascertain the following:</p> <ol style="list-style-type: none"> 1. Whether the partnership's current investment strategy includes the privatization of jobs held by LACERA members, and 2. Whether the previous partnerships operated by the general partners, if any, have invested in companies dependent upon privatization of jobs held by LACERA members 	Staff and/or PEA will seek guidance from the Board before investing in a domestic partnership if the due diligence establishes privatization

	Report ¹	Responsible Parties	Audience	Frequency
1	Portfolio Performance	Staff and Private Equity Advisor ("PEA")	Board	Annually
2	Status of Co-Investments and Secondaries	Staff	Board	Annually
3	Portfolio Performance and Investment Analysis	Custodian Bank and General Partners	Staff	Quarterly

¹ Reports shall include information on general market environment and expected opportunities, portfolio composition, performance summary, and recent activity.

CIO Delegated Authority¹	
CIO Authority for Follow-on Funds	<p>The CIO is authorized to approve capital commitments in follow-on funds up to \$250 million per fund or up to a 25% fund ownership increase compared to LACERA's ownership percentage in the predecessor fund, provided:</p> <ol style="list-style-type: none"> i. LACERA's prior investments in each predecessor fund greater than three years old (based on the fund's inception or commencement of operations date) exceeds the benchmark net IRR and net MOIC median returns for the fund's sub-asset class strategy, and ii. There have been no material changes in the investment strategy or key persons, and iii. LACERA's private equity consultant concurs with the investment <p>The Board will receive written notification of all such actions from staff</p>
CIO Authority for Secondary Sales	<ul style="list-style-type: none"> • The CIO is authorized to approve the secondary sale of limited partnership interests that fall within LACERA's disposition guidelines • The CIO is authorized to approve the disposition of limited partnership interests with aggregate NAV (determined at the time of disposition) of up to \$500 million per year
CIO Authority for Secondary Purchases	<p>The CIO has the authority to approve secondary investments in vehicles or funds which are consistent with the criteria set forth in these guidelines, and at valuations deemed attractive by staff and Board-approved secondary advisor</p>
CIO Authority for Co-Investments	<p>The CIO has the authority to approve co-investments in accordance with the co-investment program investment guidelines</p>

¹ CIO Delegated Authority consolidates language from other sections of the Structure Review into one section.

Global Equity (Structure Review approved 12/14/2022)

	Target
Performance	Meet or exceed the MSCI ACWI IMI Index
Tracking Error	1.0% - 2.5% over 7-year

	Target Allocation	Target Allocation Range
Passive (Index)	60%	40 – 80%
Factor-based	15%	0 – 30%
Active	25%	10 – 40%
Emerging Managers		0 – 10% ¹

¹Board approved increasing EMP target allocation range from 0-5% to 0-10% at October 2022 BOI meeting.

Market	Parameter	Target Allocation Range Relative to Benchmark
Capitalization	Large	+/- 5%
	Mid	+/- 5%
	Small	+/- 5%
Region	United States	+/- 5%
	Developed ex U.S.	+/- 5%
	Emerging	+/- 5%

	Description
Cash Overlay	If market capitalization or regions deviate +/- 1% relative to benchmark, the Cash Overlay program may be used to rebalance market exposures back to target. Rebalancing will not be used for tactical allocation or market timing
Currency Hedge Program ¹	50% passive currency hedge (to U.S. Dollar) on the Non-U.S. developed markets foreign currency exposure in accordance with weights of the MSCI World-ex US IMI Index

¹The currency hedge program was transferred to the new "Overlays and Hedges" functional category as per 2021 Strategic Asset Allocation.

Restricted Investment Type	Description
Tobacco	Investment managers should refrain from purchasing tobacco securities when the same investment goals concerning risk, return, and diversification can be achieved through the purchase of another security
Sudan	Investment managers should refrain from purchasing securities where the company has been identified as doing business in Sudan or with the government of Sudan, when the same investment goals concerning risk, return, and diversification can be achieved through the purchase of another security
Iran	Investment managers should refrain from purchasing securities where the company has been identified as doing business in Iran's energy sector or with the government of Iran, when the same investment goals concerning risk, return, and diversification can be achieved through the purchase of another security

Real Estate (Structure Review approved 1/12/2022)

	Core Real Estate	Non-Core Real Estate
Asset Allocation	6% (+/-3%)	4% (+/-2%)
Property Type	Within a +/- 15% variance of ODCE Apartment, Industrial, Office Within a +/- 15% variance of ODCE Retail and Other	Apartment 10% - 45% Industrial 10% - 40% Office 10% - 40% Retail 10% - 25% Other 0% - 20%
U.S. Geographic	U.S. 85% - 100% Within a +/- 10% variance of ODCE	U.S. 35% - 60%
Non-U.S. Geographic	Europe 0% - 10% Asia 0% - 10% Emerging Markets 0% - 5%	Europe 15% - 45% Asia 5% - 35% Other Emerging Markets 0% - 15%
Leverage	50% Portfolio Limit	Value-Add 65% Limit Opportunistic 80% Limit
Manager Diversification	35% Limit	20% Limit
Fund Concentration	30% Limit	30% Limit
Active Risk (Tracking Error)	Long-term Target: Less than 1%	

Note: The Core and Non-Core Real Estate tables above depict the targets and ranges for the various portfolio segments over the long-term. From time to time, the actual allocation of the portfolio may fall outside the recommended ranges.

	Description
CIO Authority for Follow-on Funds	<p>The CIO is authorized to approve capital commitments in follow-on funds up to \$250 million per fund or up to a 25% fund ownership increase compared to LACERA's ownership percentage in the predecessor fund, provided:</p> <ul style="list-style-type: none"> iv. LACERA's prior investments in each predecessor fund greater than three years old (based on the fund's inception or commencement of operations date) exceeds the benchmark net IRR and net MOIC median returns for the fund's sub-asset class strategy, and v. There have been no material changes in the investment strategy or key persons, and vi. LACERA's real estate consultant concurs with the investment <p>The Board will receive written notification of all such actions from staff</p>

Real Assets (Structure Review approved 2/9/2022)

Infrastructure Risk Sub-Category	Private Allocation Range
Core/Core+	50 – 75%
Non-Core	25 – 50%

Infrastructure Sector Private Allocation Range	Energy	Telecom	Transport	Social
Core/Core+	35 – 65%	10 – 40%	5 – 25%	0 – 20%
Non-Core	35 – 65%	10 – 40%	5 – 25%	0 – 20%

Infrastructure Private Geographical Exposure	US & Canada	Europe	Asia Pacific Developed	Rest of World
Proposed Allocation Range	25 – 75%	25 – 75%	5 – 25%	0 – 20%

Natural Resources	Private Allocation Range
Energy	0 – 60%
Metals Mining	0 – 60%
Agriculture/Timber	0 – 60%

Private Investment Diversification Guidelines

Manager Diversification	Total General Partner less than 30% of Infra or Natural Resources MV plus undrawn commitments
Fund Concentration	LACERA no more than 40% of Total LP commitments for each Fund
Minimum Commitment Size	\$10 million

	Description
CIO Authority for Follow-on Funds	<p>The CIO is authorized to approve capital commitments in follow-on funds up to \$250 million per fund or up to a 25% fund ownership increase compared to LACERA's ownership percentage in the predecessor fund, provided:</p> <ol style="list-style-type: none"> LACERA's prior investments in each predecessor fund greater than three years old (based on the fund's inception or commencement of operations date) exceeds the benchmark net IRR and net MOIC median returns for the fund's sub-asset class strategy, and There have been no material changes in the investment strategy or key persons, and LACERA's real assets consultant concurs with the investment <p>The Board will receive written notification of all such actions from staff</p>

	Co-Investment Parameters	Secondary Purchase Parameters
Sourcing	<ul style="list-style-type: none"> Co-investments by Board-approved real asset GPs currently managing capital on behalf of LACERA 	<ul style="list-style-type: none"> A fund managed by a GP in which LACERA is an existing real assets investor
Investment Size	Up to \$50 million	
Geography	USA, Canada, Europe, UK, Australia, and NZ	Global with Majority of Assets in developed markets
Deal Types	<ul style="list-style-type: none"> Infrastructure Natural Resources 	<ul style="list-style-type: none"> Infrastructure and Natural Resources Fund must be at least 70% deployed, committed or reserved Fund must have been managed by current team for at least 3 years
Deal Exposure	LACERA's ownership of co-investment asset or Fund not to exceed 1/3 of total under GP (combining co-invest & fund exposure)	
Annual Capital Deployment	\$250 million maximum cumulatively across co-investments and secondaries ¹	
Annual Capital Confirmation	Third party (Albourne) confirms LACERA's due diligence was satisfactorily followed	Third party advisor confirms valuation
Monitoring Policy	<ul style="list-style-type: none"> Prompt notification to Board in writing of CIO-approved co-investments or secondaries Updated to BOI annually on capital deployed via co-investments & secondaries 	

¹ This amount was initially \$100 million in the recommendation proposed to the Real Assets Committee. The Committee made a motion and approved an increase in this amount to \$250 million.

Credit (Structure Review approved 9/13/2023)

Liquid Credit	
Return Objective	Meet or exceed the return of the aggregate Board approved benchmark
Benchmark	40% Bloomberg US Corporate High Yield Index 40% Credit Suisse Leveraged Loan Index 20% of a custom blend of emerging market debt indices (50% J.P. Morgan EMBI GD, 25% J.P. Morgan CEMBIBD, 25% J.P. Morgan CBI-EM GD)
Risk Target	Target tracking error of 2% over 5 years
Sectors	Benchmark weight +/- 10%
Geography	Maximum of 40% non-U.S. exposure
Currency	Maximum of 7.5% non-U.S. dollar exposure
Credit Quality	Benchmark weight +/- 10%
Leverage	None
Allocation Targets and Ranges	High yield: 40% target +/- 10% Bank loans: 40% target +/- 10% Emerging market debt: 20% target +/- 10%

Illiquid Credit	
Return Objective	Greater than liquid credit markets; more than compensating for incremental risk
Benchmark	LACERA's Custom Liquid Credit Benchmark plus 1.5% per year
U.S. Exposure	Minimum of 50% invested in the U.S. market
Geographic Exposure	Maximum of 15% invested in non-developed markets
Currency Exposure	Minimum of 90% invested in assets that are denominated in or hedged to the U.S. dollar
Manager Count	~10 direct portfolio and ~10 emerging manager portfolio
Emerging Manager Program	Evergreen separate account emerging manager program 15% target allocation with a 10-20% range (of the Illiquid Credit portfolio)
Co-investments	Permitted for managers in good standing; not to exceed 20% of a manager's mandate or 3% of the credit portfolio with LACERA maintaining a portfolio fit veto
Contingent Capital	Permitted for managers in good standing with LACERA maintaining a portfolio fit veto

Illiquid Credit Emerging Manager Program (EMP)

Program Framework	Evergreen separate account emerging manager program
Allocation Target and Range	15% target with a 10-20% range (of the Illiquid Credit portfolio)
Emerging Manager Definition	<p>An emerging illiquid credit manager meets the three following criteria at initial investment:</p> <ul style="list-style-type: none">• Organization/team has less than \$1 billion of assets under management;• Organization/team has managed external capital in an institutional vehicle for less than 5 years; and• Organization/team is at least 66% owned by managing principals and employees
Graduation Description	Graduation entails re-categorizing an investment from LACERA's emerging manager program to LACERA's primary portfolio that may adjust the size of the investment
Graduation Target Timeframe	3 – 12 years after an initial investment or within 2 years of a subject closed-end fund coming to the end of its life noting that this guideline is a target and a goal
Graduation Authority	Graduation would require approval like any new non-EMP investment as articulated in the IPS
Redemption Description	Redemption entails redeeming from an open-ended investment in lieu of holding it or a graduation event; closed end fund vehicles may have a natural wind-down process that is not initiated by a fund investor
Redemption Guideline	Absent graduation intentions for an open-ended investment, a redemption event should commence no later than 12 years after an initial investment noting that nuanced circumstances may delay the redemption

Bonds (Structure Review approved 9/13/2023)

Investment Grade Bonds	Current	Proposed / Recommended
Investment Objective	Meet or exceed return of the benchmark net of fees	Closely achieve the total return and risk exposures of the investment grade bond market and benchmark
Benchmark	Bloomberg Barclays U.S. Aggregate Bond Index	Bloomberg Barclays U.S. Aggregate Bond Index
Sectors	Only sectors in the benchmark	[remove category, captured in Eligible Investments]
Geography	Only countries represented in the benchmark	[remove category, captured in Eligible Investments]
Currency	U.S. Dollar denominated	[remove category, captured in Eligible Investments]
Quality	Only bonds rated investment grade	[remove category, captured in Eligible Investments]
Aggregate Duration	n/a	Benchmark duration +/- 0.3 years
Eligible Investments	n/a	Investments consistent with the benchmark, which contains investment grade, U.S. dollar denominated, fixed rate taxable bonds. Index Sectors include U.S. Treasuries, government-related and corporate securities, agency Mortgage-backed securities, asset-backed securities, and commercial mortgage-backed securities. Also eligible are exchange-traded funds benchmarked to the index, U.S. Treasury bond futures, and money market instruments
Prohibited Investments	n/a	Bonds from sectors not included in the index and purchasing securities on margin
Leverage	n/a	Not permitted

Long-Term Government Bonds

Investment Objective	Closely achieve the total return and risk exposures of the long duration treasury market and benchmark
Benchmark	Bloomberg Long U.S. Treasury Bond Index
Aggregate Duration	Benchmark duration +/- 0.3 years
Eligible Investments	Investments consistent with the benchmark such as: U.S. Treasury securities, U.S. Treasury futures, U.S. Treasury bond exchange traded funds, money market securities and instruments, cash, and cash equivalents
Prohibited Investments	Purchasing securities on margin and uncovered short sales
Leverage	Not permitted

Hedge Funds (Structure Review approved 9/13/2023)

Hedge Funds	
Return Objective & Benchmark	Cash +2.5%; with risk mitigation objectives as guided by the IPS and structure review
Risk Target	2-7% standard deviation of program monthly returns on a 3-year trailing basis
Market Sensitivity	MSCI ACWI equity beta less than 0.2 for monthly returns on a 3-year trailing basis
Geographic Exposure	Maximum of 30% invested in non-developed markets
Liquidity	100% of capital within 5 years; at least 50% within 3 years
Side Pockets	Allowed with the reasonable expectation that no side pocket would last beyond 5 years
Leverage	10x when aggregating individual funds
Manager Count	Approximately 10 for each the direct portfolio and the emerging manager portfolio
Transparency	Position-level or risk-exposure data is required from managers
Partnership Size Limits	Less than 35% of a commingled fund structure; does not apply to managers defined as emerging

Hedge Funds Emerging Manager Program (EMP)	
Program Framework	Evergreen separate account emerging manager program
Allocation Target and Range	15% target with a 10-20% range (of the Hedge Funds portfolio)
Emerging Manager Definition	An emerging hedge fund manager meets the three following criteria at initial investment: <ul style="list-style-type: none"> • Organization/team has less than \$500 million of assets under management; • Organization/team has managed external capital in an institutional vehicle for less than 3 years; and • Organization/team is at least 66% owned by managing principals and employees
Graduation Description	Graduation entails re-categorizing an investment from LACERA's emerging manager program to LACERA's primary portfolio that may adjust the size of the investment
Graduation Target Timeframe	3 – 7 years after an initial investment noting that this guideline is a target and a goal
Graduation Authority	Graduation would require approval like any new non-EMP investment as articulated in the IPS
Redemption Description	Redemption entails redeeming from an investment in lieu of holding it or a graduation event
Redemption Guideline	Absent graduation intentions for a particular investment, a redemption event should commence no later than 7 years after an initial investment noting that nuanced circumstances may delay the redemption

LOS ANGELES COUNTY
EMPLOYEES RETIREMENT
ASSOCIATION
LACERA

Board of Investments
Powers Reserved and Delegated Authorities

Adopted by the Board of Investments on October 12, 2016

v7

LACERA

Powers Reserved and Delegated Authorities

Overview

In May 2016, the Board agreed to the Powers Reserved for the Board. The Board has assigned certain authorities to the CEO. This document, aligns these authorities to the Powers Reserved.

Level of Involvement

Given its overall responsibility and accountability, the BOI has determined the level of its involvement in the exercise of various powers / authorities. The following framework uses three levels of involvement which reflect largely the degree of involvement:

Power	Description
Conduct	The Board itself performs the tasks described. This is the highest level of involvement. The Board or its Committees (standing or ad hoc) is actively involved in doing the work, e.g., writing the requirements, conducting due diligence, selecting and interviewing finalists, making the recommendation to the full Board for Approval.
Approve or Set	The Board retains final decision authority on prudently delegated activities to approve or set policies and limits, e.g., Asset Allocation. Once approved, the Board must then Oversee to ensure that actual practice reflects policy.
Oversee	The Board has a minimum legal duty to monitor and question. The Board reserves the power to oversee that prudently delegated authorities are properly exercised, appropriate policies and controls are in place and delegates (CEO/staff) are held accountable for performance. Oversee does not constitute close supervision and day to day management.

LACERA

Powers Reserved and Delegated Authorities

LEGEND

The following table has been developed based on input from the Board of Investments (BOI). Powers Reserved that are joint with the Board of Retirement (BOR) have not been discussed with the Board of Retirement and were not part of the scope of this review.

A = Approves final decision based upon recommendations from CEO and others.

O = Oversees, monitors and questions activities in delegated authorities.

C = Conducts activity and has the authority to make decisions within certain parameters.

R = Makes recommendations to the body with authority for approval.

Note: CIO authorities indicated are delegated from the CEO; the CEO retains responsibility

LACERA

Powers Reserved and Delegated Authorities

#	Powers Reserved for Board	Board	Committee	CEO	CIO	Others
	Governance and Strategy					
1	Approve powers reserved for the Board of Investments	A		R		
2	Approve Board charter	A		R		
3	Approve Board committee structure, roles and charters	A	R	R		
4	Approve Board delegations to staff	A		R		
5	Approve Board development policy and education programs	A		R		
6	Approve Board governance principles and policies	A		R		
7	Conduct Board self-assessment of its effectiveness	C				
8	Oversee strategic planning process	O		C	C	
9	Oversee the effectiveness of Board of Investments strategic plans	O		C	C	
10	Oversee Board stakeholder engagement program	O		C		
11	Oversee Board business planning process and business plans	O		C	C	
	Investments					
12	Approve investment policy statement	A	O		R	R: General
13	Approve investment beliefs	A			R	R: General
14	Approve investment allocations and benchmark targets	A			R	R: General
15	Approve expected rate of return (asset/liability study)	A			R	R: General
16	Approve actuarial assumptions (discount rate)	A				C: Actuarial
17	Approve actuarial policies	A				C: Actuarial
18	Approve investment risk appetite and strategy (e.g., Hedge funds/ risk parity)	A	O		R	R
19	Approve the Investment organization structure (budget)	A		R		
20	Approve Investment organization performance metrics	A	O		R	R: General
21	Approve investment related legislative policy	A		R		
22	Conduct selection of investment consultants and advisors	C				
23	Oversee overall investment organization performance	O		C		
24	Oversee effectiveness of investment risk management	O			C	
25	Oversee liquidity plans	O			C	
26	Oversee investment performance	O			C	C
27	Oversee due diligence (investment and operational)	O			C	C: Various
28	Approve selection of investment managers or funds	A			R	R: Various
29	Oversee private asset valuations	O			C	C
30	Oversee investment operations and cost effectiveness	O			C	
31	Oversee actuarial valuations and employer rate setting	O				C: Actuarial
32	Oversee pension soundness	O				C: Actuarial

LACERA Powers Reserved and Delegated Authorities

Reassurance, Risk and Compliance						
33	Oversee internal audits	O				C: Internal Audit
34	Oversee actuarial audits	O				C: Internal Audit
35	Oversee title holding audits	O				C: Internal Audit
36	Oversee investment-related enterprise-wide risk framework and management	O			C	
37	Oversee investment controls and compliance (checks and balances)	O			C	
Administration						
38	Approve staff classification and compensation	A		R		
39	Approve litigation and settlements related to investments	A		R		
40	Approve budget process and budgets	A		R		
41	Conduct hiring, evaluation, compensation, firing of the CEO	C				
42	Oversee human resource policies for investment operations (excluding compensation)	O		C		
43	Oversee accounting policies for investment activities	O			C	
44	Oversee the CEO's effectiveness in hiring/firing and management of performance for senior Investment executives	O		C	R	
45	Oversee investment management succession planning	O		C	C	
46	Oversee disclosures of investment fees and expenses	O			C	
47	Oversee information technology plans and budgets / cyber security for Investments	O		C		
48	Oversee business continuity plans for Investment operations	O			C	

Approved by the Board of Investments October 12, 2016

Note: Reference September 14, 2016 Board of Investment memorandum for detail regarding Power #28 Approve Selection of Investment Managers or Funds . Excerpt on following pages.

LACERA

Powers Reserved and Delegated Authorities

Power Reserved #28 - Board Approves the Manager and Fund Selection.

This is the current power reserved by the Board for all asset classes. In general, the Board has delegated the tasks of developing solicitation materials, identifying investment opportunities, due diligence, and contract execution. The Board retains the power to approve certain milestones during the process including selecting the investment manager or fund based upon the established written record or finalist interviews. It is important to highlight the Board's use of its consultants as additional experts in reviewing the written record and conducting finalist interviews.

Key: A = Approves, C = Conducts, O = Oversees, R = Recommends

Investment Manager Selection Process Summary

	Investment Manager Selection Task	Board	Committee	CIO	Staff	Consultant
1	Approve RFP	A	R	O	C	R
2	Due Diligence			O	C	C
3	Manager Selection	A		R	R	R
4	Investment Execution			O	C	
5	Investment Monitoring	O	O	O	C	C
6	Termination	A		R	R	R

Investment Manager Selection Process Detail

	Investment Manager Selection Task	Board	Committee	CIO	Staff	Consultant
1	Determine Manager Type			O	C	R
2	Determine Allocation			O	C	R
3	Determine MQ, Evaluation Criteria, SOW			O	C	R
4	Recommendation to issue RFP		C	R	R	R
5	Approval to issue RFP	A	R	R	R	R
6	Issue RFP				C	
7	Score RFP Submissions				C	
8	Document RFP Score Results				C	
9	Eliminate Less Qualified Firms			O	C	R
10	Interview More Qualified Firms In-House				C	C
11	Score In-House Interview Results				C	
12	Document In-House Interview Score Results				C	
13	Eliminate Less Qualified Firms			O	C	R
14	Interview More Qualified Firms On-Site				C	C
15	Score On-Site Interview Results				C	
16	Document On-Site Interview Score Results				C	
17	Finalist Firms Recommendation			O	C	C
18	Finalist Firms Interview	C		R	R	R
19	Manager Selection	A		R	R	R
20	Contract Execution			A	C	
21	Manager Funding			O	C	
22	Performance Monitoring	O	O	O	C	C
23	Manager Operational Relationship			O	C	
24	Maintain Watch List	O	O	O	C	R
25	Termination	A	R	R	R	R
26	Transition Management			O	C	R

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Powers Reserved and Delegated Authorities

Key: A = Approves, C = Conducts, O = Oversees, R = Recommends

Investment Fund Selection Process Summary

	Investment Fund Selection Task	Board	Committee	CIO	Staff	Consultant
1	Deal Sourcing				C	C
2	Due Diligence				C	C
3	Investment Fund Approval	A		R	R	R
4	Investment Execution			O	C	
5	Investment Monitoring	O	O	O	C	C

Investment Fund Selection Process Summary

	Investment Fund Selection Task	Board	Committee	CIO	Staff	Consultant
1	Deal Sourcing				C	C
2	Deal Flow Evaluation				C	C
3	Document Evaluation				C	C
4	Eliminate Less Desirable Deals				C	R
5	Preliminary Due Diligence				C	C
6	Manager Meeting				C	C
7	Document Due Diligence				C	C
8	Eliminate Less Desirable Manager				C	R
9	Manager On-Site Due Diligence				C	C
10	Investment Memorandum				C	C
11	Investment Memorandum Review			C		
12	Investment Fund Approval	A			R	R
13	Contract Execution			A	C	
14	Performance Monitoring	O	O	O	C	C
15	Annual Partnership Meeting				C	
16	Advisory Board Participation				C	

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LOS ANGELES COUNTY EMPLOYEES RETIREMENT ASSOCIATION LACERA

**Board of Investments
Powers Reserved Defined**

Adopted by Board of Investments on May 10, 2016
Amended by the Board of Investments on October 12, 2016

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LACERA
Powers Reserved for the Board of Investments

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Powers Reserved for the Board of Investments

Introduction

The Meaning of Governance

Overall responsibility and accountability for LACERA's investments and organizational performance rests with the Trustees of the Board of Investments (Board). Since Governance is fundamentally about decision-making, it raises some fundamental questions:

- What are the key decisions?
- Who gets to make them?
- Using what criteria?
- What are the priorities?
- What is the highest and best use of limited Board time?
- Where should Trustees focus given their limited time?

What is a Power Reserved?

Within the framework of its governing legislation, a Power Reserved is a decision authority, other action or responsibility which a Board chooses to retain solely for itself. The Board will reserve for itself a number of powers or decision authorities. In certain cases, these powers are shared with the Board of Retirement, for example:

- the appointment of the CEO;
- classification and compensation of personnel; and
- adoption of LACERA's annual budget.

Role of Committees

In many organizations, the bulk of the work of the Board is assigned to Committees (standing or ad hoc) and supported by staff and consultants. Work is assigned to Committees but authorities are generally not delegated. Committees are intended to do the work and make recommendations to the full Board for its Approval.

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Powers Reserved for the Board of Investments

Prudent Delegation

The Board may prudently delegate authorities to the CEO (and thereby the staff) and consultants if it establishes a robust process for selection, instruction, reporting, monitoring, questioning and evaluation of their qualifications, goals and results. Under the fiduciary standard applicable to LACERA, practices of similar prudent Trustees provide relevant guidance and many delegate to committees, staff, advisors and managers.

By prudently delegating, instructing and monitoring delegates that have more time and access to expertise, the Board can improve its effectiveness. In the absence of full-time, expert attention to Investments, it may be prudent for Trustees to delegate regardless of their individual level of expertise.

Level of Involvement

Given its overall responsibility and accountability, the Board has determined the level of its involvement in the exercise of various powers / authorities. The following framework uses three levels of involvement:

Power	Description
Conduct	The Board itself performs the tasks described. This is the highest level of involvement. The Board or its Committees (standing or ad hoc) is actively involved in doing the work, e.g., writing the requirements, conducting due diligence, selecting and interviewing finalists, making the recommendation to the full Board for Approval.
Approve or Set	The Board retains final decision authority on prudently delegated activities to approve or set policies and limits, e.g., Asset Allocation. Once approved, the Board must then Oversee to ensure that actual practice reflects policy.
Oversee	The Board has a minimum legal duty to monitor and question. The Board reserves the power to oversee that prudently delegated authorities are properly exercised, appropriate policies and controls are in place and delegates (CEO/staff) are held accountable for performance. Oversee does not constitute close supervision and day to day management

LACERA

Powers Reserved for the Board of Investments

The Board reserves the power to change its level of involvement based on changing circumstances. There are a number of important policy areas that the Board will want to approve and then prudently delegate and oversee.

Categories of Authorities

There are 48 specific authorities organized into four categories of decisions:

1. Governance and Strategy
2. Investment
3. Reassurance, Risk and Compliance
4. Administration

Category of Authority	Definition
Governance and Strategy	key decision-making powers, including powers reserved for the Board; Board, Committee and organizational structures; officer role descriptions; policies and strategic direction-setting; implementation of strategy; planning for achieving goals; and providing the people and tools necessary to execute plan including delegations of authority and engagement of stakeholders
Investment	investment policies and actuarial matters, including determination of pension obligations and liabilities and pension soundness; investment beliefs; Investment Policy Statement; roles and responsibilities of the Board, consultants, and staff in connection with the purchase, sale, and monitoring of investments; expectations as to frequency and general content of investment reporting; policy statement re: goals and objectives and the selection and processing of investments to achieve expected returns on assets with acceptable levels of risk; oversight of investment performance, operations and risk
Reassurance, Risk and Compliance	independent reasonable reassurance (e.g., internal / external audit, counsel, and third parties such as consultants) that management's reports are reliable, due diligence is robust and risk mitigation, compliance and control processes are performing as expected
Administration of the investment operations	Human Resources policies and activities related to overseeing the investment operations in conjunction and coordination with the Board of Retirement for the hiring, evaluation and compensation of staff to ensure an appropriately skilled and resourced organization; Finance and Accounting policies and processes of recording and reporting on financial and business operations; Information Technology includes computers, networks and software designed to process and protect private and business critical data and produce timely information and insight for decision-making; and decisions to commence or settle legal disputes

LACERA

Powers Reserved for the Board of Investments

Powers Reserved for the Board of Investments

The following list of Powers Reserved takes into account the unique legislative framework of the Board using a set of leading practices and input from Funston Advisory Services, Meketa Consultants and the CEO, followed by a survey of Trustees and individual interviews.

#	Powers Reserved for Board	Definition
Governance and Strategy		
1	Approve powers reserved for the Board of Investments	the decision authorities and activities reserved exclusively for the Board
2	Approve Board charter	the purpose, roles, responsibilities, and processes of the Board (individually and collectively) and management in setting the direction, the management and control of the organization, role of officers (chair, vice-chair, secretary)
3	Approve Board committee structure, roles and charters	standing and ad hoc committees and their purpose/mission, authority and responsibilities, qualifications and composition; term and method of appointment; method of electing or appointing chair and vice chair; core processes; how and when meetings will be held; what constitutes a quorum; and how meeting minutes will be written and approved; qualifications and expectations as to time, participation and preparation
4	Approve Board delegations to staff	establishes a superior-subordinate relationship; defines assignment of day-to-day duties and management of the organization; granting of decision-making authority; responsibility and accountability
5	Approve Board development policy and education programs	establishes means to determine qualifying programs, sets policy for the type, location and budget of education for the Trustees to ensure compliance with regulations and maintaining the skill and knowledge necessary to continuously improve the effectiveness and efficiency of each trustee and the Board as a whole
6	Approve Board governance principles and policies	the framework for the governance of the organization, including principles and policies such as: leadership; setting of Board agendas; access to senior management; bylaws; strategic planning process; standards of conduct, including respectful relations with other Trustees and staff and compliance with conflict of interest laws and regulations; placement agent policy; SEC compliance policy; referral of investment opportunities, management selection and vendor contacts; fiduciary review policy

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Powers Reserved for the Board of Investments

#	Powers Reserved for Board	Definition
7	Conduct Board self-assessment of its effectiveness	conduct a self-assessment of the effectiveness of the Board in relation to factors such as strategy and implementation, fiduciary and co-fiduciary duties, ethics and conflicts of interest, risk and crisis management, decision-making discipline and Board dynamics <i>Trustee Commentary: The process and timing of self-assessment still needs to be determined, e.g., use of a third party facilitator, whether or not to have 360° feedback, public disclosures policy, inventory of skills matched to policy issues and continuing education.</i>
8	Oversee strategic planning process	a long-term view of the investment-related changes required to successfully adapt to the ecosystem; the resources required; the authority and accountability to make needed changes; and, provide input to the strategic planning process
9	Oversee the effectiveness of the Board of Investments strategic plans	the effectiveness of the organization in achieving its strategic objectives
10	Oversee stakeholder engagement program	the approach for engaging stakeholders who affect or are affected by the Investment program. Design and execution should be the responsibility of the CEO
11	Oversee business planning process and business plans	a formal statement of investment-related operational business goals, reasons they are attainable, and plans for reaching them; it may also contain background information about the organization or team attempting to reach those goals
Investment		
12	Approve investment policy statement	the Investment Policy Statement is a comprehensive document which typically contains: 1. statement of investment goal(s), purpose, or mission; 2. identification of investment decision maker(s); 3. statement on investment performance measurement (benchmarking); 4. statement on managing risks of individual securities; 5. statement on managing risk of overall portfolio; 6. money manager guidelines; 7. guidelines for other investment professionals; 8. legal standards; 9. investment cost management; and 10. transacting or brokering trades
13	Approve investment beliefs	investment beliefs provide direction for the investment organization, investment policies and actions of investment personnel by acting as a guide for the management and administration of the assets in a consistent manner that reflects the views of the Board; the statements can also address investment organization, investment process, financial markets, sustainability and governance, and other types of investment beliefs

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Powers Reserved for the Board of Investments

#	Powers Reserved for Board	Definition
14	Approve investment allocations and benchmark targets	the implementation of an investment strategy that attempts to balance risk versus reward by adjusting the percentage of each asset in an investment portfolio according to the investor's risk tolerance, goals and investment time frame
15	Approve expected rate of return	the long-term rate of return expected to be achieved by the investment portfolio
16	Approve actuarial assumptions	the planning assumptions used by the actuary to calculate projected future liabilities of the defined benefit plan, including economic assumptions (e.g., discount rate, inflation rate, salary scale) and demographics assumptions (e.g., withdrawals and terminations, mortality, retirement, disability)
17	Approve actuarial policies	policies which determine: 1. the actuarial cost method used to allocate benefits to each year; 2. the asset smoothing method to reduce the effect of short-term market volatility; and 3. the amortization policy which determines the length of time to extinguish any unfunded liability or surplus
18	Approve investment risk appetite and strategy	the amount of risk the investment organization is allowed to take and the means to ensure it remains within those limits
19	Approve the Investment organization structure through the budget process	the organizational hierarchy and structure to facilitate the effectiveness and efficiency of the investment organization to fulfill its function
20	Approve Investment organization performance metrics	the metrics to be used to gauge performance of the Investment organization
21	Approve investment related legislative policy	the approach for responding to legislative initiatives which distinguishes between advocacy, position-taking, and information for decision-making
22	Conduct selection of investment consultants and advisors	conduct the search and selection process for hiring the general investment consultant and specialty investment consultants to the Board, and manage and monitor the relationship

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Powers Reserved for the Board of Investments

#	Powers Reserved for Board	Definition
23	Oversee overall investment organization performance	actual performance and outcomes of the investment organization compared to expected performance, including achievement of strategic goals, cost management vs. budget, development of organizational capabilities, reputation with stakeholders, etc.
24	Oversee effectiveness of investment risk management	the process of monitoring to ensure risk limits are not exceeded, surprises are avoided, variability remains within control
25	Oversee liquidity plans	part of the near-term finance planning with the task of the exact medium-term, short-term, and daily coordination between in- and out-payments
26	Oversee investment performance	actual Fund performance compared to expected performance, including net-of fees returns compared to selected benchmarks and expected returns over varying time frames
27	Oversee due diligence (investment and operational)	oversee the due diligence (investment and operational) processes to select investment managers and funds that offer the best fit with the investment beliefs and objectives for the Fund
28	Approve selection of investment managers or funds	the actual selection of investment managers and funds that offer the best fit with the investment beliefs and objectives for the fund
29	Oversee private asset valuation	the process for periodically determining the valuation of individual investments; can involve reconciling different valuations provided by the custodian, general partners or other third parties
30	Oversee investment operations and cost effectiveness	the range of activities involved in selecting and monitoring investments, negotiating investment-related fees, and maintaining cost effective Fund infrastructure
31	Oversee actuarial valuations and employer rate setting	determining the contributions estimated to be necessary for funding the plan's benefits and providing information about the plan's current funded status
32	Oversee pension soundness	whether planned contributions plus expected investment income are sufficient to meet projected benefits plus expenses at a point in time

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Powers Reserved for the Board of Investments

#	Powers Reserved for Board	Definition
Reassurance, Risk and Compliance		
33	Oversee internal audits	independent reassurance provided by internal auditors on the reliability of management's assurances about performance and risk (related to investment operations) in collaboration with Audit Committee
34	Oversee actuarial audits	tool for monitoring the quality of actuarial services performed on behalf of the pension plan. An actuarial audit involves engaging the services of an outside actuary (reviewing actuary) to scrutinize the work of the plan's consulting actuary
35	Oversee title holding audits	tool for monitoring the quality and reliability of reports of title holding assets
36	Oversee investment-related enterprise-wide risk framework and management	a comprehensive process for identifying, assessing, controlling and monitoring investment-related risk; includes operational risk (the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events), legal risk, strategic risk, reputational risk, liquidity risk, etc.
37	Oversee investment controls and compliance	monitoring the quality of asset management accounts, processes and systems with the aim of ensuring compliance with policies and regulations, including conformity in fulfilling investment policy requirements, such as restricted securities, concentration limits, basket clause and other defined limitations
Administration of the Investment Operations		
38	Approve staff classification and compensation	the policy which describes the classification and amount of money and benefits to be paid to attract and retain qualified personnel (shared with Board of Retirement)
39	Approve litigation and settlements related to investments	decisions to commence and settle litigation, and resolution of other investment-related legal disputes
40	Approve budget process and budgets	the process for developing an annual budget for the organization, including both operational and capital needs, and obtaining approval (shared with Board of Retirement)

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Powers Reserved for the Board of Investments

#	Powers Reserved for Board	Definition
41	Conduct hiring, evaluation, compensation, firing of the CEO	the process of hiring, compensating, evaluating, terminating and ensuring appropriate succession planning for the CEO (shared with Board of Retirement)
42	Oversee human resource policies (excluding compensation)	formal rules and guidelines to hire, train, assess, reward and retain members of the workforce should be determined by the CEO who has authority to run operations. The Board will oversee their effectiveness
43	Oversee accounting policies for investment activities	the policies affecting the systematic and comprehensive recording of financial transactions and the process of summarizing, analyzing and reporting these transactions that complies with the accounting requirements promulgated by the Governmental Accounting Standards Board (GASB)
44	Oversee the CEO's effectiveness in hiring/firing and management of performance for senior Investment executives	the process of hiring, compensating, evaluating, terminating and ensuring appropriate succession planning for senior Investment executives
45	Oversee investment management succession planning	process for developing internal people with the potential to fill key business leadership positions in the organization; succession planning increases the availability of experienced and capable employees that are prepared to assume these roles as they become available
46	Oversee disclosures of investment fees and expenses	the process of disclosing management, performance, carried interest, partnership fees, and other fees paid to external investment managers to manage investments on behalf of the Fund
47	Oversee information technology plans and budgets / cyber security for Investments	the system or systems used to gather, store and retrieve information for decision-making and ensure its safe keeping
48	Oversee business continuity plans for Investment operations	plans and procedures to ensure the continuity of operations in the event of a natural or man-made disaster or other business interruption

Mapping Exercise - Powers Reserved and Delegated Authorities Policy		
#	Description	Existing policy or legal authority that references the respective Board of Investments' powers reserved role
Governance and Strategy		
1	Approve powers reserved for the Board of Investments	BOI Charter Sections 6 and 8
2	Approve Board charter	BOI Charter Section 8
3	Approve Board committee structure, roles and charters	BOI Charter Sections 4 and 7; Bylaws Sections 1.4 and 2.8; IPS Section 4.A.ii
4	Approve Board delegations to staff	BOI Charter Section 2; IPS Legal Authority and IPS Section IV
5	Approve Board development policy and education programs	IPS Page 13; Government Code Section 31522.8 of CERL
6	Approve Board governance principles and policies	Corporate Governance and Stewardship Principles Page 3
7	Conduct Board self-assessment of its effectiveness	BOI Charter Section 4.5
8	Oversee strategic planning process	BOI Charter Section 1 and 4.4
9	Oversee the effectiveness of Board of Investments strategic plans	IPS Page 13; BOI Charter Section 4.4
10	Oversee Board stakeholder engagement program	IPS Pages 1 and 13; BOI Charter Section 4.9
11	Oversee Board business planning process and business plans	IPS Pages 1 and 13; BOI Charter Section 4.2
Investment		
12	Approve investment policy statement	Government Code Sections 31520.2, 31594, and 31595 of CERL; IPS Pages 1 and 13; BOI Charter Section 1
13	Approve investment beliefs	Government Code Sections 31520.2, 31594, and 31595 of CERL; IPS Pages 1, 4, and 13; BOI Charter Section 1
14	Approve investment allocations and benchmark targets	Government Code Sections 31520.2, 31594, and 31595 of CERL; IPS Pages 1 and 13; BOI Charter Section 1
15	Approve expected rate of return (asset/liability study)	California Constitution, Article XVI, Section 17; Government Code Sections 31520.2, 31594, and CERL code 31595
16	Approve actuarial assumptions (discount rate)	California Constitution, Article XVI, Section 17(a); LACERA Funding Policy
17	Approve actuarial policies	California Constitution, Article XVI, Section 17(a); LACERA Funding Policy
18	Approve investment risk appetite and strategy (e.g., Hedge funds/ risk parity)	Government Code Sections 31520.2, 31594, and 31595 of CERL; IPS Pages 1, 10, and 13; BOI Charter Section 1
19	Approve the Investment organization structure (budget)	BOI Charter Section 1; JOGC Charter Section 7.1
20	Approve Investment organization performance metrics	Government Code Sections 31520.2, 31594, and 31595 of CERL; IPS Pages 1 and 13
21	Approve investment related legislative policy	Corporate Governance and Stewardship Principles pg 26
22	Conduct selection of investment consultants and advisors	IPS Page 14; CERL, Section 31520.2(b)
23	Oversee overall investment organization performance	IPS Pages 1 and 13
24	Oversee effectiveness of investment risk management	IPS Pages 1 and 13
25	Oversee liquidity plans	IPS Pages 1 and 13
26	Oversee investment performance	IPS Pages 1, 13, and 14
27	Oversee due diligence (investment and operational)	IPS Pages 1 and 13
28	Approve selection of investment managers or funds	IPS Pages 1, 13, and 15
29	Oversee private asset valuations	IPS Pages 1 and 13
30	Oversee investment operations and cost effectiveness	IPS Pages 1 and 13
31	Oversee actuarial valuations and employer rate setting	JOGC Charter Section 1
32	Oversee pension soundness	IPS Pages 1 and 13
Reassurance, Risk and Compliance		
33	Oversee internal audits	Audit Committee Charter Section VII.A
34	Oversee actuarial audits	The California Constitution, Article XVI, Section 17(a)
35	Oversee title holding audits	IPS Pages 1 and 13
36	Oversee investment-related enterprise-wide risk framework and management	IPS Pages 1 and 13
37	Oversee investment controls and compliance (checks and balances)	IPS Pages 1 and 13
Administration		
38	Approve staff classification and compensation	BOI Charter Section 1; JOGC Charter Section 7.1
39	Approve litigation and settlements related to investments	IPS Page 14; JOGC Charter Section 5
40	Approve budget process and budgets	BOI Charter Section 1; JOGC Charter Section 7.1
41	Conduct hiring, evaluation, compensation, firing of the CEO	BOI Charter Section 1; JOGC Charter Section 1
42	Oversee human resource policies for investment operations (excluding compensation)	IPS Pages 1 and 13
43	Oversee accounting policies for investment activities	Audit Committee Charter Section VII.C
44	Oversee the CEO's effectiveness in hiring/firing and management of performance for senior Investment executives	Chief Investment Officer Reporting and Performance Evaluation Policy
45	Oversee investment management succession planning	IPS Pages 1 and 13
46	Oversee disclosures of investment fees and expense	IPS Pages 1 and 13
47	Oversee information technology plans and budgets / cyber security for Investments	Audit Committee Charter Section VII.E
48	Oversee business continuity plans for Investment operations	IPS Pages 1 and 13



November 30, 2023

TO: Each Trustee,
Board of Investments

FROM: Santos H. Kreimann *SHK*
Chief Executive Officer

Ted Granger *TG*
Interim Chief Financial Officer

FOR: December 13, 2023 Board of Investments Meeting

SUBJECT: **2023 ACTUARIAL VALUATION OF RETIREMENT BENEFITS**

RECOMMENDATION

It is recommended that the Board of Investments:

1. Accept the June 30, 2023 Actuarial Valuation of Retirement Benefits as submitted by the Plan's consulting actuary, Milliman.
2. Adopt recommended employer contribution rates (all plan tiers) and employee contribution rates (PEPRA plans - General Plan G and Safety Plan C).
3. Delegate authority to the Chief Executive Officer to communicate the results of the 2023 Actuarial Valuation of Retirement Benefits to the Board of Supervisors on or before May 15, 2024, with a recommendation to implement the employer and employee rates no later than September 29, 2024.

EXECUTIVE SUMMARY

The June 30, 2023 Actuarial Valuation of Retirement Benefits ("2023 Actuarial Valuation") report (Attachment I) has been prepared by Milliman to determine the employer and certain employee¹ contribution rates, which will be effective July 1, 2024. The 2023 actuarial valuation results include changes in employer contribution rates for all plans, increases in General Plan G and Safety Plan C member contribution rates, an increase in the Unfunded Actuarial Accrued Liability (UAAL), and an improvement in the Plan's funded ratio. LACERA is required to communicate the results to Los Angeles County

¹ Government Code Section 7522.30 of the California Public Employees' Pension Reform Act (PEPRA) requires annual adjustments to contribution rates for members entering the retirement system beginning January 1, 2013. PEPRA applies to LACERA members enrolled in General Plan G and Safety Plan C. Contribution rates for all other members who participate in contributory plans are updated every three years; the rates effective July 1, 2024 will be implemented as a result of the June 30, 2023 Actuarial Valuation report. This schedule of contribution rate updates is confirmed in LACERA's Retirement Benefit Funding Policy.

(County) so the new employer and member contribution rates can be implemented by the beginning of the upcoming fiscal year.

The key factors affecting the 2023 valuation results as compared to the 2022 valuation were as follows:

▪ **Funded Ratio**

- The increase in the Funded Ratio (based on the smoothed Valuation Assets) from 79.6% to 79.9% was primarily due to the recognition of deferred investment gains from prior years and employer contributions made to pay down the UAAL.
- These positive factors were offset by employee salary increases greater than assumed, which increased actuarial accrued liabilities (AAL).

▪ **Employer Contribution Rate**

- The increase in the weighted average aggregate employer contribution rate from 25.84% of payroll to 25.88% for all plans was primarily attributable to the greater than expected salary increases.
- Rate increases were mostly offset by the rate-reducing impact of higher payroll growth than expected due to higher salary increases than anticipated, which caused a reduction in the percentage of payroll needed to amortize the unfunded liability.

▪ **Member Contribution Rates**

- Increases in member contribution rates are recommended for General Plan G from 9.24% to 9.28% and Safety Plan C from 14.76% to 14.97% as year-to-year changes typically affect these two PEPRAs plans.
- Member contribution rates for the contributory legacy plans (General Plans A to D and Safety Plans A and B) do not change for this valuation reporting cycle.

▪ **Plan Demographics**

- The active member population increased 0.4% to a total of 96,905, with an overall average age of 46.9 years.
- The retired population (including beneficiaries) increased by 2.0% to a total of 73,008 members, with an average age of 73.1 years. The average benefit payment increased by 3.2% to \$4,986 per month.

SUMMARY OF KEY VALUATION RESULTS

The key valuation results for the past three years are presented in the table below.

Significant Valuation Results			
(\$ in Millions)	FISCAL YEAR ENDED		
	2023	2022	2021
Funded Ratio	79.9%	79.6%	79.3%
Actuarial Accrued Liability	\$90,651	\$86,320	\$81,898
Valuation Assets	\$72,415	\$68,712	\$64,909
Unfunded Actuarial Accrued Liability	\$18,236	\$17,608	\$16,989
Assumed Investment Return	7.00%	7.00%	7.00%
Actual Investment Return	6.40%	0.10%	25.20%
Retired Members and Beneficiaries (count)	73,008	71,571	69,497
Average Monthly Benefit (actual \$)	\$4,986	\$4,832	\$4,679

Analysis of Key Valuation Results

The Plan's funded ratio is 79.9% as of June 30, 2023, up from 79.6% for 2022. The estimated benefit liability is greater than the actuarial value of assets. However, this analysis reflects the actuarial asset smoothing method which recognizes previous investment gains and losses over a five-year period. Based on the market value of assets (excluding non-valuation reserves), LACERA's funded ratio is 80.0%.

Since the June 30, 2022 Actuarial Valuation, LACERA's AAL increased 5.0% to \$90.65 billion, while the Valuation Assets also increased 5.4% to \$72.42 billion.

The UAAL as of June 30, 2023, is \$18.24 billion, an increase of \$628 million from the prior year. The Plan is less than 100% funded which requires employers to make additional payments to the Plan calculated using closed 20-year layered amortization periods.

The actuary is recommending changes to the employer and PEPRA member contribution rates. The estimated annual employer contributions for the upcoming fiscal year 2024-2025 are \$2.55 billion, which includes approximately \$1.08 billion in employer normal cost contributions and \$1.47 billion in employer UAAL contributions. Recent changes to the employer and member contribution rates are shown below.

ACTUARIALLY DETERMINED CONTRIBUTIONS - EMPLOYER RATES SUMMARY

Annual valuations reset the employer contribution rates each year. Liabilities not funded through employee contributions and portfolio earnings are the responsibility of the

employer. The employer contributions include the cost of benefits expected to be earned in the future in excess of those funded by member contributions. These contributions are known as employer normal cost contributions. The actuary has calculated employer normal cost rates for all retirement plans.

EMPLOYER CONTRIBUTIONS			
(\$ in Millions)	June 30, 2023 Valuation	2022 Valuation	2021 Valuation
Employer Normal Cost Rate	11.01%	11.12%	10.88%
Employer UAAL Rate	14.87%	14.72%	13.58%
Total Employer Rate	25.88%	25.84%	24.46%
Estimated Employer Contributions	\$2,552	\$2,414	\$2,293

Normal Cost

Comparing the recommended employer normal cost rates calculated in the 2023 valuation to the 2022 valuation rates currently in effect, the general member plans' weighted average rate decreased by 0.04% of pay and the safety member plans' weighted average rate decreased by 0.22% of pay, for an aggregate decrease of 0.11%. A comparison by plan is presented in the 2023 Actuarial Valuation report's Exhibit 10 on page 30. Based on the actuary's recommended employer contribution rates for individual plans, the overall impact is to decrease the employer normal cost contribution rate from 11.12% to 11.01% of estimated payroll.

UAAL

The employer is also responsible to contribute for funding shortfalls related to liabilities accrued in the past (which includes changes in the economic and non-economic assumptions affecting past service, if any). This portion of the employer's contribution is known as the UAAL contribution. The Board adopted a closed 20-year layered amortization method to discharge an unfunded liability when the funded ratio is below 100%. The funded ratio as of June 30, 2023 is 79.9%, the employer is required to contribute an additional 14.87% of covered payroll towards the unfunded liability for the fiscal year beginning July 1, 2024.

Together, the employer's 11.01% normal cost and 14.87% UAAL contribution rates equal a 25.88% total employer weighted average contribution rate for all plans. For the fiscal year 2024-2025, the annual employer contribution is projected to increase by \$138 million compared to fiscal year 2023-2024, resulting in an annual employer cost of \$2.55 billion.

ACTUARIALLY DETERMINED MEMBER CONTRIBUTION RATES SUMMARY

For members of General Plan G and Safety Plan C, employee contribution rates are also recalculated annually based on one-half of the Plan's normal cost rate. Member contribution rates for all contributory legacy plans (General Plans A, B, C, and D and Safety Plans A and B) are updated every three years following a change in actuarial

methods and assumptions. Generally, this occurs following the completion of an investigation of experience study, which was completed as of June 30, 2022.

MEMBER CONTRIBUTIONS			
(rates shown as a percentage of payroll)	FISCAL YEAR BEGINNING		
	July 1, 2024	July 1, 2023	July 1, 2022
<u>PEPRA Plans (all ages):</u>			
Employee General Plan G	9.28%	9.24%	9.08%
Employee Safety Plan C	14.97%	14.76%	14.33%
<u>Sample Legacy Plans (entry age 25):</u>			
Employee General Plan D	7.22%	7.22%	6.95%
Employee Safety Plan B	13.04%	13.04%	12.61%

PEPRA Plans

For the plan tiers using single-rate employee contribution rates (plan tiers General Plan G and Safety Plan C), members are required to contribute at least one-half of the total normal cost rate for the plan. The actuary recommends adjustments to the PEPRA plan tier contributions annually. Effective July 1, 2024, slightly higher employee contribution rates are recommended. The General Plan G member contribution rate will increase by 0.04% to 9.28% and the Safety Plan C rate will increase by 0.21% to 14.97%.

Legacy Plans

Member contribution rates for those participating in the closed contributory plan tiers (General Plans A, B, C and D and Safety Plans A and B) will not change as of July 1, 2024. For legacy plan tiers using age-based employee contribution rates, LACERA’s actuary will recommend adjusted member rates, as required, due to changes in the underlying assumptions and methodologies used to calculate the employee rates. Therefore, it is expected the age-based employee rates will change no more frequently than every three years when the actuary reviews the assumptions and methodologies as part of the experience study.

Member contribution rates for all plans at every entry age can be found in the 2023 Actuarial Valuation report’s Appendix D on page 107.

LEGAL AUTHORITY

Provisions contained in the County Employees Retirement Law of 1937 (California Government Code, Sections 31450-31899.1) (CERL), the California Public Employees’ Pension Reform Act of 2013 (California Government Code, Section 7522-7522.74) (PEPRA), and the California Constitution (Article XVI, Section 17) govern the actuarial process at LACERA.

Section 31453 of the CERL requires LACERA to obtain an actuarial valuation at least once every three years. The valuation shall be conducted under the supervision of an actuary, shall cover the mortality, service, and compensation experience of the members

and beneficiaries, and shall evaluate the assets and liabilities of the retirement fund. Government Code Section 7504(a) additionally provides, for all California public pension systems, not less than every three years, the fund actuary “shall perform a valuation of the system utilizing actuarial assumptions and techniques established by the agency that are, in the aggregate, reasonably related to the experience and the actuary’s best estimate of anticipated experience under the system. Any differences between the actuarial assumptions and techniques used by the actuary that differ significantly from those established by the agency shall be disclosed in the actuary’s report and the effect of the differences on the actuary’s statement of costs and obligations shall be shown.” Section 7522.30 PEPRAs requires annual adjustments to contribution rates for members entering the retirement system beginning January 1, 2013. PEPRAs applies to LACERA members enrolled in General Plan G and Safety Plan C.

The California Constitution, Article XVI, Section 17(a) of the Constitution provides that public pension trustees “shall discharge their duties with respect to the system solely in the interest of, and for the exclusive purposes of providing benefits to, participants and their beneficiaries, minimizing employer contributions thereto, and defraying reasonable expenses of administering the system. A retirement board’s duty to its participants and their beneficiaries shall take precedence over any other duty.” To comply with their fiduciary duty with respect to actuarial decisions, the Constitution requires that each of these three elements be considered and evaluated with the interests of members and beneficiaries being paramount.

Article XVI, Section 17(e), assigns “the sole and exclusive power to provide for actuarial services” to the governing body of the public employees’ retirement system. Such power is given by the Constitution in order to “assure the competency of the assets of the public pension or retirement system.”

Section 31453 further requires the Board of Investments to transmit its recommendations concerning assumptions, interest rates, and contributions to the Board of Supervisors at least 45 days prior to the beginning of the succeeding fiscal year. Section 31454 requires the Board of Supervisors to adjust contribution rates in accordance with LACERA’s recommendations no later than 90 days following the beginning of the immediately succeeding fiscal year, which means that the adjustments must be made no later than September 29, 2024. Section 31454.1 exempts the independent assumptions and calculations of LACERA’s actuary from “meet and confer” requirements. This same section also recognizes the “meet and confer” responsibility of the Board of Investments or Board of Supervisors in implementing the recommendations contained in the actuarial valuation report.

LACERA’s RETIREMENT BENEFIT FUNDING POLICY

LACERA’s Retirement Benefit Funding Policy’s main goal is to provide benefit security for its members as well as achieving and maintaining stable employer contributions that are as low as practicably possible. The Policy requires annual actuarial valuations to review the retirement system’s funding progress, and to set the employer contribution and

member contribution rates according to the Plan's legal documents (CERL and PEPRA), the relevant provisions of which are described in the Legal Authority section above.

ACTUARIAL RISK DISCUSSION

Under Actuarial Standard of Practice (ASOP) Number 51 (ASOP 51), first effective with the June 30, 2019 valuation, the 2023 Actuarial Valuation report includes a risk discussion (see pages 42-46) in which Milliman assesses and discloses the main risks associated with measuring pension liabilities and the determination of pension plan contributions. This section is intended to identify significant risks, assess the risks, and disclose plan maturity measures and historical information necessary to understand the risks. Effective for this June 30, 2023 valuation report, ASOP 4 requires the consulting actuary to calculate and disclose a low-default-risk obligation measure (LDROM) of the benefits earned or accrued under the actuarial cost method used as of the measurement date. Page 44 includes this new disclosure provided for additional information that does not impact the funding of the Plan which is based on the valuation assumptions.

In addition to the ASOP 51 discussion in the annual valuations, Milliman will prepare a separate ASOP 51 risk report based upon this 2023 Actuarial Valuation report, which will be placed on the Board agenda and discussed at a future meeting.

CONCLUSION

The LACERA Board of Investments adopted the Retirement Benefit Funding Policy to require the employer contribution rates to be adjusted annually based on the LACERA's annual valuation. Member contribution rates are updated annually for PEPRA plans established beginning January 1, 2013, and every three years for all other Legacy plans or when valuation assumptions change. The Plan actuary, Milliman, performed the 2023 actuarial valuation; the employer contribution rates (all tiers) will change effective July 1, 2024.

Milliman recommends increases to member contribution rates for General Plan G and Safety Plan C but not for Legacy plans, and employer contribution rate changes for all retirement plans. California State Law requires LACERA to transmit the contribution rate recommendations to the Board of Supervisors on or before May 15 and for the Board of Supervisors to implement the recommended contribution rates by July 1 but no later than September 29.

LACERA's consulting actuaries, Nick Collier and Craig Glyde with Milliman, will be attending the December 13, 2023 meeting to discuss the 2023 Actuarial Valuation report and answer any questions.

RE: 2023 Actuarial Valuation of Retirement Benefits

November 30, 2023

Page 8

Attachments

- I. Milliman's 2023 Actuarial Valuation of Retirement Benefits Report
- II. Milliman's December 13, 2023, Presentation Slides

SHK:tg

2023_Actuarial Valuation of Retirement Benefits BOI Memo

c: Luis A. Lugo, LACERA Laura Guglielmo, LACERA JJ Popowich, LACERA
Jonathan Grabel, LACERA Steven P. Rice, LACERA Richard Bendall, LACERA
Fesia Davenport, CEO, Los Angeles County

Attachment I

Milliman's 2023 Actuarial Valuation of Retirement Benefits Report



Los Angeles County Employees Retirement Association

Actuarial Valuation of Retirement Benefits

June 30, 2023

Prepared by:

Nick J. Collier, ASA, EA, MAAA
Consulting Actuary

Craig Glyde, ASA, EA, MAAA
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November 21, 2023

Board of Investments
Los Angeles County Employees Retirement Association
300 North Lake Avenue, Suite 820
Pasadena, CA 91101-4199

Re: Los Angeles County Employees Retirement Association as of June 30, 2023

Dear Trustees of the Board:

As part of our engagement with the Los Angeles County Employees Retirement Association (LACERA), we have performed an actuarial valuation of LACERA retirement benefits as of June 30, 2023. This report reflects the benefit provisions and contribution rates in effect as of June 30, 2023, and LACERA's Retirement Benefit Funding Policy (Funding Policy) that was adopted in December of 2009 and amended as of February 2013, and reflects changes adopted at the Board of Investments December 2022 meeting.

The main purposes of this report are:

- to provide the actuarially determined employer and member contribution rates for the fiscal year beginning July 1, 2024;
- to assess the funded position of the Plan as of June 30, 2023; and
- to review the experience under the Plan for the valuation year ending June 30, 2023.

The calculations in this report have been made on a basis consistent with our understanding of LACERA's funding requirements as stated under their Funding Policy. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes. Milliman will provide LACERA financial reporting results relevant to GASB Statements No. 67 and 68 in separate reports.

Actuarial assumptions

Actuarial assumptions, including discount rates, mortality tables, and others identified in this report, and actuarial cost methods were adopted by the LACERA Board of Investments (BOI) at its December 2022 meeting. The BOI is responsible for selecting LACERA's funding policy, actuarial valuation methods, asset valuation methods, and assumptions. The policies, methods, and assumptions used in this valuation are those that have been so adopted and are described in this report. LACERA is solely responsible for communicating to Milliman any changes required thereto. All costs, liabilities, rates of interest, and other factors for LACERA have been determined on the basis of actuarial assumptions and methods which, in our professional opinion, are individually reasonable (taking into account the experience of LACERA and reasonable expectations); and that, in combination, offer a reasonable estimate of anticipated experience affecting LACERA and are expected to have no significant bias.

Variability of results

This valuation report is only an estimate of LACERA's financial condition as of a single date. It can neither predict LACERA's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of benefits, only the timing of contributions. While the valuation is based on an array of individually

reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct. Determining results using alternative assumptions is outside the scope of our engagement, although for informational purposes we have shown valuation results at +/- 0.5% on the investment return assumption at the end of the Executive Summary.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the Plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements. The Board of Investments has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in Appendix A of this report.

Reliance

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by LACERA's staff. This information includes, but is not limited to, statutory provisions, employee data, and financial information. In our examination of these data, we have found them to be reasonably consistent and comparable with data used for other purposes. Since the valuation results are dependent on the integrity of the data supplied, the results can be expected to differ if the underlying data is incomplete or missing. It should be noted that if any data or other information is inaccurate or incomplete, our calculations may need to be revised.

No legal duty to third-party recipients

Milliman's work is prepared solely for the internal business use of LACERA. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third-party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions:

- (a) LACERA may provide a copy of Milliman's work, in its entirety, to LACERA's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit LACERA.
- (b) LACERA may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

No third-party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

Models

The valuation results were developed using models employing standard actuarial techniques. We have reviewed the models, including their inputs, calculations, and outputs for consistency, reasonableness, and appropriateness to the intended purpose and in compliance with generally accepted actuarial practice and relevant actuarial standards of practice. Reliance on other experts is reflected in Milliman's capital market assumptions, and in Milliman's expected return model maintained by Milliman investment consultants.

Qualifications and Certification

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal, investment, or accounting counsel.

The signing actuaries are independent of the Plan Sponsors. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the principles prescribed by the Actuarial Standards Board and the *Code of Professional Conduct and Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States*, published by the American Academy of Actuaries. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

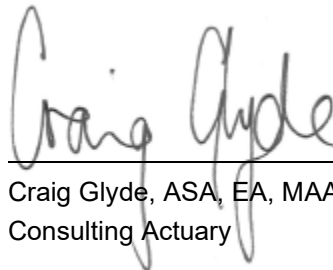
We would like to express our appreciation to members of LACERA staff who gave substantial assistance in supplying the data on which this report is based.

We respectfully submit the following report, and we look forward to discussing it with you.

Sincerely,

A handwritten signature in black ink that reads 'Nick Collier'.

Nick Collier, ASA, EA, MAAA
Consulting Actuary

A handwritten signature in black ink that reads 'Craig Glyde'.

Craig Glyde, ASA, EA, MAAA
Consulting Actuary

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1. Summary of Findings

2023 Valuation Results

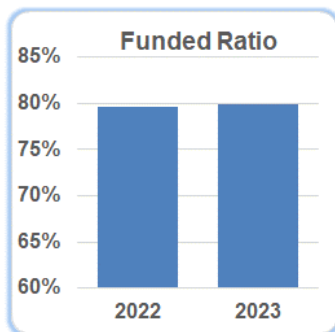
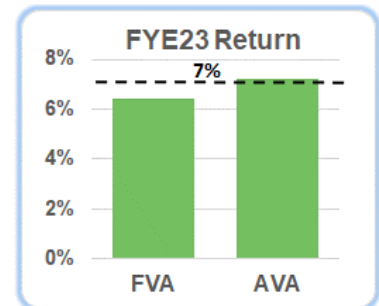
	Valuation Date	
	June 30, 2023	June 30, 2022
Employer Contribution Rate	25.88% ⁽¹⁾	25.84% ⁽²⁾
Funded Ratio	79.9%	79.6%

1. The June 30, 2023 valuation calculates the employer contribution rate effective July 1, 2024.
2. The June 30, 2022 valuation calculates the employer contribution rate effective July 1, 2023.

This report presents the results of the June 30, 2023 actuarial valuation. This valuation determines the member and employer contribution rates payable starting July 1, 2024. Several key points are summarized below:

Investment Returns

For the fiscal year ending in 2023, the fund returned 6.4% on a fair-value (FVA) basis (net of investment expenses). In total, there was a small loss on the fair-value of assets basis relative to the assumed rate of return of 7.0%. The return on the actuarial value of assets (AVA) was 7.2% (equivalent to a gain of \$0.1 billion relative to the assumed rate) as a result of recognizing deferred investment gains from prior years. Effective June 30, 2023 there are deferred investment gains of \$0.1 billion to be recognized evenly over the next two fiscal years.



Funded Ratio

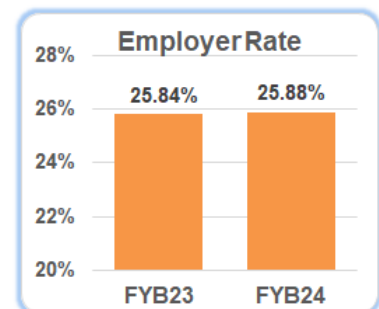
The Funded Ratio increased from 79.6% to 79.9% on an actuarial value of assets basis. Contributions to amortize the Unfunded Actuarial Accrued Liability (UAAL) increased the Funded Ratio, and greater than assumed salary increases partially offset the positive factors. On a fair-value basis, the Funded Ratio increased from 79.9% to 80.0%.

The [Analysis of Change – Funded Ratio](#) section that follows later in Section 1 provides an analysis of the sources of change in the Funded Ratio since last year.

Employer Contribution Rate

The total calculated employer contribution rate increased from the prior valuation by 0.04% of payroll, from 25.84% to 25.88%. The most significant factor causing this increase was the greater than expected salary increases, however this was mostly offset by the rate-reducing impact of higher payroll growth than expected, which caused a reduction in the percentage of payroll needed to amortize the unfunded liability.

The [Analysis of Change – Employer Contribution Rate](#) section provides an analysis of the sources of change in employer contribution rates since last year. In addition, the section “Projected Future Employer Contribution Rates” below shows a 10-year projection of employer contribution rates.

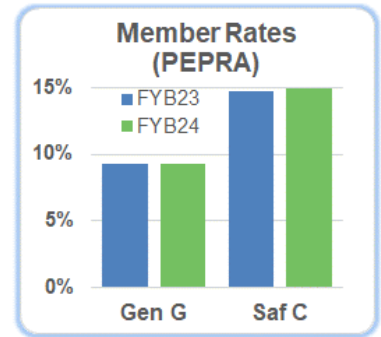


Member Contribution Rates

New member contribution rates are recommended for General Plan G and Safety Plan C effective July 1, 2024. General Plan G and Safety Plan C member rates are required to be equal to 50% of the Gross Normal Cost rate of the respective plan. The recommended member contribution rates are higher for General Plan G (9.24% increased to 9.28%) and Safety Plan C (14.76% increased to 14.97%) relative to the fiscal year beginning July 1, 2023. The high level of inflation resulted in the PEPRA compensation limit increasing more than expected which caused an increase in the projected level of benefits to be paid and the corresponding Normal Cost rate. As the contribution rate for PEPRA members is based on the Normal Cost rate, this caused member contribution rates for the two PEPRA plans to increase more than expected.

Member contribution rates for the contributory legacy plans (General Plans A to D and Safety Plans A and B) vary based on a member’s entry age to LACERA and the underlying actuarial assumptions. Since no new assumptions were adopted effective with this valuation, there are no recommended changes to member contribution rates for the legacy plans.

Member contribution rates are discussed in Section 5 of this report.

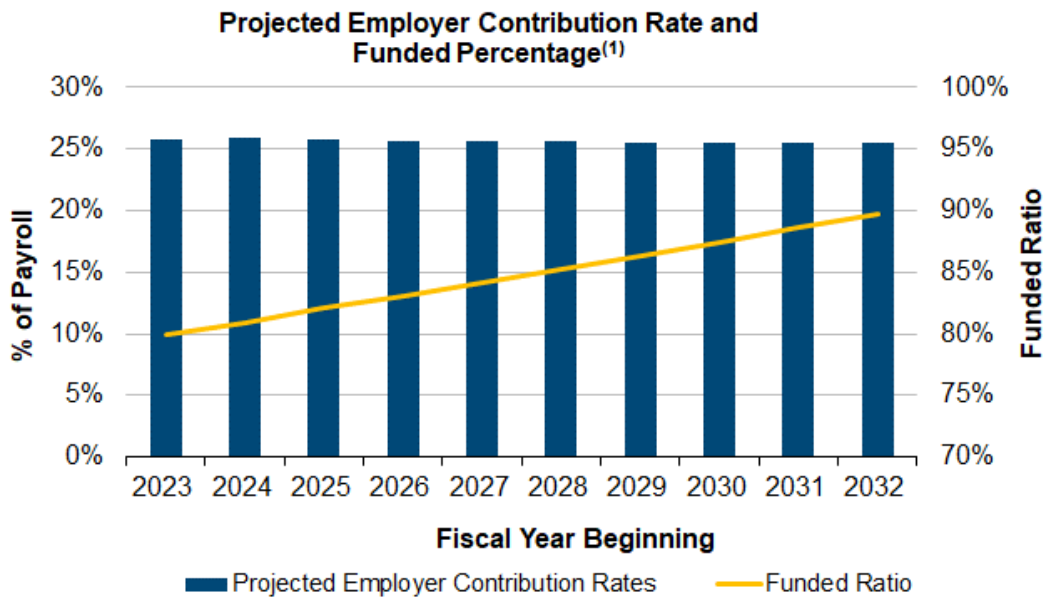


Projected Future Employer Contribution Rates

The employer contribution rate beginning July 1, 2024 is 25.88% of payroll, which is a weighted average for all LACERA plans. The actual percent of payroll to be contributed by the employers varies by plan as shown in Exhibit 11.

The calculated employer contribution rate is effective for the fiscal year beginning July 1, 2024. Employer contribution rates in future years will be largely dependent on actual experience relative to that projected by the actuarial assumptions, particularly the investment return assumption. Additionally, if the assumptions change, this could also have a material impact on future results. Even if all actuarial assumptions are met over the next few years and there are no changes in the underlying assumptions, we project changes in future employer contribution rates as deferred investment gains and losses are recognized and member demographics change as a higher percentage of active members participate in the PEPRA plans.

We have performed a 10-year projection of the employer contribution rate and Funded Ratio assuming that all actuarial assumptions are met (including 10 years of investment returns based on fair value of 7.0% per year). This projection is shown in the chart below. It should be noted that actual experience will not exactly match the actuarial assumptions over the period, and a different pattern of future employer contribution rates will likely emerge.

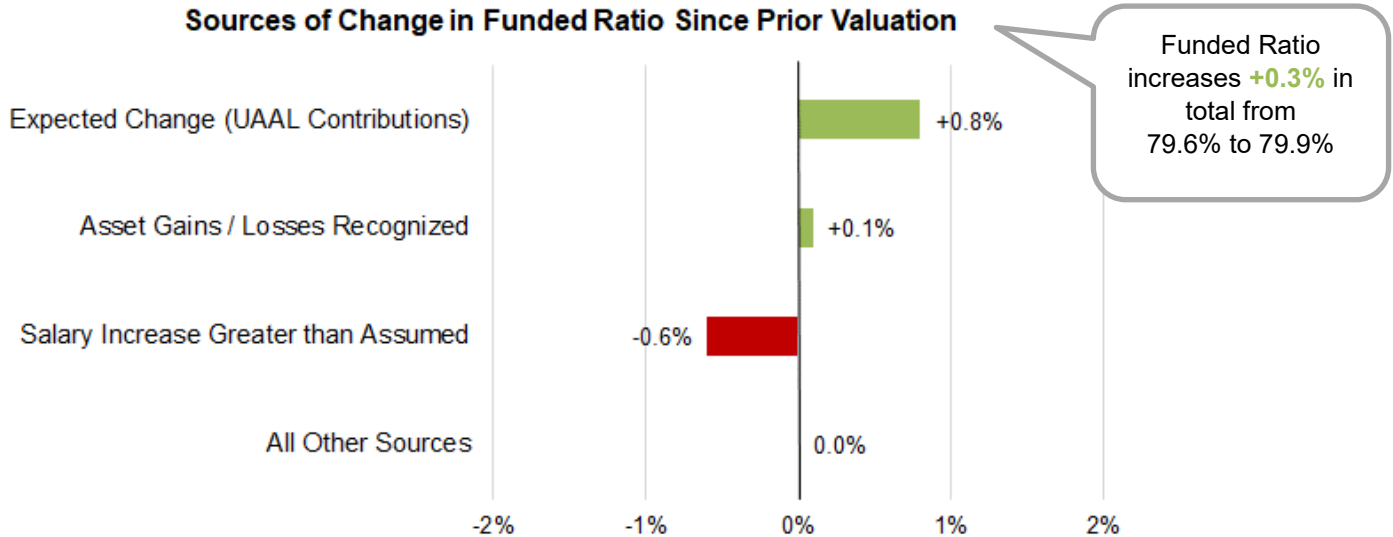


1. Projections assume that actuarial assumptions are met after June 30, 2023, and reflect the scheduled recognition of asset gains and losses currently being deferred.

As shown in the chart above, if all assumptions are met in future years, the employer contribution rate will decrease slightly from the 25.88% rate calculated in this valuation over the next few years. Under this projection scenario, and assuming future experience is exactly as assumed, the Funded Ratio is projected to be approximately 90% as of June 30, 2032 and approximately 100% as of June 30, 2040. However, future results will vary as actual experience will not exactly meet the assumptions.

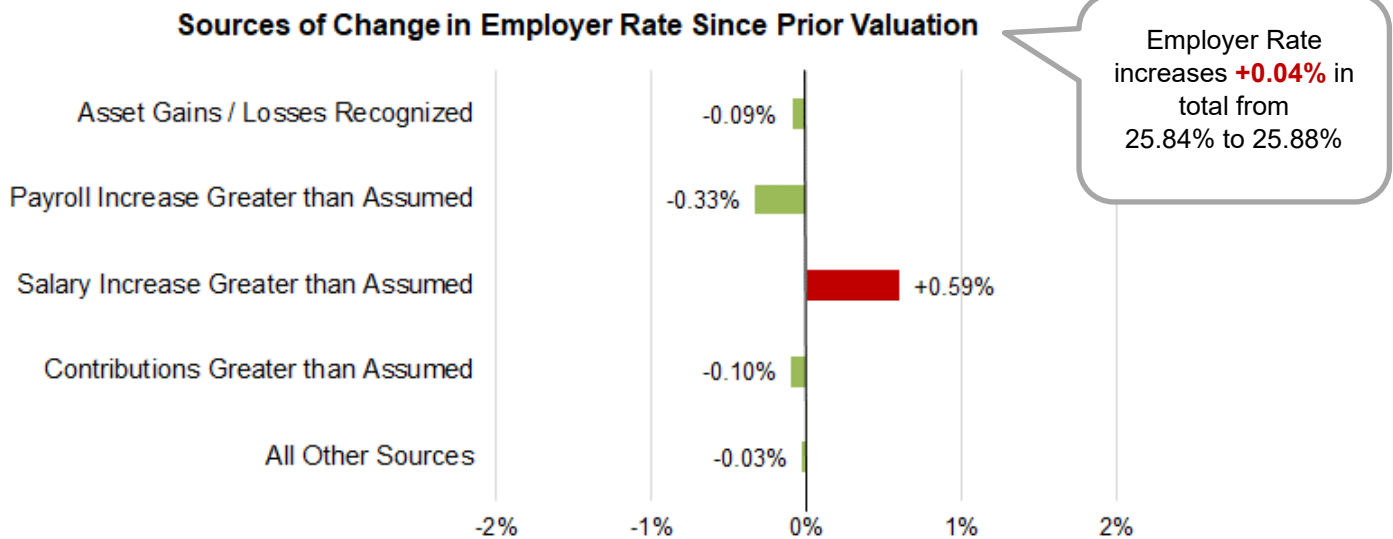
Analysis of Change – Funded Ratio

The following table shows an analysis of the primary causes of the change in the Funded Ratio since the last valuation. Employer contributions to amortize the unfunded liability and salary increases greater than assumed were the most significant factor impacting the Funded Ratio, although these were largely offsetting factors.



Analysis of Change – Employer Contribution Rate

The following table shows an analysis of the primary causes of the change in the employer contribution rate since the last valuation. Salary and payroll increases greater than assumed were the most significant factors causing the change in the employer contribution rate, although their impacts were mostly offsetting.

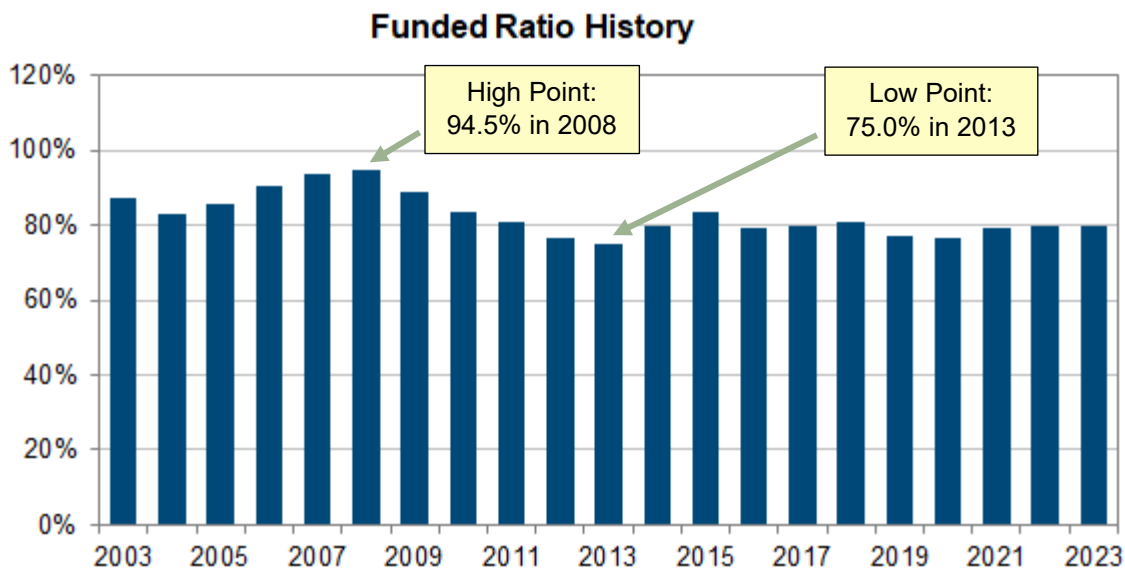


Funding Progress

One measure of the funding adequacy of the system is the Funded Ratio, which compares the Valuation Assets (the actuarial value of assets net of certain non-valuation reserves) to the Actuarial Accrued Liability (AAL). The Funded Ratio shown in this valuation is appropriate for assessing the future contributions needed. Other calculations may be necessary for other purposes, such as assessing the sufficiency of current system assets to satisfy the estimated cost of settling the system’s accrued benefit obligations.

As shown in the graph that follows, the Funded Ratio was 94.5% as of June 30, 2008, but decreased steadily over the five-year period following the economic downturn to a low of 75.0% as of June 30, 2013 as asset losses were gradually recognized. The Funded Ratio has increased slightly since that time, although this increase has been slow as the actuarial assumptions have been strengthened over the period, thereby increasing the AAL and offsetting some of the increase in the Funded Ratio from other sources.

A historical perspective of the Funded Ratio is shown in the following chart.



Assets

On June 30, 2023, the fair value of the fund (including non-valuation reserves) was \$73.9 billion. The actuarial value of assets was \$73.8 billion, split between \$1.4 billion of Non-Valuation Assets and \$72.4 billion of Valuation Assets. The actuarial value of assets is approximately 100% of the fair value of assets.

On a fair-value basis, for the fiscal year ended June 30, 2023, LACERA earned 6.4% net of investment expenses, as reported by LACERA in the June 30, 2023 Annual Comprehensive Financial Report (ACFR). The fair value of assets is used in calculating the actuarial value of assets. Under the actuarial asset method, investment gains and losses are generally recognized (or smoothed in) over a five-year period. Due to the recognition of current and deferred asset gains and losses (in total a net asset gain), the return on the actuarial valuation of assets for the most recent fiscal year is 7.2% net of investment and administrative expenses, which is higher than the assumed return for the prior year of 7.0%.

Valuation Assets are used in the calculation of the UAAL contribution rate and Funded Ratio. Valuation Assets are equal to the actuarial value of assets less certain non-valuation reserves. The Valuation Assets of \$72.4 billion are equal to 79.9% of the \$90.7 billion AAL.

The non-valuation reserves are set aside for obligations or contingencies and are excluded from the assets used in the funding valuation. They are not used to fund the retirement benefits unless explicitly stated. As of June 30, 2023, the non-valuation reserves include:

- the Contingency Reserve, which is equal to 1% of the fair value of assets, or \$739 million, and
- the STAR Reserve of \$611.5 million.

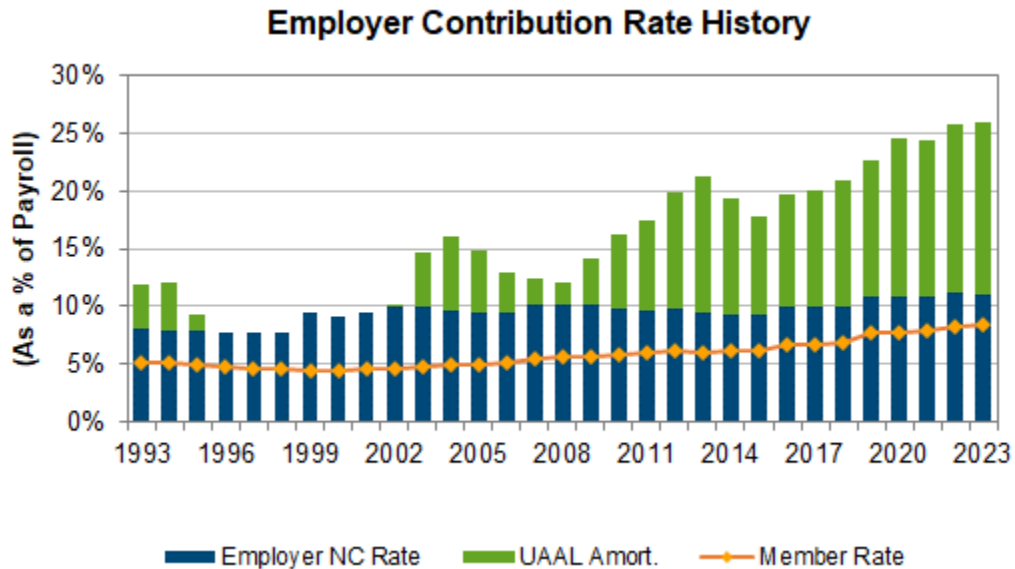
Note that this Contingency Reserve is different than the Contingency Reserve amount determined by LACERA for accounting purposes and included in the ACFR.

Future Impact of Recognition of Deferred Gains/Losses

The smoothing method is currently deferring \$87 million in investment gains. As the currently deferred gains are recognized over upcoming valuations, it is projected there will be small decreases in the calculated employer contribution rate. The potential future impact of the recognition of these deferred gains on the projected employer contribution rate is included in the graph on page 3.

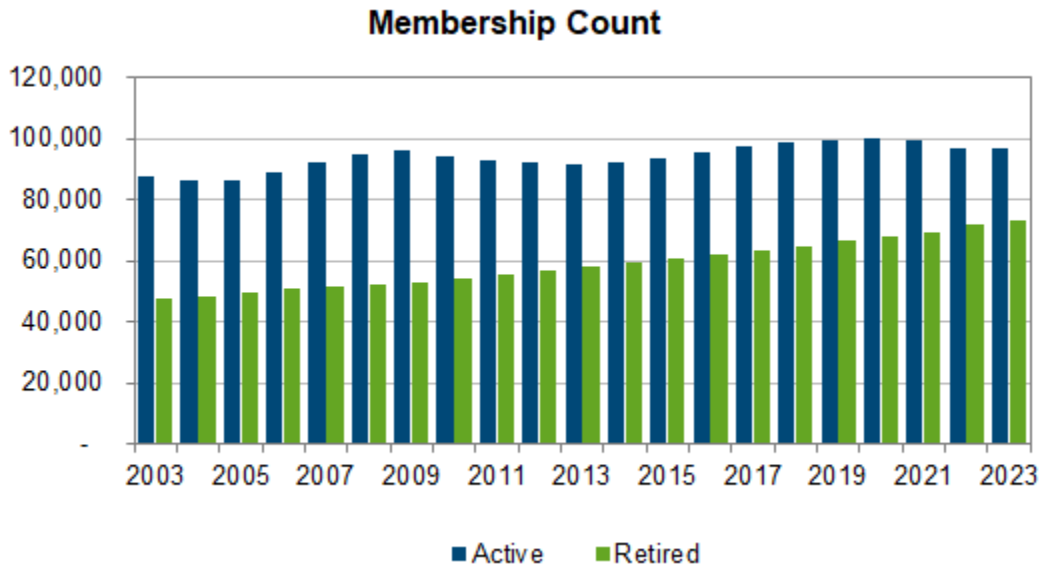
Employer Contribution Rate History

Based on the results of the valuation, the calculated employer contribution rate will increase for the fiscal year beginning in 2024 to a rate of 25.88% of pay, compared to 25.84% for the fiscal year beginning in 2023. A historical perspective of the employer contribution rates is shown in the following chart.

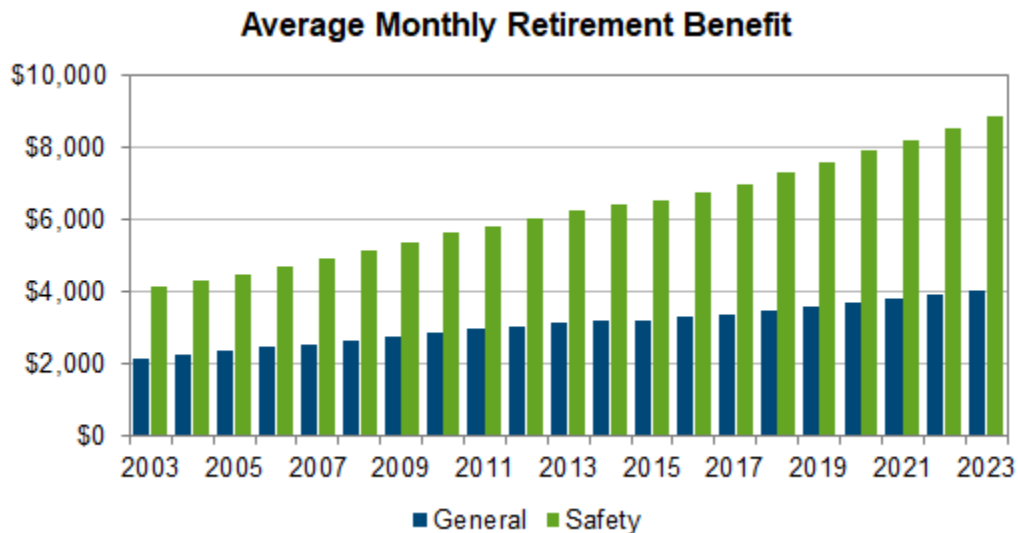


Member Information

Active payroll and active membership have both increased since 2023. As of June 30, 2023, the annualized payroll is \$9.5 billion for 96,905 active members. This reflects a 5.5% increase in total payroll and a 0.4% increase in the number of active members. Average member pay increased by 5.1% over the period.



Retired member counts and average retirement benefit amounts continue to increase steadily. For 2023, there were 73,008 retired members and beneficiaries with an average benefit of \$4,986 per month. This represents a 2.0% increase in count and a 3.2% increase in the average monthly benefit.



The charts show that over the last 20 years the number of retired members has grown faster than the number of active members, and the average monthly benefit of retired members and beneficiaries has roughly doubled. This is typical of a maturing retirement system. The increasing number of retirees and average monthly benefit is a key driver of the negative cashflows (contributions paid in less than benefits paid out) experienced over the last

several years, and that are projected to continue growing. Cashflow history and projections are shown and described in more detail in Section 8.

Analysis of Change in Member Population

The following table summarizes the year-to-year change in member population.

	Active Members	Inactive Members	Service Retired Members	Disabled Retired Members	Beneficiaries in Pay	Total
As of June 30, 2022	96,539	19,047	51,471	10,449	9,651	187,157
New Members	5,799	325	6		767	6,897
Status Change:						
to Active	253	(252)	(1)			-
to Inactive	(2,258)	2,258				-
to Service Retirement	(2,577)	(420)	2,997			-
to Disabled Retirement	(287)	(14)	(298)	599		-
Refunds	(364)	(482)				(846)
Terminated non-vested	(7)					(7)
Benefits Expired			(17)		(12)	(29)
Deaths	(193)	(48)	(1,749)	(311)	(544)	(2,845)
As of June 30, 2023	96,905	20,414	52,409	10,737	9,862	190,327

Note: Inactive Members include non-vested former members who have not taken a refund of their contributions.

Sensitivity to Investment Return Assumption

The valuation results are projections based on the actuarial assumptions. Actual experience will differ from these assumptions, either increasing or decreasing the ultimate cost. Of the assumptions, the investment return generally has the biggest impact. The following table provides a simple analysis on how the short-term costs are affected by the investment return assumption. Note that the long-term cost of the Plan will be largely driven by actual investment returns and other experience; the assumptions used in the valuation impact the timing of the contributions over the long term.

	Investment Return Assumption		
	Current 7.00%	+0.5% 7.50%	-0.5% 6.50%
Employer Contribution Rate	25.88%	20.96%	31.03%
Change		-4.92%	5.15%
Funded Ratio	79.9%	84.8%	75.1%
Change		4.9%	-4.8%

Risk Discussion

Additional risks to the Plan are described in more detail in Section 9: Risk Disclosure. Some key points that can be seen in this report are:

- **Maturity:** As previously discussed, LACERA continues to mature as a system. One example of the impact of this maturity is that the employer contribution rate is becoming more sensitive to investment gains or losses and other experience. This sensitivity is measured by the asset and liability volatility ratios discussed in Section 9.
- **Risk Factors:** We believe investment returns are the greatest potential risk to future valuation results of LACERA. One way to measure the potential impact is using the Asset Volatility Ratio (AVR), which is a measure of the level of assets to payroll. LACERA's AVR of 7.6 implies that a 10% investment gain or loss relative to the assumed 7% investment return (that is, an investment return of -3% or +17%) will result in a 5.4% of pay increase (or decrease) in the employer contribution rate (after investment gains or losses are smoothed in).

Payroll growth lower than assumed by the assumptions is another potential risk as it will result in increases in the employer contribution rate. Although the employer contribution rate may increase, total employer contributions may not be as significantly impacted as the higher rates would be applied to a smaller payroll base.

- **Variation:** Although we believe the actuarial assumptions provide a reasonable estimate of future experience, it is almost certain that future results will vary from those projected by the actuarial assumptions, either better or worse. One way to assess the potential future variation is to look at the past. The Funding Progress and Employer Contribution Rate History subsections above provide a historical perspective of LACERA's Funded Ratios and the employer contribution rate. These both show noticeable year-to-year variation, both up and down, over the last 20 years.

Summary Valuation Results

Exhibit 1 on the following page presents a summary of key valuation elements as of June 30, 2023 and June 30, 2022 and shows the relative change over the past year. More detail on each of these elements can be found in the following sections and exhibits of this report.

Exhibit 1
Summary of Significant Valuation Results

	June 30, 2023	June 30, 2022	Percentage Change
Total Membership			
A. Active Members	96,905	96,539	0.4%
B. Retired Members & Beneficiaries	73,008	71,571	2.0%
C. Vested Former Members ⁽¹⁾	20,414	19,047	7.2%
D. Total	<u>190,327</u>	<u>187,157</u>	1.7%
Pay Rate as of valuation date			
A. Annual Total (\$millions)	\$ 9,548	\$ 9,048	5.5%
B. Monthly Average per Active Member	8,211	7,811	5.1%
Average Monthly Benefit Paid to Current Retirees and Beneficiaries			
A. Service Retirement	4,824	4,707	2.5%
B. Disability Retirement	7,094	6,744	5.2%
C. Surviving Spouse and Dependents	3,554	3,429	3.6%
D. Total	4,986	4,832	3.2%
Actuarial Accrued Liability (\$millions)			
A. Active Members	38,535	36,683	5.0%
B. Retired Members	50,528	48,161	4.9%
C. Vested Former Members	1,588	1,476	7.6%
D. Total	<u>90,651</u>	<u>86,320</u>	5.0%
Assets			
A. Fair Value of Fund (\$millions)	73,852	70,290	5.1%
B. Actuarial Value (\$millions)			
1. Valuation Reserves	72,415	68,712	5.4%
2. Non-valuation Reserves	1,350	1,317	2.5%
C. Annual Investment Return			
1. Fair Value Basis (Net Return)	6.4%	0.1%	n/a
2. Valuation (Actuarial) Basis	7.2%	8.5%	n/a
Unfunded Actuarial Accrued Liability (\$ millions)	\$ 18,236	\$ 17,608	3.6%
Employer contribution rate for all plans combined as a percent of total payroll			
A. Gross Normal Cost	19.38%	19.33%	0.3%
B. Member Contributions ⁽²⁾	<u>(8.37)%</u>	<u>(8.21)%</u>	1.9%
C. Employer Normal Cost	11.01%	11.12%	(1.0)%
D. UAAL Amortization	<u>14.87%</u>	<u>14.72%</u>	1.0%
E. Employer Contribution Rate	25.88%	25.84%	0.2%
Funded Ratio	79.9%	79.6%	0.4%
Results Based on Fair Value (Informational Purposes Only)			
Calculated Contribution Rate	25.82%	25.63%	0.7%
Funded Ratio (excluding non-valuation reserves)	80.0%	79.9%	0.1%

1. Includes non-vested former members with contributions on deposit.

2. Includes non-contributory members. The average rate for contributory plans increased from 9.45% to 9.54%.

2. Scope of the Report

This report presents the actuarial valuation of the Los Angeles County Employees Retirement Association as of June 30, 2023. This valuation was requested by the Board of Investments. Section 31453 of the County Employees Retirement Law of 1937 (the CERL) requires an actuarial valuation to be performed at least every three years for the purpose of setting contribution rates. The 2023 valuation meets this requirement. Under LACERA's Funding Policy, annual valuations determine the employer contribution rates each year. Member contribution rates for all plans except General Plan G and Safety Plan C are set in years in which relevant actuarial assumptions are altered. For members of General Plan G and Safety Plan C, member contribution rates are recalculated each year, based on one-half of the Plan's normal cost rate.

A summary of the findings resulting from this valuation is presented in the previous section.

Section 3 describes the assets and investment experience of the Plan.

- The assets and investment income are presented in Exhibits 2-4.
- Exhibit 5 develops the actuarial value of assets as of June 30, 2023.
- Exhibit 6 develops the Valuation Assets used for funding benefits.

Section 4 describes the benefit obligations of LACERA.

- Exhibit 7 is the Actuarial Balance Sheet.
- Exhibit 8a analyzes the change in UAAL, and Exhibit 8b shows a history of these changes.

Section 5 discusses the member contribution rates.

Section 6 discusses the employer contributions rates.

Section 7 discloses supplemental information for use in the Annual Comprehensive Financial Report (ACFR). Milliman provides LACERA financial reporting information relevant to GASB Statements No. 67 and 68 in separate reports.

Section 8 shows the estimated cash flow of the Plan, including a projection of both contributions and benefit payments.

Section 9 provides a discussion of the risks to the Plan. A more comprehensive analysis of risks was provided as part of Milliman's Risk Assessment based on the June 30, 2022 actuarial valuation.

This report includes several appendices:

- Appendix A Summary of the actuarial procedures and assumptions used to estimate liabilities and contributions.
- Appendix B Summary of the current benefit structure, as determined by the provisions of governing law, on June 30, 2023.
- Appendix C Schedules of valuation data classified by various categories of plan members.
- Appendix D Member contribution rates by plan.
- Appendix E Historical information.
- Appendix F A glossary of actuarial terms used in this report.

3. Assets

This section of the report focuses on the assets accumulated to pay retirement benefits when due to all current members of LACERA as of the valuation date. These assets are also used to determine the amount of contributions required for funding purposes. A historical summary of the Plan's assets is presented below (dollar amounts in billions).

	Fair Value of Total Assets	Actuarial Value		Total Fund Return (%) ⁽¹⁾
		Non-Valuation Reserves	Valuation Assets	
2014	\$ 47.7	0.5	43.7	16.5
2015	48.8	0.5	47.3	4.1
2016	47.8	0.5	49.4	0.8
2017	52.7	0.5	52.2	12.7
2018	56.3	0.6	55.2	9.0
2019	58.3	0.6	57.6	6.4
2020	58.5	0.6	59.8	1.8
2021	73.0	0.7	64.9	25.2
2022	70.3	1.3	68.7	0.1
2023	73.9	1.4	72.4	6.4

1. As reported in the Investment Section of LACERA's ACFR for the fiscal year ended June 30, 2023. All returns are shown net of investment expenses and calculated on a time-weighted basis.

On June 30, 2023, the total fair value of assets restricted for pension benefits was \$73.9 billion. The actuarial value of assets was determined to be \$73.8 billion, including the non-valuation reserves. The average total investment return for the last 10 years is 8.1% net of fees, as reported by LACERA.

Financial Exhibits

Exhibit 2 presents a Statement of Fiduciary Net Position and Exhibit 3 presents a Statement of Changes in Fiduciary Net Position. Exhibit 4 describes the allocation of LACERA's assets by the various reserve values determined for accounting purposes as disclosed in the audited financial statements.

Exhibits 2-4 are taken directly from data furnished to us by LACERA in its annual financial report. We have accepted these tables for use in this report without audit, but we have reviewed them both for the prior year and the current year for reasonableness and consistency with previous reports.

Actuarial Asset Method

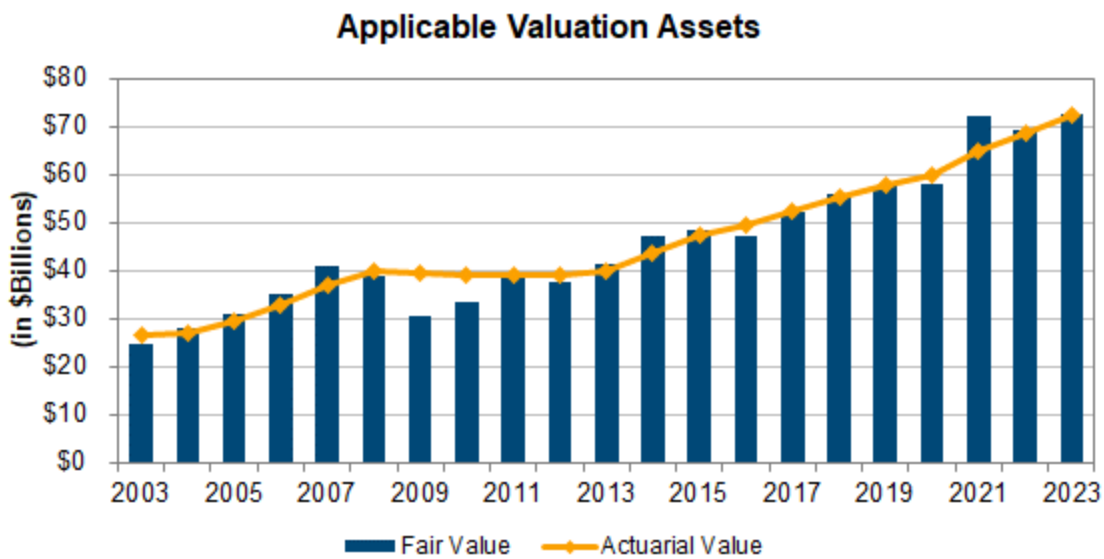
The actuarial asset method projects the expected fair value of assets based on the prior year's fair value of assets, the actual cash flow of contributions and benefit payments, and the assumed investment rate of return. For the previous year, the assumed rate of return was 7.0%, net of all expenses. The difference between the actual fair value and the expected fair value is recognized (or "smoothed") over a five-year period.

Effective with the June 30, 2022 valuation all deferred investment gains and losses were combined into one single amount such that the actuarial asset value was unchanged from the prior method. Beginning with the period immediately following the June 30, 2022 valuation, offsetting of current period gains or losses against prior period gains or losses occur, as follows: to the extent there is an investment loss for the year and there are unrecognized

investment gains from previous years, or to the extent that there is an investment gain for the year and there are unrecognized investment losses from previous years, the gain or loss for the year shall be used to offset unrecognized gains or losses from previous years in the order of oldest to most recent. Any remaining gain or loss for the year is recognized over a five-year period. With this modification to the actuarial asset method, in any given valuation only investment gains or losses will be present, which is expected to result in a less volatile actuarial value of assets.

Actuarial Value of Assets

The development of the actuarial value of assets is shown in Exhibit 5. As of June 30, 2023 there are \$0.1 billion of unrecognized investment gains, which means that the actuarial value of assets is \$0.1 billion less than the fair value of assets. These unrecognized investment gains will be recognized in the actuarial value of assets in the coming years. The following graph shows a historical comparison of the actuarial and fair value of assets used for valuation purposes.



Funding Policy

Under LACERA’s Retirement Benefit Funding Policy a Funded Ratio equal to 100% is the Funding Goal. Note that although the allocation of assets used in the actuarial valuation is similar to the process LACERA uses for accounting purposes, there are some differences, including the earnings considered for interest crediting purposes.

For funding purposes and for setting employer contributions rates, recognized earnings for a plan year is the recognized investment income as determined by the actuarial asset method and includes both unrealized income and net realized income, together with the prior balance in the Contingency Reserve. The allocation of recognized earnings is performed once a year as of the valuation date in the following order of priority:

- Priority 1: Allocate to the Member Reserve so the Actuarial Asset allocation to that Reserve equals the accounting value for that Reserve on the valuation date.
- Priority 2: Allocate to the Advanced Employer Contributions Reserve so the Actuarial Asset allocation to that Reserve equals the accounting value for that Reserve on the valuation date.

- Priority 3: Allocate to the Employer Reserve so the Actuarial Asset allocation to that reserve equals the accounting value for that Reserve on the valuation date.
- Priority 4: Allocate to the County Contribution Credit Reserve so the Actuarial Asset allocation to that reserve equals the accounting value for that Reserve on the valuation date. Note: This Reserve is not a Valuation Reserve.
- Priority 5: Allocate to the Employer Reserve so the total amounts allocated equal one-year's interest at the assumed interest rate used in the actuarial valuation as of the preceding valuation date to the extent there are positive recognized earnings to allocate.
- Priority 6: Allocate to the Contingency Reserve an amount equal to 1% of the Fair Value of Assets as of the valuation date to the extent there are positive recognized earnings to allocate.
- Priority 7: Allocate to the Employer Reserve an amount, if necessary, when combined with other Valuation Reserves, to provide 100% funding of the AAL as of the valuation date to reach the Funding Goal. In the event there are negative recognized earnings, allocate the entire amount.
- Priority 8: The Board may consider additional actions as permitted under the County Employee Retirement Law (CERL) using funds in excess of the amount needed to meet the Funding Goal for funding discretionary benefits. "Excess Earnings" as defined in the County Employees Retirement Law (CERL) may be appropriated upon reaching the Funding Goal; however, the Board may consider adjustment to the employer's contributions only upon satisfying California Government Code Section 7522.52(b).

Valuation Assets

Valuation Assets are the actuarial value of the fund less the value of any Non-Valuation Reserves. Non-Valuation Reserves include Contingency Reserves (minimum of 1% of the Fiduciary Net Position for Pension Benefits) and other reserves that have been set aside for current liabilities and special benefits to be funded outside of the actuarially determined contribution rates. Only Valuation Assets are used to determine employer contribution rates.

Effective June 30, 2022 the STAR Reserve is considered a Non-Valuation Reserve. Consistent with the exclusion of the STAR Reserve from Valuation Assets, the liability for any STAR benefits that may be granted in the future is not included in the liability portion of valuation. The June 30, 2023 STAR Reserve accounting value is \$611.5 million.

The Non-Valuation Reserves shown in Exhibit 6 for funding purposes are different from those shown in the audited financial statements and in Exhibit 4.

Exhibit 2
Statement of Fiduciary Net Position
As of June 30, 2023 and June 30, 2022

	2023	2022
Assets		
Cash and Short-Term Investments	\$ 2,222,256,792	\$ 3,058,494,546
Cash Collateral on Loaned Securities	1,869,432,645	1,401,076,878
Receivables		
Contributions Receivable	127,192,052	119,635,183
Accounts Receivable - Sale of Investments	233,150,293	355,515,478
Accrued Interest and Dividends	220,243,947	226,860,897
Accounts Receivable - Other	5,940,399	10,226,949
Total Receivables	<u>586,526,691</u>	<u>712,238,507</u>
Investments at Fair Value		
Equity	27,130,122,428	24,464,719,621
Fixed Income	17,921,556,526	18,641,786,544
Private Equity	13,894,495,311	12,753,842,152
Real Estate	5,109,454,330	5,802,979,342
Hedge Funds	4,890,856,047	4,440,433,903
Real Assets	2,514,132,334	1,363,251,696
Total Investments	<u>71,460,616,976</u>	<u>67,467,013,256</u>
Total Assets	<u>76,138,833,103</u>	<u>72,638,823,188</u>
Liabilities		
Accounts Payable - Purchase of Investments	332,063,234	835,073,030
Retiree Payroll and Other Payables	2,259,401	1,779,455
Accrued Expenses	29,343,832	63,266,240
Tax Withholding Payable	43,525,048	42,715,354
Obligations under Securities Lending Program	1,869,432,645	1,401,076,878
Accounts Payable - Other	10,322,874	5,299,875
Total Liabilities	<u>2,286,947,034</u>	<u>2,349,210,833</u>
Fiduciary Net Position Restricted For Pension Benefits	<u>\$ 73,851,886,070</u>	<u>\$ 70,289,612,355</u>

Exhibit 3
Statement of Changes in Fiduciary Net Position
For the Fiscal Years Ended June 30, 2023 and 2022

	2023	2022
Additions		
Contributions		
Employer	\$ 2,301,705,589	\$ 2,199,888,716
Member ⁽¹⁾	793,244,127	758,632,238
Total Contributions	<u>3,094,949,716</u>	<u>2,958,520,953</u>
Investment Income		
From Investing Activities:		
Net Appreciation/(Depreciation) in Fair Value of Investments	1,943,782,733	(6,717,556,042)
Investment Income/(Loss)	3,087,891,275	5,476,668,193
Total Investing Activity Income	<u>5,031,674,008</u>	<u>(1,240,887,848)</u>
Less Expenses From Investing Activities	<u>(189,483,833)</u>	<u>(310,360,199)</u>
Net Investing Activity Income	4,842,190,175	(1,551,248,047)
From Securities Lending Activities:		
Securities Lending Income	63,652,080	12,294,541
Less Expenses From Securities Lending Activities:		
Borrower Rebates	(47,869,289)	125,823
Management Fees	(1,687,343)	(1,317,057)
Total Expenses from Securities Lending Activities	<u>(49,556,631)</u>	<u>(1,191,234)</u>
Net Securities Lending Income	14,095,448	11,103,307
Total Net Investment Income	<u>4,856,285,624</u>	<u>(1,540,144,740)</u>
Miscellaneous	5,009,033	4,117,638
Total Additions	<u>7,956,244,372</u>	<u>1,422,493,851</u>
Deductions		
Retiree Payroll	4,234,600,092	4,002,272,810
Administrative Expenses	97,014,656	86,110,835
Investment Expenses	15,135,017	14,010,176
Refunds	43,412,068	38,088,986
Lump Sum Death Benefits	3,351,047	4,205,274
Miscellaneous	457,778	219,132
Total Deductions	<u>4,393,970,658</u>	<u>4,144,907,213</u>
Net Increase/(Decrease)	3,562,273,714	(2,722,413,362)
Fiduciary Net Position Restricted For Pension Benefits		
Beginning of Year	70,289,612,355	73,012,025,718
End of Year	<u>\$ 73,851,886,070</u>	<u>\$ 70,289,612,355</u>

1. Member contributions include employer pick-up contributions.

Exhibit 4
Allocation of Assets by Accounting Reserve Amounts

(Dollars in Thousands)

	June 30, 2023	June 30, 2022
1. Member Reserves		
a. Active Members	\$ 26,932,000	\$ 25,804,263
b. Unclaimed Deposits	-	-
c. Total Member Reserves	<u>26,932,000</u>	<u>25,804,263</u>
2. Employer Reserves		
a. Actual Employer Contributions	32,504,476	32,011,255
b. Advanced Employer Contributions	-	-
c. Total Employer Contributions	<u>32,504,476</u>	<u>32,011,255</u>
3. County Contribution Credit Reserve	-	-
4. STAR Reserve	611,544	614,011
5. Contingency Reserve	-	-
6. Total Reserves at Book Value	<u>60,048,020</u>	<u>58,429,529</u>
7. Unrealized Investment Portfolio Appreciation	13,803,866	11,860,083
8. Total Reserves at Fair Value	<u>\$ 73,851,886</u>	<u>\$ 70,289,612</u>

Note: These amounts were determined by LACERA for accounting purposes and are reported in the ACFR for the fiscal year ended June 30, 2023.

Exhibit 5
Five-Year Smoothing of Gains and Losses on Fair Value

(Dollars in Thousands)

June 30, 2023 Valuation									
Plan Year Ending	Contributions	Benefit Payments	Expected Fair Value	Actual Fair Value	Investment Gain / (Loss)	(a) Investment Gain / (Loss) Excluded in Prior Year	(b) Prior Year Investment Gain / (Loss) Offset in Current Year	(c) Investment Gain / (Loss) Recognized in Current Year	(d) Investment Gain / (Loss) Excluded in Current Year (a) - (b) - (c)
06/30/2023	\$ 3,094,950	\$ 4,281,363	\$ 73,982,650	\$ 73,851,886	\$ (130,764)	\$ 0	\$ 0	\$ 0	\$ 0
06/30/2022	2,958,521	4,044,567	76,999,453	70,289,612	(6,709,841)	0	0	0	0
06/30/2021	2,773,871	3,814,262	61,529,948	73,012,026	11,482,078	261,095	130,764	43,444	86,887
06/30/2020	2,459,433	3,606,340	61,189,106	58,510,408	(2,678,698)	0	0	0	0
06/30/2019	2,303,566	3,407,155	59,238,837	58,294,837	(944,000)	0	0	0	0
						(A) Total Excluded Gain / (Loss) = \$ 86,887			
						(B) Total Fair Value of Assets = \$ 73,851,886			
						(C) Total Actuarial Value of Assets [(B) - (A)] = \$ 73,764,999			

Column (c) Investment Gain / (Loss) Recognized in Current Year = { 20% x [(a) - (b)] } / { 100% - 20% x [Valuation Year - Plan Year Ending] }

Total Actuarial Value of Assets = Total Fair Value of Assets less the Total Excluded Gain / (Loss) amount. Excluded amounts will be recognized in future years.

Projected Recognition of Actuarial Asset Gains / (Losses) in Future Valuations

	2024 Val	2025 Val	2026 Val	2027 Val	Total
Amount to be Recognized	\$ 43,444	\$ 43,443	\$ -	\$ -	\$ 86,887

Exhibit 6
Allocation of Valuation and Non-Valuation Assets

(Dollars in Thousands)

	June 30, 2023	June 30, 2022
1. Total Fair Value of Assets	\$ 76,138,833	\$ 72,638,823
2. Current Liabilities	<u>2,286,947</u>	<u>2,349,211</u>
3. Net Assets Held in Trust for Pension Benefits	73,851,886	70,289,612
4. Market Stabilization Reserve ⁽¹⁾	<u>86,887</u>	<u>261,095</u>
5. Actuarial Value of Assets	73,764,999	70,028,517
6. Non-Valuation Reserves ⁽²⁾		
a. Contingency Reserve	738,519	702,896
b. Advanced Employer Contributions	-	-
c. County Contribution Credit Reserve	-	-
d. Reserve for STAR Program	<u>611,544</u>	<u>614,011</u>
e. Total Non-Valuation Reserves	1,350,063	1,316,907
7. Actuarial Value of Assets <i>minus</i> Non-Valuation Reserves	<u>\$ 72,414,936</u>	<u>\$ 68,711,610</u>
8. Valuation Assets ⁽²⁾		
a. Member Reserves	26,932,000	25,804,263
b. Employer Reserves for Funding Purposes	<u>45,482,936</u>	<u>42,907,347</u>
c. Total Valuation Assets	<u>\$ 72,414,936</u>	<u>\$ 68,711,610</u>

1. The Market Stabilization Reserve represents the difference between the Fair Value of the fund less Current Liabilities, and the Actuarial Value of the fund as determined in Exhibit 5.

2. The values used for funding purposes for all reserves are based on the Board's Funding Policy and reflect the change in the treatment of the STAR Reserve adopted by the Board of Investments at the December 2022 meeting. Amounts used for funding purposes may differ from those reported in the audited financial statements as shown in Exhibit 4.

4. Actuarial Liabilities

This section of the report focuses on the commitments of LACERA for retirement benefits, which are referred to as its actuarial liabilities.

LACERA's liabilities are the actuarial present value of all future benefits expected to be paid with respect to each member. For an active member this includes benefits already earned and future benefits to be earned. For all members, active and inactive, the liability extends over the rest of their lives and for the lives of any surviving beneficiaries.

All liabilities reflect the benefits effective through June 30, 2023. This includes permanent STAR benefits that have been adopted and are in effect as of the valuation date, but does not include any STAR benefits that have been adopted but are not effective until after the valuation date nor any STAR benefits that may be granted in the future.

The actuarial assumptions used to determine the liabilities are based on the results of the 2022 Investigation of Experience study for the period ended June 30, 2022 which were adopted by the Board of Investments at its January 2023 meeting, as recommended by Milliman. These assumptions are shown in Appendix A and will next be reviewed in detail as part of the 2025 Investigation of Experience study.

Actuarial Balance Sheet

The Actuarial Balance Sheet compares the Present Value of Future Benefits (PVFB) for retired, inactive and active members to the resources available to meet them. For the purpose of the Actuarial Balance Sheet, LACERA's resources are equal to the sum of:

- (a) Assets currently available to pay benefits and considered for funding purposes (Valuation Assets),
- (b) The present value of future contributions expected to be made by current active members, and
- (c) The present value of future Normal Cost contributions expected to be made by the employer.

The amount of any difference is called the Unfunded Actuarial Accrued Liability (UAAL).

Exhibit 7 contains an analysis of the PVFB for inactive members (both retired and vested former members) and active members, and is shown by class of membership, by plan and by type of benefit. The Actuarial Balance Sheet for each plan, as well as its UAAL, is based on an estimated allocation of total LACERA Valuation Assets. The allocation is based on the relative value of each plan's employer and member reserves as reported to us by LACERA. These allocations are shown for illustrative purposes only, as the UAAL contribution rates are paid by the employer based on the valuation results in aggregate.

June 30, 2023 Present Value of Benefits (in \$Billions)

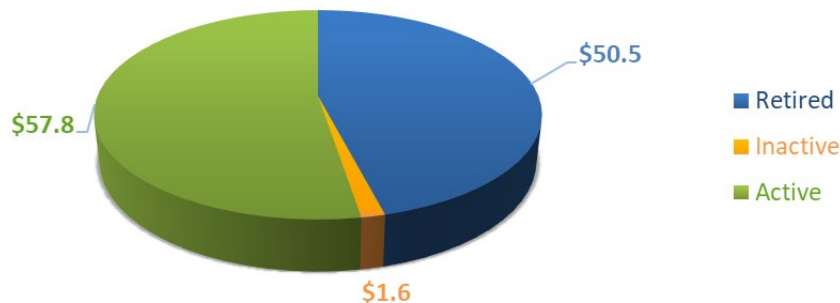


Exhibit 7
Actuarial Balance Sheet – June 30, 2023

(Dollars in Millions)

	General						Safety			All Plans
	Plan A	Plan B	Plan C	Plan D	Plan E	Plan G	Plan A	Plan B	Plan C	
LIABILITIES										
Present Value of Benefits - Inactives										
- Retirees and Beneficiaries	\$ 9,900	\$ 456	\$ 286	\$ 13,899	\$ 5,703	\$ 63	\$ 6,530	\$ 13,667	\$ 24	\$ 50,528
- Vested Former	3	1	1	792	453	155	0	165	18	1,588
- Inactive Total	9,903	457	287	14,691	6,156	218	6,530	13,832	42	52,116
Present Value of Benefits - Actives										
- Service Retirement	61	15	18	23,650	6,164	9,173	0	9,119	2,216	50,416
- Transfer Service (prior LACERA plan)	0	0	0	256	393	17	0	15	0	681
- Disability Retirement	0	0	0	794	N/A	601	0	2,893	1,132	5,420
- Death	0	0	0	285	N/A	165	0	62	33	545
- Termination	0	0	0	127	62	470	0	30	98	787
- Active Total	61	15	18	25,112	6,619	10,426	0	12,119	3,479	57,849
Total Actuarial Liabilities	\$ 9,964	\$ 472	\$ 305	\$ 39,803	\$ 12,775	\$ 10,644	\$ 6,530	\$ 25,951	\$ 3,521	\$ 109,965
ASSETS										
Valuation Assets	(6,592)	284	251	37,323	16,411	5,819	(3,878)	21,459	1,338	72,415
PV Future Member Contributions	0	0	0	2,543	N/A	3,885	0	987	1,384	8,799
PV Future Employer Normal Cost Contributions	1	1	0	2,947	946	3,585	0	1,727	1,308	10,515
UAAL or (Surplus Funding)	16,555	187	54	(3,010)	(4,582)	(2,645)	10,408	1,778	(509)	18,236
Total Current and Future Assets	\$ 9,964	\$ 472	\$ 305	\$ 39,803	\$ 12,775	\$ 10,644	\$ 6,530	\$ 25,951	\$ 3,521	\$ 109,965

Actuarial Accrued Liability

As noted above, the PVFB is the actuarial present value of all future benefits expected to be paid with respect to each member. For an active member, this includes benefits already earned and future benefits to be earned. For active members, future benefits are expected to be funded by employee contributions and employer Normal Cost contributions (collectively, Normal Cost contributions).

The Actuarial Accrued Liability (AAL) is the PVFB less the present value of expected future Normal Cost contributions. That is, it is the liability for all benefits earned as of the valuation date, as allocated by the actuarial cost method. The difference between the AAL and Valuation Assets is referred to as the Unfunded Actuarial Accrued Liability (UAAL). A summary of the results for all LACERA plans in aggregate is shown below:

(Dollars in millions)	2023	2022	Percent Change
A. Actuarial present value of all future benefits for contributing members, former contributing members, and their survivors	\$ 109,965	\$ 104,543	5.2%
B. Actuarial present value of total future normal costs for current members	19,314	18,223	6.0%
C. Actuarial accrued liability [A-B]	90,651	86,320	5.0%
D. Valuation Assets	72,415	68,712	5.4%
E. UAAL or (Surplus Funding) [C-D]	18,236	17,608	3.6%
F. Funded Ratio [D/C]	79.9%	79.6%	0.4%

Unfunded Actuarial Accrued Liability

The difference between the AAL and the Valuation Assets is the UAAL. If a UAAL exists, it usually resulted from prior years' benefit or assumption changes and the net effect of accumulated gains and losses. If the employer had always contributed the current Normal Cost, and if there were no prior benefit or assumption changes, and if actual experience exactly matched the actuarial assumptions, then the present value of all future Normal Cost contributions would be sufficient to fund all benefits and there would be no UAAL.

Exhibit 8a provides an analysis of the change in the UAAL since the prior valuation date.

The 2023 actuarial valuation reflects an increase in the UAAL of approximately \$0.6 billion since the prior year. A summary of these factors is:

- Investment Returns: Returns on actuarial value of assets were 7.2% compared to the assumed return of 7.0%. This resulted in an actuarial asset gain of \$118 million.
- Active Member Experience (non-salary): This includes gains and losses from termination, service retirement, disability retirement, and death different than assumed. This resulted in an actuarial gain of \$1 million.
- Salary Increases: Individual salaries for continuing active members increased at a higher rate than the valuation assumption. This resulted in an actuarial loss of \$771 million.
- PEPRA Compensation Limit Increases: The PEPRA compensation limit increased by 8.2% from 2022 to 2023 compared to the assumed increase of 2.75%. This resulted in an actuarial loss of \$32 million.

- Retiree COLA Increases: The actual COLA increases were the same as expected by the assumptions which generated no actuarial gain or loss.
- Mortality Experience: An actuarial loss due to mortality generally indicates that retired members are living longer than the current assumption predicts. Similarly, an actuarial gain on mortality indicates that retired members are not living as long as predicted. This year, there was an actuarial gain of \$13 million due to mortality experience for retirees and beneficiaries.
- Other Experience: Examples of this are gains and losses from retirement and mortality experience of inactive members, reciprocity, unexpected benefit amount changes, and transfers between plans. These factors combined resulted in an actuarial loss of \$65 million.

Change in Unfunded Actuarial Accrued Liability – History

Exhibit 8b shows the sources of change in the UAAL over the past five valuations. The single biggest source of annual change in most years, when there are no changes in the assumptions, is the return on investments being either greater than or less than the assumption.

Funding Adequacy

A key consideration in determining the adequacy of the funding of LACERA is how the UAAL is being funded. Under LACERA's Funding Policy, a new UAAL "layer" is established each year when the Funded Ratio is less than 100%. All new UAAL layers are amortized over 20-year periods.

If future experience is significantly more favorable than expected based on the actuarial assumptions, then LACERA's UAAL may be eliminated. Conversely, if experience is less favorable, a larger UAAL will develop.

Exhibit 8a
Analysis of Change in Unfunded Actuarial Accrued Liability

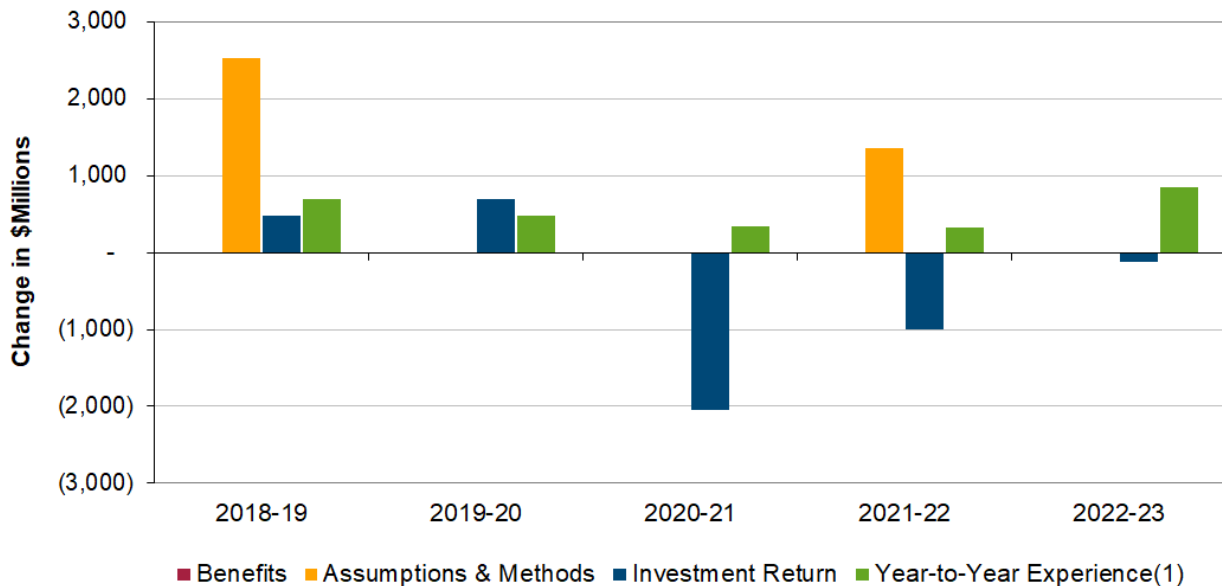
(Dollars in Millions)

	Amount	As a Percent of June 30, 2023 Actuarial Accrued Liability
Unfunded Actuarial Accrued Liability - June 30, 2022	\$ 17,608	19.42%
Interest Accrued	1,244	1.37%
Benefits Accrued (Normal Cost)	1,743	1.92%
<u>Contributions</u>		
Employer - Cash	\$ (2,302)	-2.54%
Employer - Contribution Credit	-	0.00%
Member	<u>(793)</u>	-0.87%
Total	<u>(3,095)</u>	-3.41%
Expected Unfunded Actuarial Accrued Liability - June 30, 2023	\$ 17,500	19.30%
Sources of Change:		
<u>Asset (Gains) and Losses</u>		
(Gain) / Loss due to Investment Income	(118)	-0.13%
<u>Liability (Gains) and Losses</u>		
Active Member Experience (non salary)	\$ (1)	0.00%
Salary Increases Greater than Expected	771	0.85%
PEPRA Limit Increases Greater than Expected	32	0.04%
Retiree COLAs Greater than Expected	-	0.00%
Mortality Experience	(13)	-0.01%
All Other Experience	<u>65</u>	0.07%
Total	<u>854</u>	0.94%
Total Changes	\$ 736	0.81%
Unfunded Actuarial Accrued Liability - June 30, 2023	\$ 18,236	20.12%

Exhibit 8b
History of Changes in Unfunded Actuarial Accrued Liability

(Dollars in Millions)

	2018-19	2019-20	2020-21	2021-22	2022-23	2018-23
Prior Valuation UAAL	\$ 13,294	\$ 17,018	\$ 18,512	\$ 16,989	\$ 17,608	\$ 13,294
Increase in UAAL due to:						
Expected Increase / (Decrease)	25	306	171	(76)	(108)	318
■ Asset (Gains) and Losses	477	701	(2,039)	(996)	(118)	(1,975)
■ Changes in Benefits	-	-	-	-	-	-
■ Changes in Assumptions	2,528	-	-	750	-	3,278
■ Changes in Methods	-	-	-	614	-	614
■ Salary Increases	486	388	484	(21)	771	2,108
■ Retiree COLA Increases	44	43	(73)	355	-	369
■ Mortality Experience	(6)	1	(96)	(36)	(13)	(150)
■ All Other Experience	170	55	30	29	96	380
Total Increase / (Decrease)	3,724	1,494	(1,523)	619	628	4,942
Valuation UAAL	\$ 17,018	\$ 18,512	\$ 16,989	\$ 17,608	\$ 18,236	\$ 18,236
Funded Ratio	77.2%	76.3%	79.3%	79.6%	79.9%	79.9%



1. Year-to-Year Experience includes changes due to Salary, Retiree COLA, Mortality and Other Experience.

5. Member Contributions

Normal Contributions for Legacy Plans

Member contributions are of two types: Normal contributions and cost-of-living contributions.

Normal contributions for each of the legacy plans (all plans except General Plan G and Safety Plan C) are defined in the following sections of the CERL:

Plan	CERL	
	Reference	Formula
General A	31621.3	1/240th of FAC at age 55
General B	31621.1	1/120th of FAC at age 55
General C	31621	1/120th of FAC at age 60
General D	31621	1/120th of FAC at age 60
General E	N/A	Plan E is non-contributory
Safety A	31639.5	1/200th of FAC at age 50
Safety B	31639.25	1/100th of FAC at age 50

Note: FAC = Final Average Compensation

Normal member contributions are determined using the Entry Age Normal Funding Method and the following actuarial assumptions:

1. Expected rate of return on assets.
2. Individual salary increase rate (wage growth + merit).
3. Mortality for members on service retirement.

We are not recommending changes to the member contribution rates for legacy plans for the fiscal year beginning July 1, 2024 because new assumptions were not adopted for the 2023 valuation. A sample of the member contribution rates is shown in Exhibit 9. All member contribution rates are shown in Appendix D.

Member contribution rates for General Plan G and Safety Plan C are discussed below.

Cost-of-Living Contributions for Legacy Plans

The determination of the member cost-of-living (COLA) contributions is based on Section 31873 of the CERL. This section requires that the cost of the COLA benefit be shared equally between members and the employer. Unlike the member normal contributions, these rates are based on the actuarial cost of the benefits and reflect all assumptions used in the valuation of liabilities.

We are not recommending changes in the member cost-of-living contribution rates for the fiscal year beginning July 1, 2024 because new assumptions were not adopted for the 2023 valuation. The recommended cost-of-living contribution rates, expressed as a percentage of the normal member contribution rates, are as follows:

Plan	COLA %
General A	82.08%
General B	26.10%
General C	26.19%
General D	26.59%
General E	0.00%
Safety A	87.15%
Safety B	33.43%

The relative magnitude of these amounts reflects the differences in the normal contribution rates for each plan and the different cost-of-living benefits offered by the different plans. The rate for Plan E is 0.00% since it is non-contributory.

A sample of the current member contribution rates (normal plus cost-of-living) can be found in Exhibit 9.

Full disclosure of the member rates showing both the normal and the total (normal plus cost-of-living) contribution rates can be found in Appendix D.

Member Contribution Rates for General Plan G and Safety Plan C (PEPRA Plans)

Members of the two plans developed in compliance with the California Public Employees’ Pension Reform Act of 2013 (PEPRA) contribute a flat rate (i.e., does not vary by entry age) based on whether they are in the General or Safety plan. This rate is set equal to one-half of the total Normal Cost rate for the respective plan. We are recommending changes to the member contribution rates for these plans, as shown below, to reflect the Plan’s Normal Cost rates for the 2023 valuation.

	General Plan G	Safety Plan C
All Ages: Recommended	9.28%	14.97%
All Ages: Current	9.24%	14.76%
Ratio (Recommended / Current)	100.4%	101.4%

Note that the member contribution rates for these plans are further split for purposes of this report into a “Normal” and “Cost of Living” component. The cost-of-living component for these members, as shown in Exhibit 9 on the following page, represents one-half of the cost of the COLA for these plans.

Average Member Rates

The average member contribution rate for only those active members in contributory plans at June 30, 2023 is 9.54% of covered payroll, compared to 8.37% of covered payroll for all active members including non-contributory members. The 8.37% offsets the gross normal cost to yield the employer normal cost rate. Note that covered payroll does not include pay for PEPRA plan members that is above the PEPRA compensation limit.

Exhibit 9
Sample Member Contribution Rates

Recommended Rates (Based on 2023 Valuation)						
	Entry Age	Normal	Cost of Living	Total as a % of Pay	Current Rate (Total)	Ratio (New / Current)
General Members						
Plan A	25	3.33%	2.73%	6.06%	6.06%	100.0%
	35	4.06%	3.33%	7.39%	7.39%	100.0%
	45	4.86%	3.99%	8.85%	8.85%	100.0%
	55	5.16%	4.24%	9.40%	9.40%	100.0%
Plan B	25	6.65%	1.74%	8.39%	8.39%	100.0%
	35	8.12%	2.12%	10.24%	10.24%	100.0%
	45	9.73%	2.54%	12.27%	12.27%	100.0%
	55	10.32%	2.69%	13.01%	13.01%	100.0%
Plan C	25	5.70%	1.49%	7.19%	7.19%	100.0%
	35	6.96%	1.82%	8.78%	8.78%	100.0%
	45	8.44%	2.21%	10.65%	10.65%	100.0%
	55	9.74%	2.55%	12.29%	12.29%	100.0%
Plan D	25	5.70%	1.52%	7.22%	7.22%	100.0%
	35	6.96%	1.85%	8.81%	8.81%	100.0%
	45	8.44%	2.24%	10.68%	10.68%	100.0%
	55	9.74%	2.59%	12.33%	12.33%	100.0%
Plan G	All Ages	7.51%	1.77%	9.28%	9.24%	100.4%
Safety Members						
Plan A	25	4.89%	4.26%	9.15%	9.15%	100.0%
	35	5.69%	4.96%	10.65%	10.65%	100.0%
	45	6.70%	5.84%	12.54%	12.54%	100.0%
	55	6.70%	5.84%	12.54%	12.54%	100.0%
Plan B	25	9.77%	3.27%	13.04%	13.04%	100.0%
	35	11.37%	3.80%	15.17%	15.17%	100.0%
	45	13.40%	4.48%	17.88%	17.88%	100.0%
	55	13.41%	4.48%	17.89%	17.89%	100.0%
Plan C	All Ages	11.66%	3.31%	14.97%	14.76%	101.4%

Note: A portion of some of the member contribution rates is paid for (“picked up”) by the employer and is not considered part of the member’s contribution account for refund purposes. Such contributions are referred to as the surcharge amount and are subject to change each year. The rates shown in the table above are prior to any surcharge payments.

6. Employer Contributions

Calculated Employer Contribution Rate

Contributions to LACERA are determined using the Entry Age Normal Cost Method. The portion of the actuarial present value of retirement benefits allocated to a valuation year by the actuarial cost method is called the Normal Cost. These amounts are usually expressed as a percentage of payroll and called the Normal Cost Contribution Rate. Exhibit 10 illustrates the Normal Cost Contribution Rates by type of benefit and for each plan based on this valuation. A comparison with last year is also shown.

Under the Funding Policy, the total contribution rate is set equal to the Normal Cost contribution rate plus a payment by the employer towards the UAAL. The calculation of the UAAL contribution rate is shown in Exhibit 12. A portion of the Normal Cost contribution is funded by member contributions. The remainder is paid for by the employer.

The total calculated employer contribution rates for each plan, along with a comparison to the prior year's calculated rates, can be found in Exhibit 11. These results are expressed as a percentage of payroll and annual contribution dollars. Note that LACERA's UAAL contribution rate is not determined separately for each plan but is funded evenly as a percentage of pay over salaries for all members.

For the fiscal year beginning in 2024, the total calculated employer contribution rate increases to 25.88% from the current fiscal year rate of 25.84%. This is equal to the aggregate employer Normal Cost contribution rate of 11.01% based on the 2023 valuation, plus the layered amortization payment of the UAAL, shown in Exhibit 12.

(All values as a % of Payroll)

Employer Normal Cost Contribution Rate	11.01%
Layered Amortization of UAAL	<u>14.87%</u>
Calculated Employer Contribution Rate	25.88%

Exhibit 10
Calculated Normal Cost Contribution Rates – June 30, 2023

	General							Safety				Grand Total
	Plan A	Plan B	Plan C	Plan D	Plan E	Plan G	Total	Plan A ⁽¹⁾	Plan B	Plan C	Total	
A. Normal Cost Contribution Rate												
Service Retirement	20.83%	19.39%	13.69%	15.04%	10.38%	15.91%	14.68%	19.74%	19.74%	18.11%	19.23%	15.51%
Disability Retirement	1.03%	1.15%	0.70%	1.07%	0.00%	1.25%	0.98%	9.31%	9.31%	10.54%	9.70%	2.60%
Death	0.28%	0.29%	0.23%	0.32%	0.00%	0.30%	0.26%	0.33%	0.33%	0.29%	0.32%	0.27%
Termination	0.46%	0.41%	0.40%	1.10%	0.64%	1.10%	1.03%	0.84%	0.84%	1.00%	0.89%	1.00%
Total	22.60%	21.24%	15.02%	17.53%	11.02%	18.56%	16.95%	30.22%	30.22%	29.94%	30.14%	19.38%
B. Member Contributions	(5.90)%	(9.99)%	(7.28)%	(8.17)%	0.00%	(9.28)%	(7.37)%	(11.86)%	(11.86)%	(14.97)%	(12.84)%	(8.37)%
C. Net Employer Normal Cost as of June 30, 2023 (A) - (B)	16.70%	11.25%	7.74%	9.36%	11.02%	9.28%	9.58%	18.36%	18.36%	14.97%	17.30%	11.01%
D. Net Employer Normal Cost as of June 30, 2022	16.26%	11.07%	7.73%	9.44%	11.02%	9.24%	9.62%	27.46%	18.60%	14.76%	17.52%	11.12%
E. Increase (Decrease) as a Percentage of Payroll (C) - (D)	0.44%	0.18%	0.01%	(0.08)%	0.00%	0.04%	(0.04)%	(9.10)%	(0.24)%	0.21%	(0.22)%	(0.11)%
F. Estimated Payroll for fiscal year beginning July 1, 2024 ⁽²⁾	\$ 7	\$ 2	\$ 2	\$ 3,806	\$ 1,221	\$ 2,987	\$ 8,024	\$ -	\$ 1,258	\$ 576	\$ 1,834	\$ 9,858
G. Estimated Total Normal Cost Contribution in Dollars (A x F) ⁽³⁾	\$ 2	\$ -	\$ -	\$ 667	\$ 135	\$ 554	\$ 1,360	\$ -	\$ 380	\$ 173	\$ 553	\$ 1,913

- As of the valuation date there are no active members in Safety Plan A. Normal Cost rates are set equal to Safety Plan B rates.
- Estimated Payroll based upon annualized salary rate as of June 30, 2023 increased by 3.25% wage inflation. Dollar figures in millions.
- The timing of the Normal Cost shown in this exhibit is spread over the entire year and corresponds to payroll timing.

Exhibit 11
Total Employer Contributions

	General							Safety				All Plans
	Plan A	Plan B	Plan C	Plan D	Plan E	Plan G	Total	Plan A ⁽¹⁾	Plan B	Plan C	Total	
A. Net Employer Normal Cost												
1. Basic Benefits	13.41%	9.15%	6.23%	7.70%	9.12%	7.51%	7.84%	14.66%	14.66%	11.66%	13.72%	8.92%
2. Cost-of-Living Benefits	3.29%	2.10%	1.51%	1.66%	1.90%	1.77%	1.74%	3.70%	3.70%	3.31%	3.58%	2.09%
3. Total June 30, 2023	16.70%	11.25%	7.74%	9.36%	11.02%	9.28%	9.58%	18.36%	18.36%	14.97%	17.30%	11.01%
B. UAAL Contribution Rate	14.87%	14.87%	14.87%	14.87%	14.87%	14.87%	14.87%	14.87%	14.87%	14.87%	14.87%	14.87%
C. Total June 30, 2023 Contribution Rate (A) + (B)	31.57%	26.12%	22.61%	24.23%	25.89%	24.15%	24.45%	33.23%	33.23%	29.84%	32.17%	25.88%
D. Total June 30, 2022 Contribution Rate	30.98%	25.79%	22.45%	24.16%	25.74%	23.96%	24.34%	42.18%	33.32%	29.48%	32.24%	25.84%
E. Estimated Payroll for fiscal year beginning July 1, 2024 ⁽²⁾	\$ 7	\$ 2	\$ 2	\$ 3,806	\$ 1,221	\$ 2,987	\$ 8,024	\$ -	\$ 1,258	\$ 576	\$ 1,834	\$ 9,858
F. Est. Employer NC Contribution	\$ 1	\$ -	\$ -	\$ 356	\$ 135	\$ 277	\$ 768	\$ -	\$ 231	\$ 86	\$ 317	\$ 1,085
G. Est. UAAL Contribution	\$ 1	\$ -	\$ -	\$ 566	\$ 181	\$ 444	\$ 1,194	\$ -	\$ 187	\$ 86	\$ 273	\$ 1,467
H. Estimated Annual Contribution (C x E)	\$ 2	\$ -	\$ -	\$ 922	\$ 316	\$ 721	\$ 1,962	\$ -	\$ 418	\$ 172	\$ 590	\$ 2,552
I. Last Year's Estimated Annual Contribution	\$ 2	\$ 1	\$ -	\$ 920	\$ 320	\$ 600	\$ 1,842	\$ -	\$ 424	\$ 148	\$ 572	\$ 2,414
J. Increase / (Decrease) in Annual Contribution	\$ -	\$ (1)	\$ -	\$ 2	\$ (4)	\$ 121	\$ 120	\$ -	\$ (6)	\$ 24	\$ 18	\$ 138

1. As of the valuation date there are no active members in Safety Plan A. Normal Cost rates are set equal to Safety Plan B rates.
2. Estimated Payroll based upon annualized salary rate as of June 30, 2023 increased by 3.25% wage inflation. Dollar figures in millions.

Exhibit 12
Unfunded Actuarial Accrued Liability Detail

(Dollars in Millions)

Unfunded Actuarial Accrued Liability - Amortization Detail								
Date Established	Description	Balance as of June 30, 2023	Interest on Balance	Amort. Payment on June 30, 2024 ⁽¹⁾	Balance as of June 30, 2024 ⁽²⁾	Remaining Period as of June 30, 2024 ⁽⁵⁾	July 1, 2024 Amortization Payment	
June 30, 2009	Initial UAAL	\$ 5,447.3	\$ 381.3	\$ 469.7	\$ 5,359.0	15 Years	\$ 462.1	
June 30, 2010	(Gain) / Loss ⁽³⁾	3,001.4	210.1	247.5	2,963.9	16 Years	243.5	
June 30, 2011	(Gain) / Loss ⁽³⁾	1,500.1	105.0	118.7	1,486.4	17 Years	116.8	
June 30, 2012	(Gain) / Loss ⁽³⁾	2,471.0	173.0	188.2	2,455.8	18 Years	185.2	
June 30, 2013	(Gain) / Loss ⁽³⁾	1,397.0	97.8	106.4	1,388.4	18 Years	104.7	
June 30, 2014	(Gain) / Loss	(2,587.0)	(181.1)	(197.1)	(2,571.0)	18 Years	(193.9)	
June 30, 2015	(Gain) / Loss	(2,021.1)	(141.5)	(154.0)	(2,008.6)	18 Years	(151.5)	
June 30, 2016	(Gain) / Loss ⁽³⁾	3,883.3	271.8	295.8	3,859.3	18 Years	291.0	
June 30, 2017	(Gain) / Loss	(21.0)	(1.5)	(1.6)	(20.9)	18 Years	(1.6)	
June 30, 2018	(Gain) / Loss	60.8	4.3	4.6	60.4	18 Years	4.6	
June 30, 2019	(Gain) / Loss ⁽³⁾	3,875.7	271.3	319.6	3,827.4	16 Years	314.4	
June 30, 2020	(Gain) / Loss	1,447.6	101.3	114.6	1,434.4	17 Years	112.7	
June 30, 2021	(Gain) / Loss	(1,743.7)	(122.1)	(132.8)	(1,733.0)	18 Years	(130.7)	
June 30, 2022	(Gain) / Loss ⁽³⁾	862.3	60.4	63.4	859.3	19 Years	62.4	
June 30, 2023	(Gain) / Loss	662.2	46.4	43.0 ⁽⁴⁾	665.6	20 Years	46.6	
Total Amortization Payment July 1, 2024:							\$ 1,466.3	
Projected Payroll July 1, 2024:							\$ 9,858.2	
UAAL as of June 30, 2023:		\$ 18,236.0	UAAL Contribution Rate (as a % of Payroll) FYB July 1, 2024:				14.87%	

Explanatory Notes:

- Amortization Payments are based on a fixed schedule that increases by the payroll assumption each year.
- The assets and liabilities used in the calculation of the UAAL are as of June 30, 2023, whereas the contribution rates are not effective until July 1, 2024. Therefore, the UAAL is projected to June 30, 2024 based on the actual contribution rate for the period, with the projected UAAL as of June 30, 2024 equaling \$18,026 million.
- (Gain) / Loss layers include the impact of assumption and method changes in these years.
- The amortization of UAAL does not begin until July 1, 2024; therefore, the UAAL amount is adjusted by one year to reflect the actual July 1, 2023 contribution rate.
- Effective with the June 30, 2019 valuation, all new UAAL layers are amortized over a 20-year period, beginning with the date the contribution is first expected to be made.

7. Supplemental Information

Governmental Accounting Standards Board (GASB) Statement 67 sets out requirements for defined benefit pension plan reporting and disclosures. GASB Statement 68 sets out requirements for accounting by state and local government employers.

Milliman provides LACERA with results relevant to Statements 67 and 68 in separate stand-alone financial reporting valuation reports.

For informational purposes, we have provided the following exhibits in this report that LACERA may use in the audited financial statements:

- Exhibit 13: Schedule of Funding Progress
- Exhibit 14: Schedule of Employer Contributions
- Exhibit 15: Funding Liabilities by Type
- Exhibit 16: Actuarial Analysis of Financial Experience
- Exhibit 17: Retirants and Beneficiaries added to / removed from Retiree Payroll

Exhibit 13, Schedule of Funding Progress, compares actuarial assets and liabilities of the Plan, based on the actuarial funding method used.

Exhibit 14, Schedule of Employer Contributions, compares the employer contributions required based on the actuarial valuation with the employer contributions actually made. Information shown in this exhibit comes from LACERA's audited financial statements.

Exhibit 15 compares the Actuarial Value of Valuation Assets to the types of Actuarial Accrued Liabilities, applying them first to Active Member contributions, then to retirees and beneficiaries, and then the remaining amount to the Active Members benefits.

Exhibit 16 shows the changes in actual versus expected UAAL from year to year.

Exhibit 17 reconciles the retired members and beneficiaries who have been added to and removed from the retiree payroll.

Exhibit 13
Schedule of Funding Progress

(Dollars in Thousands)

Actuarial Valuation Date	(a) Actuarial Value of Valuation Assets	(b) Actuarial Accrued Liabilities	(b-a) Unfunded Actuarial Accrued Liabilities (UAAL)	(a/b) Funded Ratio	(c) Covered Payroll ⁽¹⁾	[(b-a)/c] UAAL as a Percentage of Covered Payroll
June 30, 2014	\$ 43,654,462	\$ 54,942,453	\$ 11,287,991	79.5%	\$ 6,672,228	169.2%
June 30, 2015	47,328,270	56,819,215	9,490,945	83.3%	6,948,738	136.6%
June 30, 2016 ⁽²⁾	49,357,847	62,199,214	12,841,367	79.4%	7,279,777	176.4%
June 30, 2017	52,166,307	65,310,803	13,144,496	79.9%	7,637,032	172.1%
June 30, 2018	55,233,108	68,527,354	13,294,246	80.6%	7,957,981	167.1%
June 30, 2019 ⁽²⁾	57,617,288	74,635,840	17,018,552	77.2%	8,370,050	203.3%
June 30, 2020	59,762,991	78,275,175	18,512,184	76.3%	8,724,151	212.2%
June 30, 2021	64,909,377	81,898,044	16,988,667	79.3%	9,062,051	187.5%
June 30, 2022 ⁽²⁾	68,711,610	86,320,151	17,608,541	79.6%	9,100,791	193.5%
June 30, 2023	72,414,936	90,651,092	18,236,156	79.9%	9,425,690	193.5%

1. Covered Payroll includes compensation paid to all active employees on which contributions are calculated, as reported by LACERA. Covered Payroll differs from the Active Member Valuation Payroll shown in Table C-1, which is an annualized compensation of only those members who were active on the actuarial valuation date.

2. Assumption and method changes.

Exhibit 14
Schedule of Contributions from the Employer

(Dollars in Thousands)

Fiscal Year Ending	Actuarially Determined Employer Contribution	Actual Employer Contributions			Percentage of Actuarially Determined Contribution Contributed
		Cash Payment	Transfer from Reserve Accounts	Total	
June 30, 2014	\$ 1,320,442	\$ 1,320,442	\$ -	\$ 1,320,442	100%
June 30, 2015	1,494,975	1,494,975	-	1,494,975	100%
June 30, 2016	1,443,130	1,443,130	-	1,443,130	100%
June 30, 2017 ⁽¹⁾	1,392,813	1,370,922	21,891	1,392,813	100%
June 30, 2018	1,564,284	1,564,284	-	1,564,284	100%
June 30, 2019	1,708,122	1,708,122	-	1,708,122	100%
June 30, 2020	1,800,137	1,800,137	-	1,800,137	100%
June 30, 2021	2,012,877	2,012,877	-	2,012,877	100%
June 30, 2022	2,199,889	2,199,889	-	2,199,889	100%
June 30, 2023	2,301,706	2,301,706	-	2,301,706	100%

1. The County Contribution Reserve was used to offset the contribution required from the Courts in the fiscal year ended June 30, 2017.

Exhibit 15
Funding Liabilities by Type

(Dollars in Millions)

Actuarial Valuation Date	Actuarial Value of Valuation Assets	Actuarial Accrued Liabilities for			Portion of Actuarial Accrued Liabilities Covered by Assets		
		Active Member Contributions (A)	Retirees and Beneficiaries ⁽¹⁾ (B)	Active Members (Employer Financed Portion) (C)	(A)	(B)	(C)
June 30, 2014	\$ 43,654	\$ 8,354	\$ 31,882	\$ 14,706	100%	100%	23%
June 30, 2015	47,328	8,805	32,734	15,280	100%	100%	38%
June 30, 2016	49,358	8,767	35,316	18,116	100%	100%	29%
June 30, 2017	52,166	9,482	37,077	18,752	100%	100%	30%
June 30, 2018	55,233	9,882	39,192	19,453	100%	100%	32%
June 30, 2019	57,617	10,210	42,235	22,190	100%	100%	23%
June 30, 2020	59,763	10,650	44,500	23,125	100%	100%	20%
June 30, 2021	64,909	11,115	46,774	24,009	100%	100%	29%
June 30, 2022	68,712	11,029	49,637	25,654	100%	100%	31%
June 30, 2023	72,415	11,930	52,116	26,605	100%	100%	31%

1. Includes vested and non-vested former members.

Notes:

For the purpose of this exhibit, Valuation Assets are allocated, in order, to active member contribution accounts (A), the Actuarial Accrued Liability for retirees and beneficiaries (B) and the employer financed portion of active member liabilities (C). Active member contributions are always assumed to be 100% funded. Assets are then allocated to the Actuarial Accrued Liability for retirees and beneficiaries until that category is 100% funded, and then any remaining Valuation Assets are allocated to the employer financed portion of active member liabilities. The employer's UAAL contributions are based on a percentage of active member salaries and those contributions are projected to eliminate any unfunded liability in that category over the scheduled amortization period.

Exhibit 16
Actuarial Analysis of Financial Experience

(Dollars in Millions)

	Valuation as of June 30						
	2017	2018	2019	2020	2021	2022	2023
Unfunded Actuarial Accrued Liability	\$12,841	\$13,145	\$13,294	\$17,018	\$18,512	\$16,989	\$17,608
Expected Increase/(Decrease) from Prior Valuation	320	146	25	306	171	(76)	(108)
Salary Increases Greater/(Less) than Expected	277	223	486	388	484	(21)	771
Retiree COLA Greater/(Less) than Expected	(139)	45	44	43	(73)	355	-
Change in Assumptions / Methods	-	-	2,528	-	-	1,364	-
Asset Return Less/(Greater) than Expected	(421)	(411)	477	701	(2,039)	(996)	(118)
All Other Experience	267	146	164	56	(66)	(7)	83
Ending Unfunded Actuarial Accrued Liability	\$13,145	\$13,294	\$17,018	\$18,512	\$16,989	\$17,608	\$18,236

Exhibit 17
Retirants and Beneficiaries added to and removed from Retiree Payroll

(Dollars in Thousands)

Valuation Date	Added to Rolls		Removed from Rolls		Rolls at End of Year		% Increase in Retiree Allowance	Average Annual Allowance
	Member Count	Annual Allowance ⁽¹⁾⁽²⁾	Member Count	Annual Allowance ⁽¹⁾	Member Count ⁽³⁾	Annual Allowance ⁽¹⁾		
June 30, 2014	3,128	\$ 172,743	(1,985)	\$ (71,730)	59,229	\$ 2,712,080	3.87%	\$ 45.8
June 30, 2015	3,501	180,549	(2,124)	(80,028)	60,606	2,812,601	3.71%	46.4
June 30, 2016	3,479	220,632	(2,171)	(80,881)	61,914	2,952,352	4.97%	47.7
June 30, 2017	3,721	245,915	(2,311)	(89,624)	63,324	3,108,643	5.29%	49.1
June 30, 2018	3,826	276,118	(2,270)	(89,033)	64,880	3,295,728	6.02%	50.8
June 30, 2019	3,978	302,022	(2,351)	(97,840)	66,507	3,499,910	6.20%	52.6
June 30, 2020	3,930	311,206	(2,425)	(104,914)	68,012	3,706,202	5.89%	54.5
June 30, 2021	4,350	327,745	(2,865)	(132,185)	69,497	3,901,762	5.28%	56.1
June 30, 2022	4,796	378,343	(2,722)	(130,089)	71,571	4,150,016	6.36%	58.0
June 30, 2023	4,071	347,718	(2,634)	(129,276)	73,008	4,368,458	5.26%	59.8

1. Annual allowance is the monthly benefit allowance annualized for those members counted as of June 30.

2. Includes COLAs that occurred during the fiscal year and therefore were not included in the previous years' Annual Allowance totals.

3. For the actuarial valuation year, Member Count includes retirees who due to timing at year end, are not yet included in the total Retired Members count disclosed in Note A - Plan Description of LACERA's ACFR for the fiscal year ended June 30, 2023.

8. Cash Flow History and Projections

Exhibits 18a and 18b contain tables and graphs that illustrate both the cash flow history for the past 10 years and a projection on the valuation basis for the next 10 years.

Contributions include both employer and member contributions. Exhibit 18a shows that net cash outflow has gradually increased over the last five years. In future years, the cash flow is expected to become increasingly negative. This is a typical pattern for a mature retirement plan where it is expected that contributions will be less than benefits and that the Plan will begin drawing on the fund that has been built up over prior years.

Note that the actual cash contributions do not reflect the transfers made between reserve funds, but only cash coming into the Plan. We are assuming no further transfers, only full cash contributions. In addition, LACERA will receive dividends and interest payments from its investments. These types of payments are not considered for this analysis, which focuses solely on comparing contributions with benefit payments and administrative expenses.

The projected cash flows include contributions, statutory benefits, and administrative expenses only. They are based on the actuarial assumptions as stated in Appendix A of this valuation report. The total employer contribution rate is assumed to be 25.84% for the first year and 25.88% for the second year; total employer contributions for the remainder of the period reflect the expected recognition of asset gains and losses currently being deferred. The aggregate member rate is assumed to stay at the calculated rate for June 30, 2023 of 8.37% of payroll. Expenses are based on the expenses for the year ended June 30, 2023, increased annually with the actuarial inflation assumption of 2.75%.

Any increases or reductions in future contribution rates will increase or decrease the net cash flow. The projected cash flows do not include:

- Projected STAR benefits that have not yet been granted and STAR benefits that have been adopted but are not effective until after the valuation date.
- Projected benefits payable under certain insurance contracts for a group of retired members. These payments are netted against the total expected retiree benefits.

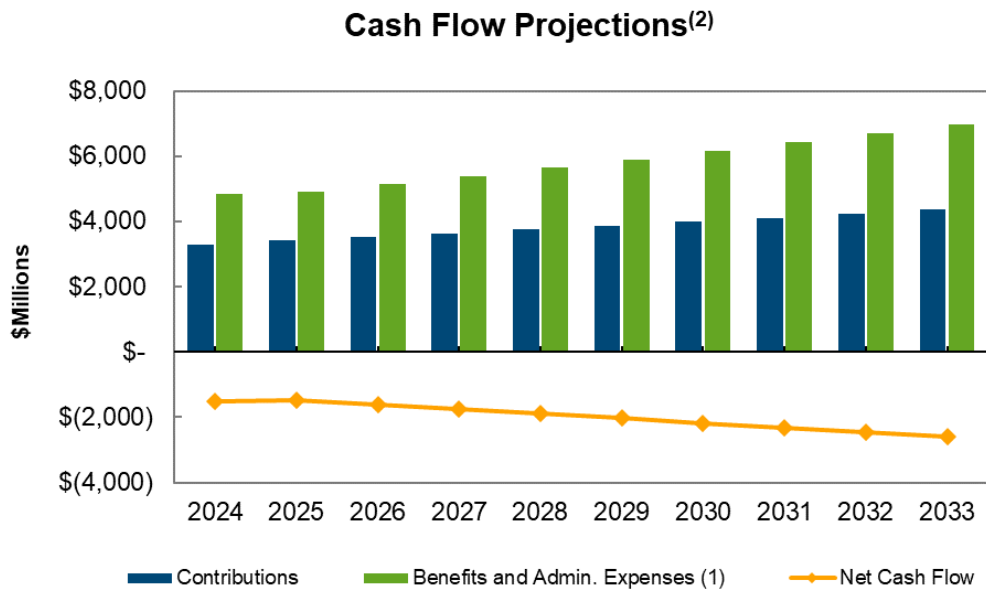
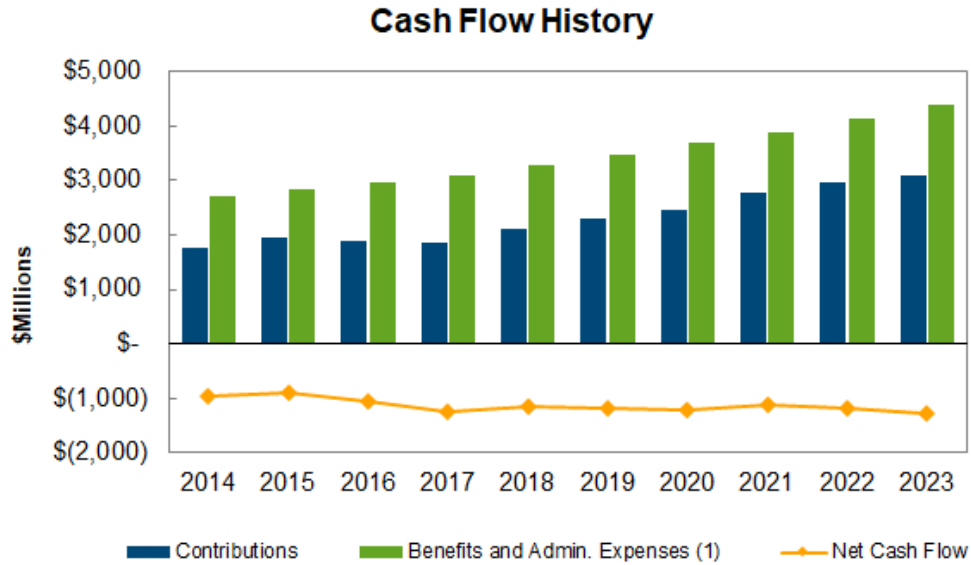
Exhibit 18a
Cash Flow History and Projections – Dollars

Cash Flow History				
Plan Year Ending	Total Contributions	Benefits & Administrative Expenses ⁽¹⁾	Net Cash Flow	Net Cash Flow as a Percent of Fair Value of Assets
2014	\$ 1,759	\$ 2,719	\$ (960)	-2.3%
2015	1,936	2,829	(893)	-1.9%
2016	1,902	2,954	(1,052)	-2.2%
2017	1,858	3,094	(1,236)	-2.6%
2018	2,116	3,268	(1,152)	-2.2%
2019	2,304	3,475	(1,171)	-2.1%
2020	2,459	3,676	(1,217)	-2.1%
2021	2,774	3,886	(1,112)	-1.9%
2022	2,959	4,126	(1,167)	-1.6%
2023	3,095	4,375	(1,280)	-1.8%

Cash Flow Projections⁽²⁾				
Plan Year Ending	Total Contributions	Benefits & Administrative Expenses ⁽¹⁾	Net Cash Flow	Net Cash Flow as a Percent of Fair Value of Assets
2024	\$ 3,303	\$ 4,830	\$ (1,527)	-2.1%
2025	3,431	4,908	(1,477)	-1.9%
2026	3,529	5,149	(1,620)	-2.0%
2027	3,636	5,395	(1,759)	-2.1%
2028	3,750	5,645	(1,895)	-2.1%
2029	3,867	5,900	(2,033)	-2.2%
2030	3,988	6,163	(2,175)	-2.2%
2031	4,112	6,430	(2,318)	-2.2%
2032	4,242	6,701	(2,459)	-2.3%
2033	4,374	6,975	(2,601)	-2.3%

1. Investment expenses are assumed to be covered by investment return.
2. Future contributions reflect the expected impact of asset gains and losses currently being deferred.

Exhibit 18b
Cash Flow History and Projections – Graphs



1. Investment expenses are assumed to be covered by investment return.
2. Future contributions reflect the expected impact of asset gains and losses currently being deferred.

9. Risk Discussion

Please refer to the Risk Assessment report dated May 25, 2023 (which is based on the June 30, 2022 valuation) for a detailed analysis of the main risks applicable to LACERA. That report includes detailed identification and assessment of risks.

Overview

The results of any actuarial valuation are based on one set of reasonable assumptions. Although we believe the current assumptions provide a reasonable estimate of future expectations, it is almost certain that future experience will differ from the assumptions to some extent. It is therefore important to consider the potential impacts of these likely differences when making decisions that may affect the future financial health of the Plan, or of the Plan's members.

Actuarial Standard of Practice 51 (ASOP 51, Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions) addresses these issues by providing actuaries with guidance for assessing and disclosing the risk associated with measuring pension liabilities and the determination of pension plan contributions. Specifically, it directs the actuary to:

- Identify risks that may be significant to the Plan.
- Assess the risks identified as significant to the Plan. The assessment does not need to include numerical calculations.
- Disclose plan maturity measures and historical information that are significant to understanding the Plan's risks.

ASOP 51 states that if in the actuary's professional judgment, a more detailed assessment would be significantly beneficial in helping the individuals responsible for the Plan to understand the risks identified by the actuary, then the actuary should recommend that such an assessment be performed.

In addition, the California Actuarial Advisory Panel (CAAP) has adopted a set of model disclosure elements for actuarial valuation reports of public retirement systems in California. Most of these elements are included in other areas of this report. The remaining CAAP-recommended disclosures are as follows:

Disclosure Element	Description	Value
Gross Normal Cost \$ ¹	Normal Cost allocated to valuation year, paid at mid-year.	\$ 1,880.2
Statutory Contribution \$ ¹	Expected Employer Contribution paid at mid-year.	\$ 2,506.9
Asset Smoothing Ratio	Actuarial Value of Assets divided by Fair Value of Assets	99.9%
Asset Volatility Ratio	Fair Value of Assets divided by Payroll	7.6
Liability Volatility Ratio	Actuarial Accrued Liability divided by Payroll	9.5

1. Amounts shown in millions of dollars.

This Section 9 uses the framework of ASOP 51 and the Asset and Liability Volatility Ratios shown above to communicate important information about: significant risks to the Plan, the Plan's maturity, and relevant historical plan data.

Factors Affecting Future Results

There are a number of factors that affect future valuation results. To the extent actual experience for these factors varies from the assumptions, this will likely cause either increases or decreases in the Plan's future funding level and employer contribution rates (ECR). The factors that can have the most significant impact on LACERA's valuation results are:

- Investment returns
To the extent that actual investment returns differ from the assumed investment return, the Plan's future assets, ECR, and funded status may differ significantly from those presented in this valuation. Additional discussion of the impact of variance of investment returns is included below.
- Compensation increases
Individual member retirement benefits are linked to that member's compensation. As such, assumptions need to be made as to a member's future compensation increases. Higher future compensation increases will generally result in larger retirement benefits, liabilities, ECRs, and a lower funded status. Conversely, lower compensation increases than assumed will generally result in smaller retirement benefits, liabilities, ECRs, and a higher funded status.
- Payroll variation
In the valuation, an assumption is made for the overall rate of payroll growth of LACERA from year-to-year. To the extent that the overall rate of payroll growth is greater than assumed, the ECR may decrease since the UAAL will be amortized over a larger payroll base. If the overall rate of payroll growth is less than assumed, the ECR is expected to increase since the UAAL will be amortized over a smaller payroll base.

This effect often will offset somewhat with individual compensation increases, discussed above.
- Longevity and other demographic risks
The liabilities reported in this valuation have been calculated by assuming that members will follow specific patterns of demographic experience (e.g., mortality, retirement, termination, disability) as described in Appendix A. To the extent that actual demographic experience is different than is assumed to occur, future liabilities, ECRs, and funded status may differ from that presented in this valuation.

All of these assumptions are reviewed in detail during the triennial Investigation of Experience study, and are also reviewed annually during the valuation process. Changes in assumptions are generally recommended as part of the triennial Investigation of Experience if actual experience has been materially different than assumed or forecasts have changed significantly. Additionally, changes may be recommended and discussed at each valuation if they are deemed to be appropriate at that time.

Discussion of Investment Return Risk

Of these factors, we believe the factor with the greatest potential risk to impact future valuation results for LACERA is future investment returns. For example, if actual returns fall short of the current assumption of 7.0% per year, this will cause an increase in the ECR and a decrease in the Funded Ratio, all other things being equal. Conversely, if actual returns exceed the current assumption of 7.0% per year, this will cause a decrease in the ECR and an increase in the Funded Ratio.

The magnitude of the increase or decrease in the ECR is affected by the maturity level, and specifically, the asset volatility ratio. LACERA has accumulated a significant amount of assets relative to its payroll and by several measures is considered a mature plan. Accumulating assets to pay for future benefit obligations is responsible funding, but it does mean that changes in the investment markets can have a significant impact on the ECR.

Low-Default-Risk Obligation Measure (LDRM)

Effective for measurement dates February 15, 2023 or later, Actuarial Standard of Practice 4 (ASOP 4) states that when performing a funding valuation, the actuary should calculate and disclose a low-default-risk obligation measure (LDRM) of the benefits earned or accrued under the actuarial cost method used as of the measurement date. The actuary should select a discount rate derived from low-default-risk fixed income securities. We have used the Bond Buyer General Obligation 20-Bond Municipal Bond Index. The index is a 20-year high quality AA municipal bond rate and, based on Section 3.11.c. of ASOP 4, we believe this index meets the requirements for a discount rate for the LDRM. The index was 3.65% as of June 30, 2023.

This required disclosure shows significantly higher plan liabilities and a lower funded ratio than under the funding valuation assumption, as shown in the following chart. It provides the Plan Sponsors and other interested parties with additional funding metrics of the Plan for informational purposes, but does not impact the funding of the Plan which is based on the valuation assumptions.

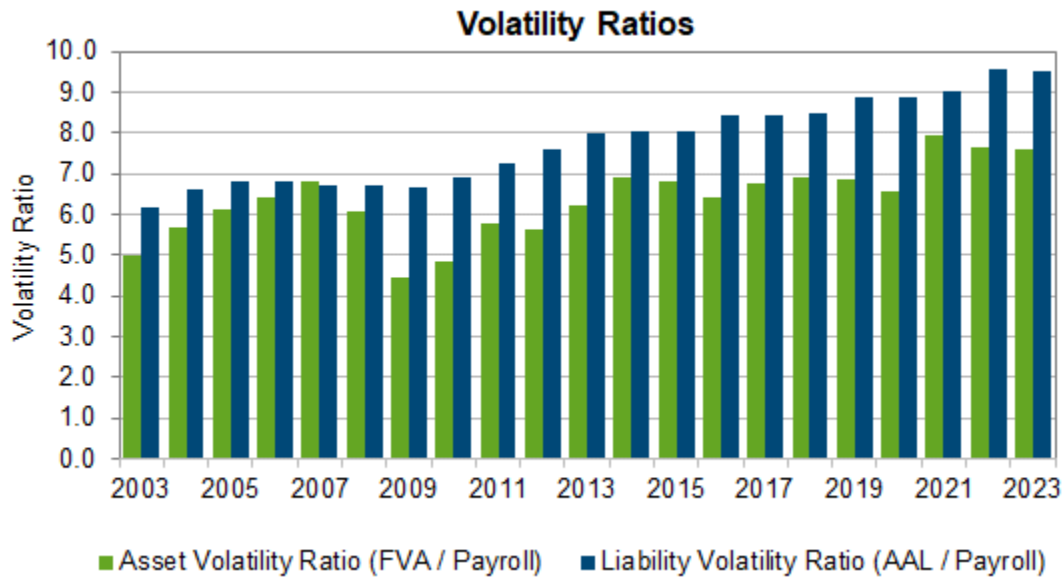
	Bond Buyer Index	Valuation Assumption
Discount Rate	3.65%	7.00%
Actuarial Accrued Liability as of June 30, 2023 ^{1,2}	\$143.3	\$90.7
Funding Ratio - Valuation Assets	50.6%	79.9%
Funding Ratio - Fair Value of Assets	50.6%	80.0%

- 1. Calculated using the same actuarial assumptions and methods as used for this valuation, except for the discount rate.
- 2. Amounts in billions of dollars.

LACERA’s investment policy and strategy is complex, and its target asset allocation reflects a balance of risk and return. The expected return based on LACERA’s target allocation, and consequently the investment return assumption, is significantly higher than the discount rate based on the Bond Buyer Index. Investing in asset classes with a low default risk would be expected to reduce future investment returns and therefore increase future contributions needed and lower the current Funded Ratio. However, the lower investment risk levels would be expected to result in lower year-to-year volatility in the ECR, and a portfolio with a lower default risk might provide more benefit security for members if the associated liabilities are adequately funded. Conversely, investing in asset classes with higher expected returns and volatility would be expected to decrease future contributions and increase the current Funded Ratio, but it would increase the year-to-year volatility of the ECR and could provide less benefit security for members. A change away from the current return-seeking-with-reasonable-risk investment strategy is not being considered by LACERA.

Asset and Liability Volatility Ratios

Asset and Liability Volatility Ratios are a measure of the level of assets (or liabilities) to payroll. In general, a higher ratio means that the employer contribution rates (ECR) are more sensitive to changes in levels of assets or liabilities. Asset and Liability Volatility Ratios are shown below, and in Exhibit E-4.



As shown above, in the current valuation LACERA has an Asset Volatility Ratio of 7.6 and a Liability Volatility Ratio of 9.5. These ratios have increased over time as LACERA has matured.

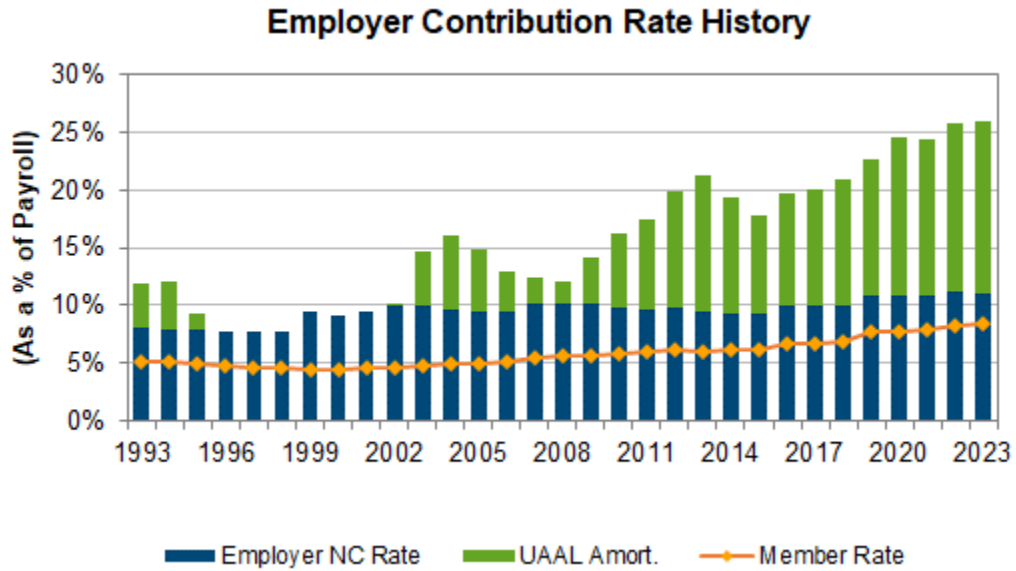
LACERA has accumulated a significant amount of assets relative to its payroll and by several measures is considered a mature plan. Accumulating assets to pay for future benefit obligations is responsible funding, but it does mean changes in the investment markets can have a significant impact on the ECR.

For LACERA, 7.6 Asset Volatility Ratio means that a 10% investment gain or loss relative to the assumed 7.0% investment return assumption (that is, an investment return of -3.0% or of 17.0%) translates to a 5.4% of pay increase (or decrease) in the ECR, all other things being equal. Since LACERA uses actuarial smoothing, the increase would not be immediate, but would occur gradually over five years and could potentially be offset, or further increased, by future investment gains or losses or other factors.

The Liability Volatility Ratio measures the sensitivity of the ECR to changes in the level of liabilities, all else being equal. With a liability volatility ratio of 9.5 an increase (or decrease) in the investment return assumption of 0.5% translates to a decrease (or increase) in the ECR of approximately 5.2% of pay for LACERA.

Historical Variation in Employer Contribution Rate

One way to assess future risks is to look at historical measurements. The following graph shows how the ECR has varied over the last 30 years under various investment return and assumption environments.



Appendix A Actuarial Procedures and Assumptions

The actuarial procedures and assumptions used in this valuation are described in this section. The assumptions were reviewed and changed for the June 30, 2022 actuarial valuation as a result of the 2022 triennial Investigation of Experience Study.

The actuarial assumptions used in the valuations are intended to estimate the future experience of the members of LACERA and of LACERA itself in areas that affect the projected benefit flow and anticipated investment earnings. Any variations in future experience from that expected from these assumptions will result in corresponding changes in the estimated costs of LACERA's benefits.

Table A-1 summarizes the assumptions.

Tables A-2 and A-3 show how members are expected to leave retired status due to death.

Table A-4 presents the probability of refund of contributions upon termination of employment while vested.

Table A-5 presents the expected annual percentage increase in salaries.

Tables A-6 to A-13 presents the probabilities that a member will leave the System for various reasons.

Actuarial Cost Method

The actuarial valuation is prepared using the entry age actuarial cost method (CERL 31453.5). Under the principles of this method, the actuarial present value of the projected benefits of each individual included in the valuation is allocated as a level percentage of the individual's projected compensation between entry age and assumed exit (until maximum retirement age).

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 sum of (a) the actuarial value of the assets, and (b) the actuarial present value of future normal costs is called the Unfunded Actuarial Accrued Liability (UAAL).

For members who transferred between plans, entry age is based on original entry into the System.

For General Plan G and Safety Plan C, the normal cost rate is rounded up to the nearest 0.02%.

Amortization Method

The original UAAL as of June 30, 2009 is amortized as a level percentage of the projected salaries of present and future members of LACERA over a closed 30-year period. As of the June 30, 2019 valuation, all amortization layers with periods greater than 22 years as of July 1, 2020 were amortized over a 22-year period. Future changes in the UAAL due to actuarial gains and losses and assumption changes are amortized over new closed 20-year periods, beginning with the date the contribution is first expected to be made. This is referred to as "layered" amortization. For increases in the UAAL due to changes in benefit provisions, the increase is amortized over a 10-year period.

Records and Data

The data used in this valuation consists of financial information and the age, service, and income records for active and inactive members and their survivors. All of the data were supplied by LACERA and are accepted for valuation purposes without audit.

Replacement of Former Members

The ages and relative salaries at entry of future members are assumed to follow a new entrant distribution based on the pattern of current members. The normal cost rates for active members within an individual plan will remain fairly stable in future years unless there are changes in the governing law, the actuarial assumptions, or the pattern of the new entrants.

Growth in Membership

For benefit determination purposes, no growth in the membership of LACERA is assumed. For funding purposes, if amortization is required, the total payroll of covered members is assumed to grow due to the combined effects of future wage increases of current active members and the replacement of the current active members by new employees. No growth or decline in the total number of active members is assumed.

Payroll Growth

Total payroll is expected to grow at 3.25% per year.

Internal Revenue Code Section 415 Limit

The Internal Revenue Code (IRC) Section 415 maximum benefit limitation is not explicitly reflected in the valuation for funding purposes. Any limitation is reflected in a member's benefit calculation at retirement.

Internal Revenue Code Section 401(a)(17)

The Internal Revenue Code Section 401(a)(17) maximum compensation limitation is not reflected in the valuation for funding purposes. Any limitation is reflected in a member's benefit after retirement.

Government Code Section 7522.10

The maximum compensation limit under Government Code Section 7522.10 is reflected in the valuation for funding purposes. Any limitation is reflected in a member's benefit after retirement.

Employer Contributions

The employer contribution rate is set by the Board of Investments based on actuarial valuations.

Member Contributions

The member contribution rates of contributory legacy plans (all plans except General Plans E and G and Safety Plan C) vary by entry age and are described in the law. Code references are shown in Appendix B of the valuation report. The methods and assumptions used are detailed later in this section.

The individual member rates by entry age, plan, and class are illustrated in Appendix D of the valuation report.

Valuation of Assets

The assets are valued using a five-year smoothed method based on the difference between the expected fair value and the actual fair value of the assets as of the valuation date. The expected fair value is the prior year's fair value increased with the net increase in the cash flow of funds, all increased with interest during the past fiscal year at the expected investment return rate assumption. To the extent that there is a loss for the year and there are unrecognized gains from previous years, or to the extent that there is a gain for the year and there are unrecognized losses from previous years, the gain or loss for the year shall be used to offset unrecognized gains or losses from previous years in the order of oldest to most recent. Any remaining gain or loss for the year is

recognized over a five-year period. Valuation Assets exclude the statutory Contingency Reserve and the STAR Reserve. The five-year smoothing valuation basis for all assets was adopted effective June 30, 2009, and the offsetting methodology and STAR Reserve treatment were adopted effective June 30, 2022.

Price Inflation (Local and National)

The price inflation assumption is used in the determination of assumptions for individual salary increases, overall wage growth, postretirement benefit increases, and PEPRA compensation limit increases. Both the local and national price inflation assumptions are 2.75% per year.

Investment Earnings and Expenses

The future investment earnings of the assets of LACERA are assumed to accrue at an annual rate of 7.00% compounded annually, net of both investment and administrative expenses. This rate was adopted June 30, 2019.

Postretirement Benefit Increases

Postretirement increases are assumed for the valuation in accordance with the benefits provided as described in Appendix B. These adjustments vary by plan and are assumed payable each year in the future but are limited to not exceed the expected local inflation of 2.75% per year, with the exception that any COLA accumulation banks for Plan A members are reflected in the valuation. The local inflation rate used for the postretirement benefit assumptions was adopted June 30, 2016.

Interest on Member Contributions

The annual credited interest rate on member contributions is assumed to be 7.00% compounded semi-annually for an annualized rate of 7.12%. This rate was adopted effective June 30, 2019.

Future Salaries

The rates of annual salary increase assumed for the purpose of the valuation are illustrated in Table A-5. In addition to increases in salary due to promotions and longevity, this scale includes an assumed 3.25% per annum rate of increase in the general wage level of the membership. These rates were adopted June 30, 2022.

Increases are assumed to occur mid-year (i.e., January 1st) and only apply to base salary, excluding megaflex compensation. The mid-year timing reflects that salary increases occur throughout the year, or on average mid-year.

For plans with a one-year final average compensation period, actual average annual compensation is used. For Plan E, Plan G and Safety Plan C, the monthly rate as of June of the valuation year was annualized. Due to irregular compensation payments included as pensionable earnings, actual annual pay is preferred over annualizing a single monthly payment amount.

Social Security Wage Base

Plan E members have their benefits offset by an assumed Social Security Benefit. For valuation funding purposes, we need to project the Social Security Benefit. We assume the current Social Security provisions will continue and the annual Wage Base will increase at the rate of 3.25% per year. Note that statutory provisions describe exactly how to compute the offset for purposes of determining a member's offset amount at time of termination or retirement. This rate was adopted June 30, 2016.

Note also, that it is assumed all Plan E members born after 1950 have less than 10 years of Social Security-covered service and, therefore, do not have their benefit offset.

General Plan G and Safety Plan C members have their compensation limited to approximately 120% of the Social Security Wage Base. The limit for 2023 is \$175,250 (after applying the 120% factor) and is projected to increase at the assumed national CPI rate of 2.75%. This rate of future increase was adopted effective June 30, 2016.

Retirement

Members in General Plans A-D may retire at age 50 with 10 years of service, or any age with 30 years of service, or age 70 regardless of the number of years of service. General Plan G members are eligible to retire at age 52 with 5 years of service, or age 70 regardless of the number of years of service. Non-contributory Plan E members may retire at age 55 with 10 years of service. Members of Safety Plans A and B may retire at age 50 with 10 years of service, or any age with 20 years of service. Safety Plan C members are eligible to retire at age 50 with 5 years of County service. Retirement probabilities vary by age and are shown by plan in Tables A-6 through A-13.

All General members who attain or have attained age 75 in active service and all Safety members who attain or have attained age 65 in active service are assumed to retire immediately (except for Safety Plan C members who have not yet attained 5 years of service).

Vested former members are assumed to retire at the later of their current age and the assumed retirement age specified as follows:

Assumption for Deferred Commencement	
Plan	Age at Commencement
GA	62
GB	62
GC	62
GD	59
GE	62
GG	57
SA	55
SB	50
SC	50

The assumptions regarding termination of employment, early retirement, and unreduced service retirement are treated as a single set of decrements in regard to a particular member. For example, a General Plan D member hired at age 30 has a probability of withdrawing from LACERA due to death, disability or other termination of employment until age 50. After age 50, the member can withdraw due to death, disability, or retirement. Thus, in no year during the member's projected employment would the member be eligible for both a probability of other termination of employment and a probability of retirement.

The retirement probabilities were adopted June 30, 2022.

Disability

The probabilities of disability used in the valuation are also illustrated in Tables A-6 through A-13. These probabilities were adopted June 30, 2019.

Postretirement Mortality – Other Than Disabled Members

The same postretirement mortality probabilities are used in the valuation for members retired for service and beneficiaries. These probabilities are illustrated in Table A-2. Current beneficiary mortality is assumed to be the same as for healthy members of the same sex. Future beneficiaries are assumed to be of the opposite sex and have the same mortality as General members. The amount-weighted Pub-2010 mortality tables are used. These probabilities were adopted June 30, 2019.

Note that these assumptions include a projection for expected future mortality improvement. The new projection scale was adopted June 30, 2022.

Males: General members: PubG-2010 Healthy Retiree Mortality Table for Males, with MP-2021 Ultimate Projection Scale.

Safety members: PubS-2010 Healthy Retiree Mortality Table for Males multiplied by 85%, with MP-2021 Ultimate Projection Scale.

Females: General members: PubG-2010 Healthy Retiree Mortality Table for Females multiplied by 110%, with MP-2021 Ultimate Projection Scale.

Safety members: PubS-2010 Healthy Retiree Mortality Table for Females, with MP-2021 Ultimate Projection Scale.

Postretirement Mortality – Disabled Members

For members retired for disability, the mortality probabilities used in the valuation are illustrated in Table A-3. The amount-weighted Pub-2010 mortality tables are used. These probabilities were adopted June 30, 2019.

Note that these assumptions include a projection for expected future mortality improvement. The new projection scale was adopted June 30, 2022.

Males: General members: Average of PubG-2010 Healthy Retiree Mortality Table for Males and PubG-2010 Disabled Retiree Mortality Table for Males, both projected with MP-2021 Ultimate Projection Scale.

Safety members: PubS-2010 Healthy Retiree Mortality Table for Males, with MP-2021 Ultimate Projection Scale.

Females: General members: Average of PubG-2010 Healthy Retiree Mortality Table for Females and PubG-2010 Disabled Retiree Mortality Table for Females, both projected with MP-2021 Ultimate Projection Scale.

Safety members: PubS-2010 Healthy Retiree Mortality Table for Females, with MP-2021 Ultimate Projection Scale.

Mortality while in Active Status

For active members, the mortality probabilities used in the valuation are illustrated in Tables A-6 through A-13. The amount-weighted Pub-2010 mortality tables are used. These mortality tables were adopted June 30, 2019.

Class	Gender	Proposed Table
General	Male	PubG-2010 (120%) Employee Male ⁽¹⁾
General	Female	PubG-2010 (130%) Employee Female ⁽¹⁾
Safety	Male	PubS-2010 (100%) Employee Male ⁽¹⁾
Safety	Female	PubS-2010 (100%) Employee Female ⁽¹⁾

1. Projected using the MP-2021 Ultimate projection scale.

These assumptions include a projection for expected future mortality improvement, which was adopted June 30, 2022.

Note that Safety members have an additional service-connected mortality probability of 0.01% per year.

Other Employment Terminations

Tables A-6 to A-13 show, for all ages, the probabilities assumed in this valuation for future termination from active service other than for death, disability, or retirement. These probabilities do not apply to members eligible for service retirement. These probabilities were adopted June 30, 2022.

Terminating employees may withdraw their contributions immediately upon termination of employment and forfeit the right to further benefits, or they may leave their contributions with LACERA. Former contributing members whose contributions are on deposit may later elect to receive a refund, may return to work, or may remain inactive until becoming eligible to receive a retirement benefit under either LACERA or a reciprocal retirement system. All terminating members who are not eligible for vested benefits are assumed to withdraw their contributions immediately. It is assumed that all terminating members will not be rehired in the future.

Table A-4 gives the assumed probabilities that vested members will withdraw their contributions and elect a refund immediately upon termination and the probability that remaining members will elect a deferred vested benefit. All non-vested members are assumed to elect a refund and withdraw their contributions. These probabilities were adopted June 30, 2022.

Probability of Eligible Survivors

For members not currently in pay status, 77% of all males and 48% of all females are assumed to have eligible survivors (spouses or qualified domestic partners). Survivors are assumed to be three years younger than male members and two years older than female members. Survivors are assumed to be of the opposite gender as the member. There is no explicit assumption for children's benefits. We believe the survivor benefits based on this assumption are sufficient to cover children's benefits as they occur. These probabilities were adopted June 30, 2022.

Valuation of Vested Former Members

The deferred retirement benefit is calculated based on the member's final compensation and service at termination. The compensation amount is projected until the assumed retirement age for members who are assumed to be employed by a reciprocal agency. For members who are missing compensation data, Final Compensation is estimated as the average amount for all members who terminated during the same year and had a valid compensation amount. The greater of the present value of the calculated benefit and the employee's current contribution balance is valued for future deferred vested members.

Reciprocal Employment

17% of General and 36% of Safety current and future vested former members are assumed to work for a reciprocal employer. These probabilities were adopted June 30, 2022.

Current vested reciprocal members are assumed to receive annual salary increases of 4.25%. Future reciprocal vested members are assumed to receive the same salary increases they would have received if they had stayed in active employment with LACERA and retired at the assumed retirement age.

Other Technical Assumptions

Decrements are assumed to occur mid-year, except that if the retirement rate is 100% at a given age then the member is assumed to retire at the beginning of the year at that age.

Decrement rates shown are probabilities and are non-competing.

Termination rates are assumed to be 0% if the member is eligible for service retirement.

Valuation of Annuity Purchases

Over 30 years ago, LACERA purchased single life annuities from two insurance companies for some retired members (currently less than 1% of the retired population). The total liability for these members is calculated and then offset by the expected value of the benefit to be paid by the insurance companies.

For affected members, the insurance companies are responsible for:

1. Straight life annuity payments
2. Statutory COLAs

LACERA is responsible for:

1. Benefit payments payable to any beneficiary
2. STAR COLAs

Member Contribution Rate Assumptions

The following assumptions summarize the procedures used to compute member contribution rates based on entry age:

In general, the member rate is determined by the Present Value of the Future Benefit (PVFB) payable at retirement age, divided by the present value of all future salaries payable between age at entry and retirement age. For these purposes, per the CERL:

- A. The Annuity factor used for General members is based on a 35% / 65% blend of the male and female valuation mortality tables and projection scale, with a static projection to 2044. For Safety members, it is based on an 85% / 15% blend of the male and female annuity factors determined using the same mortality tables as used for service-retired members.
- B. The annuity factor used in determining the present value of future benefits (PVFB) at entry age is equal to the life only annuity factor at 7.00%.
- C. The Final Compensation is based on the salary paid in the year prior to attaining the retirement age.
- D. Example: For a General Plan C Member who enters at age 59 or earlier, the Final Compensation at retirement (age 60) will be the monthly average of the annual salaries during age 59.
- E. Member Rates are assumed to increase with entry age. There are a few exceptions at the higher entry ages where the calculated rate is less than the previous entry age. In these cases the member contribution rate is adjusted so that it is no less than the value for the previous entry age.

Table A-1
Summary of Valuation Assumptions as of June 30, 2023

- I. Economic assumptions
 - A. Payroll / General wage increases 3.25%
 - B. Investment earnings 7.00%
 - C. Growth in membership 0.00%
 - D. Postretirement benefit increases (varies by plan) Plan COLA not greater than local price inflation assumption⁽¹⁾
 - E. National price inflation assumption 2.75%
 - F. Local price inflation assumption 2.75%

- II. Demographic assumptions
 - A. Salary increases due to service Table A-5
 - B. Retirement Tables A-6 to A-13
 - C. Disability Tables A-6 to A-13
 - D. Mortality during active employment Tables A-6 to A-13
 - E. Mortality for active members after termination and service retired members⁽²⁾ Table A-2

Class	Gender	
General	Male	PubG-2010 (100%) Healthy Retiree Male
General	Female	PubG-2010 (110%) Healthy Retiree Female
Safety	Male	PubS-2010 (85%) Healthy Retiree Male
Safety	Female	PubS-2010 (100%) Healthy Retiree Female

- F. Mortality among disabled members⁽²⁾ Table A-3

Class	Gender	
General	Male	Avg of: PubG-2010 (100%) Healthy Retiree Male PubG-2010 (100%) Disabled Retiree Male
General	Female	Avg of: PubG-2010 (100%) Healthy Retiree Female PubG-2010 (100%) Disabled Retiree Female
Safety	Male	PubS-2010 (100%) Healthy Retiree Male
Safety	Female	PubS-2010 (100%) Healthy Retiree Female

- G. Mortality for beneficiaries⁽¹⁾ Table A-2
 Basis – Beneficiaries are assumed to have the same mortality as a General member of the opposite gender who has taken a service retirement.
- H. Other terminations of employment Tables A-6 to A-13
- I. Refund of contributions on vested termination Table A-4

1. To account for existing Plan A COLA accumulation balances, retirees and beneficiaries with a retirement date prior to April 1, 2023 are assumed to receive 3.00% annual COLAs.

2. All mortality probabilities are projected using the MP-2021 Ultimate projection scale.

Table A-2
Mortality for Members Retired for Service⁽¹⁾

<u>Age</u>	<u>Safety Male</u>	<u>Safety Female</u>	<u>General Male</u>	<u>General Female</u>
20	0.0520%	0.0210%	0.0740%	0.0380%
25	0.0470%	0.0260%	0.0560%	0.0260%
30	0.0520%	0.0350%	0.0720%	0.0440%
35	0.0590%	0.0470%	0.0940%	0.0680%
40	0.0750%	0.0640%	0.1320%	0.1060%
45	0.1037%	0.0870%	0.1960%	0.1650%
50	0.1632%	0.1490%	0.2980%	0.2442%
55	0.2601%	0.2580%	0.4310%	0.3146%
60	0.4318%	0.4460%	0.6150%	0.4224%
65	0.7489%	0.7700%	0.9130%	0.6743%
70	1.3328%	1.3290%	1.5260%	1.1693%
75	2.4021%	2.2950%	2.6710%	2.0713%
80	4.3376%	3.9620%	4.7740%	3.6960%
85	7.7648%	6.8420%	8.5910%	6.8255%
90	13.4810%	11.8150%	14.6720%	12.6357%

Mortality Improvement Scale

<u>Age</u>	<u>All Groups</u>
60 & Less	1.350%
61	1.350%
62	1.350%
63	1.340%
64	1.320%
65	1.310%
70	1.240%
75	1.170%
80	1.100%
85	0.870%
90	0.630%
95	0.400%
100	0.300%
105	0.200%
110	0.100%
115	0.000%

1. Mortality probabilities are those applicable for the fiscal year beginning in 2010. Annual projected improvements are assumed in the following years under the schedule shown. For example, the annual mortality probability for an 85-year old Safety male in fiscal year beginning in 2023 is 6.9310% calculated as follows:

$$\begin{aligned} \text{Age 85 probability in 2023} &= \text{Age 85 probability in 2010 with 13 years improvement} \\ &= 7.7648\% \times (100.0\% - 0.87\%) ^ 13 = 6.9310\% \end{aligned}$$

Table A-3
Mortality for Members Retired for Disability⁽¹⁾

Age	Safety Male	Safety Female	General Male	General Female
20	0.0610%	0.0210%	0.2430%	0.1340%
25	0.0550%	0.0260%	0.1670%	0.0940%
30	0.0610%	0.0350%	0.2130%	0.1485%
35	0.0700%	0.0470%	0.2760%	0.2315%
40	0.0880%	0.0640%	0.3885%	0.3625%
45	0.1220%	0.0870%	0.6015%	0.5675%
50	0.1920%	0.1490%	0.9515%	0.8525%
55	0.3060%	0.2580%	1.2725%	1.0140%
60	0.5080%	0.4460%	1.5590%	1.1700%
65	0.8810%	0.7700%	1.9785%	1.4345%
70	1.5680%	1.3290%	2.7135%	1.9625%
75	2.8260%	2.2950%	3.9315%	2.9430%
80	5.1030%	3.9620%	6.0610%	4.6835%
85	9.1350%	6.8420%	9.7030%	7.7680%
90	15.8600%	11.8150%	15.4625%	12.5760%

1. Mortality probabilities are those applicable for the fiscal year beginning in 2010. Annual projected improvements are assumed in the following years under the schedule shown on the preceding page.

Table A-4
Immediate Refund of Contributions upon Termination of Employment
(Excludes Plan E)

Years of Service	General	Safety
0	100%	100%
1	100%	100%
2	100%	100%
3	100%	100%
4	100%	100%
5	30%	30%
6	30%	30%
7	30%	30%
8	29%	28%
9	28%	26%
10	28%	24%
11	28%	22%
12	28%	20%
13	27%	18%
14	26%	16%
15	26%	14%
16	25%	12%
17	24%	10%
18	22%	9%
19	21%	8%
20	19%	7%
21	18%	6%
22	16%	5%
23	14%	4%
24	12%	3%
25	10%	2%
26	8%	2%
27	6%	2%
28	4%	2%
29	2%	2%
30 & Up	0%	0%

Table A-5
Annual Increase in Salary⁽¹⁾

Years of Service	General	Safety
<1	6.00%	9.00%
1	5.25%	8.50%
2	4.75%	7.50%
3	4.10%	5.75%
4	3.50%	4.25%
5	3.00%	3.00%
6	2.50%	2.50%
7	2.00%	2.10%
8	1.60%	1.70%
9	1.45%	1.45%
10	1.30%	1.30%
11	1.15%	1.20%
12	1.00%	1.10%
13	0.90%	1.00%
14	0.85%	0.90%
15	0.80%	0.90%
16	0.75%	0.90%
17	0.70%	0.90%
18	0.65%	0.90%
19	0.60%	2.25%
20	0.55%	0.90%
21	0.50%	0.90%
22	0.45%	0.90%
23	0.40%	0.90%
24	0.40%	3.00%
25	0.40%	0.90%
26	0.40%	0.90%
27	0.40%	0.90%
28	0.40%	0.90%
29	0.40%	3.00%
30 or More	0.40%	0.90%

1. The total expected increase in salary includes both merit (shown above) and the general wage increase assumption of 3.25% per annum increase. The total result is compounded rather than additive. For example, the total assumed increase for General members for service less than one year is 9.45%.

Appendix A Probabilities of Separation from Active Service Tables A-6 to A-13

A schedule of the probabilities of termination of employment due to the following causes can be found on the following pages:

Service Retirement:	Member retires after meeting age and service requirements for reasons other than disability.
Withdrawal:	Member terminates and elects a refund of member contributions, or a deferred vested retirement benefit.
Service Disability:	Member receives disability retirement; disability is service related.
Ordinary Disability:	Member receives disability retirement; disability is not service related.
Service Death:	Member dies before retirement; death is service related.
Ordinary Death:	Member dies before retirement; death is not service related.

Each of these represents the probability that a member will separate from service at each age due to the particular cause. For example, a probability of 0.0300 for a member's service retirement at age 50 means we assume that 30 out of 1,000 members who are age 50 will retire at that age.

Each table represents the detailed probabilities needed for each LACERA plan by gender:

Table A-6: General Plan A, B & C – Males	A-10: General Plan E – Males
A-7: General Plan A, B & C – Females	A-11: General Plan E – Females
A-8: General Plan D & G – Males	A-12: Safety Plan A, B & C – Males
A-9: General Plan D & G – Females	A-13: Safety Plan A, B & C – Females

Table A-6
Probability of Separation from Active Service for General Members
Plans A, B & C – Male

Age	Service Retirement	Other Terminations	Service Disability	Ordinary Disability	Service Death	Ordinary Death
18	0.00000	0.00500	0.00010	0.00010	N/A	0.00043
19	0.00000	0.00500	0.00010	0.00010	N/A	0.00046
20	0.00000	0.00500	0.00010	0.00010	N/A	0.00044
21	0.00000	0.00500	0.00010	0.00010	N/A	0.00043
22	0.00000	0.00500	0.00010	0.00010	N/A	0.00040
23	0.00000	0.00500	0.00010	0.00010	N/A	0.00037
24	0.00000	0.00500	0.00010	0.00010	N/A	0.00035
25	0.00000	0.00500	0.00010	0.00010	N/A	0.00034
26	0.00000	0.00500	0.00010	0.00010	N/A	0.00036
27	0.00000	0.00500	0.00010	0.00010	N/A	0.00037
28	0.00000	0.00500	0.00010	0.00010	N/A	0.00040
29	0.00000	0.00500	0.00010	0.00010	N/A	0.00041
30	0.00000	0.00500	0.00010	0.00020	N/A	0.00043
31	0.00000	0.00500	0.00010	0.00020	N/A	0.00046
32	0.00000	0.00500	0.00010	0.00020	N/A	0.00048
33	0.00000	0.00500	0.00016	0.00020	N/A	0.00050
34	0.00000	0.00500	0.00022	0.00020	N/A	0.00053
35	0.00000	0.00500	0.00028	0.00020	N/A	0.00056
36	0.00000	0.00500	0.00034	0.00020	N/A	0.00060
37	0.00000	0.00500	0.00040	0.00020	N/A	0.00064
38	0.00000	0.00500	0.00048	0.00020	N/A	0.00068
39	0.00000	0.00500	0.00056	0.00020	N/A	0.00073
40	0.03000	0.00500	0.00064	0.00020	N/A	0.00079
41	0.03000	0.00500	0.00072	0.00020	N/A	0.00085
42	0.03000	0.00500	0.00080	0.00020	N/A	0.00092
43	0.03000	0.00500	0.00084	0.00024	N/A	0.00100
44	0.03000	0.00500	0.00088	0.00028	N/A	0.00108
45	0.03000	0.00500	0.00092	0.00032	N/A	0.00118
46	0.03000	0.00500	0.00096	0.00036	N/A	0.00128
47	0.03000	0.00500	0.00100	0.00040	N/A	0.00139
48	0.03000	0.00500	0.00104	0.00044	N/A	0.00152
49	0.03000	0.00500	0.00108	0.00048	N/A	0.00166
50	0.03000	0.00500	0.00112	0.00052	N/A	0.00179
51	0.03000	0.00500	0.00116	0.00056	N/A	0.00194
52	0.03000	0.00500	0.00120	0.00060	N/A	0.00210
53	0.03000	0.00500	0.00156	0.00064	N/A	0.00227
54	0.06000	0.00500	0.00192	0.00068	N/A	0.00244
55	0.10000	0.00500	0.00228	0.00072	N/A	0.00263
56	0.12000	0.00500	0.00264	0.00076	N/A	0.00283
57	0.17000	0.00500	0.00300	0.00080	N/A	0.00306
58	0.26000	0.00500	0.00330	0.00084	N/A	0.00330
59	0.26000	0.00500	0.00360	0.00088	N/A	0.00355
60	0.30000	0.00500	0.00390	0.00092	N/A	0.00383
61	0.30000	0.00500	0.00420	0.00096	N/A	0.00413
62	0.30000	0.00500	0.00450	0.00100	N/A	0.00445
63	0.30000	0.00500	0.00450	0.00104	N/A	0.00481
64	0.30000	0.00500	0.00450	0.00108	N/A	0.00520
65	0.30000	0.00500	0.00450	0.00112	N/A	0.00562
66	0.22000	0.00500	0.00450	0.00116	N/A	0.00607
67	0.22000	0.00500	0.00450	0.00120	N/A	0.00658
68	0.22000	0.00500	0.00450	0.00124	N/A	0.00713
69	0.22000	0.00500	0.00450	0.00128	N/A	0.00775
70	0.22000	0.00500	0.00450	0.00132	N/A	0.00844
71	0.22000	0.00500	0.00450	0.00136	N/A	0.00920
72	0.22000	0.00500	0.00450	0.00140	N/A	0.01004
73	0.22000	0.00500	0.00450	0.00144	N/A	0.01098
74	0.22000	0.00500	0.00450	0.00148	N/A	0.01201
75	1.00000	0.00000	0.00000	0.00000	N/A	0.01315

This work product was prepared solely for LACERA for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

Table A-7
Probability of Separation from Active Service for General Members
Plans A, B & C – Female

Age	Service Retirement	Other Terminations	Service Disability	Ordinary Disability	Service Death	Ordinary Death
18	0.00000	0.00500	0.00015	0.00010	N/A	0.00017
19	0.00000	0.00500	0.00015	0.00010	N/A	0.00017
20	0.00000	0.00500	0.00015	0.00010	N/A	0.00017
21	0.00000	0.00500	0.00015	0.00010	N/A	0.00016
22	0.00000	0.00500	0.00015	0.00010	N/A	0.00014
23	0.00000	0.00500	0.00015	0.00010	N/A	0.00013
24	0.00000	0.00500	0.00015	0.00010	N/A	0.00012
25	0.00000	0.00500	0.00015	0.00010	N/A	0.00012
26	0.00000	0.00500	0.00015	0.00010	N/A	0.00013
27	0.00000	0.00500	0.00015	0.00010	N/A	0.00014
28	0.00000	0.00500	0.00015	0.00010	N/A	0.00016
29	0.00000	0.00500	0.00015	0.00010	N/A	0.00017
30	0.00000	0.00500	0.00015	0.00010	N/A	0.00020
31	0.00000	0.00500	0.00015	0.00010	N/A	0.00021
32	0.00000	0.00500	0.00015	0.00010	N/A	0.00023
33	0.00000	0.00500	0.00020	0.00010	N/A	0.00025
34	0.00000	0.00500	0.00025	0.00010	N/A	0.00027
35	0.00000	0.00500	0.00030	0.00010	N/A	0.00030
36	0.00000	0.00500	0.00035	0.00010	N/A	0.00033
37	0.00000	0.00500	0.00040	0.00010	N/A	0.00036
38	0.00000	0.00500	0.00042	0.00014	N/A	0.00039
39	0.00000	0.00500	0.00044	0.00018	N/A	0.00043
40	0.03000	0.00500	0.00046	0.00022	N/A	0.00047
41	0.03000	0.00500	0.00048	0.00026	N/A	0.00052
42	0.03000	0.00500	0.00050	0.00030	N/A	0.00056
43	0.03000	0.00500	0.00060	0.00032	N/A	0.00061
44	0.03000	0.00500	0.00070	0.00034	N/A	0.00066
45	0.03000	0.00500	0.00080	0.00036	N/A	0.00073
46	0.03000	0.00500	0.00090	0.00038	N/A	0.00079
47	0.03000	0.00500	0.00100	0.00040	N/A	0.00086
48	0.03000	0.00500	0.00110	0.00042	N/A	0.00092
49	0.03000	0.00500	0.00120	0.00044	N/A	0.00100
50	0.03000	0.00500	0.00130	0.00046	N/A	0.00108
51	0.03000	0.00500	0.00140	0.00048	N/A	0.00117
52	0.03000	0.00500	0.00150	0.00050	N/A	0.00126
53	0.03000	0.00500	0.00156	0.00052	N/A	0.00137
54	0.06000	0.00500	0.00162	0.00054	N/A	0.00147
55	0.10000	0.00500	0.00168	0.00056	N/A	0.00160
56	0.12000	0.00500	0.00174	0.00058	N/A	0.00173
57	0.17000	0.00500	0.00180	0.00060	N/A	0.00187
58	0.26000	0.00500	0.00194	0.00064	N/A	0.00203
59	0.26000	0.00500	0.00208	0.00068	N/A	0.00221
60	0.30000	0.00500	0.00222	0.00072	N/A	0.00242
61	0.30000	0.00500	0.00236	0.00076	N/A	0.00264
62	0.30000	0.00500	0.00250	0.00080	N/A	0.00289
63	0.30000	0.00500	0.00250	0.00084	N/A	0.00317
64	0.30000	0.00500	0.00250	0.00088	N/A	0.00350
65	0.30000	0.00500	0.00250	0.00092	N/A	0.00385
66	0.22000	0.00500	0.00250	0.00096	N/A	0.00425
67	0.22000	0.00500	0.00250	0.00100	N/A	0.00471
68	0.22000	0.00500	0.00250	0.00104	N/A	0.00520
69	0.22000	0.00500	0.00250	0.00108	N/A	0.00575
70	0.22000	0.00500	0.00250	0.00112	N/A	0.00636
71	0.22000	0.00500	0.00250	0.00116	N/A	0.00703
72	0.22000	0.00500	0.00250	0.00120	N/A	0.00777
73	0.22000	0.00500	0.00250	0.00124	N/A	0.00859
74	0.22000	0.00500	0.00250	0.00128	N/A	0.00950
75	1.00000	0.00000	0.00000	0.00000	N/A	0.01050

Table A-8
Probability of Separation from Active Service for General Members
Plans D & G – Male

Age	Service Retirement ⁽¹⁾		Service Disability	Ordinary Disability	Service Death	Ordinary Death	Years of Service	Other Terminations	Retirement Rate Loading ⁽²⁾
	Plan D	Plan G							
18	0.00000	0.00000	0.00010	0.00010	N/A	0.00043	0	0.08000	80%
19	0.00000	0.00000	0.00010	0.00010	N/A	0.00046	1	0.06500	80%
20	0.00000	0.00000	0.00010	0.00010	N/A	0.00044	2	0.05000	80%
21	0.00000	0.00000	0.00010	0.00010	N/A	0.00043	3	0.04250	80%
22	0.00000	0.00000	0.00010	0.00010	N/A	0.00040	4	0.03500	80%
23	0.00000	0.00000	0.00010	0.00010	N/A	0.00037	5	0.03100	80%
24	0.00000	0.00000	0.00010	0.00010	N/A	0.00035	6	0.02900	80%
25	0.00000	0.00000	0.00010	0.00010	N/A	0.00034	7	0.02700	80%
26	0.00000	0.00000	0.00010	0.00010	N/A	0.00036	8	0.02500	80%
27	0.00000	0.00000	0.00010	0.00010	N/A	0.00037	9	0.02000	80%
28	0.00000	0.00000	0.00010	0.00010	N/A	0.00040	10	0.01700	80%
29	0.00000	0.00000	0.00010	0.00010	N/A	0.00041	11	0.01500	80%
30	0.00000	0.00000	0.00010	0.00020	N/A	0.00043	12	0.01350	80%
31	0.00000	0.00000	0.00010	0.00020	N/A	0.00046	13	0.01200	80%
32	0.00000	0.00000	0.00010	0.00020	N/A	0.00048	14	0.01100	80%
33	0.00000	0.00000	0.00016	0.00020	N/A	0.00050	15	0.01000	80%
34	0.00000	0.00000	0.00022	0.00020	N/A	0.00053	16	0.00950	80%
35	0.00000	0.00000	0.00028	0.00020	N/A	0.00056	17	0.00900	80%
36	0.00000	0.00000	0.00034	0.00020	N/A	0.00060	18	0.00850	80%
37	0.00000	0.00000	0.00040	0.00020	N/A	0.00064	19	0.00800	80%
38	0.00000	0.00000	0.00048	0.00020	N/A	0.00068	20	0.00750	90%
39	0.00000	0.00000	0.00056	0.00020	N/A	0.00073	21	0.00700	90%
40	0.01500	0.00000	0.00064	0.00020	N/A	0.00079	22	0.00650	90%
41	0.01500	0.00000	0.00072	0.00020	N/A	0.00085	23	0.00600	90%
42	0.01500	0.00000	0.00080	0.00020	N/A	0.00092	24	0.00550	90%
43	0.01500	0.00000	0.00084	0.00024	N/A	0.00100	25	0.00500	110%
44	0.01500	0.00000	0.00088	0.00028	N/A	0.00108	26	0.00450	110%
45	0.01500	0.00000	0.00092	0.00032	N/A	0.00118	27	0.00400	110%
46	0.01500	0.00000	0.00096	0.00036	N/A	0.00128	28	0.00400	110%
47	0.01500	0.00000	0.00100	0.00040	N/A	0.00139	29	0.00400	110%
48	0.01500	0.00000	0.00104	0.00044	N/A	0.00152	30 & Above	0.00000	160%
49	0.01500	0.00000	0.00108	0.00048	N/A	0.00166			
50	0.01500	0.01200	0.00112	0.00052	N/A	0.00179			
51	0.01200	0.00960	0.00116	0.00056	N/A	0.00194			
52	0.01200	0.00960	0.00120	0.00060	N/A	0.00210			
53	0.01500	0.01200	0.00156	0.00064	N/A	0.00227			
54	0.02000	0.01600	0.00192	0.00068	N/A	0.00244			
55	0.03000	0.02400	0.00228	0.00072	N/A	0.00263			
56	0.03000	0.02400	0.00264	0.00076	N/A	0.00283			
57	0.03000	0.02400	0.00300	0.00080	N/A	0.00306			
58	0.04000	0.03200	0.00330	0.00084	N/A	0.00330			
59	0.05000	0.04000	0.00360	0.00088	N/A	0.00355			
60	0.07000	0.05600	0.00390	0.00092	N/A	0.00383			
61	0.07000	0.05600	0.00420	0.00096	N/A	0.00413			
62	0.10000	0.10000	0.00450	0.00100	N/A	0.00445			
63	0.12000	0.12000	0.00450	0.00104	N/A	0.00481			
64	0.17000	0.17000	0.00450	0.00108	N/A	0.00520			
65	0.23000	0.18400	0.00450	0.00112	N/A	0.00562			
66	0.19000	0.15200	0.00450	0.00116	N/A	0.00607			
67	0.19000	0.30000	0.00450	0.00120	N/A	0.00658			
68	0.19000	0.19000	0.00450	0.00124	N/A	0.00713			
69	0.19000	0.19000	0.00450	0.00128	N/A	0.00775			
70	0.24000	0.24000	0.00450	0.00132	N/A	0.00844			
71	0.19000	0.19000	0.00450	0.00136	N/A	0.00920			
72	0.19000	0.19000	0.00450	0.00140	N/A	0.01004			
73	0.19000	0.19000	0.00450	0.00144	N/A	0.01098			
74	0.19000	0.19000	0.00450	0.00148	N/A	0.01201			
75	1.00000	1.00000	0.00000	0.00000	N/A	0.01315			

1. Service retirement rates vary by years of service. The applicable retirement rate loading that varies by years of service is shown on this page in a separate column.
2. The retirement rate loading is applied to the service retirement rate at each member's applicable age and years of service.

Table A-9
Probability of Separation from Active Service for General Members
Plans D & G – Female

Age	Service Retirement ⁽¹⁾		Service Disability	Ordinary Disability	Service Death	Ordinary Death	Years of Service	Other Terminations	Retirement Rate Loading ⁽²⁾
	Plan D	Plan G							
18	0.00000	0.00000	0.00015	0.00010	N/A	0.00017	0	0.08000	80%
19	0.00000	0.00000	0.00015	0.00010	N/A	0.00017	1	0.06500	80%
20	0.00000	0.00000	0.00015	0.00010	N/A	0.00017	2	0.05000	80%
21	0.00000	0.00000	0.00015	0.00010	N/A	0.00016	3	0.04250	80%
22	0.00000	0.00000	0.00015	0.00010	N/A	0.00014	4	0.03500	80%
23	0.00000	0.00000	0.00015	0.00010	N/A	0.00013	5	0.03100	80%
24	0.00000	0.00000	0.00015	0.00010	N/A	0.00012	6	0.02900	80%
25	0.00000	0.00000	0.00015	0.00010	N/A	0.00012	7	0.02700	80%
26	0.00000	0.00000	0.00015	0.00010	N/A	0.00013	8	0.02500	80%
27	0.00000	0.00000	0.00015	0.00010	N/A	0.00014	9	0.02000	80%
28	0.00000	0.00000	0.00015	0.00010	N/A	0.00016	10	0.01700	80%
29	0.00000	0.00000	0.00015	0.00010	N/A	0.00017	11	0.01500	80%
30	0.00000	0.00000	0.00015	0.00010	N/A	0.00020	12	0.01350	80%
31	0.00000	0.00000	0.00015	0.00010	N/A	0.00021	13	0.01200	80%
32	0.00000	0.00000	0.00015	0.00010	N/A	0.00023	14	0.01100	80%
33	0.00000	0.00000	0.00020	0.00010	N/A	0.00025	15	0.01000	80%
34	0.00000	0.00000	0.00025	0.00010	N/A	0.00027	16	0.00950	80%
35	0.00000	0.00000	0.00030	0.00010	N/A	0.00030	17	0.00900	80%
36	0.00000	0.00000	0.00035	0.00010	N/A	0.00033	18	0.00850	80%
37	0.00000	0.00000	0.00040	0.00010	N/A	0.00036	19	0.00800	80%
38	0.00000	0.00000	0.00042	0.00014	N/A	0.00039	20	0.00750	90%
39	0.00000	0.00000	0.00044	0.00018	N/A	0.00043	21	0.00700	90%
40	0.01500	0.00000	0.00046	0.00022	N/A	0.00047	22	0.00650	90%
41	0.01500	0.00000	0.00048	0.00026	N/A	0.00052	23	0.00600	90%
42	0.01500	0.00000	0.00050	0.00030	N/A	0.00056	24	0.00550	90%
43	0.01500	0.00000	0.00060	0.00032	N/A	0.00061	25	0.00500	110%
44	0.01500	0.00000	0.00070	0.00034	N/A	0.00066	26	0.00450	110%
45	0.01500	0.00000	0.00080	0.00036	N/A	0.00073	27	0.00400	110%
46	0.01500	0.00000	0.00090	0.00038	N/A	0.00079	28	0.00400	110%
47	0.01500	0.00000	0.00100	0.00040	N/A	0.00086	29	0.00400	110%
48	0.01500	0.00000	0.00110	0.00042	N/A	0.00092	30 & Above	0.00000	160%
49	0.01500	0.00000	0.00120	0.00044	N/A	0.00100			
50	0.01500	0.01200	0.00130	0.00046	N/A	0.00108			
51	0.01200	0.00960	0.00140	0.00048	N/A	0.00117			
52	0.01200	0.00960	0.00150	0.00050	N/A	0.00126			
53	0.01500	0.01200	0.00156	0.00052	N/A	0.00137			
54	0.02000	0.01600	0.00162	0.00054	N/A	0.00147			
55	0.03000	0.02400	0.00168	0.00056	N/A	0.00160			
56	0.03000	0.02400	0.00174	0.00058	N/A	0.00173			
57	0.03000	0.02400	0.00180	0.00060	N/A	0.00187			
58	0.04000	0.03200	0.00194	0.00064	N/A	0.00203			
59	0.05000	0.04000	0.00208	0.00068	N/A	0.00221			
60	0.07000	0.05600	0.00222	0.00072	N/A	0.00242			
61	0.07000	0.05600	0.00236	0.00076	N/A	0.00264			
62	0.10000	0.10000	0.00250	0.00080	N/A	0.00289			
63	0.12000	0.12000	0.00250	0.00084	N/A	0.00317			
64	0.17000	0.17000	0.00250	0.00088	N/A	0.00350			
65	0.23000	0.18400	0.00250	0.00092	N/A	0.00385			
66	0.19000	0.15200	0.00250	0.00096	N/A	0.00425			
67	0.19000	0.30000	0.00250	0.00100	N/A	0.00471			
68	0.19000	0.19000	0.00250	0.00104	N/A	0.00520			
69	0.19000	0.19000	0.00250	0.00108	N/A	0.00575			
70	0.24000	0.24000	0.00250	0.00112	N/A	0.00636			
71	0.19000	0.19000	0.00250	0.00116	N/A	0.00703			
72	0.19000	0.19000	0.00250	0.00120	N/A	0.00777			
73	0.19000	0.19000	0.00250	0.00124	N/A	0.00859			
74	0.19000	0.19000	0.00250	0.00128	N/A	0.00950			
75	1.00000	1.00000	0.00000	0.00000	N/A	0.01050			

1. Service retirement rates vary by years of service. The applicable retirement rate loading that varies by years of service is shown on this page in a separate column.
2. The retirement rate loading is applied to the service retirement rate at each member's applicable age and years of service.

Table A-10
Probability of Separation from Active Service for General Members
Plan E – Male

Age	Service Retirement ⁽¹⁾	Service Disability	Ordinary Disability	Service Death	Ordinary Death	Years of Service	Other Terminations	Retirement Rate Loading ⁽²⁾
18	0.00000	N/A	N/A	N/A	0.00043	0	0.08000	70%
19	0.00000	N/A	N/A	N/A	0.00046	1	0.06500	70%
20	0.00000	N/A	N/A	N/A	0.00044	2	0.05000	70%
21	0.00000	N/A	N/A	N/A	0.00043	3	0.04250	70%
22	0.00000	N/A	N/A	N/A	0.00040	4	0.03500	70%
23	0.00000	N/A	N/A	N/A	0.00037	5	0.03100	70%
24	0.00000	N/A	N/A	N/A	0.00035	6	0.02700	70%
25	0.00000	N/A	N/A	N/A	0.00034	7	0.02300	70%
26	0.00000	N/A	N/A	N/A	0.00036	8	0.02300	70%
27	0.00000	N/A	N/A	N/A	0.00037	9	0.02300	70%
28	0.00000	N/A	N/A	N/A	0.00040	10	0.02300	70%
29	0.00000	N/A	N/A	N/A	0.00041	11	0.01900	70%
30	0.00000	N/A	N/A	N/A	0.00043	12	0.01800	70%
31	0.00000	N/A	N/A	N/A	0.00046	13	0.01680	70%
32	0.00000	N/A	N/A	N/A	0.00048	14	0.01560	70%
33	0.00000	N/A	N/A	N/A	0.00050	15	0.01440	70%
34	0.00000	N/A	N/A	N/A	0.00053	16	0.01320	70%
35	0.00000	N/A	N/A	N/A	0.00056	17	0.01200	70%
36	0.00000	N/A	N/A	N/A	0.00060	18	0.01160	70%
37	0.00000	N/A	N/A	N/A	0.00064	19	0.01120	70%
38	0.00000	N/A	N/A	N/A	0.00068	20	0.01080	70%
39	0.00000	N/A	N/A	N/A	0.00073	21	0.01040	70%
40	0.00000	N/A	N/A	N/A	0.00079	22	0.01000	70%
41	0.00000	N/A	N/A	N/A	0.00085	23	0.01000	70%
42	0.00000	N/A	N/A	N/A	0.00092	24	0.01000	70%
43	0.00000	N/A	N/A	N/A	0.00100	25	0.01000	100%
44	0.00000	N/A	N/A	N/A	0.00108	26	0.01000	100%
45	0.00000	N/A	N/A	N/A	0.00118	27	0.01000	100%
46	0.00000	N/A	N/A	N/A	0.00128	28	0.01000	100%
47	0.00000	N/A	N/A	N/A	0.00139	29	0.01000	100%
48	0.00000	N/A	N/A	N/A	0.00152	30 & Above	0.01000	130%
49	0.00000	N/A	N/A	N/A	0.00166			
50	0.00000	N/A	N/A	N/A	0.00179			
51	0.00000	N/A	N/A	N/A	0.00194			
52	0.00000	N/A	N/A	N/A	0.00210			
53	0.00000	N/A	N/A	N/A	0.00227			
54	0.00000	N/A	N/A	N/A	0.00244			
55	0.02000	N/A	N/A	N/A	0.00263			
56	0.02000	N/A	N/A	N/A	0.00283			
57	0.02500	N/A	N/A	N/A	0.00306			
58	0.02500	N/A	N/A	N/A	0.00330			
59	0.03000	N/A	N/A	N/A	0.00355			
60	0.04000	N/A	N/A	N/A	0.00383			
61	0.06000	N/A	N/A	N/A	0.00413			
62	0.09000	N/A	N/A	N/A	0.00445			
63	0.09000	N/A	N/A	N/A	0.00481			
64	0.19000	N/A	N/A	N/A	0.00520			
65	0.27000	N/A	N/A	N/A	0.00562			
66	0.20000	N/A	N/A	N/A	0.00607			
67	0.20000	N/A	N/A	N/A	0.00658			
68	0.20000	N/A	N/A	N/A	0.00713			
69	0.20000	N/A	N/A	N/A	0.00775			
70	0.20000	N/A	N/A	N/A	0.00844			
71	0.20000	N/A	N/A	N/A	0.00920			
72	0.20000	N/A	N/A	N/A	0.01004			
73	0.20000	N/A	N/A	N/A	0.01098			
74	0.20000	N/A	N/A	N/A	0.01201			
75	1.00000	N/A	N/A	N/A	0.01315			

1. Service retirement rates vary by years of service. The applicable retirement rate loading that varies by years of service is shown on this page in a separate column.
2. The retirement rate loading is applied to the service retirement rate at each member's applicable age and years of service.

Table A-11
Probability of Separation from Active Service for General Members
Plan E – Female

Age	Service Retirement ⁽¹⁾	Service Disability	Ordinary Disability	Service Death	Ordinary Death	Years of Service	Other Terminations	Retirement Rate Loading ⁽²⁾
18	0.00000	N/A	N/A	N/A	0.00017	0	0.08000	70%
19	0.00000	N/A	N/A	N/A	0.00017	1	0.06500	70%
20	0.00000	N/A	N/A	N/A	0.00017	2	0.05000	70%
21	0.00000	N/A	N/A	N/A	0.00016	3	0.04250	70%
22	0.00000	N/A	N/A	N/A	0.00014	4	0.03500	70%
23	0.00000	N/A	N/A	N/A	0.00013	5	0.03100	70%
24	0.00000	N/A	N/A	N/A	0.00012	6	0.02700	70%
25	0.00000	N/A	N/A	N/A	0.00012	7	0.02300	70%
26	0.00000	N/A	N/A	N/A	0.00013	8	0.02300	70%
27	0.00000	N/A	N/A	N/A	0.00014	9	0.02300	70%
28	0.00000	N/A	N/A	N/A	0.00016	10	0.02300	70%
29	0.00000	N/A	N/A	N/A	0.00017	11	0.01900	70%
30	0.00000	N/A	N/A	N/A	0.00020	12	0.01800	70%
31	0.00000	N/A	N/A	N/A	0.00021	13	0.01680	70%
32	0.00000	N/A	N/A	N/A	0.00023	14	0.01560	70%
33	0.00000	N/A	N/A	N/A	0.00025	15	0.01440	70%
34	0.00000	N/A	N/A	N/A	0.00027	16	0.01320	70%
35	0.00000	N/A	N/A	N/A	0.00030	17	0.01200	70%
36	0.00000	N/A	N/A	N/A	0.00033	18	0.01160	70%
37	0.00000	N/A	N/A	N/A	0.00036	19	0.01120	70%
38	0.00000	N/A	N/A	N/A	0.00039	20	0.01080	70%
39	0.00000	N/A	N/A	N/A	0.00043	21	0.01040	70%
40	0.00000	N/A	N/A	N/A	0.00047	22	0.01000	70%
41	0.00000	N/A	N/A	N/A	0.00052	23	0.01000	70%
42	0.00000	N/A	N/A	N/A	0.00056	24	0.01000	70%
43	0.00000	N/A	N/A	N/A	0.00061	25	0.01000	100%
44	0.00000	N/A	N/A	N/A	0.00066	26	0.01000	100%
45	0.00000	N/A	N/A	N/A	0.00073	27	0.01000	100%
46	0.00000	N/A	N/A	N/A	0.00079	28	0.01000	100%
47	0.00000	N/A	N/A	N/A	0.00086	29	0.01000	100%
48	0.00000	N/A	N/A	N/A	0.00092	30 & Above	0.01000	130%
49	0.00000	N/A	N/A	N/A	0.00100			
50	0.00000	N/A	N/A	N/A	0.00108			
51	0.00000	N/A	N/A	N/A	0.00117			
52	0.00000	N/A	N/A	N/A	0.00126			
53	0.00000	N/A	N/A	N/A	0.00137			
54	0.00000	N/A	N/A	N/A	0.00147			
55	0.02000	N/A	N/A	N/A	0.00160			
56	0.02000	N/A	N/A	N/A	0.00173			
57	0.02500	N/A	N/A	N/A	0.00187			
58	0.02500	N/A	N/A	N/A	0.00203			
59	0.03000	N/A	N/A	N/A	0.00221			
60	0.04000	N/A	N/A	N/A	0.00242			
61	0.06000	N/A	N/A	N/A	0.00264			
62	0.09000	N/A	N/A	N/A	0.00289			
63	0.09000	N/A	N/A	N/A	0.00317			
64	0.19000	N/A	N/A	N/A	0.00350			
65	0.27000	N/A	N/A	N/A	0.00385			
66	0.20000	N/A	N/A	N/A	0.00425			
67	0.20000	N/A	N/A	N/A	0.00471			
68	0.20000	N/A	N/A	N/A	0.00520			
69	0.20000	N/A	N/A	N/A	0.00575			
70	0.20000	N/A	N/A	N/A	0.00636			
71	0.20000	N/A	N/A	N/A	0.00703			
72	0.20000	N/A	N/A	N/A	0.00777			
73	0.20000	N/A	N/A	N/A	0.00859			
74	0.20000	N/A	N/A	N/A	0.00950			
75	1.00000	N/A	N/A	N/A	0.01050			

1. Service retirement rates vary by years of service. The applicable retirement rate loading that varies by years of service is shown on this page in a separate column.
2. The retirement rate loading is applied to the service retirement rate at each member's applicable age and years of service.

Table A-12
Probability of Separation from Active Service for Safety Members
Plans A, B & C – Male

Age	Service Retirement ⁽¹⁾		Service Disability	Ordinary Disability	Service Death	Ordinary Death	Years of Service	Other Terminations	Retirement Rate Loading ⁽²⁾
	Plans A & B	Plan C							
18	0.00000	0.00000	0.00200	0.00000	0.00010	0.00037	0	0.05000	30%
19	0.00000	0.00000	0.00200	0.00000	0.00010	0.00040	1	0.03750	30%
20	0.00000	0.00000	0.00200	0.00000	0.00010	0.00041	2	0.02000	30%
21	0.00000	0.00000	0.00200	0.00000	0.00010	0.00041	3	0.01500	30%
22	0.00000	0.00000	0.00200	0.00000	0.00010	0.00040	4	0.01200	30%
23	0.00000	0.00000	0.00200	0.00000	0.00010	0.00039	5	0.01130	30%
24	0.00000	0.00000	0.00200	0.00000	0.00010	0.00038	6	0.01070	30%
25	0.00000	0.00000	0.00200	0.00000	0.00010	0.00037	7	0.01000	30%
26	0.00000	0.00000	0.00200	0.00000	0.00010	0.00038	8	0.00920	30%
27	0.00000	0.00000	0.00200	0.00000	0.00010	0.00039	9	0.00840	30%
28	0.00000	0.00000	0.00200	0.00000	0.00010	0.00040	10	0.00760	30%
29	0.00000	0.00000	0.00200	0.00000	0.00010	0.00041	11	0.00680	30%
30	0.00000	0.00000	0.00200	0.00000	0.00010	0.00041	12	0.00600	30%
31	0.00000	0.00000	0.00200	0.00000	0.00010	0.00042	13	0.00560	30%
32	0.00000	0.00000	0.00200	0.00000	0.00010	0.00043	14	0.00520	30%
33	0.00000	0.00000	0.00210	0.00000	0.00010	0.00044	15	0.00480	40%
34	0.00000	0.00000	0.00220	0.00000	0.00010	0.00045	16	0.00440	40%
35	0.00000	0.00000	0.00230	0.00000	0.00010	0.00047	17	0.00400	40%
36	0.00000	0.00000	0.00240	0.00000	0.00010	0.00049	18	0.00360	40%
37	0.00000	0.00000	0.00250	0.00000	0.00010	0.00050	19	0.00320	40%
38	0.00000	0.00000	0.00260	0.00000	0.00010	0.00053	20	0.00280	70%
39	0.00000	0.00000	0.00270	0.00000	0.00010	0.00056	21	0.00240	70%
40	0.00750	0.00000	0.00280	0.00000	0.00010	0.00059	22	0.00200	70%
41	0.00750	0.00000	0.00290	0.00000	0.00010	0.00062	23	0.00200	70%
42	0.00750	0.00000	0.00300	0.00000	0.00010	0.00067	24	0.00200	70%
43	0.00750	0.00000	0.00310	0.00000	0.00010	0.00071	25	0.00200	110%
44	0.00750	0.00000	0.00320	0.00000	0.00010	0.00076	26	0.00200	110%
45	0.00750	0.00000	0.00330	0.00000	0.00010	0.00082	27	0.00200	110%
46	0.00750	0.00000	0.00340	0.00000	0.00010	0.00088	28	0.00200	110%
47	0.00750	0.00000	0.00350	0.00000	0.00010	0.00095	29	0.00200	110%
48	0.00750	0.00000	0.00400	0.00000	0.00010	0.00102	30 & Above	0.00000	170%
49	0.00750	0.00000	0.00500	0.00000	0.00010	0.00111			
50	0.02000	0.02000	0.00750	0.00000	0.00010	0.00120			
51	0.02000	0.02000	0.00750	0.00000	0.00010	0.00129			
52	0.02000	0.02000	0.00750	0.00000	0.00010	0.00140			
53	0.03000	0.03000	0.02000	0.00000	0.00010	0.00151			
54	0.12000	0.08000	0.02000	0.00000	0.00010	0.00162			
55	0.22000	0.15000	0.07500	0.00000	0.00010	0.00175			
56	0.18000	0.15000	0.07500	0.00000	0.00010	0.00190			
57	0.14000	0.23000	0.10000	0.00000	0.00010	0.00205			
58	0.15000	0.15000	0.10000	0.00000	0.00010	0.00223			
59	0.22000	0.22000	0.10000	0.00000	0.00010	0.00243			
60	0.21000	0.21000	0.10000	0.00000	0.00010	0.00264			
61	0.20000	0.20000	0.05000	0.00000	0.00010	0.00288			
62	0.20000	0.20000	0.05000	0.00000	0.00010	0.00315			
63	0.20000	0.20000	0.05000	0.00000	0.00010	0.00344			
64	0.23000	0.23000	0.05000	0.00000	0.00010	0.00375			
65	1.00000	1.00000	0.00000	0.00000	0.00000	0.00410			

1. Service retirement rates vary by years of service. The applicable retirement rate loading that varies by years of service is shown on this page in a separate column.
2. The retirement rate loading is applied to the service retirement rate at each member's applicable age and years of service.

Table A-13
Probability of Separation from Active Service for Safety Members
Plans A, B & C – Female

Age	Service Retirement ⁽¹⁾						Years of Service	Other Terminations	Retirement Rate Loading ⁽²⁾
	Plans A & B	Plan C	Service Disability	Ordinary Disability	Service Death	Ordinary Death			
18	0.00000	0.00000	0.00300	0.00000	0.00010	0.00014	0	0.05000	30%
19	0.00000	0.00000	0.00300	0.00000	0.00010	0.00015	1	0.03750	30%
20	0.00000	0.00000	0.00300	0.00000	0.00010	0.00016	2	0.02000	30%
21	0.00000	0.00000	0.00300	0.00000	0.00010	0.00017	3	0.01500	30%
22	0.00000	0.00000	0.00300	0.00000	0.00010	0.00017	4	0.01200	30%
23	0.00000	0.00000	0.00300	0.00000	0.00010	0.00018	5	0.01130	30%
24	0.00000	0.00000	0.00300	0.00000	0.00010	0.00019	6	0.01070	30%
25	0.00000	0.00000	0.00300	0.00000	0.00010	0.00020	7	0.01000	30%
26	0.00000	0.00000	0.00300	0.00000	0.00010	0.00021	8	0.00920	30%
27	0.00000	0.00000	0.00300	0.00000	0.00010	0.00022	9	0.00840	30%
28	0.00000	0.00000	0.00340	0.00000	0.00010	0.00024	10	0.00760	30%
29	0.00000	0.00000	0.00380	0.00000	0.00010	0.00025	11	0.00680	30%
30	0.00000	0.00000	0.00420	0.00000	0.00010	0.00027	12	0.00600	30%
31	0.00000	0.00000	0.00460	0.00000	0.00010	0.00028	13	0.00560	30%
32	0.00000	0.00000	0.00500	0.00000	0.00010	0.00030	14	0.00520	30%
33	0.00000	0.00000	0.00560	0.00000	0.00010	0.00032	15	0.00480	40%
34	0.00000	0.00000	0.00620	0.00000	0.00010	0.00034	16	0.00440	40%
35	0.00000	0.00000	0.00680	0.00000	0.00010	0.00036	17	0.00400	40%
36	0.00000	0.00000	0.00740	0.00000	0.00010	0.00038	18	0.00360	40%
37	0.00000	0.00000	0.00800	0.00000	0.00010	0.00041	19	0.00320	40%
38	0.00000	0.00000	0.00840	0.00000	0.00010	0.00043	20	0.00280	70%
39	0.00000	0.00000	0.00880	0.00000	0.00010	0.00046	21	0.00240	70%
40	0.00750	0.00000	0.00920	0.00000	0.00010	0.00049	22	0.00200	70%
41	0.00750	0.00000	0.00960	0.00000	0.00010	0.00052	23	0.00200	70%
42	0.00750	0.00000	0.01000	0.00000	0.00010	0.00056	24	0.00200	70%
43	0.00750	0.00000	0.01040	0.00000	0.00010	0.00059	25	0.00200	110%
44	0.00750	0.00000	0.01080	0.00000	0.00010	0.00063	26	0.00200	110%
45	0.00750	0.00000	0.01120	0.00000	0.00010	0.00067	27	0.00200	110%
46	0.00750	0.00000	0.01160	0.00000	0.00010	0.00071	28	0.00200	110%
47	0.00750	0.00000	0.01200	0.00000	0.00010	0.00076	29	0.00200	110%
48	0.00750	0.00000	0.01300	0.00000	0.00010	0.00080	30 & Above	0.00000	170%
49	0.00750	0.00000	0.01500	0.00000	0.00010	0.00085			
50	0.02000	0.02000	0.01800	0.00000	0.00010	0.00091			
51	0.02000	0.02000	0.02000	0.00000	0.00010	0.00097			
52	0.02000	0.02000	0.02400	0.00000	0.00010	0.00103			
53	0.03000	0.03000	0.02800	0.00000	0.00010	0.00109			
54	0.12000	0.08000	0.03200	0.00000	0.00010	0.00116			
55	0.22000	0.15000	0.11000	0.00000	0.00010	0.00123			
56	0.18000	0.15000	0.06000	0.00000	0.00010	0.00131			
57	0.14000	0.23000	0.06000	0.00000	0.00010	0.00140			
58	0.15000	0.15000	0.06000	0.00000	0.00010	0.00148			
59	0.22000	0.22000	0.06000	0.00000	0.00010	0.00158			
60	0.21000	0.21000	0.06000	0.00000	0.00010	0.00168			
61	0.20000	0.20000	0.06000	0.00000	0.00010	0.00178			
62	0.20000	0.20000	0.06000	0.00000	0.00010	0.00190			
63	0.20000	0.20000	0.06000	0.00000	0.00010	0.00202			
64	0.23000	0.23000	0.06000	0.00000	0.00010	0.00215			
65	1.00000	1.00000	0.00000	0.00000	0.00000	0.00228			

1. Service retirement rates vary by years of service. The applicable retirement rate loading that varies by years of service is shown on this page in a separate column.
2. The retirement rate loading is applied to the service retirement rate at each member's applicable age and years of service.

Appendix B Summary of Plan Provisions

All actuarial calculations are based on our understanding of the statutes governing LACERA as contained in the County Employees Retirement Law (CERL) of 1937 and the California Public Employees' Pension Reform Act of 2013 (PEPRA). The benefit and contribution provisions of this law are summarized briefly below, along with corresponding references to the Government Code Section. This summary does not attempt to cover all the detailed provisions of the law.

MEMBERSHIP	Government Code Section
Permanent employees of Los Angeles County (County) and participating districts who work $\frac{3}{4}$ time or more are eligible for membership in LACERA.	(31551, 31552, Bylaws)
Employees eligible for safety membership (law enforcement, firefighting and specific lifeguards) become safety members on the first day of the month after date of hire. Employees who become members on or after January 1, 2013, will enter into Safety Plan C.	(31558)
All other employees become general members on the first day of the month after date of hire or the first day of the month after they make an election of either Plan D or Plan E, depending on the law in effect at that time. Employees who become members on or after January 1, 2013 will enter into General Plan G.	(31493, 31493.5, 31493.6, Bylaws)
Elective officers become members on the first day of the month after filing a declaration with the Board of Retirement (Board).	(31553, 31562)
General members in Plan E may transfer all their Plan E service credit to Plan D during an approved transfer period by making the required contributions. Transferred members relinquish, waive, and forfeit any and all vested or accrued benefits available under any other retirement plan and are entitled only to the benefits of Plan D.	(31494.1, 31494.3)

RETIREMENT PLANS

The County has established nine defined benefit plans. The following outlines the dates these plans were available, based on a member’s date of entry into LACERA:

Safety Member Plans:

- Plan A:** Inception to August 1977
- Plan B:** September 1977 through December 2012
- Plan C:** January 2013 to present (7522.02)

General Member Plans:

- Plan A:** Inception through August 1977
- Plan B:** September 1977 through September 1978
- Plan C:** October 1978 through May 1979
- Plan D:** June 1979 through December 2012
- Plan E:** February 1982 through December 2012 (31487, 31496)
- Plan G:** January 2013 to present (7522.02)

NOTE: After review of a new member’s account, a member with prior membership may be enrolled into one of the pre-PEPRA plans.

MEMBER CONTRIBUTIONS

Plans A, B, D and General Plan C members

Contributions are based on the entry age and class of each member and are required of all members in Plans A, B, C, and D. Current member rates are shown in Appendix D. Section 5 provides additional detail on how these rates are calculated. (31620)

Contributions cease when general members are credited with 30 years of service in a contributory plan, provided they were members of LACERA or a reciprocal plan on March 7, 1973, and continuously thereafter. All safety members are eligible for the 30-year cessation of contributions. (31625.2, 31836.1)

Interest is credited to contributions semiannually on June 30 and December 31 at an interest rate set by the Board of Investments on amounts that have been on deposit for at least six months. (31591, 31700)

In addition to the normal contributions, members pay one-half of the cost of their plan’s COLA. This is discussed further in Section 5 of this report. (31873)

General Plan G and Safety Plan C members

Members contribute 50% of the aggregate Normal Cost rate for their Plan. (7522.30)

EMPLOYER CONTRIBUTIONS

The employer (County or District) contributes to the retirement fund a percent of the total compensation provided for all members based on an actuarial valuation and recommendation of the actuary and the Board of Investments. (31453, 31454 31581)

SERVICE RETIREMENT ALLOWANCE

Eligibility

- Plans A-B: Safety members** (31662.4, 31662.6, 31663.25)
 Age 50 with 10 years of County service;
 Any age with 20 years of service; or
- Plans A-D: General members** (31672)
 Age 50 with 10 years of County service;
 Any age with 30 years of service; or
 Age 70 and actively employed, regardless of service.
- Plan C: Safety members** (7522.25(d))
 Age 50 with 5 years of service.
- Plan E: General members** (31491, 31491.3)
 Age 65 with 10 years of service.
 A reduced benefit is also payable at age 55 with 10 years of service.
- Plan G: General members** (7522.20(a))
 Age 52 with 5 years of service.

Final Compensation

- General Plans A-D and Safety Plans A-B** (31462.3)
 Average of the member's highest monthly pensionable earnings during any 12-consecutive-month period.
- Plan E:** (31488)
 Average of the member's highest monthly pensionable earnings during any three 12-consecutive month periods.
- General Plan G and Safety Plan C** (7522.32)
 Average of the member's highest monthly pensionable earnings during any 36-consecutive month period.

The amount of compensation that is taken into account in computing benefits payable to any person who first becomes a member on or after July 1, 1996, shall not exceed the dollar limitations in Section 401(a)(17) of Title 26 of the US Code. (31671)

The amount of compensation taken into account for General Plan G and Safety Plan C members is limited to \$175,250 for 2023. The amount of compensation taken into account shall be adjusted based on changes in the Consumer Price Index for All Urban Consumers: U.S. City Average. Adjustments shall be effective annually on January 1. (7522.10)

SERVICE RETIREMENT ALLOWANCE (continued)

Monthly Allowance

Plans A-B: Safety members

1/50 x Final Compensation x Safety age factor x Years of service. (The Safety Plan A and Safety Plan B age factors are the same.) (31664)

Plans A-D: General members

1/60 x Final Compensation x a Plan specific age factor x years of service. (The General Plan C and General D age factors are the same.) (31676.1)
 (31676.11)
 (31676.14)
 (7522.25(d))

Plan C: Safety members

Final Compensation x Safety Plan percentage x Years of service.

Plan E: General members [(a)+(b)-(c)] x d where:

(a) 2% x Final Compensation x (Years of Service (up to 35 years), plus
 (b) 1 % x Final Compensation x Years of Service in excess of 35 (up to 10)
 (c) Estimated Primary Insurance Amount (PIA) x Years of Covered Service (up to 35) divided by 35.
 (d) Early Retirement Adjustment Factor
 The PIA is calculated based on certain assumptions specified by statute, and an assumed Social Security retirement age of 62.
 If retirement occurs prior to age 65, benefit amount is adjusted by an Early Retirement Adjustment Factor.

(31491,
 31491.3 (b)&(c))

Plan G: General members

Final Compensation x General Plan percentage x Years of Service. (7522.20(a))

Social Security Integration

Plans A-C: General Members

For County service covered by Social Security prior to January 1, 1983, the 1/60 factor is replaced by 1/90 for the first \$350 of compensation. (31808)

Plan D: The 1/90 factor is applied to the first \$1,050 of compensation.

SERVICE RETIREMENT ALLOWANCE (continued)

Sample Plan Age Factors

Plan	Age 50	Age 55	Age 60	Age 65 & Up	
General A	0.8850	1.1686	1.4638	1.5668	(31676.14)
General B	0.7454	1.0000	1.3093	1.5668	(31676.11)
General C&D	0.7091	0.8954	1.1500	1.4593	(31676.1)
General E	N/A	0.3748	0.6009	1.0000	(31491.3(a))
Safety A&B	1.0000	1.3099	1.3099	1.3099	(31664)

Sample Plan Age Percentages

Plan	Age 50	Age 55	Age 60	Age 65 & Up	
General G	N/A	1.30%	1.80%	2.30%*	(7522.20(a))
Safety C	2.00%	2.50%	2.70%	2.70%	(7522.25(d))

*Maximum percentage for General Plan G is 2.50% at age 67.

Maximum Allowance

Plans A-D, G:	Allowance may not exceed 100% of final compensation.	(31676.1, 31676.11, 31676.14)
Plan E:	The sum of the normal retirement allowance and the estimated PIA cannot exceed 70% of Final Compensation for a member with 35 or less years of service, and cannot exceed 80% of Final Compensation if service exceeds 35 years.	(31491)

Unmodified Retirement Allowance (Normal Form)

Plans A-D, G:	Life Annuity payable to retired member with 65% continuance to an eligible survivor (or eligible children).	(31760.12, 31785.4)
Plan E:	Life Annuity payable to retired member with 55% continuance to an eligible survivor (or eligible children).	(31492.1)

Eligible survivor includes certain domestic partners. (31780.2)

Optional Retirement Allowance

A member may elect to have the actuarial equivalent of the service or disability retirement allowance applied to a lesser retirement allowance during the retired member's life in order to provide an optional survivor allowance. (31760)

Unmodified Plus:	Members with eligible survivors may elect a higher percent than the standard unmodified continuance, up to 100%. The benefit is actuarially reduced from the unmodified amount. The elected percent of the member's reduced allowance is payable to the eligible survivor.	(31760.5)
Option 1:	Member's allowance is reduced to pay a cash refund of any unpaid annuity payments (up to the amount of the member's contributions at retirement) to the member's estate or to a beneficiary having an insurable interest in the life of the member.	(31761)
Option 2:	100% of member's reduced allowance is payable to a beneficiary having an insurable interest in the life of the member.	(31762)
Option 3:	50% of member's reduced allowance is payable to a beneficiary having an insurable interest in the life of the member.	(31763)
Option 4:	Other % of member's reduced allowance is payable to a beneficiary(ies) having an insurable interest in the life of the member.	(31764)
	A member may not revoke and name another beneficiary if the member elects Option 2, 3, or 4.	(31782)
Pension Advance Option:	The Pension Advance Option is available to members who are fully insured under Social Security for the purpose of coordinating a member's retirement allowance with benefits receivable from Social Security. It is not available to disability retirees or members who elect Option 2, 3, or 4. The allowance is increased prior to age 62 and then reduced after 62 by amounts which have equivalent actuarial values. The automatic 65% continuance for eligible spouses of members who elect the Pension Advance Option is based on the unmodified allowance the member would have received if the member had not elected the option.	(31810, 31811)
All Allowances		(31452.7, 31600)
	All allowances are made on a pro-rata basis (based on the number of days in that month) if not in effect for the entire month of retirement. For deaths that occur mid-month, the full month's payment is made.	

SERVICE-CONNECTED DISABILITY RETIREMENT ALLOWANCE

Eligibility

Plans A-D, G:	Any age or years of service; disability must result from occupational injury or disease, and member must be permanently incapacitated for the performance of duty.	(31720)
Plan E:	Not available under Plan E.	(31487)

Monthly Allowance

Greater of (1) 50% of final compensation, and (2) the service retirement allowance, if eligible to retire. (31727.4)

Normal Form Of Payment

Life Annuity with 100% continuance to a surviving spouse (or eligible children). (31786)

NONSERVICE-CONNECTED DISABILITY RETIREMENT ALLOWANCE

Eligibility

Plans A-D, G:	Any age with five years of service, and permanently incapacitated for the performance of duty.	(31720)
Plan E:	Not available under Plan E.	(31487)

Monthly Allowance

The monthly allowance is equal to a service retirement allowance if a General member is age 65 or a Safety member is age 55; otherwise the monthly allowance is the greater of that to which the member would be entitled as service retirement or the sum of (a) or (b) where: (31726, 31726.5)

General Members:	(a) 90% of 1/60 of Final Compensation x years of service, if member must rely on service in another retirement plan in order to be eligible to retire, or allowance exceeds 1/3 of final compensation.	(31727(a))
	(b) 90% of 1/60 of Final Compensation x years of service projected to age 65, not to exceed 1/3 of Final Compensation.	(31727(b))

Safety Members: 1/60 is replaced by 1/50 and age 65 is replaced by age 55 in (a) and (b) above. (31727.2)

Normal Form of Payment

Life Annuity with 65% continuance to a surviving spouse (or eligible children). (31760.1,
31760.12, 31785,
31785.4)

SERVICE-CONNECTED PRE-RETIREMENT DEATH BENEFITS

Eligibility

Plans A-D, G:	Active members who die in service as a result of injury or disease arising out of and in the course of employment.	(31787)
Plan E:	Not available under Plan E.	(31487)

Monthly Allowance (31787)

A monthly allowance payable to an eligible survivor (or eligible children) equal to the retirement allowance the deceased member would have received under a service-connected disability retirement.

Optional Combined Benefit (31781.3)

In lieu of the monthly allowance above, a surviving spouse may elect:

- (a) A lump sum equal to 1/12 of the compensation earned in the preceding 12 months x years of service (benefit not to exceed 50% of the 12 months' compensation), plus
- (b) A monthly payment equal to 50% of the member's Final Compensation, reduced by a monthly amount, which is the actuarial equivalent of (a) above based on the age of surviving spouse.

Death Benefit (Lump Sum) (31781)

The member's accumulated contributions with interest, plus 1/12 of the compensation earned in the preceding 12 months x years of service (benefit not to exceed 50% of the 12 months' compensation).

Additional Allowance for Children (31787.5)

In the case of a surviving spouse of a member who is killed in the performance of duty or who dies as the result of an accident or an injury caused by external violence or physical force, incurred in the performance of the member's duty: 25% of death allowance (whether or not the monthly allowance or combined benefit is chosen) for one child, 40% for two children, and 50% for three or more children.

Additional Amount for Spouse of Safety Member (31787.6)

A surviving spouse of a safety member, who is killed in the performance of duty or who dies as the result of an accident or injury caused by external violence or physical force, incurred in the performance of his or her duty, is also entitled to receive a lump-sum death benefit equal to 12 x monthly rate of compensation at the time of member's death in addition to all other benefits.

Note: For valuation purposes, an unmarried member is assumed to take the lump sum benefit. A married member is assumed to take the monthly allowance or the lump sum, whichever is more valuable.

NONSERVICE-CONNECTED PRE-RETIREMENT DEATH BENEFITS

Eligibility

Plans A-D, G: Active members who die while in service or while physically or mentally incapacitated for the performance of duty. (31780)

Plan E: Not available under Plan E. (31487)

Death Benefit (Lump Sum) (31781)

The member's accumulated contributions with interest, plus 1/12 of the compensation earned in preceding 12 months x the number of completed years of service (benefit not to exceed 50% of the 12 months' compensation).

Optional Death Benefit

In lieu of the lump-sum death benefit, the following several optional death benefits are available to provide flexibility to survivors.

First Optional Death Benefit (31781.1, 31781.12)

If a member who would have been entitled to a non-service-connected disability retirement allowance dies prior to retirement as a result of such disability, the surviving spouse (or eligible children) may elect to receive an optional death allowance equal to 65% of the monthly retirement allowance to which the member would have been entitled as of the date of death.

Second Optional Death Benefit (31781.2, 31765.2)

If a member dies prior to reaching the minimum retirement age but has 10 or more years of County service, a surviving spouse (or eligible children) may elect to leave the amount of the death benefit on deposit until the earliest date the member could have retired and at that time receive the allowance provided for in Section 31765 (an Option 3 benefit) or 31765.2 (a 65% continuance).

Third Optional Death Benefit

A surviving spouse of a member who dies after five years of County service may elect a combined benefit equal to:

(a) A lump sum equal to 1/12 of the compensation earnable in the preceding 12 months x the number of completed years of service (benefit not to exceed 50% of the 12 months' compensation), plus (31781.3)

(b) A monthly payment equal to 65% of the monthly retirement allowance to which the member would have been entitled if the member retired or could have retired for a non-service-connected disability as of the date of death, reduced by a monthly amount which is the actuarial equivalent of (a) above based on the age of surviving spouse. (31781.1, 31781.12)

NONSERVICE-CONNECTED PRE-RETIREMENT DEATH BENEFITS (continued)

Fourth Optional Death Benefit

If a member dies while eligible for a service retirement and the surviving spouse is designated as beneficiary, the spouse (or eligible children) may elect to receive 65% of the monthly retirement allowance to which the member would have been entitled as of the date of death. (31765.1, 31765.2)

Fifth Optional Death Benefit

If a member dies while eligible for a service retirement and the surviving spouse is designated as beneficiary and survives the member by not less than 30 days, the spouse (or eligible children) may elect to receive the same retirement allowance as the spouse would have received had the member retired on the date of death and selected Option 3. (31765)

Note: For valuation purposes, an unmarried member is assumed to take the lump sum benefit. A married member is assumed to take the first optional death benefit or the lump sum, whichever is more valuable.

POSTRETIREMENT DEATH/BURIAL BENEFIT

Plans A-E:	A one-time lump-sum benefit of \$5,000 is payable to the estate or to the beneficiary designated by the member upon the death of any member while receiving a retirement allowance. This is in addition to any other death or survivor benefits. The amount is currently paid by the County based on agreement with LACERA. It is not included for valuation purposes.	(31789.3)
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DEFERRED RETIREMENT ALLOWANCE

Eligibility

Plans A, B, D and General Plan C:	Five years of county or reciprocal service. Member contributions must be left on deposit.	(31700)
Safety Plan C:	Age 50 with 5 years of service.	(7522.25(d))
Plan E:	Age 55 with 10 years of service.	(31491)
Plan G:	Age 52 with 5 years of service.	(7522.20(a))

DEFERRED RETIREMENT ALLOWANCE (continued)

Monthly Allowance

Plans A-D, G:	Same as service retirement allowance; payable any time after the member would have been eligible for service retirement.	(31703, 31704, 31705)
	If a former member dies before the effective date of the deferred retirement allowance, the member's accumulated contributions are paid to the estate or to the named beneficiary.	(31702)
Plan E:	Same as service retirement allowance at normal retirement age 65 or in an actuarially equivalent reduced amount at early retirement, after age 55.	(31491)

TRANSFERS BETWEEN PLAN D AND PLAN E

Members in Plan D may transfer to Plan E on a prospective basis. Members in Plan E may transfer to Plan D on a prospective basis.	(31494.2, 31494.5)
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RECIPROCITY

All Plans:	Reciprocal benefits are granted to members who are entitled to retirement benefits from two or more retirement plans established under the CERL or from a County retirement plan and the California Public Employees' Retirement System (CalPERS). Reciprocity also applies to the members of the State Teachers' Retirement System Defined Benefit Plan.	(31830, 31840.4, 31840.8)
	Final Compensation may be based on service with CalPERS or another County retirement plan, if greater.	(31835)
	Vested former members are eligible for disability and death benefits from LACERA, if disabled while a member of CalPERS or another County retirement plan, but combined benefits are limited.	(31837, 31838, 31838.5, 31839)

TRANSFER FROM CALPERS

Whenever firefighting or law enforcement functions performed by a public agency or the state subject to the California Public Employees Retirement Law are transferred to the County, fire authority, or district, employees performing those functions become members of LACERA. LACERA and CalPERS may enter into an agreement whereby the members' service credit plus the members' and the cities' or states' retirement contributions are transferred from CalPERS to LACERA. (31657)

COST-OF-LIVING INCREASES

Cost-of-living increases (or decreases) are applied to all retirement allowances (service and disability), optional death allowances, and annual death allowances effective April 1, based on changes in the Consumer Price Index (CPI) from the previous January 1 to the current January 1, to the nearest 1/2 of 1%. (31870, 31870.1)

Plan A: Members (and their beneficiaries) are limited to a maximum 3% cost-of-living increase. (31870.1)

Plans B-D, G: Members (and their beneficiaries) are limited to a maximum 2% cost-of-living increase. (31870)

When the CPI exceeds 2% or 3%, the difference between the actual CPI and the maximum cost-of-living increase given in any year is credited to the COLA Accumulation. It may be used in future years to provide cost-of-living increases when the CPI falls below 2% or 3%, depending on the retirement plan.

Plan E: Members (and their beneficiaries) are limited to a maximum 2% cost-of-living increase. The 2% is pro-rated based on service earned after June 4, 2002. "Elective COLA" increases for service earned prior to June 4, 2002 may be purchased by the member. (31495.5)

STAR PROGRAM

Contributory plan members who have a COLA Accumulation of more than 20% resulting from CPI increases that exceeded the maximum cost-of-living increases that could be granted are eligible for a supplemental cost-of-living increase effective January 1 known as the Supplemental Targeted Adjustment for Retirees Cost-of-Living Adjustment (STAR COLA). These benefits are not evaluated in this report, or as part of the actuarially required funding amount, unless they have been vested by the Board of Retirement. (31874.3(b))

Appendix C Valuation Data and Schedules

On the following table, Exhibit C-1, we present a summary of LACERA membership at June 30, 2023 for active members. Similar information is shown in Exhibit C-2 Retired for retired members and C-2 Former for vested former members.

Note that salary amounts shown are the prior year annual pensionable earnings for those members of plans with a one-year final compensation period. For plans with a three-year final compensation period, the monthly rate of pay at June 2023 is shown.

Additional statistical data on both active and retired members is shown in the following tables. Additional detailed summaries are supplied to LACERA staff in a supplementary report.

Exhibit C-3: Age Distribution of Active Members

Exhibit C-4: Age, Service, Compensation Distribution of Active Members

Exhibit C-5: Age, Retirement Year, Benefit Amount and Plan Distribution of Retired Members

Exhibits C-4 and C-5 are shown for all plans combined as well as for each plan separately.

Data on LACERA membership as of June 30, 2023 was supplied to us by LACERA staff. Based on our review of this data and discussions with LACERA staff, all retiree and beneficiary records were included in our valuation.

All records for active and former members supplied by LACERA were included in the valuation.

Exhibit C-1
LACERA Membership – Active Members as of June 30, 2023

	Sex	Vested	NonVested	Total Number	Annual Salary	Average Age	Average Monthly Salary	Average Service
General Members								
Plan A	M	19	-	19	\$ 3,125,040	77.2	\$ 13,706	43.9
	F	32	-	32	3,113,136	72.9	8,107	41.4
Plan B	M	3	-	3	352,800	73.3	9,800	30.0
	F	9	-	9	1,255,812	69.7	11,628	41.7
Plan C	M	3	-	3	231,564	71.0	6,432	44.5
	F	10	-	10	1,490,868	68.5	12,424	42.8
Plan D	M	10,911	48	10,959	1,242,678,480	52.7	9,449	21.2
	F	22,931	78	23,009	2,392,244,472	52.3	8,664	21.3
Plan E	M	4,037	3	4,040	416,857,920	56.5	8,599	24.5
	F	8,939	9	8,948	765,561,924	56.7	7,130	25.2
Plan G	M	6,275	6,187	12,462	1,080,777,780	40.6	7,227	5.0
	F	12,237	12,564	24,801	1,934,911,644	39.9	6,501	4.9
Total		65,406	18,889	84,295	\$ 7,842,601,440	47.6	\$ 7,753	14.6
Safety Members								
Plan A	M	-	-	-	-	N/A	N/A	N/A
	F	-	-	-	-	N/A	N/A	N/A
Plan B	M	6,322	71	6,393	959,406,420	47.6	12,506	20.8
	F	1,147	4	1,151	165,152,904	45.8	11,957	19.5
Plan C	M	2,141	2,152	4,293	474,020,484	33.5	9,201	5.0
	F	365	408	773	84,896,772	32.5	9,152	5.0
Total		9,975	2,635	12,610	\$ 1,683,476,580	41.7	\$ 11,125	14.3
Grand Total		75,381	21,524	96,905	\$ 9,526,078,020	46.9	\$ 8,192	14.6

Exhibit C-2
Retired LACERA Membership – Retired Members and Beneficiaries as of June 30, 2023

	Sex	Number	Annual Allowance	Average Age	Average Monthly Benefit
General Members					
Plan A	M	5,960	\$ 467,547,256	81.9	\$ 6,537
	F	11,114	640,192,346	81.4	4,800
Plan B	M	199	15,048,340	76.8	6,302
	F	491	28,518,830	76.5	4,840
Plan C	M	141	8,709,324	75.9	5,147
	F	331	17,192,383	75.8	4,328
Plan D	M	7,948	411,466,150	69.5	4,314
	F	15,250	706,425,063	69.4	3,860
Plan E	M	5,449	197,937,297	73.2	3,027
	F	11,557	350,394,611	73.0	2,527
Plan G	M	131	2,299,715	64.8	1,463
	F	174	2,395,296	64.2	1,147
Total		58,745	\$ 2,848,126,611	74.1	\$ 4,040
Safety Members					
Plan A	M	3,904	\$ 457,329,012	78.9	\$ 9,762
	F	2,007	167,145,817	79.8	6,940
Plan B	M	6,825	769,949,369	62.2	9,401
	F	1,497	124,358,207	60.0	6,923
Plan C	M	21	1,189,072	54.7	4,719
	F	9	360,170	40.7	3,335
Total		14,263	\$ 1,520,331,647	69.0	\$ 8,883
Grand Total		73,008	\$ 4,368,458,258	73.1	\$ 4,986

Exhibit C-2
Former LACERA Membership – Vested Former Members as of June 30, 2023⁽¹⁾
Subtotaled by Plan and Retirement Type

	Sex	Number	Average Age
General Members			
Plan A	M	14	76.7
	F	30	75.6
Plan B	M	2	75.5
	F	6	73.3
Plan C	M	5	70.0
	F	8	68.9
Plan D	M	2,524	51.0
	F	5,286	50.5
Plan E	M	894	57.3
	F	2,012	57.9
Plan G	M	2,441	39.2
	F	5,770	38.5
Total		18,992	46.7
Safety Members			
Plan A	M	4	71.0
	F	-	-
Plan B	M	666	46.2
	F	118	46.5
Plan C	M	545	32.7
	F	89	33.0
Total		1,422	40.3
Grand Total		20,414	46.2

1. Includes non-vested former members who still have member contributions with LACERA

Exhibit C-2a
LACERA Membership – Retired Members and Beneficiaries as of June 30, 2023
Subtotaled by Plan and Retirement Type

<u>Plan</u>	<u>Retirement Type</u>	<u>Number</u>	<u>Annual Benefits in Thousands</u>	<u>Average Monthly Benefit</u>
General Plans:				
Plan A				
	Healthy	11,909	\$ 882,503	\$ 6,175
	Disabled	1,117	52,497	3,917
	Beneficiaries	4,048	172,740	3,556
	Total	<u>17,074</u>	<u>\$ 1,107,740</u>	<u>\$ 5,407</u>
Plan B				
	Healthy	569	\$ 38,616	\$ 5,656
	Disabled	48	1,909	3,314
	Beneficiaries	73	3,042	3,472
	Total	<u>690</u>	<u>\$ 43,567</u>	<u>\$ 5,262</u>
Plan C				
	Healthy	361	\$ 22,240	\$ 5,134
	Disabled	47	1,742	3,088
	Beneficiaries	64	1,920	2,500
	Total	<u>472</u>	<u>\$ 25,902</u>	<u>\$ 4,573</u>
Plan D				
	Healthy	18,771	\$ 969,034	\$ 4,302
	Disabled	2,436	94,851	3,245
	Beneficiaries	1,991	54,007	2,260
	Total	<u>23,198</u>	<u>\$ 1,117,892</u>	<u>\$ 4,016</u>
Plan E				
	Healthy	15,385	\$ 521,222	\$ 2,823
	Disabled	N/A	N/A	N/A
	Beneficiaries	1,621	27,110	1,394
	Total	<u>17,006</u>	<u>\$ 548,332</u>	<u>\$ 2,687</u>
Plan G				
	Healthy	252	\$ 3,493	\$ 1,155
	Disabled	31	916	2,463
	Beneficiaries	22	286	1,083
	Total	<u>305</u>	<u>\$ 4,695</u>	<u>\$ 1,283</u>
Safety Plans:				
Plan A				
	Healthy	1,832	\$ 224,610	\$ 10,217
	Disabled	2,447	267,974	9,126
	Beneficiaries	1,632	131,890	6,735
	Total	<u>5,911</u>	<u>\$ 624,474</u>	<u>\$ 8,804</u>
Plan B				
	Healthy	3,318	\$ 371,365	\$ 9,327
	Disabled	4,595	493,362	8,947
	Beneficiaries	409	29,581	6,027
	Total	<u>8,322</u>	<u>\$ 894,308</u>	<u>\$ 8,955</u>
Plan C				
	Healthy	12	\$ 746	\$ 5,180
	Disabled	16	730	3,803
	Beneficiaries	2	73	3,049
	Total	<u>30</u>	<u>\$ 1,549</u>	<u>\$ 4,303</u>
Grand Totals		73,008	4,368,459	4,986

Exhibit C-2b
LACERA Membership – Retired Members and Beneficiaries as of June 30, 2023
Subtotaled by Retirement Type and Plan

<u>Type</u>	<u>Plan</u>	<u>Number</u>	<u>Annual Benefits in Thousands</u>	<u>Average Monthly Benefit</u>
Healthy Retirees				
	General A	11,909	\$ 882,503	\$ 6,175
	General B	569	38,616	5,656
	General C	361	22,240	5,134
	General D	18,771	969,034	4,302
	General E	15,385	521,222	2,823
	General G	252	3,493	1,155
	Safety A	1,832	224,610	10,217
	Safety B	3,318	371,365	9,327
	Safety C	12	746	5,180
	Total	52,409	\$ 3,033,829	\$ 4,824
Disabled Retirees				
	General A	1,117	\$ 52,497	\$ 3,917
	General B	48	1,909	3,314
	General C	47	1,742	3,088
	General D	2,436	94,851	3,245
	General E	N/A	N/A	N/A
	General G	31	916	2,463
	Safety A	2,447	267,974	9,126
	Safety B	4,595	493,362	8,947
	Safety C	16	730	3,803
	Total	10,737	\$ 913,981	\$ 7,094
Beneficiaries				
	General A	4,048	\$ 172,740	\$ 3,556
	General B	73	3,042	3,472
	General C	64	1,920	2,500
	General D	1,991	54,007	2,260
	General E	1,621	27,110	1,394
	General G	22	286	1,083
	Safety A	1,632	131,890	6,735
	Safety B	409	29,581	6,027
	Safety C	2	73	3,049
	Total	9,862	\$ 420,649	\$ 3,554
Grand Totals		73,008	\$ 4,368,459	\$ 4,986

**Exhibit C-3
 Age Distribution of Active Members as of June 30, 2023**

	Age Groups						Total
	0-29	30-39	40-49	50-59	60-69	70+	
General Plans:							
Plan A							
Male	-	-	-	-	2	17	19
Female	-	-	-	-	6	26	32
Plan B							
Male	-	-	-	-	-	3	3
Female	-	-	-	-	5	4	9
Plan C							
Male	-	-	-	-	1	2	3
Female	-	-	-	-	5	5	10
Plan D							
Male	-	645	3,424	4,395	2,219	276	10,959
Female	-	1,314	7,718	9,174	4,294	509	23,009
Plan E							
Male	-	137	805	1,496	1,323	279	4,040
Female	-	244	1,644	3,458	3,099	503	8,948
Plan G							
Male	1,327	5,400	3,368	1,627	678	62	12,462
Female	2,771	11,478	6,266	3,142	1,059	85	24,801
Safety Plans:							
Plan A							
Male	-	-	-	-	-	-	-
Female	-	-	-	-	-	-	-
Plan B							
Male	-	911	2,743	2,545	192	2	6,393
Female	-	220	586	331	13	1	1,151
Plan C							
Male	1,196	2,472	509	93	22	1	4,293
Female	247	448	67	10	1	-	773
Grand Totals:	<u>5,541</u>	<u>23,269</u>	<u>27,130</u>	<u>26,271</u>	<u>12,919</u>	<u>1,775</u>	<u>96,905</u>

**Exhibit C-4
 Age and Service Distribution of Active Members by Count
 and Average Compensation as of June 30, 2023
 All Plans**

Count													
Age	Years of Service												Total Count
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	
Under 25	463	111	29	45	22	2	-	-	-	-	-	-	672
25-29	1,509	805	694	750	476	635	-	-	-	-	-	-	4,869
30-34	1,506	924	895	1,235	1,189	4,418	353	16	-	-	-	-	10,536
35-39	967	655	617	884	913	5,228	2,228	1,189	52	-	-	-	12,733
40-44	711	385	401	553	574	3,445	2,475	3,936	954	66	1	-	13,501
45-49	490	240	266	379	410	2,229	1,606	3,555	3,520	863	71	-	13,629
50-54	310	192	183	255	279	1,579	1,127	2,586	3,613	2,448	1,239	105	13,916
55-59	242	130	138	185	191	1,152	805	1,774	2,460	1,903	2,327	1,048	12,355
60-64	84	67	56	97	124	767	647	1,411	1,756	1,047	1,474	1,509	9,039
65 & Over	27	24	20	41	57	430	457	1,002	1,379	635	650	933	5,655
Total Count	6,309	3,533	3,299	4,424	4,235	19,885	9,698	15,469	13,734	6,962	5,762	3,595	96,905

Compensation													
Age	Years of Service												Average Comp.
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	
Under 25	53,176	60,384	72,456	83,885	64,940	82,332	-	-	-	-	-	-	57,727
25-29	61,063	66,096	73,183	82,288	84,438	90,027	-	-	-	-	-	-	72,955
30-34	66,388	74,101	74,006	80,411	81,944	88,552	101,237	92,428	-	-	-	-	81,612
35-39	73,275	82,854	87,991	84,875	91,269	93,217	104,665	104,059	120,608	-	-	-	93,325
40-44	75,820	85,400	83,951	87,019	94,847	96,494	111,737	106,082	111,219	112,708	230,076	-	100,977
45-49	75,109	76,474	80,056	80,611	89,304	94,311	113,507	105,673	112,948	125,242	139,075	-	104,728
50-54	66,856	77,897	80,718	78,654	87,734	92,296	109,510	106,023	112,332	127,252	129,046	127,102	109,868
55-59	69,869	70,319	82,330	78,423	80,754	88,339	101,425	98,560	103,887	118,909	120,312	112,130	105,619
60-64	90,205	81,226	80,948	68,881	85,868	87,398	101,883	91,073	96,350	112,896	111,305	113,792	101,727
65 & Over	91,752	94,115	87,336	77,889	100,326	90,140	101,779	86,626	86,351	103,422	102,607	108,255	95,476
Avg. Annual Compensation	\$ 67,523	\$ 75,199	\$ 79,051	\$ 82,039	\$ 87,298	\$ 92,121	\$ 107,782	\$ 102,317	\$ 106,279	\$ 120,252	\$ 118,139	\$ 112,260	\$ 98,303

**Exhibit C-4a
 Age and Service Distribution of Active Members by Count
 and Average Compensation as of June 30, 2023
 General Plan A**

Count													
Age	Years of Service											Total Count	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34		35&Over
Under 25	-	-	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-	-	-	-	-	-
45-49	-	-	-	-	-	-	-	-	-	-	-	-	-
50-54	-	-	-	-	-	-	-	-	-	-	-	-	-
55-59	-	-	-	-	-	-	-	-	-	-	-	-	-
60-64	-	-	-	-	-	-	-	-	-	-	-	-	-
65 & Over	-	-	-	-	-	-	2	3	3	3	3	37	51
Total Count	-	-	-	-	-	-	2	3	3	3	3	37	51

Compensation													
Age	Years of Service											Average Comp.	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34		35&Over
Under 25	-	-	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-	-	-	-	-	-
45-49	-	-	-	-	-	-	-	-	-	-	-	-	-
50-54	-	-	-	-	-	-	-	-	-	-	-	-	-
55-59	-	-	-	-	-	-	-	-	-	-	-	-	-
60-64	-	-	-	-	-	-	-	-	-	-	-	-	-
65 & Over	-	-	-	-	-	-	57,216	64,056	66,896	132,048	94,076	136,554	122,317
Avg. Annual Compensation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 57,216	\$ 64,056	\$ 66,896	\$ 132,048	\$ 94,076	\$ 136,554	\$ 122,317

**Exhibit C-4b
 Age and Service Distribution of Active Members by Count
 and Average Compensation as of June 30, 2023
 General Plan B**

Count													
Age	Years of Service											Total Count	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34		35&Over
Under 25	-	-	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-	-	-	-	-	-
45-49	-	-	-	-	-	-	-	-	-	-	-	-	-
50-54	-	-	-	-	-	-	-	-	-	-	-	-	-
55-59	-	-	-	-	-	-	-	-	-	-	-	-	-
60-64	-	-	-	-	-	-	-	-	-	-	-	-	-
65 & Over	-	-	-	-	-	-	-	-	2	1	1	8	12
Total Count	-	-	-	-	-	-	-	-	2	1	1	8	12

Compensation													
Age	Years of Service											Average Comp.	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34		35&Over
Under 25	-	-	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-	-	-	-	-	-
45-49	-	-	-	-	-	-	-	-	-	-	-	-	-
50-54	-	-	-	-	-	-	-	-	-	-	-	-	-
55-59	-	-	-	-	-	-	-	-	-	-	-	-	-
60-64	-	-	-	-	-	-	-	-	-	-	-	-	-
65 & Over	-	-	-	-	-	-	-	-	151,626	170,316	148,872	123,272	134,051
Avg. Annual Compensation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 151,626	\$ 170,316	\$ 148,872	\$ 123,272	\$ 134,051

Exhibit C-4c
Age and Service Distribution of Active Members by Count
and Average Compensation as of June 30, 2023
General Plan C

Count													
Age	Years of Service											Total Count	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34		35&Over
Under 25	-	-	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-	-	-	-	-	-
45-49	-	-	-	-	-	-	-	-	-	-	-	-	-
50-54	-	-	-	-	-	-	-	-	-	-	-	-	-
55-59	-	-	-	-	-	-	-	-	-	-	-	-	-
60-64	-	-	-	-	-	-	-	-	-	-	-	5	5
65 & Over	-	-	-	-	-	-	-	-	-	-	-	8	8
Total Count	-	-	-	-	-	-	-	-	-	-	-	13	13

Compensation													
Age	Years of Service											Average Comp.	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34		35&Over
Under 25	-	-	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-	-	-	-	-	-
45-49	-	-	-	-	-	-	-	-	-	-	-	-	-
50-54	-	-	-	-	-	-	-	-	-	-	-	-	-
55-59	-	-	-	-	-	-	-	-	-	-	-	-	-
60-64	-	-	-	-	-	-	-	-	-	-	-	103,471	103,471
65 & Over	-	-	-	-	-	-	-	-	-	-	-	150,635	150,635
Avg. Annual Compensation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 132,495	\$ 132,495

**Exhibit C-4d
 Age and Service Distribution of Active Members by Count
 and Average Compensation as of June 30, 2023
 General Plan D**

Count													
Age	Years of Service												Total Count
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	
Under 25	-	-	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	1	-	-	7	6	90	8	-	-	-	-	112
35-39	2	1	4	4	11	68	1,155	562	40	-	-	-	1,847
40-44	4	2	6	4	11	109	1,543	2,485	582	56	-	-	4,802
45-49	5	2	2	8	9	89	1,058	2,396	2,189	530	52	-	6,340
50-54	3	4	3	5	12	63	775	1,778	2,295	1,371	653	76	7,038
55-59	1	-	2	4	2	53	537	1,232	1,596	1,219	1,277	608	6,531
60-64	1	2	-	1	2	24	389	949	1,150	683	782	680	4,663
65 & Over	-	-	1	3	1	15	288	643	778	386	292	228	2,635
Total Count	16	12	18	29	55	427	5,835	10,053	8,630	4,245	3,056	1,592	33,968

Compensation													
Age	Years of Service												Average Comp.
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	
Under 25	-	-	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	109,548	-	-	103,567	84,490	79,223	76,490	-	-	-	-	81,102
35-39	121,812	116,844	70,437	123,888	105,770	105,203	99,126	87,898	117,646	-	-	-	96,399
40-44	170,871	89,808	127,852	138,393	117,532	110,732	109,270	99,793	102,189	107,055	-	-	103,624
45-49	143,942	179,268	55,890	94,613	157,885	116,345	112,984	103,312	106,977	111,727	127,939	-	107,387
50-54	63,176	128,424	74,412	175,306	160,023	124,402	108,598	106,133	109,427	118,143	114,836	120,368	111,065
55-59	165,888	-	279,936	95,169	93,726	118,826	101,173	99,572	104,821	118,403	116,512	121,424	110,065
60-64	37,584	264,312	-	217,692	114,096	99,812	105,027	95,910	100,945	117,411	114,966	123,475	108,391
65 & Over	-	-	138,096	106,600	46,572	103,376	99,397	89,808	92,006	106,546	110,893	131,147	99,968
Avg. Annual Compensation	\$ 127,489	\$ 150,572	\$ 115,658	\$ 124,163	\$ 126,996	\$ 112,802	\$ 105,867	\$ 100,037	\$ 104,803	\$ 116,098	\$ 115,416	\$ 123,642	\$ 107,010

Exhibit C-4e
Age and Service Distribution of Active Members by Count
and Average Compensation as of June 30, 2023
General Plan E

Count													
Age	Years of Service											Total Count	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34		35&Over
Under 25	-	-	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	1	18	1	-	-	-	-	20
35-39	-	-	-	-	-	1	196	163	1	-	-	-	361
40-44	-	-	-	-	-	2	268	536	122	-	-	-	928
45-49	-	-	-	-	-	4	210	615	612	78	2	-	1,521
50-54	-	-	-	-	-	1	169	514	735	432	241	16	2,108
55-59	-	-	-	-	-	-	157	418	638	472	763	398	2,846
60-64	-	-	-	-	-	2	157	430	555	327	665	796	2,932
65 & Over	-	-	-	-	-	1	105	350	587	243	348	638	2,272
Total Count	-	-	-	-	-	12	1,280	3,027	3,250	1,552	2,019	1,848	12,988

Compensation													
Age	Years of Service											Average Comp.	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34		35&Over
Under 25	-	-	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	68,556	76,034	78,036	-	-	-	-	75,760
35-39	-	-	-	-	-	139,812	85,675	75,777	53,076	-	-	-	81,266
40-44	-	-	-	-	-	131,532	96,110	82,268	79,779	-	-	-	86,045
45-49	-	-	-	-	-	65,124	100,110	87,225	87,197	90,132	72,966	-	89,065
50-54	-	-	-	-	-	62,280	100,959	87,697	88,209	98,016	90,869	99,299	91,492
55-59	-	-	-	-	-	-	96,978	81,410	84,797	100,315	101,870	90,111	92,866
60-64	-	-	-	-	-	53,424	88,686	77,894	82,630	98,615	104,075	102,151	94,186
65 & Over	-	-	-	-	-	24,636	106,141	80,273	77,851	97,589	94,776	96,044	89,320
Avg. Annual Compensation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 77,141	\$ 95,545	\$ 82,876	\$ 84,198	\$ 98,379	\$ 100,032	\$ 97,425	\$ 91,039

**Exhibit C-4f
 Age and Service Distribution of Active Members by Count
 and Average Compensation as of June 30, 2023
 General Plan G**

Count													
Age	Years of Service											Total Count	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34		35&Over
Under 25	388	77	18	16	16	1	-	-	-	-	-	-	516
25-29	1,314	673	502	458	297	338	-	-	-	-	-	-	3,582
30-34	1,386	821	735	986	976	3,431	89	1	-	-	-	-	8,425
35-39	918	605	537	778	809	4,430	370	6	-	-	-	-	8,453
40-44	690	358	363	501	527	3,035	263	1	-	-	-	-	5,738
45-49	480	232	251	345	390	2,043	146	9	-	-	-	-	3,896
50-54	299	183	172	241	265	1,469	112	6	2	-	-	-	2,749
55-59	238	127	123	175	186	1,079	85	4	2	1	-	-	2,020
60-64	81	65	51	95	122	730	89	9	2	-	-	-	1,244
65 & Over	27	24	19	38	56	411	61	2	1	1	-	-	640
Total Count	5,821	3,165	2,771	3,633	3,644	16,967	1,215	38	7	2	-	-	37,263

Compensation													
Age	Years of Service											Average Comp.	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34		35&Over
Under 25	49,239	52,501	57,613	53,625	54,830	73,104	-	-	-	-	-	-	50,373
25-29	58,003	63,200	62,767	64,950	67,129	69,167	-	-	-	-	-	-	62,345
30-34	64,720	72,173	68,286	72,825	75,368	79,758	84,380	53,976	-	-	-	-	74,270
35-39	72,418	82,061	86,459	81,243	88,735	88,235	95,455	74,252	-	-	-	-	85,673
40-44	74,857	85,139	81,437	84,279	93,030	93,426	107,640	110,892	-	-	-	-	89,737
45-49	74,266	75,240	78,606	77,934	86,800	92,070	109,507	98,597	-	-	-	-	86,896
50-54	65,660	75,869	77,467	75,316	84,244	89,785	117,661	149,092	122,280	-	-	-	84,950
55-59	67,859	69,112	70,957	76,224	79,739	86,016	100,565	261,084	182,256	47,832	-	-	81,506
60-64	90,587	75,593	73,771	66,906	85,405	86,113	104,505	111,909	96,750	-	-	-	85,332
65 & Over	91,752	94,115	84,664	75,622	101,286	89,748	106,046	77,514	152,076	129,636	-	-	91,691
Avg. Annual Compensation	\$ 66,036	\$ 73,695	\$ 74,298	\$ 75,818	\$ 82,955	\$ 87,469	\$ 102,569	\$ 121,023	\$ 136,378	\$ 88,734	\$ -	\$ -	\$ 80,930

Exhibit C-4g
Age and Service Distribution of Active Members by Count
and Average Compensation as of June 30, 2023
Safety Plan A

Count													
Age	Years of Service											Total Count	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34		35&Over
Under 25	-	-	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-	-	-	-	-	-
45-49	-	-	-	-	-	-	-	-	-	-	-	-	-
50-54	-	-	-	-	-	-	-	-	-	-	-	-	-
55-59	-	-	-	-	-	-	-	-	-	-	-	-	-
60-64	-	-	-	-	-	-	-	-	-	-	-	-	-
65 & Over	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Count	-	-	-	-	-	-	-	-	-	-	-	-	-

Compensation													
Age	Years of Service											Average Comp.	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34		35&Over
Under 25	-	-	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-	-	-	-	-	-
45-49	-	-	-	-	-	-	-	-	-	-	-	-	-
50-54	-	-	-	-	-	-	-	-	-	-	-	-	-
55-59	-	-	-	-	-	-	-	-	-	-	-	-	-
60-64	-	-	-	-	-	-	-	-	-	-	-	-	-
65 & Over	-	-	-	-	-	-	-	-	-	-	-	-	-
Avg. Annual Compensation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

**Exhibit C-4h
 Age and Service Distribution of Active Members by Count
 and Average Compensation as of June 30, 2023
 Safety Plan B**

Count													
Age	Years of Service											Total Count	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34		35&Over
Under 25	-	-	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	1	-	10	131	6	-	-	-	-	148
35-39	-	-	3	9	4	33	466	457	11	-	-	-	983
40-44	-	1	12	8	4	30	372	913	250	10	1	-	1,601
45-49	-	-	3	3	4	15	183	531	717	255	17	-	1,728
50-54	1	-	7	2	1	8	68	287	579	645	345	13	1,956
55-59	-	-	9	1	-	3	25	118	224	211	287	42	920
60-64	-	-	3	-	-	-	9	23	49	37	26	28	175
65 & Over	-	-	-	-	-	-	1	4	7	1	6	14	33
Total Count	1	1	37	24	13	99	1,255	2,339	1,837	1,159	682	97	7,544

Compensation													
Age	Years of Service											Average Comp.	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34		35&Over
Under 25	-	-	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	120,516	-	129,623	126,924	122,486	-	-	-	-	126,883
35-39	-	-	96,536	118,269	140,898	130,099	131,520	134,333	137,519	-	-	-	132,657
40-44	-	117,924	113,826	121,223	133,041	126,010	135,271	137,136	147,583	144,370	230,076	-	137,953
45-49	-	-	148,124	123,284	144,624	133,340	134,625	137,710	153,129	164,072	180,916	-	148,068
50-54	128,640	-	152,637	113,496	118,740	144,744	127,562	137,255	154,430	166,197	182,610	200,691	160,015
55-59	-	-	161,771	166,908	-	123,648	135,971	142,561	150,898	163,763	186,245	186,246	165,049
60-64	-	-	148,372	-	-	-	152,521	129,757	143,908	155,760	186,390	211,428	162,189
65 & Over	-	-	-	-	-	-	158,892	152,514	150,345	136,152	150,108	184,352	164,821
Avg. Annual Compensation	\$ 128,640	\$ 117,924	\$ 137,011	\$ 121,603	\$ 137,922	\$ 130,291	\$ 132,652	\$ 136,923	\$ 152,162	\$ 164,739	\$ 184,025	\$ 195,178	\$ 149,067

Exhibit C-4i
Age and Service Distribution of Active Members by Count
and Average Compensation as of June 30, 2023
Safety Plan C

Count													
Age	Years of Service											Total Count	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34		35&Over
Under 25	75	34	11	29	6	1	-	-	-	-	-	-	156
25-29	195	132	192	292	179	297	-	-	-	-	-	-	1,287
30-34	120	102	160	248	206	970	25	-	-	-	-	-	1,831
35-39	47	49	73	93	89	696	41	1	-	-	-	-	1,089
40-44	17	24	20	40	32	269	29	1	-	-	-	-	432
45-49	5	6	10	23	7	78	9	4	2	-	-	-	144
50-54	7	5	1	7	1	38	3	1	2	-	-	-	65
55-59	3	3	4	5	3	17	1	2	-	-	-	-	38
60-64	2	-	2	1	-	11	3	-	-	-	1	-	20
65 & Over	-	-	-	-	-	3	-	-	1	-	-	-	4
Total Count	471	355	473	738	523	2,380	111	9	5	-	1	-	5,066

Compensation													
Age	Years of Service											Average Comp.	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34		35&Over
Under 25	73,544	78,236	96,745	100,579	91,902	91,560	-	-	-	-	-	-	82,050
25-29	81,687	80,857	100,418	109,482	113,159	113,766	-	-	-	-	-	-	102,483
30-34	85,659	89,271	100,279	110,409	112,363	119,283	124,042	-	-	-	-	-	111,831
35-39	87,959	91,948	99,879	110,349	110,285	121,947	129,376	140,460	-	-	-	-	116,004
40-44	92,538	87,570	98,478	109,369	112,209	121,792	122,654	143,232	-	-	-	-	115,908
45-49	87,233	89,928	100,856	110,335	109,030	121,865	123,032	119,508	123,744	-	-	-	115,441
50-54	110,669	111,718	155,316	114,559	114,072	125,869	113,072	109,476	113,832	-	-	-	120,984
55-59	197,296	121,420	154,509	124,306	135,008	134,449	144,624	138,660	-	-	-	-	139,693
60-64	101,028	-	162,840	107,736	-	151,749	155,304	-	-	-	103,704	-	143,716
65 & Over	-	-	-	-	-	99,560	-	-	90,324	-	-	-	97,251
Avg. Annual Compensation	\$ 83,728	\$ 85,939	\$ 100,967	\$ 109,720	\$ 112,126	\$ 120,069	\$ 126,302	\$ 127,613	\$ 113,095	\$ -	\$ 103,704	\$ -	\$ 110,327

Exhibit C-5
Distribution of Retired Members and Beneficiaries by Age and Retirement Year
as of June 30, 2023
All Plans

Age	Retirement Year											Total Count	Average Monthly Benefit
	Pre-1975	1975-79	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	2015-19	2020-24		
Under 35	-	-	-	-	-	-	6	4	12	58	67	147	\$ 1,152
35-39	-	-	-	-	-	1	2	4	8	55	68	138	2,503
40-44	-	-	-	-	-	1	2	10	26	93	96	228	3,078
45-49	-	-	-	-	-	1	9	30	80	149	155	424	3,474
50-54	-	-	-	-	1	14	71	75	117	257	709	1,244	3,805
55-59	-	-	-	1	40	104	138	137	261	1,094	2,403	4,178	6,243
60-64	-	-	2	21	83	148	175	192	855	3,002	2,979	7,457	5,870
65-69	-	4	28	62	117	147	221	776	2,545	3,862	4,483	12,245	5,135
70-74	3	31	71	98	129	234	784	2,539	3,603	4,759	1,957	14,208	4,810
75-79	11	109	190	158	273	947	2,643	3,005	3,388	1,867	951	13,542	5,013
80-84	28	107	146	198	763	1,704	2,171	1,811	1,200	771	551	9,450	4,902
85-89	51	81	131	462	1,061	1,059	1,031	591	448	442	358	5,715	4,443
90-94	45	78	269	391	656	431	258	216	201	214	159	2,918	4,073
95-99	18	66	133	153	169	80	56	70	74	58	40	917	3,724
100 & Over	11	27	35	33	21	17	13	8	15	12	5	197	3,210
Total Count	167	503	1,005	1,577	3,313	4,888	7,580	9,468	12,833	16,693	14,981	73,008	
Avg Monthly Benefit	\$ 2,542	\$ 3,163	\$ 3,202	\$ 3,749	\$ 4,721	\$ 4,856	\$ 5,611	\$ 4,871	\$ 4,867	\$ 4,983	\$ 5,288		\$ 4,986

Exhibit C-5a
Distribution of Retired Members and Beneficiaries by Age and Retirement Year
as of June 30, 2023
General Plan A

Age	Retirement Year											Total Count	Average Monthly Benefit
	Pre-1975	1975-79	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	2015-19	2020-24		
Under 35	-	-	-	-	-	-	1	-	1	1	2	5	\$ 1,009
35-39	-	-	-	-	-	-	-	2	-	4	2	8	1,122
40-44	-	-	-	-	-	-	1	3	3	1	3	11	1,996
45-49	-	-	-	-	-	-	1	3	4	-	-	8	2,603
50-54	-	-	-	-	-	3	1	5	3	3	5	20	2,826
55-59	-	-	-	1	1	1	4	4	3	5	7	26	3,215
60-64	-	-	-	1	2	4	4	12	9	14	9	55	3,343
65-69	-	2	5	7	3	10	33	82	209	132	38	521	5,492
70-74	2	19	27	27	29	79	281	714	866	213	124	2,381	6,003
75-79	5	50	63	49	118	495	1,096	1,283	491	225	189	4,064	6,157
80-84	16	53	67	93	543	854	1,283	506	243	220	211	4,089	5,682
85-89	32	50	76	365	709	706	451	169	171	197	180	3,106	4,913
90-94	25	56	219	281	524	253	105	107	113	122	98	1,903	4,212
95-99	16	54	113	138	137	50	34	51	52	35	31	711	3,793
100 & Over	11	23	34	31	12	14	12	7	11	7	4	166	3,302
Total Count	107	307	604	993	2,078	2,469	3,307	2,948	2,179	1,179	903	17,074	
Avg Monthly Benefit	\$ 1,946	\$ 2,545	\$ 2,577	\$ 3,242	\$ 4,544	\$ 4,842	\$ 6,559	\$ 6,648	\$ 6,506	\$ 5,011	\$ 4,181		\$ 5,407

Exhibit C-5b
Distribution of Retired Members and Beneficiaries by Age and Retirement Year
as of June 30, 2023
General Plan B

Age	Retirement Year											Total Count	Average Monthly Benefit	
	Pre-1975	1975-79	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	2015-19	2020-24			
Under 35	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ -
35-39	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45-49	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50-54	-	-	-	-	-	-	-	-	-	1	-	1	1	2,905
55-59	-	-	-	-	-	-	-	-	-	-	1	1	1	3,318
60-64	-	-	-	-	-	-	-	2	1	1	5	9	9	4,722
65-69	-	-	-	-	1	1	2	14	30	52	7	107	107	5,725
70-74	-	-	-	3	4	2	11	36	85	45	10	196	196	6,592
75-79	-	-	2	3	4	15	27	45	49	11	5	161	161	5,108
80-84	-	-	1	3	3	9	30	24	15	6	2	93	93	4,571
85-89	-	-	1	-	5	14	21	15	7	3	2	68	68	4,373
90-94	-	-	1	4	10	15	3	3	1	2	2	41	41	2,544
95-99	-	-	-	2	3	2	3	1	-	1	-	12	12	2,190
100 & Over	-	-	-	1	-	-	-	-	-	-	-	1	1	1,780
Total Count	-	-	5	16	30	58	97	140	188	122	34	690		
Avg Monthly Benefit	\$ -	\$ -	\$ 1,605	\$ 1,666	\$ 1,972	\$ 2,600	\$ 3,805	\$ 4,984	\$ 6,729	\$ 7,125	\$ 5,439			\$ 5,262

Exhibit C-5c
Distribution of Retired Members and Beneficiaries by Age and Retirement Year
as of June 30, 2023
General Plan C

Age	Retirement Year											Total Count	Average Monthly Benefit
	Pre-1975	1975-79	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	2015-19	2020-24		
Under 35	-	-	-	-	-	-	-	-	-	1	1	2	\$ 2,655
35-39	-	-	-	-	-	-	-	-	-	1	-	1	5,309
40-44	-	-	-	-	-	-	-	-	1	-	-	1	1,722
45-49	-	-	-	-	-	-	-	-	1	-	-	1	1,408
50-54	-	-	-	-	-	-	-	-	1	-	-	1	1,722
55-59	-	-	-	-	-	-	-	-	-	1	1	2	1,273
60-64	-	-	-	-	-	-	1	-	2	8	5	16	4,342
65-69	-	-	1	4	-	1	-	5	12	34	17	74	5,674
70-74	-	1	2	2	2	3	16	14	51	35	4	130	6,188
75-79	-	-	2	1	4	7	9	28	29	11	3	94	4,556
80-84	-	-	-	4	8	9	15	17	12	3	2	70	3,028
85-89	-	-	-	4	6	6	16	5	3	2	2	44	3,024
90-94	-	-	-	3	4	9	2	3	1	1	-	23	2,087
95-99	-	-	-	-	6	2	1	1	1	2	-	13	1,951
100 & Over	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Count	-	1	5	18	30	37	60	73	114	99	35	472	
Avg Monthly Benefit	\$ -	\$ 2,016	\$ 1,657	\$ 1,159	\$ 1,501	\$ 2,278	\$ 3,003	\$ 3,561	\$ 6,172	\$ 6,519	\$ 5,969		\$ 4,573

Exhibit C-5d
Distribution of Retired Members and Beneficiaries by Age and Retirement Year
as of June 30, 2023
General Plan D

Age	Retirement Year											Total Count	Average Monthly Benefit
	Pre-1975	1975-79	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	2015-19	2020-24		
Under 35	-	-	-	-	-	-	2	1	9	30	28	70	\$ 806
35-39	-	-	-	-	-	-	2	-	2	21	26	51	1,796
40-44	-	-	-	-	-	-	-	4	8	35	45	92	2,093
45-49	-	-	-	-	-	1	1	6	36	51	58	153	2,485
50-54	-	-	-	-	1	3	19	17	43	129	414	626	2,389
55-59	-	-	-	-	5	9	32	46	130	571	844	1,637	3,141
60-64	-	-	-	1	9	36	50	79	450	1,106	1,845	3,576	4,390
65-69	-	-	3	7	28	43	81	383	752	2,028	2,311	5,636	4,737
70-74	-	1	2	13	23	53	218	464	1,240	2,171	906	5,091	4,241
75-79	-	-	2	10	28	139	255	638	1,233	792	304	3,401	3,835
80-84	-	-	2	10	37	118	278	523	430	228	112	1,738	3,285
85-89	-	-	2	10	36	92	242	181	110	71	56	800	2,803
90-94	-	-	2	6	21	68	71	47	28	24	9	276	2,640
95-99	-	-	-	3	5	15	2	7	4	6	2	44	1,819
100 & Over	-	-	-	-	4	-	-	-	-	2	1	7	1,083
Total Count	-	1	13	60	197	577	1,253	2,396	4,475	7,265	6,961	23,198	
Avg Monthly Benefit	\$ -	\$ 3,141	\$ 2,051	\$ 1,721	\$ 1,915	\$ 2,136	\$ 2,499	\$ 2,951	\$ 3,771	\$ 4,257	\$ 4,799		\$ 4,016

Exhibit C-5e
Distribution of Retired Members and Beneficiaries by Age and Retirement Year
as of June 30, 2023
General Plan E

Age	Retirement Year											Total Count	Average Monthly Benefit
	Pre-1975	1975-79	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	2015-19	2020-24		
Under 35	-	-	-	-	-	-	-	2	-	15	18	35	\$ 772
35-39	-	-	-	-	-	1	-	2	3	8	9	23	797
40-44	-	-	-	-	-	1	1	1	4	10	5	22	1,107
45-49	-	-	-	-	-	-	-	1	9	23	12	45	1,343
50-54	-	-	-	-	-	-	1	3	10	20	31	65	1,136
55-59	-	-	-	-	-	-	2	7	19	72	302	402	1,169
60-64	-	-	-	-	-	-	1	3	73	469	621	1,167	2,051
65-69	-	-	-	-	-	-	3	74	543	1,109	1,907	3,636	3,296
70-74	-	-	-	-	-	4	65	592	1,046	2,154	777	4,638	3,074
75-79	-	-	-	-	-	40	375	706	1,503	713	338	3,675	2,663
80-84	-	-	-	-	8	192	323	703	429	220	142	2,017	2,229
85-89	-	-	-	4	60	134	277	178	111	107	55	926	1,774
90-94	-	-	-	14	49	81	58	28	25	27	10	292	1,389
95-99	-	-	1	1	18	9	6	4	6	3	3	51	875
100 & Over	-	-	-	1	3	3	1	1	3	-	-	12	540
Total Count	-	-	1	20	138	465	1,113	2,305	3,784	4,950	4,230	17,006	
Avg Monthly Benefit	\$ -	\$ -	\$ 81	\$ 246	\$ 544	\$ 792	\$ 1,252	\$ 1,701	\$ 2,656	\$ 3,095	\$ 3,443		\$ 2,687

Exhibit C-5f
Distribution of Retired Members and Beneficiaries by Age and Retirement Year
as of June 30, 2023
General Plan G

Age	Retirement Year										Total Count	Average Monthly Benefit	
	Pre-1975	1975-79	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	2015-19			2020-24
Under 35	-	-	-	-	-	-	-	-	-	2	3	5	\$ 1,911
35-39	-	-	-	-	-	-	-	-	-	-	4	4	1,688
40-44	-	-	-	-	-	-	-	-	-	1	3	4	1,876
45-49	-	-	-	-	-	-	-	-	-	2	4	6	1,925
50-54	-	-	-	-	-	-	-	-	-	3	13	16	1,169
55-59	-	-	-	-	-	-	-	-	-	2	29	31	880
60-64	-	-	-	-	-	-	-	-	1	6	54	61	1,006
65-69	-	-	-	-	-	-	-	-	-	15	79	94	1,167
70-74	-	-	-	-	-	-	-	-	-	14	45	59	1,243
75-79	-	-	-	-	-	-	-	-	-	7	11	18	2,697
80-84	-	-	-	-	-	-	-	-	-	4	3	7	2,423
85-89	-	-	-	-	-	-	-	-	-	-	-	-	-
90-94	-	-	-	-	-	-	-	-	-	-	-	-	-
95-99	-	-	-	-	-	-	-	-	-	-	-	-	-
100 & Over	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Count	-	-	-	-	-	-	-	-	1	56	248	305	
Avg Monthly Benefit	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,007	\$ 1,683	\$ 1,194		\$ 1,283

Exhibit C-5g
Distribution of Retired Members and Beneficiaries by Age and Retirement Year
as of June 30, 2023
Safety Plan A

Age	Retirement Year											Total Count	Average Monthly Benefit
	Pre-1975	1975-79	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	2015-19	2020-24		
Under 35	-	-	-	-	-	-	-	-	2	2	1	5	\$ -
35-39	-	-	-	-	-	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-	-	-	-	-	-
45-49	-	-	-	-	-	-	-	-	1	2	-	3	6,681
50-54	-	-	-	-	-	-	-	-	-	-	-	-	-
55-59	-	-	-	-	-	1	3	-	2	2	3	11	6,707
60-64	-	-	-	-	2	-	3	-	9	9	7	30	7,887
65-69	-	2	7	11	8	11	11	38	130	28	32	278	10,559
70-74	1	10	36	31	42	65	142	468	111	64	72	1,042	9,971
75-79	6	59	114	89	104	230	829	225	52	89	96	1,893	9,139
80-84	12	54	76	88	162	521	231	34	68	87	77	1,410	8,583
85-89	19	31	52	79	243	105	24	43	45	62	62	765	7,579
90-94	20	22	46	83	47	5	18	27	32	37	40	377	6,826
95-99	2	12	19	9	-	2	10	6	11	11	4	86	6,295
100 & Over	-	4	1	-	2	-	-	-	1	3	-	11	6,228
Total Count	60	194	351	390	610	940	1,271	841	464	396	394	5,911	
Avg Monthly Benefit	\$ 3,607	\$ 4,146	\$ 4,416	\$ 5,917	\$ 7,847	\$ 9,100	\$ 10,710	\$ 11,187	\$ 10,046	\$ 7,819	\$ 7,719		\$ 8,804

Exhibit C-5h
Distribution of Retired Members and Beneficiaries by Age and Retirement Year
as of June 30, 2023
Safety Plan B

Age	Retirement Year											Total Count	Average Monthly Benefit
	Pre-1975	1975-79	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	2015-19	2020-24		
Under 35	-	-	-	-	-	-	3	1	-	6	10	20	\$ 2,433
35-39	-	-	-	-	-	-	-	-	3	20	23	46	4,302
40-44	-	-	-	-	-	-	-	2	10	46	38	96	4,641
45-49	-	-	-	-	-	-	7	20	29	70	80	206	4,717
50-54	-	-	-	-	-	8	50	50	60	101	245	514	5,992
55-59	-	-	-	-	34	93	97	80	107	441	1,214	2,066	9,813
60-64	-	-	2	19	70	108	116	96	310	1,386	427	2,534	9,893
65-69	-	-	12	33	77	81	91	180	869	464	90	1,897	9,094
70-74	-	-	4	22	29	28	51	251	204	62	19	670	8,377
75-79	-	-	7	6	15	21	52	80	30	19	5	235	6,034
80-84	-	-	-	-	2	1	11	4	3	3	2	26	4,977
85-89	-	-	-	-	2	2	-	-	1	-	1	6	2,985
90-94	-	-	1	-	1	-	1	1	1	1	-	6	1,645
95-99	-	-	-	-	-	-	-	-	-	-	-	-	-
100 & Over	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Count	-	-	26	80	230	342	479	765	1,627	2,619	2,154	8,322	
Avg Monthly Benefit	\$ -	\$ -	\$ 2,629	\$ 2,882	\$ 3,720	\$ 4,071	\$ 4,496	\$ 6,748	\$ 9,041	\$ 10,036	\$ 10,989		\$ 8,955

Exhibit C-5i
Distribution of Retired Members and Beneficiaries by Age and Retirement Year
as of June 30, 2023
Safety Plan C

Age	Retirement Year											Total Count	Average Monthly Benefit	
	Pre-1975	1975-79	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	2015-19	2020-24			
Under 35	-	-	-	-	-	-	-	-	-	-	1	4	5	\$ 3,463
35-39	-	-	-	-	-	-	-	-	-	-	1	4	5	3,306
40-44	-	-	-	-	-	-	-	-	-	-	-	2	2	4,097
45-49	-	-	-	-	-	-	-	-	-	-	1	1	2	3,392
50-54	-	-	-	-	-	-	-	-	-	-	-	1	1	3,842
55-59	-	-	-	-	-	-	-	-	-	-	-	2	2	3,119
60-64	-	-	-	-	-	-	-	-	-	-	3	6	9	2,089
65-69	-	-	-	-	-	-	-	-	-	-	-	2	2	3,147
70-74	-	-	-	-	-	-	-	-	-	-	1	-	1	25,359
75-79	-	-	-	-	-	-	-	-	-	1	-	-	1	19,751
80-84	-	-	-	-	-	-	-	-	-	-	-	-	-	-
85-89	-	-	-	-	-	-	-	-	-	-	-	-	-	-
90-94	-	-	-	-	-	-	-	-	-	-	-	-	-	-
95-99	-	-	-	-	-	-	-	-	-	-	-	-	-	-
100 & Over	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Count	-	-	-	-	-	-	-	-	-	1	7	22	30	
Avg Monthly Benefit	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 19,751	\$ 5,522	\$ 3,214		\$ 4,303

Appendix D Member Contribution Rates

This section illustrates the member normal contribution rates and the normal plus cost-of-living contribution rates by entry age.

Exhibit D-1
Normal Member Contribution Rates

Entry Age	General					Safety		
	Plan A	Plan B	Plan C	Plan D	Plan G	Plan A	Plan B	Plan C
16	2.78%	5.57%	4.77%	4.77%	7.51%	4.47%	8.94%	11.66%
17	2.84%	5.68%	4.86%	4.86%	7.51%	4.47%	8.94%	11.66%
18	2.90%	5.79%	4.96%	4.96%	7.51%	4.47%	8.94%	11.66%
19	2.95%	5.91%	5.06%	5.06%	7.51%	4.55%	9.09%	11.66%
20	3.01%	6.03%	5.16%	5.16%	7.51%	4.58%	9.16%	11.66%
21	3.07%	6.15%	5.27%	5.27%	7.51%	4.61%	9.22%	11.66%
22	3.13%	6.27%	5.37%	5.37%	7.51%	4.69%	9.38%	11.66%
23	3.20%	6.39%	5.48%	5.48%	7.51%	4.77%	9.54%	11.66%
24	3.26%	6.52%	5.59%	5.59%	7.51%	4.85%	9.70%	11.66%
25	3.33%	6.65%	5.70%	5.70%	7.51%	4.89%	9.77%	11.66%
26	3.39%	6.79%	5.82%	5.82%	7.51%	4.92%	9.84%	11.66%
27	3.46%	6.92%	5.93%	5.93%	7.51%	5.00%	10.01%	11.66%
28	3.53%	7.06%	6.05%	6.05%	7.51%	5.09%	10.18%	11.66%
29	3.60%	7.21%	6.17%	6.17%	7.51%	5.18%	10.36%	11.66%
30	3.68%	7.35%	6.30%	6.30%	7.51%	5.23%	10.47%	11.66%
31	3.75%	7.50%	6.42%	6.42%	7.51%	5.29%	10.58%	11.66%
32	3.83%	7.66%	6.55%	6.55%	7.51%	5.38%	10.77%	11.66%
33	3.91%	7.81%	6.69%	6.69%	7.51%	5.48%	10.96%	11.66%
34	3.98%	7.96%	6.82%	6.82%	7.51%	5.58%	11.16%	11.66%
35	4.06%	8.12%	6.96%	6.96%	7.51%	5.69%	11.37%	11.66%
36	4.14%	8.28%	7.10%	7.10%	7.51%	5.79%	11.59%	11.66%
37	4.22%	8.43%	7.25%	7.25%	7.51%	5.90%	11.80%	11.66%
38	4.30%	8.59%	7.39%	7.39%	7.51%	6.01%	12.02%	11.66%
39	4.38%	8.75%	7.54%	7.54%	7.51%	6.12%	12.24%	11.66%
40	4.46%	8.91%	7.69%	7.69%	7.51%	6.23%	12.47%	11.66%
41	4.54%	9.08%	7.83%	7.83%	7.51%	6.35%	12.69%	11.66%
42	4.62%	9.24%	7.98%	7.98%	7.51%	6.45%	12.90%	11.66%
43	4.70%	9.41%	8.13%	8.13%	7.51%	6.55%	13.10%	11.66%
44	4.78%	9.57%	8.28%	8.28%	7.51%	6.64%	13.28%	11.66%
45	4.86%	9.73%	8.44%	8.44%	7.51%	6.70%	13.40%	11.66%
46	4.94%	9.88%	8.59%	8.59%	7.51%	6.70%	13.41%	11.66%
47	5.01%	10.03%	8.75%	8.75%	7.51%	6.70%	13.41%	11.66%
48	5.07%	10.15%	8.91%	8.91%	7.51%	6.70%	13.41%	11.66%
49	5.12%	10.24%	9.06%	9.06%	7.51%	6.70%	13.41%	11.66%
50	5.15%	10.29%	9.21%	9.21%	7.51%	6.70%	13.41%	11.66%
51	5.16%	10.32%	9.36%	9.36%	7.51%	6.70%	13.41%	11.66%
52	5.16%	10.32%	9.49%	9.49%	7.51%	6.70%	13.41%	11.66%
53	5.16%	10.32%	9.61%	9.61%	7.51%	6.70%	13.41%	11.66%
54	5.16%	10.32%	9.69%	9.69%	7.51%	6.70%	13.41%	11.66%
55	5.16%	10.32%	9.74%	9.74%	7.51%	6.70%	13.41%	11.66%
56	5.16%	10.32%	9.76%	9.76%	7.51%	6.70%	13.41%	11.66%
57	5.16%	10.32%	9.76%	9.76%	7.51%	6.70%	13.41%	11.66%
58	5.16%	10.32%	9.76%	9.76%	7.51%	6.70%	13.41%	11.66%
59	5.16%	10.32%	9.76%	9.76%	7.51%	6.70%	13.41%	11.66%
60	5.16%	10.32%	9.76%	9.76%	7.51%	6.70%	13.41%	11.66%

Exhibit D-2
Normal Plus Cost-of-Living Member Contribution Rates

Entry Age	General					Safety		
	Plan A	Plan B	Plan C	Plan D	Plan G	Plan A	Plan B	Plan C
16	5.06%	7.02%	6.02%	6.04%	9.28%	8.37%	11.93%	14.97%
17	5.17%	7.16%	6.13%	6.15%	9.28%	8.37%	11.93%	14.97%
18	5.28%	7.30%	6.26%	6.28%	9.28%	8.37%	11.93%	14.97%
19	5.37%	7.45%	6.39%	6.41%	9.28%	8.52%	12.13%	14.97%
20	5.48%	7.60%	6.51%	6.53%	9.28%	8.57%	12.22%	14.97%
21	5.59%	7.76%	6.65%	6.67%	9.28%	8.63%	12.30%	14.97%
22	5.70%	7.91%	6.78%	6.80%	9.28%	8.78%	12.52%	14.97%
23	5.83%	8.06%	6.92%	6.94%	9.28%	8.93%	12.73%	14.97%
24	5.94%	8.22%	7.05%	7.08%	9.28%	9.08%	12.94%	14.97%
25	6.06%	8.39%	7.19%	7.22%	9.28%	9.15%	13.04%	14.97%
26	6.17%	8.56%	7.34%	7.37%	9.28%	9.21%	13.13%	14.97%
27	6.30%	8.73%	7.48%	7.51%	9.28%	9.36%	13.36%	14.97%
28	6.43%	8.90%	7.63%	7.66%	9.28%	9.53%	13.58%	14.97%
29	6.55%	9.09%	7.79%	7.81%	9.28%	9.69%	13.82%	14.97%
30	6.70%	9.27%	7.95%	7.98%	9.28%	9.79%	13.97%	14.97%
31	6.83%	9.46%	8.10%	8.13%	9.28%	9.90%	14.12%	14.97%
32	6.97%	9.66%	8.27%	8.29%	9.28%	10.07%	14.37%	14.97%
33	7.12%	9.85%	8.44%	8.47%	9.28%	10.26%	14.62%	14.97%
34	7.25%	10.04%	8.61%	8.63%	9.28%	10.44%	14.89%	14.97%
35	7.39%	10.24%	8.78%	8.81%	9.28%	10.65%	15.17%	14.97%
36	7.54%	10.44%	8.96%	8.99%	9.28%	10.84%	15.46%	14.97%
37	7.68%	10.63%	9.15%	9.18%	9.28%	11.04%	15.74%	14.97%
38	7.83%	10.83%	9.33%	9.36%	9.28%	11.25%	16.04%	14.97%
39	7.98%	11.03%	9.51%	9.54%	9.28%	11.45%	16.33%	14.97%
40	8.12%	11.24%	9.70%	9.73%	9.28%	11.66%	16.64%	14.97%
41	8.27%	11.45%	9.88%	9.91%	9.28%	11.88%	16.93%	14.97%
42	8.41%	11.65%	10.07%	10.10%	9.28%	12.07%	17.21%	14.97%
43	8.56%	11.87%	10.26%	10.29%	9.28%	12.26%	17.48%	14.97%
44	8.70%	12.07%	10.45%	10.48%	9.28%	12.43%	17.72%	14.97%
45	8.85%	12.27%	10.65%	10.68%	9.28%	12.54%	17.88%	14.97%
46	8.99%	12.46%	10.84%	10.87%	9.28%	12.54%	17.89%	14.97%
47	9.12%	12.65%	11.04%	11.08%	9.28%	12.54%	17.89%	14.97%
48	9.23%	12.80%	11.24%	11.28%	9.28%	12.54%	17.89%	14.97%
49	9.32%	12.91%	11.43%	11.47%	9.28%	12.54%	17.89%	14.97%
50	9.38%	12.98%	11.62%	11.66%	9.28%	12.54%	17.89%	14.97%
51	9.40%	13.01%	11.81%	11.85%	9.28%	12.54%	17.89%	14.97%
52	9.40%	13.01%	11.98%	12.01%	9.28%	12.54%	17.89%	14.97%
53	9.40%	13.01%	12.13%	12.17%	9.28%	12.54%	17.89%	14.97%
54	9.40%	13.01%	12.23%	12.27%	9.28%	12.54%	17.89%	14.97%
55	9.40%	13.01%	12.29%	12.33%	9.28%	12.54%	17.89%	14.97%
56	9.40%	13.01%	12.32%	12.36%	9.28%	12.54%	17.89%	14.97%
57	9.40%	13.01%	12.32%	12.36%	9.28%	12.54%	17.89%	14.97%
58	9.40%	13.01%	12.32%	12.36%	9.28%	12.54%	17.89%	14.97%
59	9.40%	13.01%	12.32%	12.36%	9.28%	12.54%	17.89%	14.97%
60	9.40%	13.01%	12.32%	12.36%	9.28%	12.54%	17.89%	14.97%

Appendix E Historical Information

This section presents historical statistical information on LACERA's membership and the calculated contribution rates.

**Exhibit E-1
 Active Membership Data**

General Members						Safety Members					Total Members				
Valuation Date (June 30)	Annual Salary (in millions)	Average Age	Average Service	Average Monthly Salary	Number	Annual Salary (in millions)	Average Age	Average Service	Average Monthly Salary	Number	Annual Salary (in millions)	Average Age	Average Service	Average Monthly Salary	
1998	\$ 2,837	44.7	12.9	\$ 3,594	65,782	\$ 725	39.9	13.8	\$ 5,519	10,947	\$ 3,562	44.0	13.0	\$ 3,870	
1999	\$ 3,105	44.6	12.7	\$ 3,769	68,652	\$ 753	40.0	13.7	\$ 5,696	11,024	\$ 3,858	43.9	12.8	\$ 4,035	
2000	\$ 3,353	44.4	12.5	\$ 3,884	71,940	\$ 790	39.8	13.8	\$ 5,849	11,264	\$ 4,143	43.8	12.6	\$ 4,150	
2001	\$ 3,608	44.5	12.3	\$ 4,006	75,048	\$ 860	39.6	13.0	\$ 5,967	12,021	\$ 4,468	43.9	12.4	\$ 4,277	
2002	\$ 3,833	44.7	12.3	\$ 4,145	77,062	\$ 894	39.6	13.8	\$ 6,115	12,190	\$ 4,727	44.0	12.5	\$ 4,414	
2003	\$ 3,954	45.2	12.7	\$ 4,336	75,995	\$ 899	40.1	13.7	\$ 6,370	11,765	\$ 4,853	44.5	12.9	\$ 4,609	
2004	\$ 3,967	45.6	13.1	\$ 4,418	74,826	\$ 885	40.6	14.7	\$ 6,467	11,409	\$ 4,852	44.9	13.3	\$ 4,689	
2005	\$ 4,046	45.8	13.2	\$ 4,486	75,167	\$ 905	41.0	14.9	\$ 6,722	11,217	\$ 4,951	45.2	13.4	\$ 4,777	
2006	\$ 4,267	45.7	13.0	\$ 4,608	77,167	\$ 969	41.2	15.0	\$ 7,047	11,464	\$ 5,236	45.1	13.3	\$ 4,924	
2007	\$ 4,673	45.7	12.8	\$ 4,878	79,829	\$ 1,104	40.8	14.4	\$ 7,499	12,267	\$ 5,777	45.1	13.0	\$ 5,227	
2008	\$ 5,017	45.8	12.8	\$ 5,119	81,664	\$ 1,187	40.5	13.7	\$ 7,714	12,828	\$ 6,204	45.1	12.9	\$ 5,471	
2009	\$ 5,348	46.1	13.1	\$ 5,377	82,878	\$ 1,240	40.8	14.0	\$ 8,002	12,910	\$ 6,588	45.4	13.2	\$ 5,731	
2010	\$ 5,318	46.6	13.6	\$ 5,444	81,413	\$ 1,257	41.3	14.5	\$ 8,062	12,997	\$ 6,575	45.9	13.7	\$ 5,804	
2011	\$ 5,295	47.0	14.0	\$ 5,506	80,145	\$ 1,240	41.9	15.1	\$ 8,172	12,641	\$ 6,535	46.3	14.2	\$ 5,869	
2012	\$ 5,272	47.3	14.4	\$ 5,528	79,467	\$ 1,230	42.3	15.5	\$ 8,209	12,485	\$ 6,502	46.7	14.6	\$ 5,892	
2013	\$ 5,253	47.6	14.8	\$ 5,541	79,006	\$ 1,235	42.3	15.7	\$ 8,207	12,539	\$ 6,488	46.9	14.9	\$ 5,906	
2014	\$ 5,488	47.6	14.9	\$ 5,720	79,943	\$ 1,253	42.6	15.8	\$ 8,337	12,523	\$ 6,741	47.0	15.0	\$ 6,075	
2015	\$ 5,706	47.6	14.8	\$ 5,854	81,228	\$ 1,300	42.8	16.0	\$ 8,702	12,446	\$ 7,006	46.9	15.0	\$ 6,233	
2016	\$ 5,950	47.4	14.6	\$ 5,980	82,916	\$ 1,343	42.8	16.0	\$ 8,931	12,528	\$ 7,293	46.8	14.8	\$ 6,367	
2017	\$ 6,290	47.3	14.5	\$ 6,202	84,513	\$ 1,388	42.5	15.6	\$ 9,110	12,698	\$ 7,678	46.7	14.6	\$ 6,582	
2018	\$ 6,610	47.2	14.4	\$ 6,428	85,703	\$ 1,452	42.2	15.3	\$ 9,471	12,771	\$ 8,062	46.6	14.5	\$ 6,822	
2019	\$ 6,816	47.3	14.4	\$ 6,574	86,392	\$ 1,540	42.0	15.1	\$ 10,032	12,794	\$ 8,356	46.6	14.5	\$ 7,020	
2020	\$ 7,186	47.3	14.4	\$ 6,889	86,930	\$ 1,591	41.4	14.4	\$ 10,058	13,178	\$ 8,777	46.5	14.4	\$ 7,306	
2021	\$ 7,438	47.5	14.6	\$ 7,210	85,963	\$ 1,651	41.4	14.2	\$ 10,471	13,138	\$ 9,088	46.7	14.5	\$ 7,642	
2022	\$ 7,335	47.6	14.7	\$ 7,304	83,689	\$ 1,627	41.6	14.3	\$ 10,551	12,850	\$ 8,962	46.8	14.7	\$ 7,736	
2023	\$ 7,843	47.6	14.6	\$ 7,753	84,295	\$ 1,683	41.7	14.3	\$ 11,125	12,610	\$ 9,526	46.9	14.6	\$ 8,192	

**Exhibit E-2
 Retired Membership Data**

General Members					Safety Members				Total Members			
Valuation Date (June 30)	Number	Annual Allowance (in millions)	Average Age	Average Monthly Benefit	Number	Annual Allowance (in millions)	Average Age	Average Monthly Benefit	Number	Annual Allowance (in millions)	Average Age	Average Monthly Benefit
1998	35,462	\$ 692	71.1	\$ 1,626	7,425	\$ 267	62.5	\$ 3,001	42,887	\$ 959	69.6	\$ 1,864
1999	35,837	\$ 725	71.4	\$ 1,686	7,674	\$ 291	63.1	\$ 3,166	43,511	\$ 1,016	70.0	\$ 1,947
2000	36,596	\$ 780	71.4	\$ 1,778	8,032	\$ 324	63.1	\$ 3,358	44,628	\$ 1,104	69.9	\$ 2,062
2001	37,077	\$ 890	71.6	\$ 2,001	8,319	\$ 382	63.4	\$ 3,828	45,396	\$ 1,272	70.1	\$ 2,336
2002	37,618	\$ 914	71.8	\$ 2,025	8,624	\$ 403	63.7	\$ 3,892	46,242	\$ 1,317	70.3	\$ 2,374
2003	38,283	\$ 984	71.9	\$ 2,142	8,949	\$ 443	63.9	\$ 4,128	47,232	\$ 1,427	70.4	\$ 2,518
2004	39,097	\$ 1,056	72.0	\$ 2,250	9,235	\$ 478	64.2	\$ 4,318	48,332	\$ 1,534	70.5	\$ 2,645
2005	40,251	\$ 1,138	72.1	\$ 2,355	9,518	\$ 514	64.6	\$ 4,504	49,769	\$ 1,652	70.7	\$ 2,766
2006	41,309	\$ 1,224	72.2	\$ 2,469	9,683	\$ 549	65.0	\$ 4,728	50,992	\$ 1,773	70.8	\$ 2,898
2007	41,584	\$ 1,280	72.2	\$ 2,565	9,808	\$ 578	65.4	\$ 4,914	51,392	\$ 1,858	70.9	\$ 3,013
2008	42,298	\$ 1,356	72.4	\$ 2,671	10,052	\$ 623	65.8	\$ 5,167	52,350	\$ 1,979	71.1	\$ 3,150
2009	42,825	\$ 1,423	72.6	\$ 2,768	10,244	\$ 663	66.3	\$ 5,394	53,069	\$ 2,086	71.4	\$ 3,275
2010	43,752	\$ 1,514	72.7	\$ 2,883	10,444	\$ 706	66.7	\$ 5,638	54,196	\$ 2,220	71.6	\$ 3,414
2011	44,726	\$ 1,597	72.9	\$ 2,976	10,645	\$ 746	67.0	\$ 5,836	55,371	\$ 2,343	71.7	\$ 3,526
2012	45,899	\$ 1,686	73.0	\$ 3,061	10,871	\$ 789	67.3	\$ 6,049	56,770	\$ 2,475	71.9	\$ 3,633
2013	46,939	\$ 1,774	73.2	\$ 3,149	11,147	\$ 837	67.5	\$ 6,261	58,086	\$ 2,611	72.1	\$ 3,746
2014	47,867	\$ 1,836	73.4	\$ 3,196	11,362	\$ 876	67.8	\$ 6,427	59,229	\$ 2,712	72.3	\$ 3,816
2015	48,958	\$ 1,898	73.5	\$ 3,231	11,648	\$ 914	68.0	\$ 6,541	60,606	\$ 2,813	72.5	\$ 3,867
2016	50,034	\$ 1,988	73.6	\$ 3,311	11,880	\$ 965	68.3	\$ 6,766	61,914	\$ 2,952	72.6	\$ 3,974
2017	51,083	\$ 2,079	73.8	\$ 3,391	12,241	\$ 1,030	68.4	\$ 7,012	63,324	\$ 3,109	72.7	\$ 4,091
2018	52,292	\$ 2,192	73.9	\$ 3,493	12,588	\$ 1,104	68.5	\$ 7,308	64,880	\$ 3,296	72.8	\$ 4,233
2019	53,560	\$ 2,316	73.9	\$ 3,603	12,947	\$ 1,184	68.6	\$ 7,620	66,507	\$ 3,500	72.9	\$ 4,385
2020	54,693	\$ 2,436	74.0	\$ 3,712	13,319	\$ 1,270	68.8	\$ 7,946	68,012	\$ 3,706	73.0	\$ 4,541
2021	55,828	\$ 2,552	74.1	\$ 3,809	13,669	\$ 1,350	68.8	\$ 8,228	69,497	\$ 3,902	73.0	\$ 4,679
2022	57,606	\$ 2,716	74.0	\$ 3,928	13,965	\$ 1,434	68.9	\$ 8,560	71,571	\$ 4,150	73.0	\$ 4,832
2023	58,745	\$ 2,848	74.1	\$ 4,040	14,263	\$ 1,520	69.0	\$ 8,883	73,008	\$ 4,368	73.1	\$ 4,986

**Exhibit E-3
 Contribution Rates**

General Plans						Safety Plans					Total All Plans				
Valuation Date (June 30)	Calculated Normal Cost	Member Contributions	Net Employer Normal Cost	UAAL Rate	Total Employer Contribution	Calculated Normal Cost	Member Contributions	Net Employer Normal Cost	UAAL Rate	Total Employer Contribution	Calculated Normal Cost	Member Contributions	Net Employer Normal Cost	UAAL Rate	Total Employer Contribution
1998	10.27%	3.06%	7.21%	0.00%	7.21%	25.00%	8.70%	16.30%	0.00%	16.30%	13.27%	4.21%	9.06%	0.00%	9.06%
1999	10.98%	3.20%	7.78%	0.00%	7.78%	25.41%	9.12%	16.29%	0.00%	16.29%	13.81%	4.36%	9.45%	0.00%	9.45%
2000	10.91%	3.33%	7.58%	0.00%	7.58%	25.22%	9.44%	15.78%	0.00%	15.78%	13.66%	4.51%	9.15%	0.00%	9.15%
2001	11.27%	3.45%	7.82%	0.00%	7.82%	25.47%	9.27%	16.20%	0.00%	16.20%	14.01%	4.57%	9.44%	0.00%	9.44%
2002	12.04%	3.53%	8.51%	0.21%	8.72%	25.92%	9.37%	16.55%	0.21%	16.76%	14.66%	4.63%	10.03%	0.21%	10.24%
2003	12.25%	3.72%	8.53%	4.66%	13.19%	25.89%	9.55%	16.34%	4.66%	21.00%	14.80%	4.81%	9.99%	4.66%	14.65%
2004	12.20%	3.82%	8.38%	6.41%	14.79%	24.61%	9.61%	15.00%	6.41%	21.41%	14.48%	4.88%	9.60%	6.41%	16.01%
2005	12.22%	3.91%	8.31%	5.33%	13.64%	24.69%	9.68%	15.01%	5.33%	20.34%	14.50%	4.97%	9.53%	5.33%	14.86%
2006	12.22%	4.07%	8.15%	3.49%	11.64%	24.70%	9.70%	15.00%	3.49%	18.49%	14.54%	5.12%	9.42%	3.49%	12.91%
2007	13.15%	4.38%	8.77%	2.24%	11.01%	26.04%	10.18%	15.86%	2.24%	18.10%	15.67%	5.51%	10.16%	2.24%	12.40%
2008	13.18%	4.47%	8.71%	1.99%	10.70%	26.01%	10.22%	15.79%	1.99%	17.78%	15.68%	5.59%	10.09%	1.99%	12.08%
2009	13.29%	4.57%	8.72%	4.12%	12.84%	26.08%	10.21%	15.87%	4.12%	19.99%	15.75%	5.65%	10.10%	4.12%	14.22%
2010	13.32%	4.68%	8.64%	6.47%	15.11%	25.00%	10.19%	14.81%	6.47%	21.28%	15.59%	5.75%	9.84%	6.47%	16.31%
2011	13.36%	4.91%	8.45%	7.89%	16.34%	25.09%	10.50%	14.59%	7.89%	22.48%	15.65%	6.00%	9.65%	7.89%	17.54%
2012	13.50%	5.01%	8.49%	10.09%	18.58%	25.42%	10.52%	14.90%	10.09%	24.99%	15.81%	6.08%	9.73%	10.09%	19.82%
2013	13.25%	5.01%	8.24%	11.90%	20.14%	24.67%	10.26%	14.41%	11.90%	26.31%	15.47%	6.03%	9.44%	11.90%	21.34%
2014	13.14%	5.09%	8.05%	10.04%	18.09%	24.71%	10.23%	14.48%	10.04%	24.52%	15.37%	6.08%	9.29%	10.04%	19.33%
2015	13.28%	5.22%	8.06%	8.49%	16.55%	24.71%	10.26%	14.45%	8.49%	22.94%	15.46%	6.18%	9.28%	8.49%	17.77%
2016	14.51%	5.72%	8.79%	9.73%	18.52%	25.54%	10.57%	14.97%	9.73%	24.70%	16.62%	6.65%	9.97%	9.73%	19.70%
2017	14.62%	5.87%	8.75%	10.10%	18.85%	25.69%	10.56%	15.13%	10.10%	25.23%	16.70%	6.76%	9.94%	10.10%	20.04%
2018	14.77%	6.04%	8.73%	10.99%	19.72%	25.70%	10.59%	15.11%	10.99%	26.10%	16.80%	6.88%	9.92%	10.99%	20.91%
2019	16.24%	6.74%	9.50%	11.73%	21.23%	28.58%	11.78%	16.80%	11.73%	28.53%	18.54%	7.68%	10.86%	11.73%	22.59%
2020	16.31%	6.86%	9.45%	13.75%	23.20%	28.95%	11.88%	17.07%	13.75%	30.82%	18.69%	7.80%	10.89%	13.75%	24.64%
2021	16.35%	6.94%	9.41%	13.58%	22.99%	29.09%	11.88%	17.21%	13.58%	30.79%	18.75%	7.87%	10.88%	13.58%	24.46%
2022	16.85%	7.23%	9.62%	14.72%	24.34%	29.97%	12.45%	17.52%	14.72%	32.24%	19.33%	8.21%	11.12%	14.72%	25.84%
2023	16.95%	7.37%	9.58%	14.87%	24.45%	30.14%	12.84%	17.30%	14.87%	32.17%	19.38%	8.37%	11.01%	14.87%	25.88%

**Exhibit E-4
Funded Status History**

Valuation Year	Actuarial Accrued Liability (AAL)	Fair Value Basis			Actuarial Value Basis			Annual Total Payroll	Asset Smoothing Ratio (AVA / FVA)	Asset Volatility Ratio (FVA / Payroll)	Liability Volatility Ratio (AAL / Payroll)
		Fair Value of Assets (FVA) ¹	Unfunded AAL (UAAL)/Surplus FVA Basis	Funded Ratio FVA Basis	Actuarial Value of Assets (AVA) ¹	Unfunded AAL (UAAL)/Surplus AVA Basis	Funded Ratio AVA Basis				
1996 ²	17,300	18,600	1,300	107.5%	17,700	400	102.3%	3,356	95.2%	5.5	5.2
1997 ²	19,300	21,100	1,800	109.3%	19,600	300	101.6%	3,373	92.9%	6.3	5.7
1998	20,960	22,332	1,372	106.5%	20,851	(109)	99.5%	3,562	93.4%	6.3	5.9
1999	22,785	24,382	1,597	107.0%	23,536	751	103.3%	3,858	96.5%	6.3	5.9
2000	24,721	27,257	2,536	110.3%	25,427	706	102.9%	4,143	93.3%	6.6	6.0
2001	26,490	23,916	(2,574)	90.3%	26,490	-	100.0%	4,469	110.8%	5.4	5.9
2002	28,437	24,085	(4,352)	84.7%	28,262	(175)	99.4%	4,730	117.3%	5.1	6.0
2003	30,474	24,616	(5,858)	80.8%	26,564	(3,910)	87.2%	4,934	107.9%	5.0	6.2
2004	32,700	28,094	(4,606)	85.9%	27,089	(5,611)	82.8%	4,942	96.4%	5.7	6.6
2005	34,375	30,904	(3,471)	89.9%	29,497	(4,878)	85.8%	5,051	95.4%	6.1	6.8
2006	36,259	34,256	(2,003)	94.5%	32,820	(3,439)	90.5%	5,333	95.8%	6.4	6.8
2007	39,503	40,073	570	101.4%	37,042	(2,461)	93.8%	5,886	92.4%	6.8	6.7
2008	41,975	37,834	(4,141)	90.1%	39,662	(2,313)	94.5%	6,257	104.8%	6.0	6.7
2009	44,469	29,723	(14,746)	66.8%	39,542	(4,927)	88.9%	6,673	133.0%	4.5	6.7
2010	46,646	32,629	(14,017)	69.9%	38,839	(7,807)	83.3%	6,739	119.0%	4.8	6.9
2011	48,599	38,587	(10,012)	79.4%	39,194	(9,405)	80.6%	6,705	101.6%	5.8	7.2
2012	50,809	37,453	(13,356)	73.7%	39,039	(11,770)	76.8%	6,675	104.2%	5.6	7.6
2013	53,247	41,334	(11,913)	77.6%	39,932	(13,315)	75.0%	6,656	96.6%	6.2	8.0
2014	54,942	47,223	(7,719)	86.0%	43,654	(11,288)	79.5%	6,815	92.4%	6.9	8.1
2015	56,819	48,308	(8,511)	85.0%	47,328	(9,491)	83.3%	7,078	98.0%	6.8	8.0
2016	62,199	47,347	(14,852)	76.1%	49,358	(12,841)	79.4%	7,390	104.2%	6.4	8.4
2017	65,311	52,217	(13,094)	80.0%	52,166	(13,145)	79.9%	7,749	99.9%	6.7	8.4
2018	68,527	55,737	(12,790)	81.3%	55,233	(13,294)	80.6%	8,079	99.1%	6.9	8.5
2019	74,635	57,712	(16,923)	77.3%	57,617	(17,018)	77.2%	8,423	99.8%	6.9	8.9
2020	78,275	57,925	(20,350)	74.0%	59,763	(18,512)	76.3%	8,819	103.2%	6.6	8.9
2021	81,898	72,282	(9,616)	88.3%	64,909	(16,989)	79.3%	9,080	89.8%	8.0	9.0
2022	86,320	68,973	(17,347)	79.9%	68,712	(17,608)	79.6%	9,048	99.6%	7.6	9.5
2023	90,651	72,502	(18,149)	80.0%	72,415	(18,236)	79.9%	9,548	99.9%	7.6	9.5

1. Asset values exclude non-valuation reserves.
2. Only rounded values are available.

Exhibit E-5
Reconciliation of Changes in Unfunded Actuarial Accrued Liability or Surplus

Valuation Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Prior Year UAAL	11,770	13,315	11,288	9,491	12,841	13,145	13,294	17,018	18,512	16,989	17,608
Normal Cost	1,430	1,163	1,068	1,118	1,246	1,243	1,352	1,553	1,634	1,681	1,743
Contributions	(1,455)	(1,824)	(1,936)	(1,902)	(1,880)	(2,116)	(2,303)	(2,459)	(2,774)	(2,959)	(3,095)
Interest	895	999	814	682	954	968	976	1,212	1,311	1,202	1,244
Changes in Assumptions/Methodology	511	-	-	2,922	-	-	2,528	-	-	1,364	-
Changes in Benefit Provisions	-	-	-	-	-	-	-	-	-	-	-
Expected Current Year UAAL	13,151	13,653	11,234	12,311	13,161	13,240	15,847	17,324	18,683	18,277	17,500
Actual Current Year UAAL	13,315	11,288	9,491	12,841	13,145	13,294	17,018	18,512	16,989	17,608	18,236
Total (Gain)/Loss on UAAL	164	(2,365)	(1,743)	530	(16)	54	1,171	1,188	(1,694)	(669)	736
Asset (Gains)/Losses	893	(1,664)	(1,263)	496	(421)	(411)	477	701	(2,039)	(996)	(118)
Salary Increases	(563)	(291)	79	162	277	223	486	388	484	(21)	771
All Other Actuarial (Gains)/Losses	(166)	(410)	(559)	(128)	128	242	208	99	(139)	348	83

Exhibit E-6
Reconciliation of Changes in Calculated Employer Contribution Rate

Valuation Year	Prior Year Contribution Rate	Changes in Existing Amortization Bases	Assumption/ Method Changes	Salary/Payroll Variations	Plan Amendments	Asset (Gains)/Losses	Demographic/Other (Gains)/Losses	Current Year Contribution Rate
2004	14.65%	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	16.01%
2005	16.01%	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	14.86%
2006	14.86%	-0.29%	0.00%	0.02%	0.00%	-1.82%	0.14%	12.91%
2007	12.91%	-0.28%	1.34%	0.61%	0.00%	-2.14%	-0.04%	12.40%
2008	12.40%	-0.17%	0.00%	0.21%	0.00%	-0.24%	-0.12%	12.08%
2009	12.08%	-0.04%	-1.76%	0.21%	0.00%	3.91%	-0.18%	14.22%
2010	14.22%	0.00%	-0.27%	-0.10%	0.00%	2.29%	0.17%	16.31%
2011	16.31%	0.00%	0.25%	-0.14%	0.00%	1.39%	-0.27%	17.54%
2012	17.54%	0.00%	0.54%	-0.11%	0.00%	1.92%	-0.07%	19.82%
2013	19.82%	0.00%	0.82%	-0.01%	0.00%	0.74%	-0.03%	21.34%
2014	21.34%	0.00%	0.00%	-0.15%	0.00%	-1.43%	-0.43%	19.33%
2015	19.33%	0.00%	0.00%	0.04%	0.00%	-1.04%	-0.56%	17.77%
2016	17.77%	0.00%	2.87%	0.20%	0.00%	0.39%	-0.02%	21.21%
2017	21.21%	0.00%	0.00%	0.05%	0.00%	-0.32%	0.06%	21.00%
2018	21.00%	0.00%	0.00%	0.04%	0.00%	-0.30%	0.17%	20.91%
2019	20.91%	0.00%	1.10%	0.20%	0.00%	0.42%	-0.04%	22.59%
2020	22.59%	0.00%	1.09%	0.04%	0.00%	0.58%	0.34%	24.64%
2021	24.64%	0.00%	1.10%	0.39%	0.00%	-1.69%	0.02%	24.46%
2022	24.46%	0.00%	1.38%	0.49%	0.00%	-0.80%	0.31%	25.84%
2023	25.84%	0.00%	0.00%	0.26%	0.00%	-0.09%	-0.13%	25.88%

1. Data not available.

**Exhibit E-7
 Funding Policy History**

	Description of changes, if any	Effective Date	Impact on Contribution Rate	Impact on Funded Ratio	Rationale
2009	Changed from 3-year to 5-year asset smoothing. Included STAR reserve as a valuation asset. Adopted 30-year layered amortization period.	June 30, 2009	-1.68% ¹	4.40%	See June 30, 2009 valuation report.
2010	Included STAR reserve as a valuation asset.	June 30, 2010	-0.52% ¹	1.40%	See June 30, 2010 valuation report.
2011	Included STAR reserve as a valuation asset.	June 30, 2011	-0.52% ¹	1.20%	See June 30, 2011 valuation report.
2012	Included STAR reserve as a valuation asset for 2012 and future valuations (adopted February 2013).	June 30, 2012	-0.53% ¹	1.20%	See June 30, 2012 valuation report.
2019	Adopted 20-year layered amortization period for new layers. Existing layers are set to be no greater than 22 years, so they are fully amortized no later than 2042.	June 30, 2019	0.30%	0.00%	See June 30, 2019 valuation report.
2022	Excluded STAR reserve from valuation assets.	June 30, 2022	0.46%	-0.70%	See June 30, 2022 valuation report.

1. Note that savings due to inclusion of STAR reserve as valuation asset are not cumulative from year to year.

Exhibit E-8
History of Changes in Economic Assumptions

Valuation Year	Price Inflation	Wage Inflation	Real Wage Inflation ¹	Investment Return Assumption	Real Investment Return ²	Effective Date	Change in Contribution Rate	Change in Funded Ratio
2004	3.50%	3.75%	0.25%	7.75%	4.25%	July 1, 2004	1.65%	N/A ³
2007	3.50%	4.00%	0.50%	7.75%	4.25%	July 1, 2007	0.66%	-1.3%
2011	3.45%	3.95%	0.50%	7.70%	4.25%	July 1, 2011	0.25%	-0.3%
2012	3.35%	3.85%	0.50%	7.60%	4.25%	July 1, 2012	0.54%	-0.7%
2013	3.00%	3.50%	0.50%	7.50%	4.50%	July 1, 2013	0.37%	-0.1%
2016	2.75%	3.25%	0.50%	7.25%	4.50%	July 1, 2016	1.14%	-1.4%
2019	2.75%	3.25%	0.50%	7.00%	4.25%	July 1, 2019	2.20%	-2.3%

1. Excess of assumed wage inflation over price inflation.

2. Excess of assumed investment return over price inflation.

3. Information not available.

Exhibit E-9 History of Changes in Demographic and Other Non-Economic Assumptions

	Demographic Assumption Revisions	Effective Date	Change in Contribution Rate	Change in Funded Ratio	Rationale
2004	Mortality, merit salary scale, retirement, termination, probability of refund, probability of eligible survivor revised.	July 1, 2004	-0.63%	N/A ¹	Refer to the 2004 Investigation of Experience Report.
2007	Mortality, retirement, termination, probability of refund, merit salary scale for Safety members revised.	July 1, 2007	0.68%	N/A ¹	Refer to the 2007 Investigation of Experience Report.
2010	Mortality, retirement, termination, probability of refund, assumed benefit commencement age revised.	July 1, 2010	-0.27%	-0.1%	Refer to the 2010 Investigation of Experience Report.
2013	Mortality, retirement, termination, probability of refund, merit salary scale for Safety members, probability of eligible survivor, assumption for beneficiary age, reciprocity assumption revised.	July 1, 2013	0.45%	-0.6%	Refer to the 2013 Investigation of Experience Report.
2016	Mortality, retirement, termination, probability of eligible survivor, assumed benefit commencement age, reciprocity assumption revised.	July 1, 2016	1.73%	-2.5%	Refer to the 2016 Investigation of Experience Report.
2019	Mortality, retirement, termination, probability of refund, merit salary scale, assumed benefit commencement age.	July 1, 2019	0.80%	-0.4%	2019 Investigation of Experience.
2022	Mortality, retirement, termination, probability of refund, merit salary scale, probability of eligible survivor, assumption for beneficiary age, reciprocity assumption revised.	July 1, 2022	0.92%	-0.7%	2022 Investigation of Experience.

1. Information not available.

Appendix F Glossary

The following definitions include excerpts from a list adopted by the major actuarial organizations in the United States. In some cases, the definitions have been modified for specific applicability to LACERA and include terms used exclusively by LACERA. Defined terms are capitalized throughout this Appendix.

Accrued Benefit

The amount of an individual's benefit (whether or not vested) as of a specific date, determined in accordance with the terms of a pension plan and based on compensation and service to that date.

Actuarial Accrued Liability

That portion, as determined by a particular Actuarial Cost Method, of the Actuarial Present Value of pension plan benefits and expenses which is not provided for by future Normal Costs.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disability, and retirement; changes in compensation; rates of investment earnings and asset appreciation or depreciation; procedures used to determine the Actuarial Value of Assets; and other relevant items.

Actuarial Gain (Loss)

A measure of the difference between actual experience and that expected based on a set of Actuarial Assumptions during the period between two Actuarial Valuation dates, as determined in accordance with a particular Actuarial Cost Method.

Actuarial Present Value

The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions.

Actuarial Valuation

The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a pension plan.

Actuarial Value of Assets

The value of cash, investments and other property belonging to a pension plan, as used by the actuary for the purpose of an Actuarial Valuation.

Actuarially Equivalent

Of equal Actuarial Present Value, determined as of a given date with each value based on the same set of Actuarial Assumptions.

Amortization Payment

That portion of the pension plan contribution which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.

Contingency Reserve

Reserves accumulated for future earning deficiencies, investment losses, and other contingencies. Additions include investment income and other revenues; deductions include investment expense, administrative expense, interest allocated to other reserves, funding the STAR Reserve, and distributions to the Contribution Credit Reserve. Amounts are allocated to the Contingency Reserve to the extent there are positive recognized earnings to allocate. The California Government Code (Sections 31592 and 31592.2) requires the Contingency Reserve to be set at a minimum of 1.0% of the fair value of total assets.

County Contribution Credit Reserve

The accumulated balance of the County's proportionate share of excess earnings as stipulated in the Retirement System Funding Agreement between LACERA and the County. Additions include distributions from excess earning during the fiscal years ending 1994 through 1998 and related earnings. Deductions include payments, as the County authorizes, for future employer contributions due LACERA and for funding a portion of the Retiree Healthcare Program under the provisions of Internal Revenue Code 401(h).

Employer Reserve

The accumulation of employer contributions for future retirement benefit payments. Additions include contributions from employers and related earnings. Deductions include annuity payments to retired members and survivors, lump sum death benefit payments to member survivors, and supplemental disability payments.

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 ages. 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.

Funded Ratio

A measurement of the funded status of the Plan. The Funded Ratio is calculated by dividing the Valuation Assets by the Actuarial Accrued Liability. For example, a Funded Ratio of 90% indicates assets are 10% less than liabilities.

Funding Goal

The Funding Goal is the funded status the Board of Investments would like LACERA to achieve. The main goal is to provide benefit security for its members as well as to achieve and maintain stable employer contributions that are as low as possible. A Funded Ratio equal to 100% is the Funding Goal.

Layered Amortization Period

Payment of each year's change in the Unfunded Actuarial Accrued Liability (UAAL) is amortized over separate closed periods. For LACERA, the original UAAL as of June 30, 2009 is being amortized over a closed 30-year period. Subsequent changes in the UAAL were amortized over new closed 30-year periods. Effective with the June 30, 2019 valuation all existing layers with more than 22 years remaining as of June 30, 2020 were re-amortized over closed 22-year periods. All new UAAL layers thereafter are amortized over closed 20-year periods beginning with the date the contribution is first expected to be made. All amortization payments are based on a level percent of pay.

Member Reserve

The accumulation of member contributions. Additions include member contributions and related earnings. Deductions include annuity payments to retirees and refunds to members.

Non-Valuation Reserves

Reserves excluded from the calculation of contribution rates, including the Contingency Reserve, the County Contribution Credit Reserve, and any other reserves specifically excluded by the Board of Investments.

Normal Cost

That portion of the Actuarial Present Value of pension plan benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method.

Plan Year

A 12-month period beginning July 1 and ending June 30.

Projected Benefits

Those pension plan benefit amounts which are expected to be paid at various future times under a particular set of Actuarial Assumptions, taking into account such items as the effect of advancement in age and past and anticipated future compensation and service credits.

STAR Reserve

Reserves accumulated for the payment of cost-of-living benefits as defined in California Government Code Section 31874.3.

Supplemental Targeted Adjustment for Retirees (STAR) Benefits Supplemental cost-of-living payments to retired members to restore purchasing power at a specified percentage level, as described in California Government Code Section 31874.3.

Surplus Funding

The excess, if any, of the Actuarial Value of Assets over the Actuarial Accrued Liability. Standard actuarial terminology defines this as the "Funding Excess." LACERA uses the term "Surplus Funding."

Unfunded Actuarial Accrued Liability

The excess, if any, of the Actuarial Accrued Liability over the Actuarial Value of Assets.

Valuation Date

The date upon which the Normal Cost, Actuarial Accrued Liability, and Actuarial Value of Assets are determined. Generally, the Valuation Date will coincide with the ending of a Plan Year.

Valuation Reserves

All reserves excluding the Non-Valuation Reserves

Attachment II

Milliman's December 13, 2023, Presentation Slides

Actuarial Projects Roadmap

Pension Plan

Annual Valuation Report

Milliman will discuss the actuarial valuation results including the valuation assets, liabilities, funded ratio, and adjustments to employer and member contribution rates.

December 2023

May 2024

June 2024

Risk Assessment Report

Milliman will present the 2024 Risk Assessment Report, prepared based on the 2023 Annual Valuation Report.

BOS Approval of New Contribution Rates

California State Law requires LACERA to transmit and the Los Angeles County Board of Supervisors to approve and implement the new contribution rates for the upcoming FY 2024-25.

LACERA

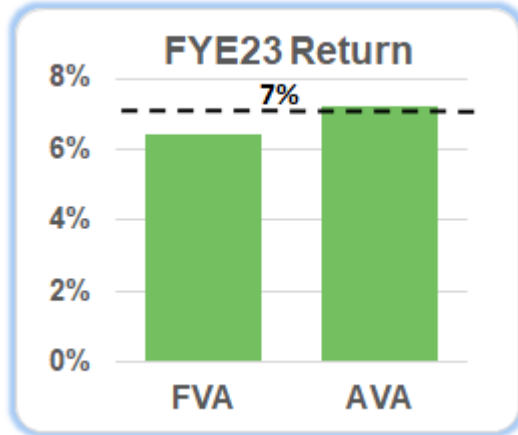
June 30, 2023 Actuarial Valuation of Retirement Benefits

Nick Collier and Craig Glyde

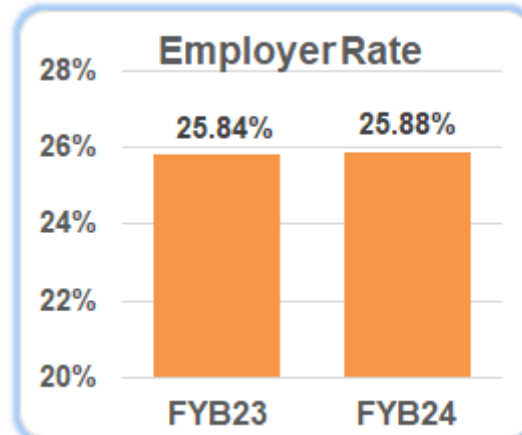
DECEMBER 13, 2023

Overview of Valuation Results

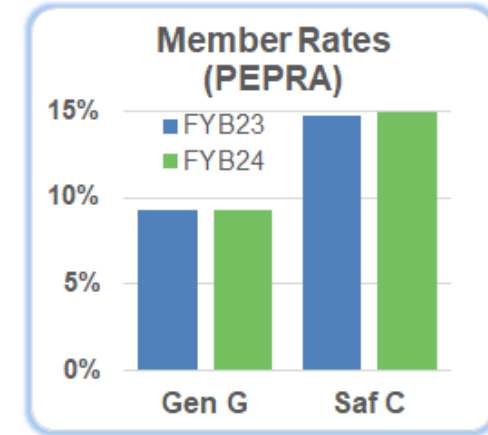
Investment Return roughly in line with expectations



Stable Employer Contribution Rates



Small Increases in Member Contribution Rates



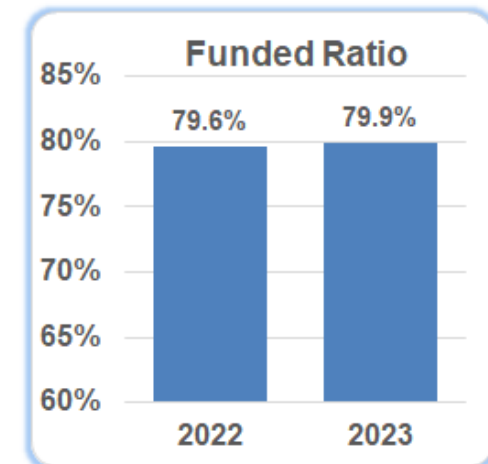
Valuation Assets Increased



Liability Increased

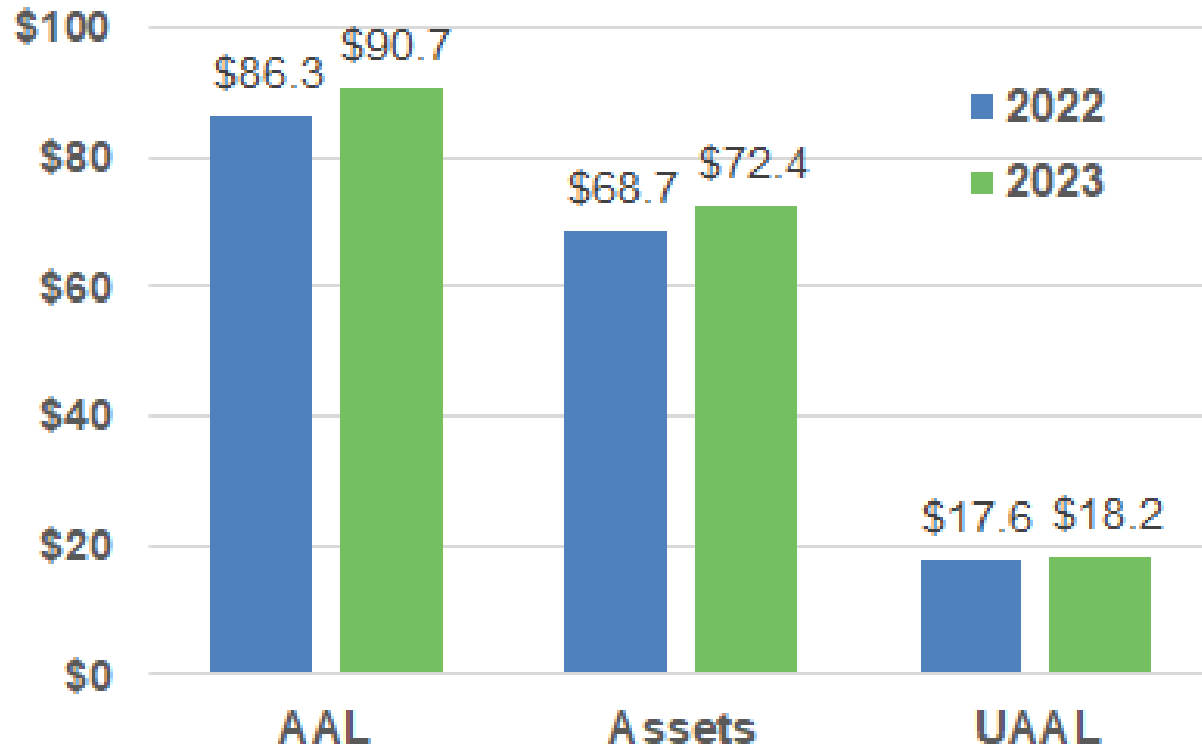


Stable Funded Ratio



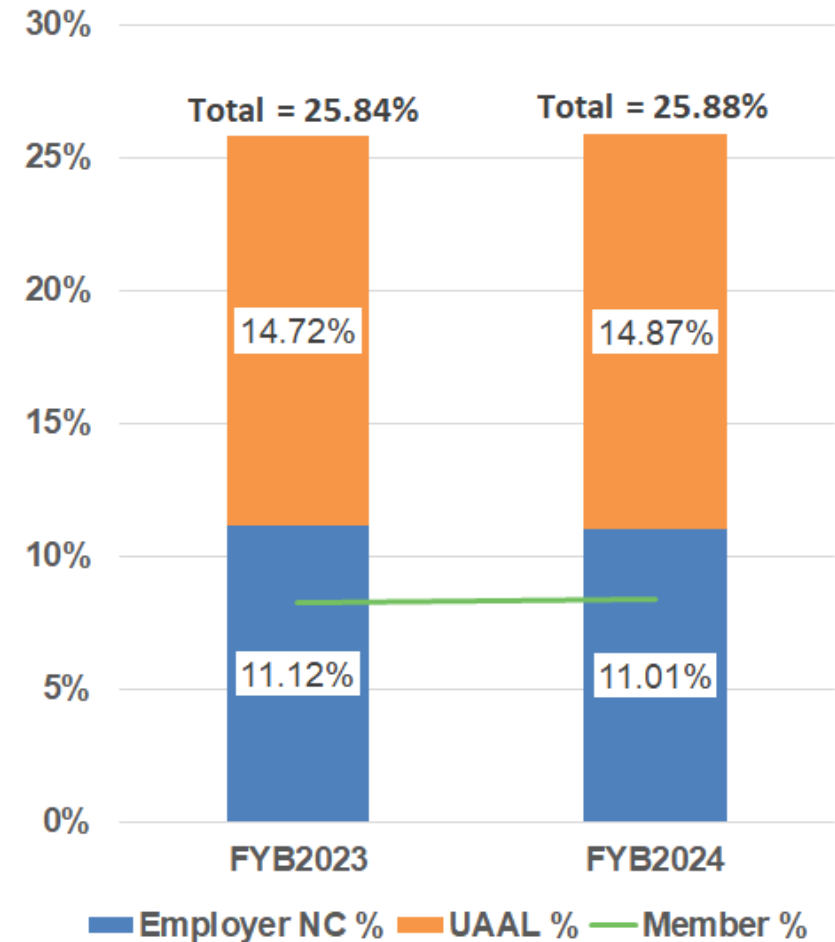
Summary of Results

Valuation Results in \$Billions



Funded Ratio increased from 79.6% to 79.9%

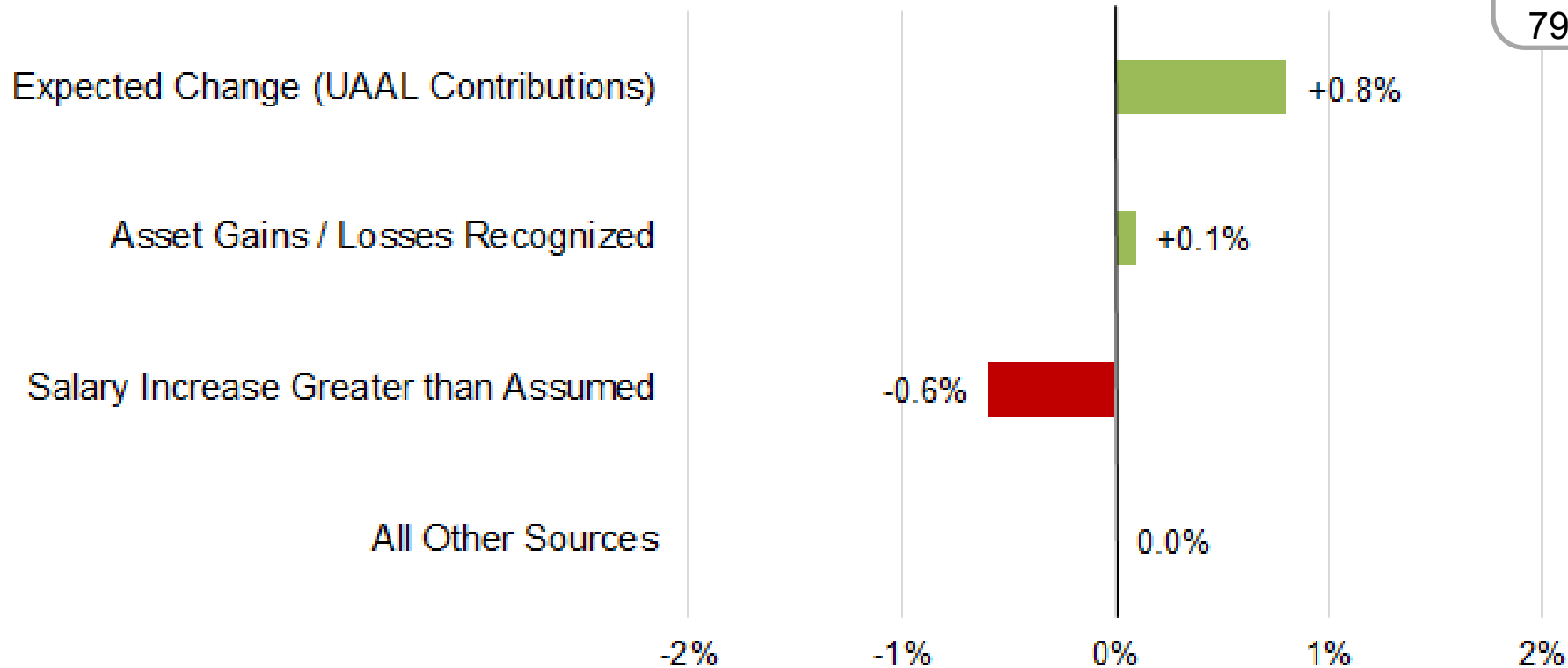
Employer Contribution Rate



Summary of Results

Analysis of changes since last year

Sources of Change in Funded Ratio Since Prior Valuation

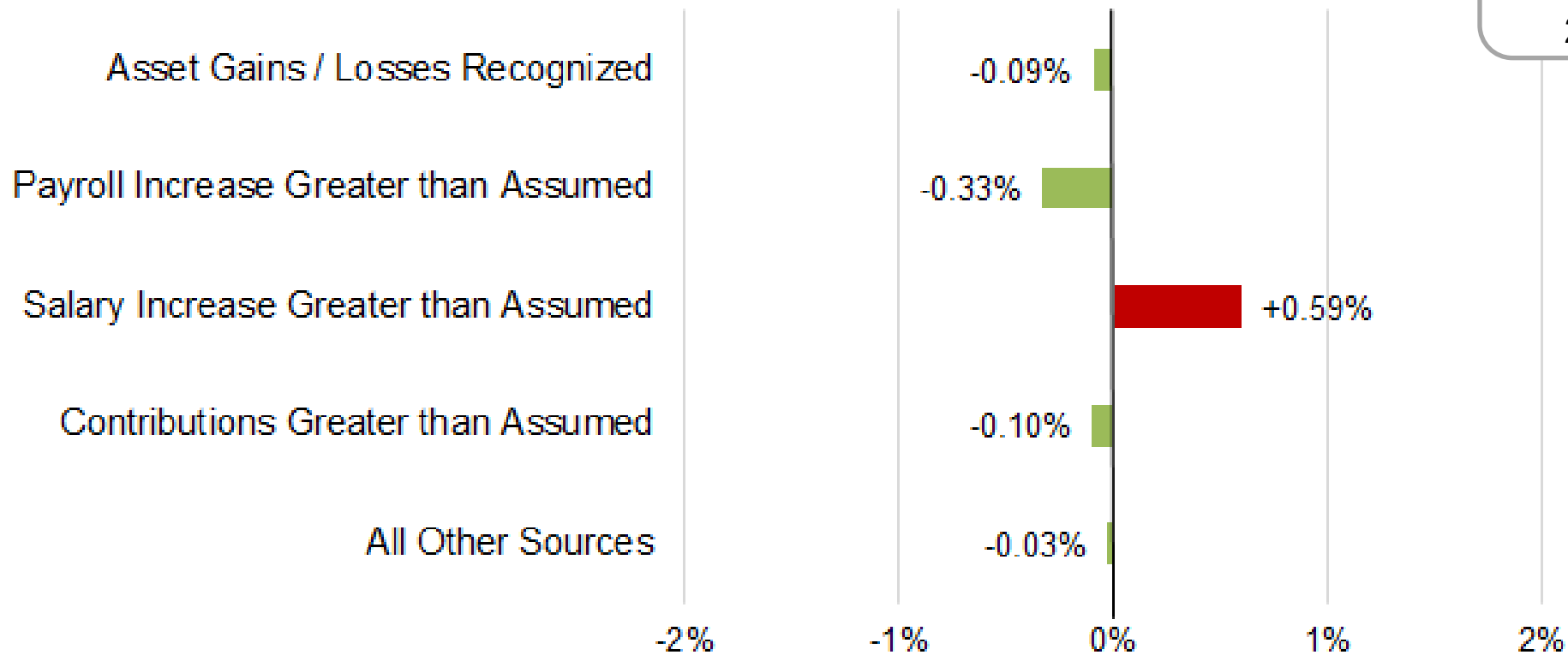


Funded Ratio increases **+0.3%** in total from 79.6% to 79.9%

Summary of Results

Analysis of changes since last year

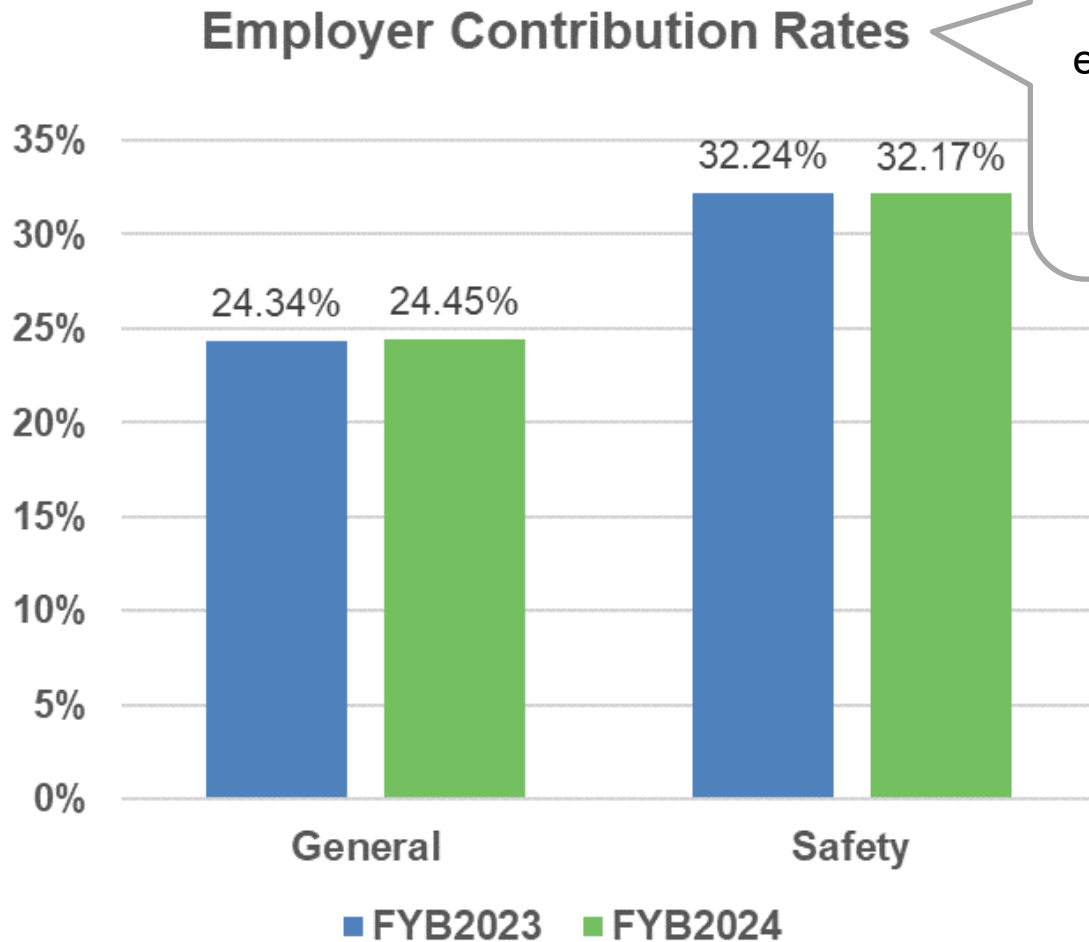
Sources of Change in Employer Rate Since Prior Valuation



Employer Contribution Rate increases **+0.04%** in total from 25.84% to 25.88% of payroll

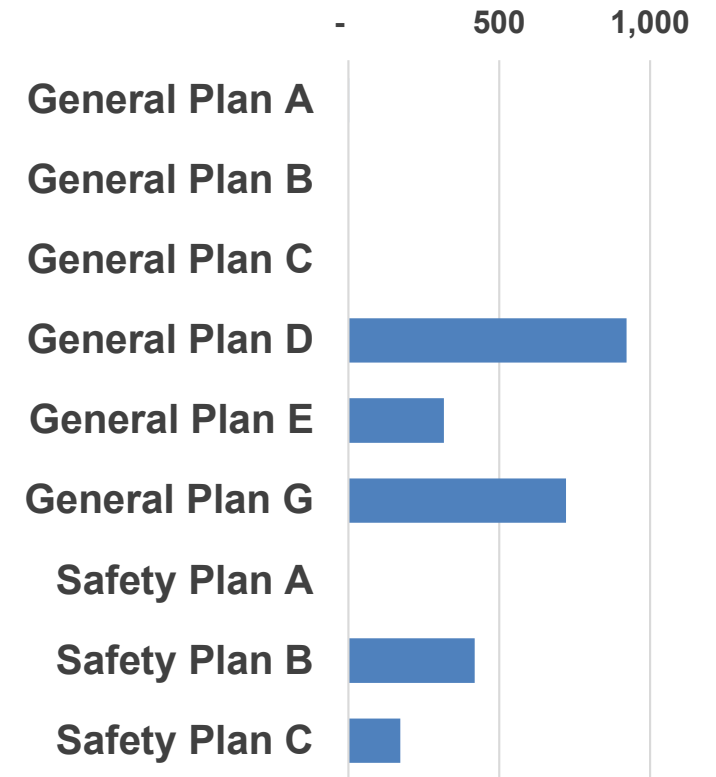
Summary of Results

Employer Contribution Rate Comparison



Overall aggregate employer contribution rate increased from 25.84% of pay to 25.88% of pay

Est. Employer FYB2024 Contribution by Plan (\$Millions)



Estimated total employer contribution for FYB 2024 is \$2.55B

Summary of Results

Member Contribution Rates beginning July 1, 2024

- General Plan G and Safety Plan C (PEPRA plans) members contribute one-half of plan's normal cost rate
 - Increases for both General G and Safety C calculated for next year

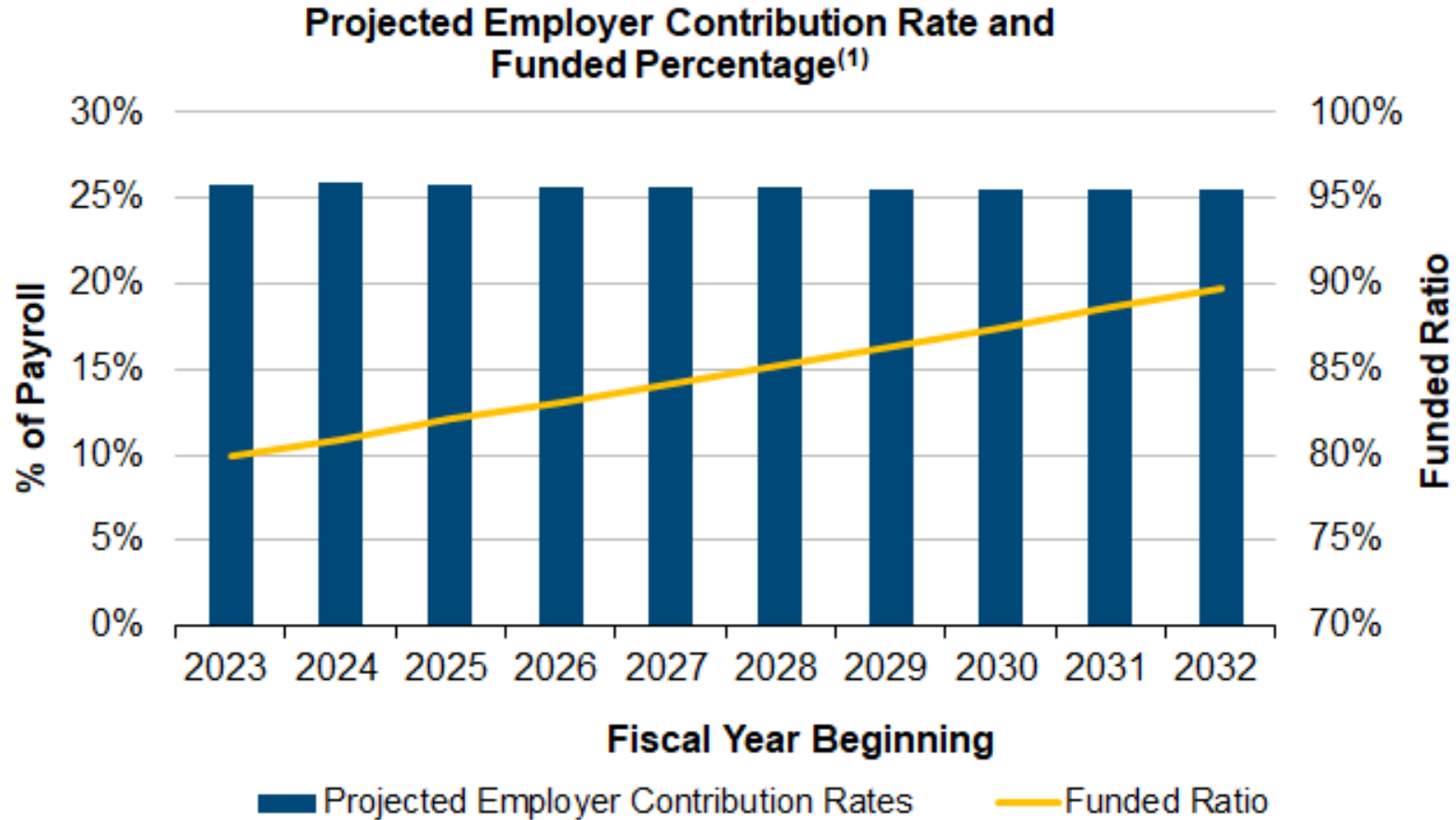
	General Plan G	Safety Plan C
All Ages: Recommended	9.28%	14.97%
All Ages: Current	9.24%	14.76%
Ratio (Recommended / Current)	100.4%	101.4%

- Member contribution rates for Legacy plans General A, B, C & D and Safety A & B are determined by formula
 - Only change when certain assumptions change
 - No changes to these rates since no assumption changes in 2023 valuation
 - Next triennial Experience Study will be conducted as of June 20, 2025



Looking Ahead

Looking Ahead – Baseline Scenario: All Assumptions Met



If all assumptions are met the Funded Ratio is projected to be 100% as of June 30, 2040

1. Projections assume that all actuarial assumptions are met after June 30, 2023 and reflect the scheduled recognition of asset gains and losses currently being deferred. **Actual results will vary.**

Recommendations

For fiscal year beginning July 1, 2024

- Adopt new employer contribution rates
 - Individual plan employer contribution rates shown on slide 15, and in Exhibit 11 (page 31) of Milliman's June 30, 2023 valuation report
 - Weighted average employer contribution rate = 25.88% of pay effective July 1, 2024
- Adopt new member contributions rates as summarized on slide 7, and in Appendix D-2 (page 109) of Milliman's June 30, 2023 valuation report
 - Weighted average member contribution rate = 8.37% of pay effective July 1, 2024
 - PEPRA plans
 - General Plan G = 9.28% (increase from 9.24%)
 - Safety Plan C = 14.97% (increase from 14.76%)
 - Legacy plans (dependent on entry age to LACERA, member class, and plan) – no change

Questions?



Statement of Reliance and Limitation

This presentation is intended as a high-level discussion of the results of the June 30, 2023 actuarial valuation. It is based on the data, methods, assumptions and plan provisions described in our actuarial valuation report dated November 21, 2023. The statements of reliance and limitations on the use of this material is reflected in the actuarial report and still apply to this presentation.

These statements include reliance on data provided, on actuarial certification, and the purpose of the report.

Milliman's work product was prepared exclusively for LACERA for a specific and limited purpose. It is a complex, technical analysis that assumes a high level of knowledge concerning LACERA's operations, and uses LACERA's data, which Milliman has not audited. It is not for the use or benefit of any third party for any purpose. Any third-party recipient of Milliman's work product who desires professional guidance should not rely upon Milliman's work product but should engage qualified professionals for advice appropriate to its own specific needs.

The results of the actuarial valuation are based on one set of reasonable assumptions. However, it is almost certain that future experience will not exactly match the assumptions. As an example, investments may perform better or worse than assumed in any single year and over any longer time horizon. It is therefore important to consider the potential impacts of these potential differences when making decisions that may affect the future financial health of the Plan, or the Plan's participants. Please refer to the Risk Assessment report dated May 25, 2023 for a detailed analysis of the main risks applicable to LACERA.



Thank you

Supplemental Exhibits

Summary of Results

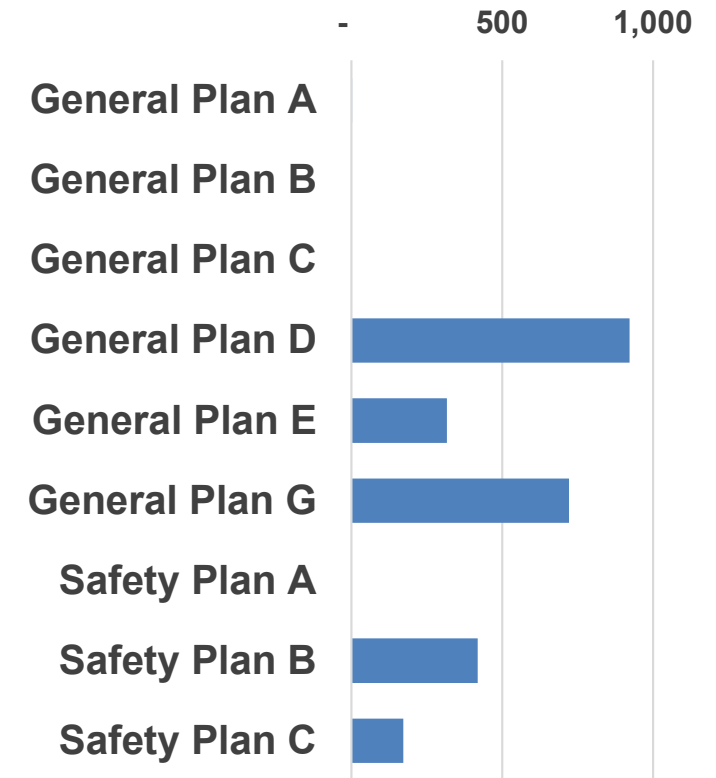
Employer Contribution Rates beginning July 1, 2024

All rates in the table below are shown as a percentage of payroll.

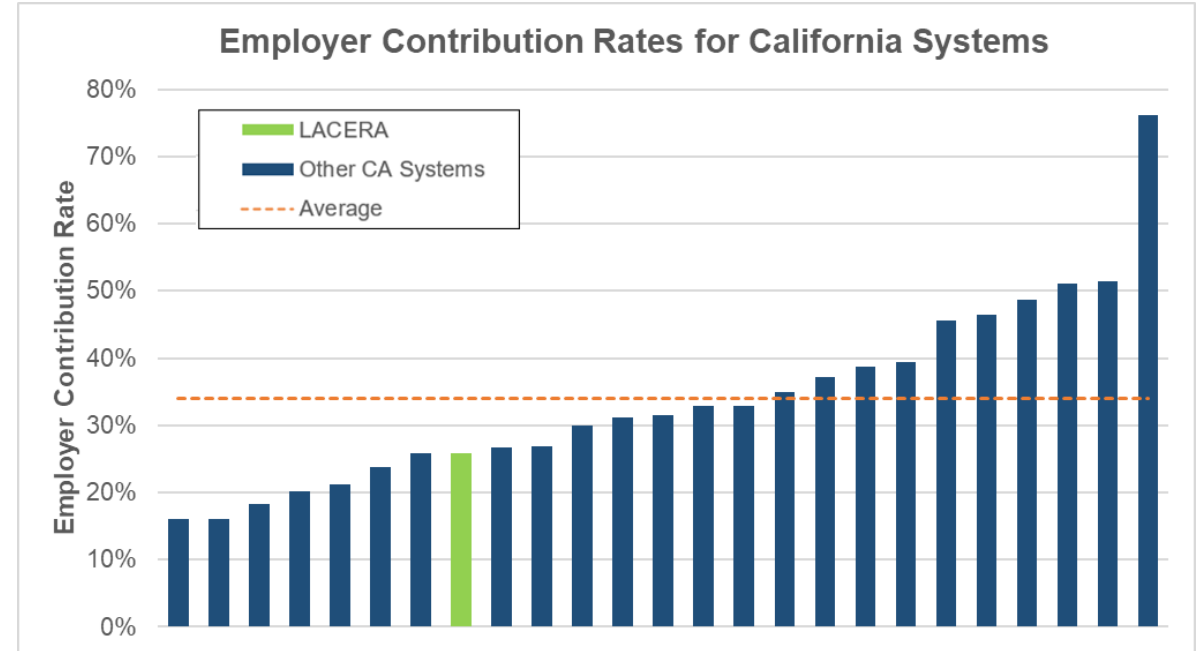
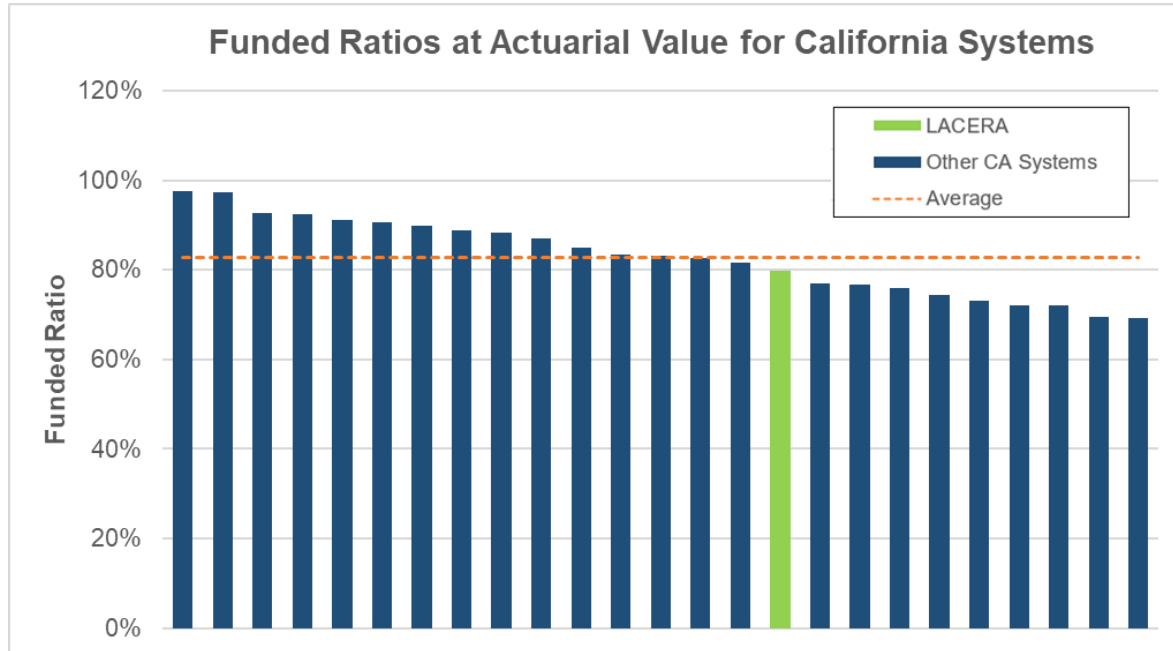
	Employer Normal Cost Rate	UAAL Rate	Total Employer Contribution Rate	Change Since Last Year
General Plan A	16.70%	14.87%	31.57%	0.59%
General Plan B	11.25%	14.87%	26.12%	0.33%
General Plan C	7.74%	14.87%	22.61%	0.16%
General Plan D	9.36%	14.87%	24.23%	0.07%
General Plan E	11.02%	14.87%	25.89%	0.15%
General Plan G	9.28%	14.87%	24.15%	0.19%
Safety Plan A	18.36%	14.87%	33.23%	-8.95% ¹
Safety Plan B	18.36%	14.87%	33.23%	-0.09%
Safety Plan C	14.97%	14.87%	29.84%	0.36%

1. As of June 30, 2023 there are no active members in Safety Plan A. The Safety Plan A employer contribution rate is set equal to Safety Plan B rates.

Est. Employer FYB2024 Contribution by Plan (\$Millions)



Comparisons with Other California Systems



- Comparisons are not completely apples-to-apples
 - Different valuation dates
 - Different investment return assumptions: Average is 6.85% vs LACERA's 7.00%
 - A few systems do not smooth valuation assets

Glossary

Glossary

- **Accrued Liability / Actuarial Accrued Liability (AAL):** That portion, as determined by a particular Actuarial Cost Method, of the Actuarial Present Value of pension plan benefits and expenses which is not provided for by future Normal Costs.
- **Actuarial Asset Smoothing:** A method used to determine the Actuarial Values of Assets that reduces the effect of short-term market volatility while still tracking the overall movement of the market value of assets.
- **Actuarial Assumptions:** Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disability, and retirement; changes in compensation; rates of investment earnings and asset appreciation or depreciation; procedures used to determine the Actuarial Value of Assets. The Actuarial Assumptions fall in to two main categories: Demographic and Economic Assumptions.
- **Actuarial Methods:** Procedures used to determine the Actuarial Value of Assets; how the liabilities (value of promised benefit payments) are allocated to accrued and future; how the Unfunded Actuarial Accrued Liability is systematically paid down (amortization method); and other relevant items.
- **Actuarial Standards of Practice:** The Actuarial Standards Board sets standards for appropriate actuarial practice in the United States through the development and promulgation of Actuarial Standards of Practice (ASOPs). These ASOPs describe the procedures an actuary should follow when performing actuarial services and identify what the actuary should disclose when communicating the results of those services.

Glossary (continued)

- **Actuarial Valuation:** The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a pension plan.
- **Actuarial Value of Assets:** The value of cash, investments and other property belonging to a pension plan after reflection of Actuarial Asset Smoothing, as used by the actuary for the purpose of an Actuarial Valuation.
- **Alpha:** Actual investment return, if any, above the benchmark return.
- **Amortization Payment:** That portion of the pension plan contribution which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.
- **Capital Market Assumptions (or Expectations):** Capital Market Assumptions are numerical expectations about the future performance of available asset classes that incorporate theories, observations and experience. Each asset class has an expected return, variance and correlation between other asset classes.
- **COLA:** LACERA retirement and survivor allowances are adjusted annually by the cost-of-living adjustment (COLA). The adjustment is based on changes in the cost of living over the previous 12-month period as of December 31.
- **COLA Bank:** Also referred to as the COLA Accumulation. The COLA Bank is the accumulation of annual CPI increases that exceed the COLA Cap. In years where the CPI increase is less than the COLA Cap, a withdrawal from the COLA Bank takes place to increase the actual COLA granted, up to the COLA Cap.

Glossary (continued)

- **COLA Cap (Maximum):** LACERA retirees and beneficiaries cannot receive an annual COLA increase above the COLA Cap. For Plan A, the amount is 3%; for other plans the maximum is 2%.
- **CPI:** Consumer Price Index. Used to measure local and national price inflation.
- **Demographic Assumptions:** Assumptions as to the occurrence of future events specific to member experience, such as: mortality, withdrawal, disability, retirement, and changes in compensation in excess of General Wage Growth.
- **Discount:** The discount is the reduction that is applied to future cash flows (primarily benefit payments and contributions) to determine the present value as of the valuation date of those cash flows. For LACERA, the discount rate is equal to the investment return assumption.
- **Economic Assumptions:** Assumptions as to the occurrence of future events specific to economic factors, such as: investment returns, compensation increases related to inflation and productivity, and inflation.
- **Employer Contribution Rate:** Annual employer contribution calculated under LACERA's funding policy as a percent of payroll. The rate is a sum of contributions to fund the Normal Costs (net of member contributions) and the UAAL.
- **Inflation:** See Price Inflation.
- **Investigation of Experience:** Periodic review of Actuarial Assumptions to review recent experience and future forecasts. For LACERA, this is completed every three years

Glossary (continued)

- **Layered Amortization Period:** Payment of each year's change in the Unfunded Actuarial Accrued Liability (UAAL) is amortized over separate closed periods. For LACERA, the original UAAL as of June 30, 2009 is being amortized over a closed 30-year period. Subsequent changes in the UAAL were amortized over new closed 30-year periods. Effective with the June 30, 2019 valuation all existing layers with more than 22 years remaining as of June 30, 2020 were re-amortized over closed 22-year periods. All new UAAL layers thereafter are amortized over closed 20-year periods beginning with the date the contribution is first expected to be made. All amortization payments are based on a level percent of pay.
- **Legacy:** Legacy plans are those plans that existed prior to the implementation of PEPRA. For LACERA, these are the following defined benefit plans: General Plans A, B, C & D and Safety Plans A & B.
- **Median Expected Return:** The numerical value that there is a 50% probability the actual return will exceed (and 50% probability it will fall short of) this value over a long-term time horizon on annualized geometric basis.
- **Merit Salary Increases:** Salary increases in excess of the General Wage Growth that are expected as a member moves through their career related to merit, promotion and longevity.
- **Mortality Projection Scale:** A scale that is used to project future changes in mortality rates. A scale that project declines in future mortality rates is expecting increased life expectancies for future retirees.
- **Normal Cost Rate:** The value of benefits earned as a percent of pay calculated as a level percent of payroll from entry age

Glossary (continued)

- **Payroll Growth:** The annual increase in the pensionable payroll used in the calculation of the UAAL amortization rate.
- **PEPRA:** The California Public Employees' Pension Reform Act (PEPRA) of 2013 specifies benefit provisions for LACERA General Plan G and Safety Plan C. It also governs certain provisions of other LACERA plans and places additional restrictions on employer contribution rates to be paid.
- **Price Inflation:** A sustained increase in the general level of prices for goods and services.
- **Price-to-Earnings (P/E) Ratio:** The price-to-earnings ratio is the ratio for valuing a company that measures its current share price relative to its earnings per share. P/E ratios are used by investors and analysts to determine the relative value of a company's shares in an apples-to-apples comparison
- **Projected Benefits:** Those pension plan benefit amounts which are expected to be paid at various future times under a particular set of Actuarial Assumptions, taking into account such items as the effect of advancement in age and past and anticipated future compensation and service credits.
- **Real Rate of Return:** The portion of the expected investment return that is in excess of national Price Inflation.
- **Real Wage Growth:** The portion of General Wage Growth that is not related to local Price Inflation.

Glossary (continued)

- **STAR Reserve:** Reserves accumulated for the payment of cost-of-living benefits as defined in California Government Code Section 31874.3. Supplemental Targeted Adjustment for Retirees (STAR) Benefits Supplemental cost-of-living payments to retired members to restore purchasing power at a specified percentage level, as described in California Government Code Section 31874.3.
- **Unfunded Actuarial Accrued Liability (UAAL):** The excess, if any, of the Actuarial Accrued Liability over the Valuation Assets.
- **Valuation Assets:** Assets considered in the calculation of the UAAL contribution rate. Valuation assets are equal to Actuarial Value of Assets but net of certain non-valuation reserves (for the 2022 valuation, the non-valuation reserves are the Contingency Reserve and the STAR Reserve)
- **Valuation Date:** The date upon which the Normal Cost, Actuarial Accrued Liability, and Actuarial Value of Assets are determined. Generally, the Valuation Date will coincide with the ending of a Plan Year.
- **Wage Growth:** See General Wage Growth.

**SUPPLEMENTAL MEMO**

December 6, 2023

TO: Each Trustee
Board of Investments

FROM: Chaitanya Errande, Information Security Officer[@]

FOR: Board of Investments Meeting of December 13, 2023

SUBJECT: Update: Information Systems Acceptable Use and Mobile Device Policies for Trustees

During the Board of Retirement meeting on December 6, 2023, the trustees were presented with a proposed policy. BOR Chair Kehoe raised concerns about specific elements within the policy, highlighting two main issues: first, certain aspects were deemed overly restrictive and impractical, considering that trustees were not employees of LACERA. Second, he noted redundancy, pointing out that these aspects were already covered by existing policies and agreements signed by trustees at the commencement of their terms.

In response to these observations, BOR Chair Kehoe proposed a revised version of the policy. His proposed amendments received unanimous approval from the other trustees, and subsequently, the Board officially endorsed the revised policy along with the attached revisions. The ISO agrees with Trustee Kehoe's proposed changes and recommends that the Board of Investments adopts the reflected revisions outlined in Exhibit A.

If there are any questions, please let me know.

REVIEWED AND APPROVED:

Santos H. Kreimann
Chief Executive Officer

Attachments

CE:ce



Style Definition: Heading 2: No bullets or numbering

LACERA

Non-LACERA Managed Devices (Bring Your Own Device (BYOD))
Acceptable Use Policy (Applicable to LACERA Trustees)
PENDING APPROVAL



Non-LACERA Managed Devices (Bring Your Own Device) Acceptable Use Policy (Applicable to LACERA Trustees)

Authorizing Manager: Chaitanya Errande, Information Security Officer

Effective Date: *PENDING APPROVAL* **Last Updated:** November 2023

Mandatory Review: November 2024 (Every Year)

Approval Level: Board of Retirement and Board of Investments

I. Purpose

The purpose of this policy is to promulgate standards for the use of technological accounts and devices that are not owned or managed by LACERA that are used by Trustees to conduct LACERA business.

II. Scope / Applicability

LACERA does not require Trustees to use their own personal accounts and devices to conduct LACERA business. LACERA accounts and devices are available to all Trustees. This Policy applies to LACERA Trustees (“Trustees”) who wish to Bring Your Own Device and use their own accounts (BYOD). BYOD allows authorized Trustees to conduct LACERA business using their own personal technological accounts and devices.

LACERA ~~strongly~~ encourages Trustees, to use LACERA issued accounts and devices to conduct LACERA business given the risks associated with the use of BYOD and to protect LACERA’s member and business information as well as their own; nonetheless, if Trustees opt not to do so and to continue the use of BYOD, they ~~must~~ should follow the standard procedures and protocols set forth in this Policy.

III. Legal Authority

This Policy is based on the paramount fiduciary duty of Trustees and the Boards under Article XVI, Section 17 of the California Constitution, and other authority, to administer the fund consistent with the duty of loyalty to members and their beneficiaries and consistent with the duty of prudence to “discharge their duties with respect to the system with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with these matters would use in the conduct of an enterprise of a like character and with like aims.” This Policy is based on best and prudent practices for the use of your own personal technological devices to conduct LACERA business.

Both the Board of Investments (BOI) and the Board of Retirement (BOR) may promulgate policies, procedures, and charters, including policies regulating the use by Trustees of LACERA devices and personal devices used for LACERA business, as needed for the purpose of LACERA administration to further their fiduciary duty under Article XVI,

III. Legal Authority (Continued)

Section 17 of the California Constitution, the County Employees Retirement Law of 1937 (CERL), the California Public Employees' Pension Reform Act of 2013 (PEPRA), and other governing laws, regulations, and case authority.

IV. Definitions

For the purpose of this Policy, the terms below are defined as follows:

Acceptable Use: The application of best practices that ensure LACERA resources, including information, accounts, and devices, are protected, and the use is limited to conducting authorized LACERA business by Trustees.

Authorized User(s): A Trustee authorized to use a BYOD by the Board of Retirement or Board of Investments, ~~who must certify periodically that they are adhering to the Policy.~~

BYOD (Bring Your Own Device): A non-LACERA managed personal computing platform, mobile device, communication, accounts, or storage system. (Examples of communications include, but are not limited to, email, SMS, social media).

LACERA Communication Systems and Resources: Any data, services, account, or device owned by LACERA. (Examples of LACERA resources include but are not limited to LACERA email, LACERA issued mobile devices such as phones, tablets, laptops, Internet of Things (IOT), LACERA data and applications).

Security Incident: An occurrence that actually or potentially jeopardizes the confidentiality, integrity, or availability of a BYOD or the information the BYOD system processes, stores, or transmits or that constitutes a violation or imminent threat of violation of security policies, security procedures, or acceptable use.

LACERA Trustees/Trustees: Members of the Board of Retirement and/or Board of Investments.

V. Policy

LACERA recognizes that Trustees may wish to use their BYOD to use, transmit and receive LACERA data, e-mails, and resources. This Policy provides standards and guidance for Acceptable Use of BYOD to access LACERA resources and services.

- 1) LACERA Trustees shall employ reasonable physical security measures to prevent a BYOD from being lost or stolen, and to prevent unauthorized access and use, including having a passcode on their BYODs.
- 2) Trustees shall exercise due care with members' Personally Identifiable Information (PII), Personal Health-related Information (PHI) and any other sensitive information, including emails and disability claim information, located in

VI. Policy (Continued)

- a BYOD device or account. Such sensitive information shall not be stored on any BYOD beyond the date of the business need.
- 3) LACERA Trustees shall only use a BYOD in accordance with Acceptable Use.
 - 4) Any BYOD must be password or biometric protected. Password complexity ~~must~~ should adhere to a minimum of 12 characters including at least 1 Capital letter, 1 number, and 1 special character (@, #, \$, * ...) on data encryption and logins and at least 8-digit pins where number pins are required for login.
 - 5) Screen locking and screen timeout should be enabled on any BYOD to be no more than 15 minutes.
 - 6) ~~Trustees may request~~ LACERA ~~will-to~~ leverage various device control tools to manage and monitor access from a BYOD to protect the security and prevent the misuse of LACERA resources. Actions that may be taken include but are not limited to:
 - a. Deleting or remotely wiping LACERA data and LACERA applications from personally owned devices due to:
 - i. Lost or stolen devices.
 - ii. Change in Trustee status.
 - iii. Violation of, or changes to LACERA policies and procedures.
 - iv. Any other circumstances that may put LACERA resources and member data at risk.
 - b. Tracking of connections to and usage of LACERA resources.
 - c. Investigating potential breaches and/or misuse of all LACERA related communications, information, or other collected data.
 - 7) ~~If requested~~, LACERA will only exercise control over LACERA resources on the BYOD platform. Personal email and member communications of all types in the personal email are out of scope to the extent obtained in a capacity other than that of a LACERA Trustee.
 - 8) BYOD should be updated with the most current operating system by the Trustee by following recommended updates by the software manufacturer of all installed software and the device manufacturer.
 - ~~9) BYOD may not be used to store or access LACERA information on unauthorized resources. Examples include but are not limited to cloud drive, USB stick, etc..~~
 - ~~10)9) LACERA Trustees shall immediately report any known security incidents involving their BYOD to the Board Chair and LACERA's CEO, Legal, and LIRT and shall~~ Trustees are expected to cooperate with LACERA on any investigations that follow.
 - ~~11)10) Trustees shall~~ are expected to comply with requests where a BYOD is subject to search according to criteria provided by the Legal Office and produce LACERA records on such devices when needed in response to Public Records Act requests, subpoenas, or litigation discovery.
 - ~~12)11) LACERA is not liable for the loss, theft, or damage of any BYOD~~ except as would otherwise be covered due to official use.
 - ~~13)12) LACERA will be promptly notified if a BYOD is subject to any litigation or a Public Records Act request.~~

~~44)13)~~ LACERA resources on a BYOD must be completely removed before Trustees decide to terminate ownership of their devices.

V. Policy (Continued)

~~15) Trustees should treat all LACERA Business related communications and information of any and every kind sent or received through a BYOD as confidential. "Confidential Information" includes any information not publicly available that belongs to LACERA or is related to LACERA business operations. LACERA manages use and release of its own information, including public information.~~

~~16) Trustees will certify at the start of a new term that they will comply with the BYOD Policy.~~

Non-Compliance

If an authorized Trustee fails to follow ~~the standards enunciated in this Policy, LACERA CEO in consultation with Chair or Vice Chair if it is regarding the Chair have~~appropriate security standards, their respective boards reserve the right to rescind the Trustees authorization to use BYOD under a 2/3 vote of the members present, or if less than two-thirds of the members of the Board are present, unanimous vote of those present, and that Trustee will be issued a LACERA device to conduct LACERA business. Trustees will at all times be timely provided with all information needed to perform their duties and will never be deprived of information, although LACERA controls the format of that information.

VI. References

These references are intended to help explain this Policy and are not an all-inclusive list of ~~policies, procedures, laws, and requirements~~security standards. The following information complements and supplements this Policy:

Related ~~Policies~~Information:

- [LACERA Privacy and Confidentiality Policy](#)
- [LACERA End-User Security Policies & Standards Manual](#)

NIST (National Institute of Standards and Technology) SP 1800-22, BYOD for standards and framework ~~to be followed~~.

VII. Version History

Policy Issue Date: *Pending Board Approval*

Policy Effective Date: *Pending Board Approval*

VIII. Policy Reviews /Approval

This Policy is a Board approved Policy and shall be reviewed one year after the original effective date and each year thereafter.

Review Level: Board of Retirement and Board of Investments

Periodic Review Timeframe: ~~4~~3 years



Non-LACERA Managed Devices (Bring Your Own Device (BYOD))
Acceptable Use Policy (Applicable to LACERA Trustees)
PENDING APPROVAL

**Non-LACERA Managed Devices (Bring Your Own Device)
Acceptable Use Policy (Applicable to LACERA Trustees)**

Authorizing Manager: Chaitanya Errande, Information Security Officer

Effective Date: *PENDING APPROVAL* **Last Updated:** November 2023

Mandatory Review: November 2024 (Every Year)

Approval Level: Board of Retirement and Board of Investments

I. Purpose

The purpose of this policy is to promulgate standards for the use of technological accounts and devices that are not owned or managed by LACERA that are used by Trustees to conduct LACERA business.

II. Scope / Applicability

LACERA does not require Trustees to use their own personal accounts and devices to conduct LACERA business. LACERA accounts and devices are available to all Trustees. This Policy applies to LACERA Trustees (“Trustees”) who wish to Bring Your Own Device and use their own accounts (BYOD). BYOD allows authorized Trustees to conduct LACERA business using their own personal technological accounts and devices.

LACERA encourages Trustees, to use LACERA issued accounts and devices to conduct LACERA business given the risks associated with the use of BYOD and to protect LACERA’s member and business information as well as their own; nonetheless, if Trustees opt not to do so and to continue the use of BYOD, they should follow the standard procedures and protocols set forth in this Policy.

III. Legal Authority

This Policy is based on the paramount fiduciary duty of Trustees and the Boards under Article XVI, Section 17 of the California Constitution, and other authority, to administer the fund consistent with the duty of loyalty to members and their beneficiaries and consistent with the duty of prudence to “discharge their duties with respect to the system with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with these matters would use in the conduct of an enterprise of a like character and with like aims.” This Policy is based on best and prudent practices for the use of your own personal technological devices to conduct LACERA business.

Both the Board of Investments (BOI) and the Board of Retirement (BOR) may promulgate policies, procedures, and charters, including policies regulating the use by Trustees of LACERA devices and personal devices used for LACERA business, as needed for the purpose of LACERA administration to further their fiduciary duty under Article XVI,

III. Legal Authority (Continued)

Section 17 of the California Constitution, the County Employees Retirement Law of 1937 (CERL), the California Public Employees' Pension Reform Act of 2013 (PEPRA), and other governing laws, regulations, and case authority.

IV. Definitions

For the purpose of this Policy, the terms below are defined as follows:

Acceptable Use: The application of best practices that ensure LACERA resources, including information, accounts, and devices, are protected, and the use is limited to conducting authorized LACERA business by Trustees.

Authorized User(s): A Trustee authorized to use a BYOD by the Board of Retirement or Board of Investments.

BYOD (Bring Your Own Device): A non-LACERA managed personal computing platform, mobile device, communication, accounts, or storage system. (Examples of communications include, but are not limited to, email, SMS, social media).

LACERA Communication Systems and Resources: Any data, services, account, or device owned by LACERA. (Examples of LACERA resources include but are not limited to LACERA email, LACERA issued mobile devices such as phones, tablets, laptops, Internet of Things (IOT), LACERA data and applications).

Security Incident: An occurrence that actually or potentially jeopardizes the confidentiality, integrity, or availability of a BYOD or the information the BYOD system processes, stores, or transmits or that constitutes a violation or imminent threat of violation of security policies, security procedures, or acceptable use.

LACERA Trustees/Trustees: Members of the Board of Retirement and/or Board of Investments.

V. Policy

LACERA recognizes that Trustees may wish to use their BYOD to use, transmit and receive LACERA data, e-mails, and resources. This Policy provides standards and guidance for Acceptable Use of BYOD to access LACERA resources and services.

- 1) LACERA Trustees shall employ reasonable physical security measures to prevent a BYOD from being lost or stolen, and to prevent unauthorized access and use, including having a passcode on their BYODs.
- 2) Trustees shall exercise due care with members' Personally Identifiable Information (PII), Personal Health-related Information (PHI) and any other sensitive information, including emails and disability claim information, located in

VI. Policy (Continued)

- a BYOD device or account. Such sensitive information shall not be stored on any BYOD beyond the date of the business need.
- 3) LACERA Trustees shall only use a BYOD in accordance with Acceptable Use.
 - 4) Any BYOD must be password or biometric protected. Password complexity should adhere to a minimum of 12 characters including at least 1 Capital letter, 1 number, and 1 special character (@, #, \$, * ...) on data encryption and logins and at least 8-digit pins where number pins are required for login.
 - 5) Screen locking and screen timeout should be enabled on any BYOD to be no more than 15 minutes.
 - 6) Trustees may request LACERA to leverage various device control tools to manage and monitor access from a BYOD to protect the security and prevent the misuse of LACERA resources. Actions that may be taken include but are not limited to:
 - a. Deleting or remotely wiping LACERA data and LACERA applications from personally owned devices due to:
 - i. Lost or stolen devices.
 - ii. Change in Trustee status.
 - iii. Violation of, or changes to LACERA policies and procedures.
 - iv. Any other circumstances that may put LACERA resources and member data at risk.
 - b. Tracking of connections to and usage of LACERA resources.
 - c. Investigating potential breaches and/or misuse of all LACERA related communications, information, or other collected data.
 - 7) If requested, LACERA will only exercise control over LACERA resources on the BYOD platform. Personal email and member communications of all types in the personal email are out of scope to the extent obtained in a capacity other than that of a LACERA Trustee.
 - 8) BYOD should be updated with the most current operating system by the Trustee by following recommended updates by the software manufacturer of all installed software and the device manufacturer.
 - 9) LACERA Trustees shall immediately report any known security incidents involving their BYOD to the Board Chair and LACERA's CEO. Trustees are expected to cooperate with LACERA on any investigations that follow.
 - 10) Trustees are expected to comply with requests where a BYOD is subject to search according to criteria provided by the Legal Office and produce LACERA records on such devices when needed in response to Public Records Act requests, subpoenas, or litigation discovery.
 - 11) LACERA is not liable for the loss, theft, or damage of any BYOD except as would otherwise be covered due to official use.
 - 12) LACERA will be promptly notified if a BYOD is subject to any litigation or a Public Records Act request.
 - 13) LACERA resources on a BYOD must be completely removed before Trustees decide to terminate ownership of their devices.

V. Policy (Continued)

Non-Compliance

If an authorized Trustee fails to follow appropriate security standards, their respective boards reserve the right to rescind the Trustees authorization to use BYOD under a 2/3 vote of the members present, or if less than two-thirds of the members of the Board are present, unanimous vote of those present.

VI. References

These references are intended to help explain this Policy and are not an all-inclusive list of security standards. The following information complements and supplements this Policy:

Related Information:

- [LACERA Privacy and Confidentiality Policy](#)
- [LACERA End-User Security Policies & Standards Manual](#)

NIST (National Institute of Standards and Technology) SP 1800-22, BYOD for standards and framework.

VII. Version History

Policy Issue Date: *Pending Board Approval*

Policy Effective Date: *Pending Board Approval*

VIII. Policy Reviews /Approval

This Policy is a Board approved Policy and shall be reviewed one year after the original effective date and each year thereafter.

Review Level: Board of Retirement and Board of Investments

Periodic Review Timeframe: 3 years



November 17, 2023

TO: Each Trustee
Board of Retirement
Board of Investments

FROM: Joint Organizational Governance Committee
Herman B. Santos (BOI) Chair
David Green (BOI) Vice Chair
Gina Sanchez (BOI)
Onyx Jones (BOI)
Shawn Kehoe (BOR)
Alan Bernstein (BOR)
Elizabeth Greenwood (BOR)
Ronald Okum (BOR)

FOR: Board of Retirement Meeting of December 6, 2023
Board of Investments Meeting of December 13, 2023

SUBJECT: Information Systems Acceptable Use and Mobile Device Policies for Trustees

RECOMMENDATION

It is recommended that the Board of Retirement and Board of Investments approve the Acceptable Use Bring Your Own Device (BYOD) Policy.

BACKGROUND

In August 2020, LACERA established an Information Security Office, separate from the Systems Division. The Information Security Office's primary responsibility is to establish policies and procedures within LACERA that follow industry recognized security standards. The Security Office selected the National Institute of Standards and Technology (NIST) framework on Security and Privacy Controls for Information Systems and Organizations¹ as LACERA's standard. This framework provides a common language so that LACERA staff members and Trustees have a shared understanding of our cybersecurity risks. The framework also addresses how our association can reduce these risks and respond to and recover from a cybersecurity attack or unintentional data breach.

With the business need to mobilize the workforce with a Cloud based approach and to secure our resources, LACERA enhanced our device security to allow further control of devices accessing LACERA data, including the LACERA email system. In a cloud-based environment, it is critical to add controls to ensure the confidentiality and integrity of the data. High-profile individuals (such as Trustees and executives) are more likely to be targets of cyber-attacks and phishing campaigns due to their positions, thus requiring stricter adherence to controls.

¹ The specific standard selected is NIST Special Publication (SP) 800-53 Rev. 5, Security and Privacy Controls for Information Systems and Organizations.

Following the selection of NIST framework to manage our Information security program, the

Security Office used the framework to compose Information Security and Technology policies for LACERA staff members. These policies protect the security of LACERA staff members, the security of LACERA applications, and the privacy of LACERA member data. The security framework became paramount given the need to transition from on-site servers to cloud-based servers and applications required to facilitate remote access to critical business systems by staff.

LACERA has implemented an “Acceptable Use and Mobile Device” policy for LACERA Staff members. All LACERA employees are required to use LACERA email addresses to conduct LACERA business; since July 2022 all LACERA employees have been required to use LACERA issued and managed computers to connect to LACERA resources; and in the next two months, all LACERA employees will be required to use a LACERA issued and managed phone or a managed, personal phone to connect to Microsoft Outlook and Teams.

Now that the LACERA staff member policies have been approved by the CEO and are being implemented, it is important that we consider policies for LACERA Trustees. These policies will further protect the privacy and security of our Trustees, the privacy and personal information entrusted to LACERA by our retired and active members and other confidential and sensitive LACERA information.

During the August 17, 2023, JOGC meeting, the Information Security Office was directed by the Trustees to submit a draft of an BYOD acceptable use policy addressing all concerns and collaborating towards its formulation. The Information Security Office has taken the feedback from that meeting and has developed the attached policy proposal for the Trustees to review.

There are a few critical issues that were taken into consideration when drafting the BYOD Acceptable Use Policy:

1. Using private/Trustees business email or data storage to conduct LACERA business:
 - The use of such email accounts or data storage to conduct LACERA business can create privacy issues. These accounts can hold email that have member data that holds PII and PHI, questions that may come up are:
 - If the Trustee were to retire or is no longer a member of the BOR or BOI, how do we ensure the archiving or destruction of this data on these systems?
 - How do we ensure this data is not viewed by any other person other than the Trustee?
 - Email and data sit on servers that are not subject to the same security and governance policies enforced at LACERA.
 - How do we get notified by the organization the Trustee works at if the Trustee's email and storage is a subject of eDiscovery?
 - If the Trustee is involved in a lawsuit not pertaining to LACERA business and is subject to discovery of their email it would be incumbent on the Trustee to notify LACERA so that necessary steps may be taken to safeguard LACERA data.

- These servers fall outside the control of the LACERA IT security framework and can be scanned and compromised without user knowledge or proper disclosure, risking the leakage of confidential information.
 - If the trustee were to lose data from the account due to the organization holding this account having faced a cyber incident, who is liable for this loss?

A few court cases of note:

- i. While the California Supreme Court has stated that LACERA can legally rely on Trustees to search their own devices in response to Public Records Act requests (*City of San Jose v. Superior Court* (2017) 2 Cal.5th 608), this does not resolve the issue of the fiduciary duty that LACERA has to its members to ensure the safe handling of data housed at LACERA because there is still a risk of data loss for information not under the control of LACERA through a managed device.
- ii. In a California case decided in federal court, *Matthew Enterprise, Inc. v. Chrysler Group LLC* (N.D. CA 2015) 2015 WL 8482256, Chrysler sought to compel Matthew Enterprises to produce emails from the personal accounts of Matthew Enterprises' employees and from its customer communications data base. The court recognized that many of Matthew Enterprises' employees used their personal accounts for business purposes. Yet it also recognized that Matthew Enterprises did not control these accounts, because it lacked the legal right to obtain them upon demand. Therefore, the accounts were beyond the scope of discovery. However, Matthew Enterprises controlled its customer communications database. Consequently, the court ruled that these communications were subject to discovery. This case points out a different risk not resolved by the *San Jose* case, which only addressed the Public Records Act. Specifically, material evidence in personal unmanaged personal accounts (including the personal accounts of former personnel) needed in disputes may be beyond discovery absent the cumbersome issuance of subpoenas to personnel. The need for such a process could delay access to and production of information needed by LACERA in litigation,
- iii. In a recent Florida case, text messages between individual employees were considered applicable evidence in a lawsuit against their company, which generated a motion for sanctions when certain texts were not produced. *Living Color Enterprises, Inc. v. New Era Aquaculture, Ltd.* (S.D. FL. 2016) 2016 WL 1105297.
- iv. In *Small v. Univ. Med. Center of S. Nevada*, the university's medical center failed to issue any litigation hold addressing BYOD devices despite the fact that several key employees confirmed that they used their personal mobile devices for work-related purposes. This led to numerous court hearings before a special master and the court. The (e-discovery) special master declared the defendant's conduct a "mockery of the orderly administration of justice," and recommended that the court enter an order of default judgment. In other words, failing to issue litigation holds on BYOD devices could land employers in hot water.

These cases demonstrate that the Trustees have the burden of deciding if they are willing to mingle their personal and work with LACERA email accounts thus risking of subjecting Trustees' personal emails to discovery. Discovery of Trustees' personal emails, in turn, may lead to other risks. For instance, HIPAA and other privacy laws could be violated. Also,

Trustees may be compelled to preserve their emails on such systems to prevent sanctions against LACERA for spoliation of evidence. Finally, and perhaps most importantly, there is risk to LACERA under the Public Records Act and discovery rules in litigation, not to mention damage to the business needs of the organization if electronic information on personal devices is not managed and accessible to the organization when needed.

2. Using improperly secured BYOD to conduct LACERA business:

- The use of an unmanaged BYOD to conduct LACERA business can lead to accidental data loss and exposure.
- BYOD allows transmitting and receiving sensitive data for business purposes.
- If an unmanaged, BYOD is lost or stolen, LACERA cannot remotely erase and/or contain the sensitive data.
- The use of an unmanaged BYOD to conduct LACERA business can lead to unintentional data loss.
- BYOD's will have varied storage, retention, and deletion practices, threatening not only data security but loss of organizational information and records. BYOD also allows downloading or forwarding sensitive data without a record of the action.
- Legal issues defending against legal challenges will be very costly for the Trustees and LACERA.

Although Trustees are not LACERA employees, they are fiduciaries with a paramount fiduciary duty of prudence and loyalty, under Article XVI, Section 17 of the California Constitution and California Government Code Section 31595 of the County Employees Retirement Law of 1937 (CERL), to protect the interests of members and their beneficiaries. Maintaining sound information security practices with respect to LACERA business, all of which affect the interests of members and beneficiaries, is consistent with the expectations of prudent fiduciaries. Such practices are also consistent with Government Code Section 31532 of CERL ("Sworn statements and individual records of members shall be confidential and shall not be disclosed to anyone except insofar as may be necessary for the administration of this chapter or upon order of a court of competent jurisdiction, or upon written authorization by the member). Numerous exemptions to the Public Records Act (California Government Code Section 7920.000 *et seq.*) and provisions of the Brown Act (California Government Code Section 54950 *et seq.*) also protect many categories of LACERA information, including, by way of only a few examples, personnel information, attorney-client communications, investment due diligence and other investment information, and closed session memos.

CONCLUSION

LACERA established an Information Security Office to increase awareness of LACERA's cybersecurity risks, protect LACERA applications, protect Trustee privacy, and protect member privacy. Creating cybersecurity policies is an essential role of the Information Security Office.

Attachment



Non-LACERA Managed Devices (Bring Your Own Device (BYOD))
Acceptable Use Policy (Applicable to LACERA Trustees)

PENDING APPROVAL

**Non-LACERA Managed Devices (Bring Your Own Device)
Acceptable Use Policy (Applicable to LACERA Trustees)**

Authorizing Manager: Chaitanya Errande, Information Security Officer

Effective Date: *PENDING APPROVAL* **Last Updated:** November 2023

Mandatory Review: November 2024 (Every Year)

Approval Level: Board of Retirement and Board of Investments

I. Purpose

The purpose of this policy is to promulgate standards for the use of technological accounts and devices that are not owned or managed by LACERA that are used by Trustees to conduct LACERA business.

II. Scope / Applicability

LACERA does not require Trustees to use their own personal accounts and devices to conduct LACERA business. LACERA accounts and devices are available to all Trustees. This Policy applies to LACERA Trustees (“Trustees”) who wish to Bring Your Own Device and use their own accounts (BYOD). BYOD allows authorized Trustees to conduct LACERA business using their own personal technological accounts and devices.

LACERA strongly encourages Trustees, to use LACERA issued accounts and devices to conduct LACERA business given the risks associated with the use of BYOD and to protect LACERA’s member and business information as well as their own; nonetheless, if Trustees opt not to do so and to continue the use of BYOD, they must follow the standard procedures and protocols set forth in this Policy.

III. Legal Authority

This Policy is based on the paramount fiduciary duty of Trustees and the Boards under Article XVI, Section 17 of the California Constitution, and other authority, to administer the fund consistent with the duty of loyalty to members and their beneficiaries and consistent with the duty of prudence to “discharge their duties with respect to the system with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with these matters would use in the conduct of an enterprise of a like character and with like aims.” This Policy is based on best and prudent practices for the use of your own personal technological devices to conduct LACERA business.

Both the Board of Investments (BOI) and the Board of Retirement (BOR) may promulgate policies, procedures, and charters, including policies regulating the use by Trustees of LACERA devices and personal devices used for LACERA business, as needed for the purpose of LACERA administration to further their fiduciary duty under Article XVI,

III. Legal Authority (Continued)

Section 17 of the California Constitution, the County Employees Retirement Law of 1937 (CERL), the California Public Employees' Pension Reform Act of 2013 (PEPRA), and other governing laws, regulations, and case authority.

IV. Definitions

For the purpose of this Policy, the terms below are defined as follows:

Acceptable Use: The application of best practices that ensure LACERA resources, including information, accounts, and devices, are protected, and the use is limited to conducting authorized LACERA business by Trustees.

Authorized User(s): A Trustee authorized to use a BYOD by the Board of Retirement or Board of Investments, who must certify periodically that they are adhering to the Policy.

BYOD (Bring Your Own Device): A non-LACERA managed personal computing platform, mobile device, communication, accounts, or storage system. (Examples of communications include, but are not limited to, email, SMS, social media).

LACERA Communication Systems and Resources: Any data, services, account, or device owned by LACERA. (Examples of LACERA resources include but are not limited to LACERA email, LACERA issued mobile devices such as phones, tablets, laptops, Internet of Things (IOT), LACERA data and applications).

Security Incident: An occurrence that actually or potentially jeopardizes the confidentiality, integrity, or availability of a BYOD or the information the BYOD system processes, stores, or transmits or that constitutes a violation or imminent threat of violation of security policies, security procedures, or acceptable use.

LACERA Trustees/Trustees: Members of the Board of Retirement and/or Board of Investments.

V. Policy

LACERA recognizes that Trustees may wish to use their BYOD to use, transmit and receive LACERA data, e-mails, and resources. This Policy provides standards and guidance for Acceptable Use of BYOD to access LACERA resources and services.

- 1) LACERA Trustees shall employ reasonable physical security measures to prevent a BYOD from being lost or stolen, and to prevent unauthorized access and use, including having a passcode on their BYODs.
- 2) Trustees shall exercise due care with members' Personally Identifiable Information (PII), Personal Health-related Information (PHI) and any other sensitive information, including emails and disability claim information, located in

VI. Policy (Continued)

- a BYOD device or account. Such sensitive information shall not be stored on any BYOD beyond the date of the business need.
- 3) LACERA Trustees shall only use a BYOD in accordance with Acceptable Use.
 - 4) Any BYOD must be password or biometric protected. Password complexity must adhere to a minimum of 12 characters including at least 1 Capital letter, 1 number, and 1 special character (@, #, \$, * ...) on data encryption and logins and at least 8-digit pins where number pins are required for login.
 - 5) Screen locking and screen timeout should be enabled on any BYOD to be no more than 15 minutes.
 - 6) LACERA will leverage various device control tools to manage and monitor access from a BYOD to protect the security and prevent the misuse of LACERA resources. Actions that may be taken include but are not limited to:
 - a. Deleting or remotely wiping LACERA data and LACERA applications from personally owned devices due to:
 - i. Lost or stolen devices.
 - ii. Change in Trustee status.
 - iii. Violation of, or changes to LACERA policies and procedures.
 - iv. Any other circumstances that may put LACERA resources and member data at risk.
 - b. Tracking of connections to and usage of LACERA resources.
 - c. Investigating potential breaches and/or misuse of all LACERA related communications, information, or other collected data.
 - 7) LACERA will only exercise control over LACERA resources on the BYOD. Personal email and member communications of all types in the personal email are out of scope to the extent obtained in a capacity other than that of a LACERA Trustee.
 - 8) BYOD should be updated with the most current operating system by the Trustee by following recommended updates by the software manufacturer of all installed software and the device manufacturer.
 - 9) BYOD may not be used to store or access LACERA information on unauthorized resources. Examples include but are not limited to cloud drive, USB stick, etc..
 - 10) LACERA Trustees shall immediately report any known security incidents involving their BYOD to the Board Chair and LACERA's CEO, Legal, and LIRT and shall cooperate with LACERA on any investigations that follow.
 - 11) Trustees shall comply with requests where a BYOD is subject to search according to criteria provided by the Legal Office and produce LACERA records on such devices when needed in response to Public Records Act requests, subpoenas, or litigation discovery.
 - 12) LACERA is not liable for the loss, theft, or damage of any BYOD.
 - 13) LACERA will be promptly notified if a BYOD is subject to any litigation or a Public Records Act request.
 - 14) LACERA resources on a BYOD must be completely removed before Trustees decide to terminate ownership of their devices.

V. Policy (Continued)

- 15) Trustees should treat all LACERA Business related communications and information of any and every kind sent or received through a BYOD as confidential. "Confidential Information" includes any information not publicly available that belongs to LACERA or is related to LACERA business operations. LACERA manages use and release of its own information, including public information.
- 16) Trustees will certify at the start of a new term that they will comply with the BYOD Policy.

Non-Compliance

If an authorized Trustee fails to follow the standards enunciated in this Policy, LACERA CEO in consultation with Chair or Vice Chair if it is regarding the Chair have the right to rescind the Trustees authorization to use BYOD and that Trustee will be issued a LACERA device to conduct LACERA business. Trustees will at all times be timely provided with all information needed to perform their duties and will never be deprived of information, although LACERA controls the format of that information.

VI. References

These references are intended to help explain this Policy and are not an all-inclusive list of policies, procedures, laws, and requirements. The following information complements and supplements this Policy:

Related Policies:

- [LACERA Privacy and Confidentiality Policy](#)
- [LACERA End-User Security Policies & Standards Manual](#)

NIST (National Institute of Standards and Technology) SP 1800-22, BYOD for standards and framework to be followed.

VII. Version History

Policy Issue Date: *Pending Board Approval*

Policy Effective Date: *Pending Board Approval*

VIII. Policy Reviews /Approval

This Policy is a Board approved Policy and shall be reviewed one year after the original effective date and each year thereafter.

Review Level: Board of Retirement and Board of Investments

Periodic Review Timeframe: 1 year

ACKNOWLEDGEMENT AND COMMITMENT TO ABIDE BY THE
NON-LACERA MANAGED DEVICES (BRING YOUR OWN DEVICE)
ACCEPTABLE USE POLICY (APPLICABLE TO LACERA TRUSTEES)

I _____, Trustee of the Board of _____ LACERA,
hereby acknowledge, certify, represent, warrant, and agree as follows:

1. I have received a copy of the Non-LACERA Managed Devices (Bring Your Own Device) Acceptable Use Policy (Applicable to LACERA Trustees) ("Policy").
2. I have read and understand the information contained in the Policy.
3. I will abide by: (i) all rules, restrictions in the policy and any procedures described in the Manual (as amended from time to time); and (ii) all laws, rules and regulations applicable to me (as amended from time to time), in connection with my activities on behalf of the LACERA.
4. I have complied with the Policy and procedures since the last date on which I signed and delivered this Acknowledgement and Agreement (or its predecessor form) to LACERA.
5. I understand that any violation of the Policy and procedures may result in revocation of the use of a Bring Your Own Device.

Signed: _____

Date: _____

Printed Name: _____

CONFIDENTIAL – INTERNAL
USE ONLY



Documents not attached are exempt from disclosure under the California Public Records Act and other legal authority.

**For further information, contact:
LACERA
Attention: Public Records Act Requests
300 N. Lake Ave., Suite 620
Pasadena, CA 91101**



December 1, 2023

TO: Each Trustee
Board of Retirement
Board of Investments

FROM: Shawn Kehoe, Chair
Board of Retirement

Gina Sanchez, Chair
Board of Investments

FOR: December 6, 2023, Board of Retirement Meeting
December 13, 2023, Board of Investments Meeting

SUBJECT: **Chief Executive Officer Compensation**

RECOMMENDATIONS

The Board of Retirement and the Board of Investments discuss salary adjustment for the Chief Executive Officer, Santos H. Kreimann, effective October 1, 2023.

The Board of Retirement and the Board of Investments discuss a 3% cost of living adjustment (COLA) for the Chief Executive Officer, Santos H. Kreimann, effective January 1, 2024.

LEGAL AUTHORITY

Los Angeles County Salary Ordinance Section 6.127.030 B

2. Salary Adjustment. Notwithstanding Section 6.08.330 E, adjustments to the base salary of a person designated to act as retirement administrator pursuant to Section 6.127.020 of this code may be made by the boards of retirement and investments and shall take effect when designated by the boards. Such adjustments need not fall within the designated person's Salary Range.

The Brown Act provides in Government Code Section 54953(c) (3) that action on senior executive compensation must be taken in open session and that a summary of the terms of the compensation, including benefits, must be orally announced before final action is taken.

DISCUSSION

2023 Salary Adjustment – S. Kreimann

December 1, 2023

Page 2

The discussions regarding the performance evaluation for Santos H. Kreimann, Chief Executive Officer, occur at the December 6, 2023 Board of Retirement and December 13, 2023 Board of Investments meetings in closed session. Mr. Kreimann has provided his self-evaluation to the Trustees of both Boards.

Given Mr. Kreimann's performance during the evaluation period a merit increase may be appropriate. LACERA's Tier I MAPP Participants whose performance exceeded standards received a merit increase. Historically, the Boards have approved a merit increase for the Chief Executive Officer to mirror the increase provided to staff.

Similarly, all LACERA staff will receive a 3.0% cost of living adjustment effective January 1, 2024. The Board Chairs consider it equitable that Mr. Kreimann also receive this salary adjustment.

This, in addition to Mr. Kreimann's leadership and service, is the foundation of our recommendations.

Compensation survey data is attached.

The CEO's performance evaluation and salary adjustment are both being brought to the Boards at their December meetings so that they are addressed by the same Trustees given the change in Board composition that will take place in January.
Attachment

cc: Carly Ntoya, Ph.D.

Compensation Survey Information

External Analysis

LACERA gathered executive compensation survey data from the following organizations:

1937 Act Employee Retirement Systems Salary Comparison Information as of July 2023:

'37 Act Retirement System	Annual CEO Base Salary	Annualized Car Allowance Available	Other Pay Incentives (Bonuses)	Last Increase
LACERA	\$447,976	\$8,700	None	Jan-23
San Bernardino	\$387,982	\$14,600	\$7,158.53	Dec-22
San Diego Co	\$349,939	None	None	Sep-23
Alameda*	\$331,011	\$13,236	None	Unknown
Orange	\$350,000	None	Optional \$4,500 benefit payment	Dec-22
Contra Costa*	\$297,880	None	Longevity Pay (10+ years = 2.5%-5%)	Jul-22
San Mateo*	\$315,172	12,012	Longevity Pay (1%-6%)	Oct-22
Ventura*	\$335,126	14,950	None	Unknown
Marin*	\$301,971	\$9,600	None	Jul-23
Sacramento	\$309,918	\$2,700	3.35% Management Differential	Jun-23
Sonoma*	\$258,677	\$5,160	None	Nov-22
Santa Barbara*	\$254,824	\$6,812	None	Jul-23
San Joaquin*	\$244,234	\$7,020	None	Jul-23
Kern	\$220,484	\$7,164	None	Jul-23
Fresno	\$204,412	\$7,800	None	Sep-22

Data from July 2023 CALAPRS Survey.

1937 ACT EMPLOYEE RETIREMENT SYSTEMS MANAGEMENT COMPLEXITY COMPARISON

37 Act Retirement Association	Fund Assets (\$ Billion)	Rank by Fund Size	Membership Size (Active and Retired)	Rank by Membership Size	# Budgeted Positions	Rank by Staff Size	# Investment Staff	Rank by Invest. Staff Size	# Benefit Tiers	Rank by # of Benefit Tiers Administered	Administer Ret. Medical and Dental	457
Los Angeles Co ERA	72.7	1	179,425	1	530	1	33	1	9	6	Y	N
Orange Co ERS	20.7	2	50,625	2	127	2	11	2	2	17	N	N
San Diego Co ERA	15.6	3	48,744	3	63	7	3	8	9	8	Y	N
San Bernardino Co ERA	13.3	4	43,285	4	91	3	8	4	2	18	N	N
Sacramento Co ERS	11.8	5	30,815	5	76	6	5	6	9	7	N	N
Contra Costa Co ERA	10.3	7	22,610	7	87	5	7	5	14	3	N	N
Alameda Co ERA	10.3	6	23,433	6	87	4	9	3	4	13	Y	Y
Ventura Co ERA	7.3	8	20,896	9	34.5	10	1	14	5	12	N	N
Fresno Co ERA	6.1	9	20,465	10	36	9	1	13	9	9	N	N
San Mateo Co ERA	5.7	10	13,252	12	23	12	3	9	18	2	N	N
Kern Co ERA	5.4	11	22,106	8	38	8	4	7	8	10	N	N
Santa Barbara ERS	4	12	11,138	13	28	11	2	10	14	4	Y	N
San Joaquin Co ERA	3.9	13	15,370	11	21	13	1	15	2	20	N	N
Sonoma Co ERA	3.3	14	10,752	14	15	16	2	11	2	19	N	N
Marin Co ERA	3	15	7,205	17	20	14	1	16	45	1	Y	N
Stanislaus Co ERA	2.2	16	8,898	15	17	15	1.5	12	5	11	N	N
Tulare Co ERA	1.67	17	8,013	16	14	17	0	18	4	14	N	N
Merced Co ERA	1.4	18	5,080	18	8	19	0	20	4	15	N	N
Imperial Co ERS	1.1	19	4,298	19	9	18	0	19	3	16	Y	Y
Mendocino Co ERA	0.6	20	3,512	20	6	20	1	17	10	5	N	N

*CALAPRS Survey Data as of July 2023

Other California public retirement systems – Data Retrieved as of July 2023

Chief Executive Officer Salary Comparison - Within Los Angeles Area

Los Angeles Area Public Pensions	Membership Size (Active/Retired)	Fund Assets (\$ Billion)	CEO Annual Salary	Pay Bonus	No. of Employees
Los Angeles City ERS	43,135	\$22	\$343,455	No	195
Los Angeles City F & P	24,074	\$28	\$300,505	No	114
LACERA	189,893	\$73.6	\$491,686	No	530

Chief Executive Officer Salary Comparison - Other California Public Systems

Other Public Retirement Associations - California	Membership Size (Active/Retired)	Fund Assets (\$ Billion)	CEO Annual Salary	Pay Bonus	No. of Employees
CalSTRS	1,002,049	\$315.6	\$430,008	\$407,885	1,370
CalPERS	1,554,819	\$462.8	\$550,730	See Note*	2,843
LACERA	189,893	\$73.6	\$491,686	No	530

*Note: Bonus dollar amount pending September 2023 Board meeting. Annual Incentive Award Range (0 - 150%; Target 100%), Long-Term Incentive Award Range (0 - 150%; Target 100%)

MOST COMPARABLE CALIFORNIA BASED PUBLIC PENSION AGENCIES

Data Retrieved as of July 2023

Public Pension Agency	CEO Annual Base Salary	Other Pay Incentives	Fund Assets (\$ Billion)	Membership Size	Number of Budgeted Positions
LACERA	\$491,686	None	73.6	189,893	530
San Bernardino Co ERA	\$387,982	None	13.3	43,285	91
San Diego Co ERA	\$349,939	None	15.9	49,297	63
Los Angeles City ERS	\$343,455	None	22	43,135	195
Los Angeles Fire & Police	\$300,505	None	28	24,074	129
Orange Co ERS	\$350,000	None	21	42,731	127

Base Salary Mean (Aver.)	\$370,595
Base Salary Median	\$349,970
Base Salary 75th Percentile	\$378,487

COUNTY OF LOS ANGELES - Data retrieved as of July 26, 2023

Department Title	Incumbent	Annual Salary	*
Aging and Disabilities	Laura Trejo	\$289,973	
Agricultural Comm/Dir Weights & Measures	Kurt Floren	\$274,442	
Alternate Public Defender	Erika Anzoategui	\$387,504	
Animal Care and Control	Marcia E. Mayeda	\$312,563	
Arts and Culture	Kristin Sakoda	\$268,661	
Assessor	Jeffrey Prang	\$257,889	1
Auditor-Controller	Oscar Valdez	\$329,390	
Beaches and Harbors	Gary D. Jones	\$299,138	
Chief Executive Office	Fesia Davenport	\$559,115	
Chief Medical Examiner-Coroner	Dr. Odey Ukpo	\$439,460	
Child Support Services	Vander "Terrie" Hardy	\$314,356	
Children & Family Services	Brandon Nichols	\$383,656	
Consumer and Business Affairs	Rafael Carbajal	\$267,316	
County Counsel	Dawyn Harrison	\$440,000	
District Attorney	George Gascón	\$402,379	1
Economic Opportunity	Kelly LoBianco	\$251,808	
Executive Office, Board of Supervisors	Celia Zavala	\$324,055	
Fire	Anthony Marrone	\$441,793	
Health Services	Dr. Christina Ghaly	\$524,844	
Human Resources	Lisa M. Garrett	\$366,155	
Internal Services	Selwyn Hollins	\$350,000	
Justice, Care and Opportunities	Songhai Armstead	\$341,771	
LA County Development Authority	Emilio Salas	\$301,041	2
LA County Library	Skye Patrick	\$340,835	
Mental Health	Dr. Lisa H. Wong	\$505,220	
Military and Veterans Affairs	James Zenner	\$185,678	
Museum of Art	Michael J. Govan	\$268,085	
Museum of Natural History	Lori Bettison-Varga	\$231,025	
Parks and Recreation	Norma Garcia	\$314,176	
Probation	Guillermo Viera Rosa (Interim)	\$337,600	
Public Defender	Ricardo Garcia	\$414,474	
Public Health	Dr. Barbara Ferrer	\$520,862	
Public Social Services	Jackie Contreras	\$383,656	
Public Works	Mark Pestrella	\$413,213	
Regional Planning	Amy Bodek	\$323,616	
Registrar-Recorder/County Clerk	Dean C. Logan	\$398,206	
Sheriff	Robert G. Luna	\$383,903	1
Treasurer and Tax Collector	Keith Knox	\$328,500	
Youth Development	David J. Carroll	\$235,000	

***FOOTNOTES:**

- 1 Elected Official
- 2 Salary set by Board of Supervisors sitting as Board of Commissioners, Community Development Commission.

EXTERNAL MARKET – BASE SALARY COMPARISONS

BASE PAY

Job Title	Geography	25%	50%	75%
Chief Executive Officer	United States	\$825,839	\$1,063,834	\$1,280,516
	California - Los Angeles	\$927,169	\$1,194,366	\$1,437,636

Data Source: Salary.com – August 23, 2023

INTERNAL ANALYSIS

Top-Salaried LACERA MAPP Positions

(As of August 2023 - Does not include October 2023 Merit Increases)

Position	Incumbent's Annual Base Salary	MAPP Pay Range
Chief Investment Officer, LACERA	\$ 797,394	LR28
Principal Investment Officer, LACERA	\$ 529,306**	LR23
Deputy, Chief Investment Officer, LACERA	\$ 486,000**	LR24
Chief Executive Officer	\$ 484,486*	
Principal Investment Officer, LACERA	\$ 448,633	LR23
Principal Investment Officer, LACERA	\$ 445,533**	LR23
Principal Investment Officer, LACERA	\$ 396,760	LR23
Senior Investment Officer, LACERA	\$ 360,463***	LR20
Chief Counsel, LACERA	\$ 340,758	LS19
Chief Counsel, Disability Litigation	\$ 316,985	LS18
Finance Analyst III, LACERA	\$ 316,411	LR16
Finance Analyst III, LACERA	\$ 316,333**	LR16
Senior Investment Officer, LACERA	\$ 304,756**	LR20
Deputy, Chief Executive Officer, LACERA	\$ 276,354	LR18
Senior Staff Counsel, LACERA	\$ 274,297	LS16
Senior Staff Counsel, LACERA	\$ 274,297	LS16
Senior Staff Counsel, LACERA	\$ 274,297	LS16
Senior Staff Counsel, LACERA	\$ 270,243	LS16

Notes:


*Position is not assigned to a MAPP Range. Compensation is determined by LACERA Boards.

**Does not include 5.5% Certification Bonus

***Does not include temporary Additional Responsibilities Bonus

December 1, 2023

TO: Each Trustee
Board of Investments

FROM: Jonathan Grabel 
Chief Investment Officer

FOR: December 13, 2023, Board of Investments Meeting

SUBJECT: **ANNUAL UPDATE AND REVIEW OF LACERA TOWARDS INCLUSION,
DIVERSITY, AND EQUITY (LACERA T.I.D.E.)**

The attached presentation (**Attachment**) summarizes recent activities, progress, and anticipated next steps of LACERA's T.I.D.E. initiative for Trustee review at the December 13, 2023, Board of Investments meeting.

Attachment



Annual Review of LACERA T.I.D.E. Towards Inclusion, Diversity, and Equity

Board of Investments Meeting
December 13, 2023

Discussion Outline



1. LACERA T.I.D.E. Background and Objectives of Review
2. Review of Progress in Each Pillar
 - Internal Practices
 - Due Diligence
 - Active Ownership
 - Capital Formation
 - Industry Advocacy
3. Observations

About LACERA T.I.D.E. and Today's Objectives



LACERA believes organizations comprised of diverse backgrounds and managed in an inclusive and equitable manner perform better, as compelled by our fiduciary duty and articulated as an integral component of LACERA's investment philosophy and strategy in our [Investment Policy Statement](#)

LACERA considers diversity broadly, inclusive of—but not limited to—professional backgrounds, age, experience, race, sexual orientation, gender, gender identity, disability status, military service, ethnicity, national origin, and culture.¹

LACERA consolidated various longstanding DEI initiatives under “LACERA T.I.D.E.” in 2020, as ratified by the Board

LACERA T.I.D.E. incorporates short- and long-term objectives across activities organized under 5 pillars and is a fundamental component of the Investment Division Strategic Work Plan

Annual review of progress against stated goals

Iterative, total team process of continuous improvement

Objectives for today's review include:

- ✓ **Assess progress against stated goals**
- ✓ **Share observations**
- ✓ **Identify opportunities to enhance effectiveness**

¹Investment Policy Statement §I(I), page 9.

Recap of LACERA T.I.D.E.'s Five Pillars



Comprehensive, synergistic strategies to implement Board-approved policies and principles to advance diversity, equity, and inclusion (DEI) in LACERA's investment program and the financial services industry

Multi-pronged initiative to advance mission to enhance and safeguard returns in adherence to fiduciary duty

Pillars range in LACERA's degree of direct influence, from left to right

Internal Practices

Foster an inclusive, diverse, and equitable workplace in LACERA's Investments Division

Due Diligence

Evaluate, influence, and monitor current and prospective investment partners

Active Ownership

Encourage sound DEI practices at portfolio companies by voting proxies and governance engagements

Capital Formation

Facilitate capital formation among firms with diverse ownership, such as emerging managers

Industry Advocacy

Improve LACERA's opportunity set by advancing DEI best practices across the financial services industry



Review of Progress Across Five Pillars

Pillar 1: Internal Practices



Internal Practices

Internal Practices

Strategies to foster an inclusive, diverse, and equitable workplace in LACERA's Investments Division



Stated Objectives

- Increase regularity and expand reach of Investments Division **internship opportunities**, aiming to enhance the familiarity of prospective careers in investments and public service
- Expand equitable and inclusive Investment Division **recruitment channels** by partnering with Human Resources to widen and deepen recruitment channels and cultivate a diverse team
- Enhance a **workplace culture** that is diverse, inclusive, and equitable to further LACERA's strategic objective to move from "Allocator to Best-in-Class Investor", expand staff's leadership skills, and support inclusivity LACERA-wide



Accomplishments

- ✓ Diversified school representation amongst interns and established a new relationship with Girls Who Invest
- ✓ Further cultivated an "Allocator to Best-in-Class Investor" mindset within the team, enhancing team engagement, sharing of best practices, and consistency in internal investment committees
- ✓ Strengthened track record of growing talent from within via internal promotions, inter-divisional transfers, intra-divisional transfers, and new hires



Next Steps

- Continue to formalize the internship program to expand asset class opportunities, host a mix of graduate and undergraduate interns, and introduce mentor relationships
- Advance effective approaches for inclusive workplace practices in a hybrid work environment
- Expand synergies in Investment Division DEI initiatives and agency-wide employee engagement and inclusion
- Widen and deepen the list of recruitment channels for greater reach of talent in prospective hires

Internship Opportunities



Internal Practices

Objective: Increase regularity and expand reach of Investment Division internship opportunities, aiming to enhance the familiarity of prospective careers in investments and public service



- **New High-Water Mark**
Grew the program in 2023 to host 4 interns, building on the prior peak of 3 interns hosted in a single year
- **New Schools**
Expanded representation with new local and out-of-state schools
- **New Asset Classes¹**
Offered internship projects in additional asset classes: Real Assets and Credit
- **New Relationship²**
Established a new recruitment-focused relationship with Girls Who Invest to improve gender diversity

2015	2016	2017	2018	2019	2020	2021	2022	2023
<ul style="list-style-type: none"> • Summer program inception • Established Toigo relationship • Hosted 2 graduate interns 	<ul style="list-style-type: none"> • Hosted 2 graduate interns 	<ul style="list-style-type: none"> • Hired former graduate intern 	<ul style="list-style-type: none"> • Hired former graduate intern 	<ul style="list-style-type: none"> • Added Spring semester • Hosted 2 graduate interns 	<ul style="list-style-type: none"> • Hired former intern • Added virtual option • Hosted 1 graduate intern 	<ul style="list-style-type: none"> • Added Fall semester • Established SEO-PREA relationship • Hosted 3 interns (academic level mix) 	<ul style="list-style-type: none"> • Hosted 2 undergrad interns 	<ul style="list-style-type: none"> • Established Girls Who Invest relationship • Hosted 4 undergrad interns

¹ Completed internship projects with the following teams: Real Estate, Global Equity, Private Equity, Portfolio Analytics, Real Assets, and Credit

² Intern recruitment includes relationships with Toigo Foundation, SEO-PREA, and Girls Who Invest.

Recruitment Channels



Internal
Practices

Objective: Expand equitable and inclusive Investment Division recruitment channels by partnering with Human Resources to widen and deepen recruitment channels and cultivate a diverse team



- The Investment Division developed a robust list of **recruitment contacts** that is referenced and expanded upon during each Investments job search
- Through **Affinity Groups**, we connect with communities of professionals with a common purpose
- Staff engagement in **Industry and Public Sector** organizations facilitates industry and sector recruitment
- Talent from **Colleges and Universities** ranges from students to alumni and helps identify interns as well as experienced hires
- **Professional Networks** enable wide-sharing of active opportunities within LACERA's networks
- **Next steps** include continued recruitment channel support of Investment Division career opportunities
 - *Current searches:* 2 Senior Investment Officer, 2 Financial Analyst-III, and 1 Financial Analyst-I
 - *Upcoming searches:* 1 Principal Investment Officer, 2 Senior Investment Officer



Objective: Enhance a workplace culture that is diverse, inclusive, and equitable to further LACERA’s strategic objective to move from “Allocator to Best-in-Class Investor”, expand staff’s leadership skills, and support inclusivity LACERA-wide

Cultivate a mindset of “Allocator to Best-in-Class Investor”

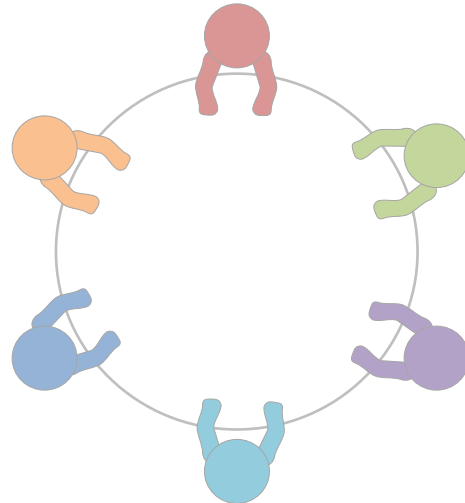
Pursue multiple strategies across asset classes to produce the best possible results

- **Regular cross-functional team projects**
 - ✓ 75% of Board of Investments meetings in 2023 include cross-functional team product (e.g., TIDE report, internal investment committees report, fee analysis report, Investments Beliefs update, Responsible Contractor Policy update, private markets analytics RFP)
- **Internal investment committees**
 - ✓ Subject-matter and functional expertise
 - ✓ Robust analysis
 - ✓ Dialogue and collaboration
 - ✓ Every member has a voice and a vote

Support LACERA Agency-wide Inclusive Culture

Contribute to inclusive agency-wide career opportunities and cohesion

- Provide opportunities for cross divisional career advancement
- Support implementation of LACERA LEAD and mentorship program
- Contribute to the success of LACERA’s Employee Council Team



Leadership development for career progression, succession planning

Expose staff to new leadership opportunities and enhance succession planning prospects

- **Open opportunities** to lead or participate in cross-functional team projects
- **Rotation of meeting chair** for
 - ✓ Quarterly internal performance reviews
 - ✓ Monthly divisional all-staff meetings
- **Inclusion of staff** to observe and participate in Investment Division senior management weekly planning meetings
- Track record of **talent development**
 - ✓ 3 internal promotions
 - ✓ 1 inter-divisional transfer
 - ✓ 2 intra-divisional transfers
 - ✓ 3 new hires

Pillar 2: Due Diligence



Due Diligence

Due Diligence

Evaluate, influence, and monitor current and prospective external managers and vendors



Stated Objectives

- **Policies:** 100% of investment partners should have DEI policies (i.e., equal opportunity and anti-harassment)
- **Transparency:** 100% of investment partners should report DEI demographics of leadership and investment teams, where available
- **Contracting:** Incorporate DEI reporting requirements in investment contracts
- **Leading Governance Practices:** Encourage adoption of four practices
 - Board oversight
 - Clawbacks
 - Pay parity assessment
 - Portfolio integration
- **Develop Separate DEI Assessment in Manager Scorecard**



Accomplishments

- ✓ Strong and stable percentage of firms with DEI policies and reporting available DEI demographics
- ✓ LACERA's routinized DEI diligence cultivates candor in manager dialogues
- ✓ Legal Office continued success in securing DEI reporting side letter agreements
- ✓ More managers invite employees to voluntarily self-identify more attributes (LGBTQ, disability)
- ✓ Firm priorities vary: some focus on recruitment channels while others emphasize retention and progression
- ✓ Onboarded new software to facilitate manager DEI diligence and other manager reporting



Next Steps

- Use data set to benchmark practices and provide managers feedback on identified effective practices, including encouraging more asset managers to adopt board oversight, pay parity analyses, clawbacks
- Support efforts to expand DEI reporting, including in non-U.S. markets and constructive strategies to identify broad range of DEI attributes
- Incorporate manager scorecard DEI pillar
- Encourage and incorporate DEI reporting from emerging managers in sub-advised programs

5-Part Upfront DEI Diligence and Monitoring



LACERA evaluates all prospective and current investment partners on DEI policies and practices

- All prospective managers complete LACERA's DEI DDQ
 - ✓ DEI DDQs are reviewed and discussed with the manager
 - ✓ LACERA's evaluation is discussed by LACERA's internal investment committees
- LACERA monitors every contracted manager on DEI policies and practices
 - ✓ Annual DEI update DDQ
 - ✓ Organizational changes and DEI reviewed in routine manager dialogue (i.e., LPACs, quarterly portfolio review monitoring calls, focused DEI discussions)

LACERA's 5-Part DEI Diligence and Sample Questions

1. Clear DEI Policies

- Does the firm have clear equal employment opportunity, anti-discrimination, and anti-harassment policies?
- How wide is policy coverage across global divisions and DEI attributes (i.e., LGBTQ, disability, religion, race, gender)

2. Board Oversight

- Does the firm's board (or executive committee in private markets) oversee DEI policies, compliance, metrics?

3. Track Record

- Available DEI demographics for the investment and leadership teams (respecting applicable laws and privacy)
- Any legal and regulatory actions and history of claims related to discrimination or harassment

4. Practices to Promote Adherence

- Does the firm conduct pay parity analyses, have clawbacks in place in the event of misconduct?
- Does the firm have any objectives or initiatives to encourage inclusive and equitable workplace practices?

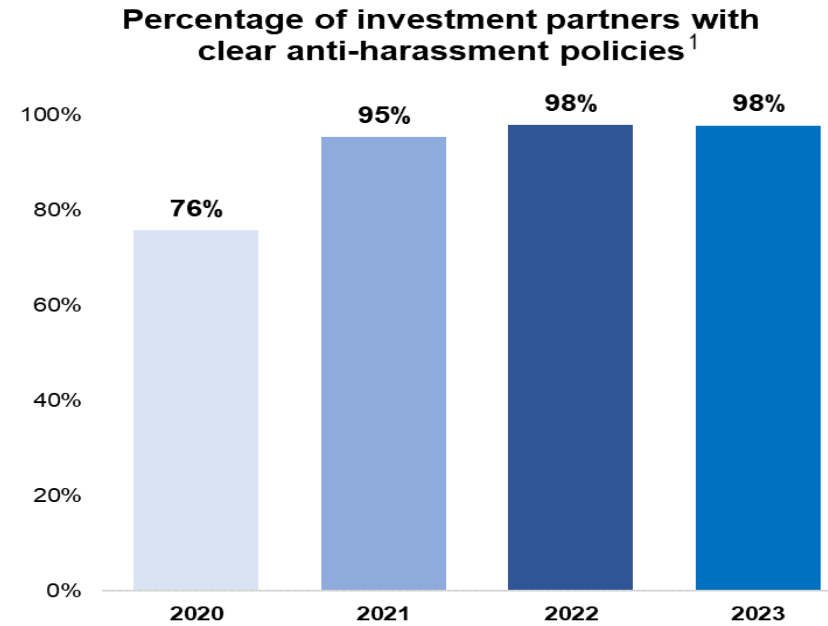
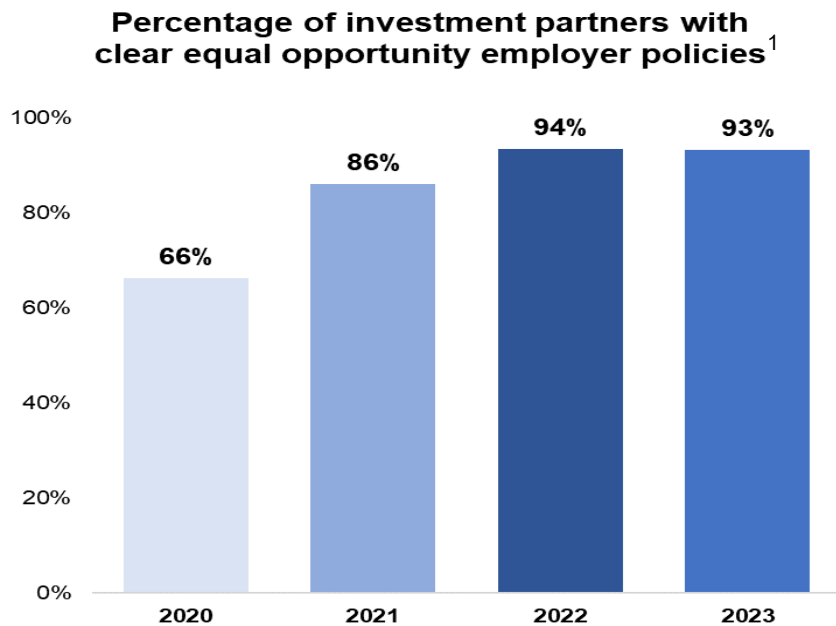
5. Portfolio Integration

- Does the firm consider DEI practices in their management of LACERA's portfolio (i.e., non-discrimination policies and training in real estate, assisting portfolio companies to establish clear EEO policies in private equity)



Established and Clear DEI Policies in Place

Objective: 100% of investment partners should have clear DEI policies



Observations

- Continued high proportion of firms with DEI-related policies
- Increase in firms over time with policies driven by firms adopting policies and more attentive manager reporting
- Firms lacking policies continue to be concentrated among non-US firms, smaller firms, and legacy funds where LACERA has not re-upped

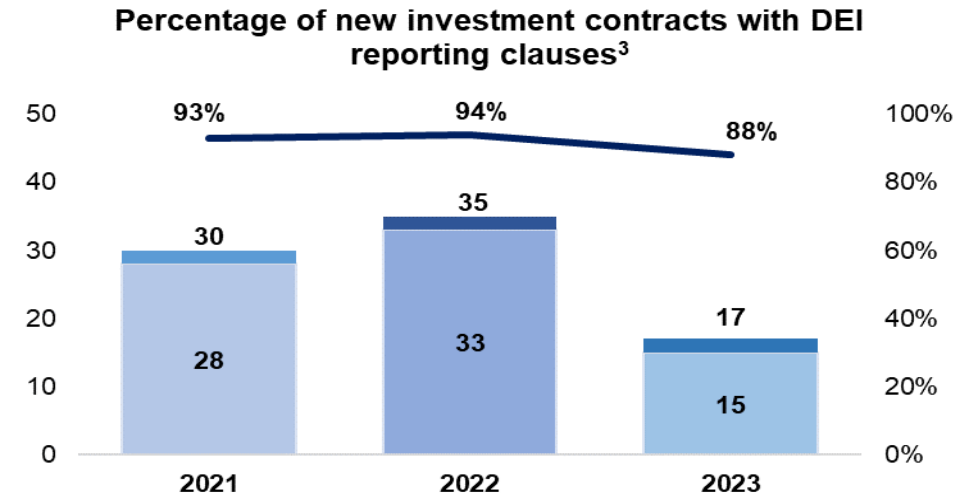
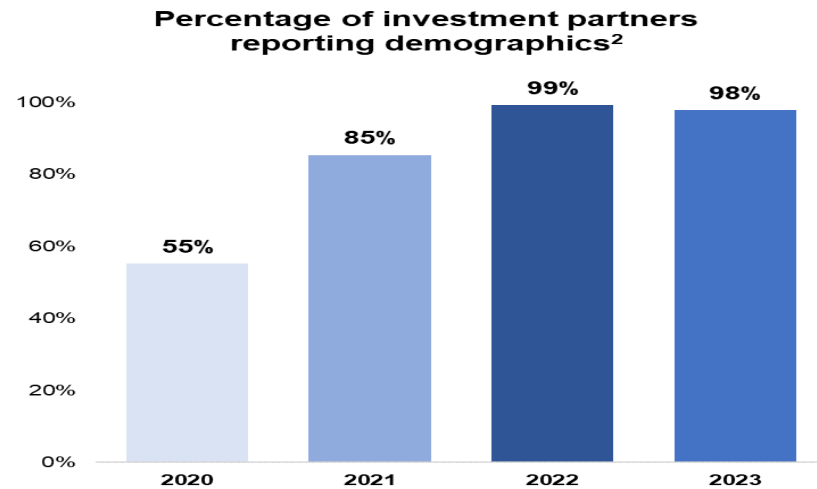
¹ Number of firms assessed: 107 in 2020, 107 in 2021, 130 in 2022, 136 in 2023 (includes U.S. and non-U.S based investment managers; excludes co-investments, liquidating mandates, secondaries, terminated firms, and all asset classes subadvisors' emerging managers who will be assessed in FY2024).

Transparency



Due
Diligence

Objective: 100% of investment partners should report available investment team and firm leadership demographics¹



Observations

- Continued high levels of reporting from nearly all mandates
- Data quality and consistency improving but challenges remain for clarity and cross-border comparability
- Nearly all executed contracts continue to include clauses and terms to promote DEI reporting³
- Diversity attributes remain limited in scope
 - EEO-1 reporting requirements facilitate gender and race disclosures among US firms
 - Reported demographics at some non-US firms limited to gender demographics
 - All firms invited to report additional attributes on self-identified, voluntary basis
 - Some firms invite employees to self-report additional attributes (e.g., LGBTQ, disability status) although challenges to aggregate remain

¹ As permissible according to local market laws, regulations, and privacy concerns.

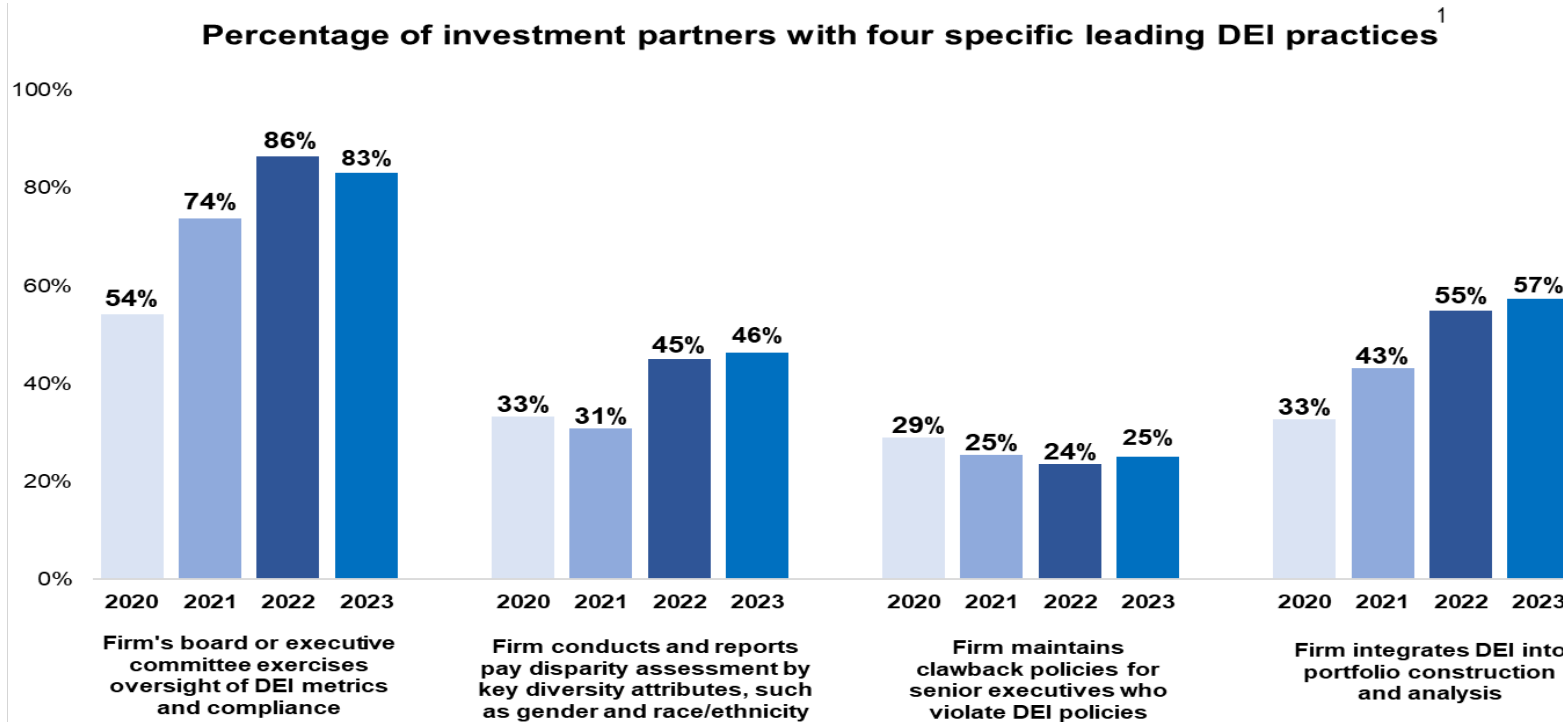
² Number of firms assessed: 107 in 2020, 107 in 2021, 130 in 2022, 136 in 2023. FY2022 one firm (Montefiore) did not provide any demographic information. In FY2023, three firms did not provide any demographic information (Hudson Bay, Montefiore, and Novacap) and one firm (Onex) provides some demographic information but not in comparable format (includes U.S. and non-U.S based investment managers; excludes co-investments, liquidating mandates, secondaries, terminated firms, and all asset classes subadvisors' emerging managers who will be assessed in FY2024).

³ Stacked bars represent number of contracts with DEI clauses out of total contracts completed during each fiscal year and line is percentage representation.



Promote Leading DEI Governance Practices

Objective: Encourage adoption of four practices encouraging adherence to firms' DEI commitments



Observations

- Board oversight of DEI practices is prevalent and has trended upwards over the past four years
- Slight increase in percentage of firms with pay disparity analysis, clawback provisions, and portfolio integration
- Robustness and formality of reported practices vary

¹ Number of firms assessed: 107 in 2020, 107 in 2021, 130 in 2022, 136 in 2023 (includes U.S. and non-U.S. based investment managers; excludes co-investments, liquidating mandates, secondaries, terminated firms, and all asset-classes subadvisors' emerging managers who will be assessed in FY2024).



Sample of Progress from Investment Partners

Discussions and diligence with investment partners indicate several themes and advances in efforts towards inclusion, such as:

- ✓ New software tools are facilitating employees to self-identify and report wider range of DEI attributes
- ✓ Increasing focus on inclusion in senior ranks, investment committee composition, and developing promotion pathways
- ✓ Wider practice of proactively assessing pay parity in more markets

A Global equity manager will expand pay parity analysis from US and UK markets to conduct global analysis for gender equity in 2024

Credit manager expanded 2023 intern class to 67 interns (largest class yet) sourced from 45 colleges and universities to promote exposure to alternative assets management

Global equity firm started conducting pay parity analyses and adopted a new clawback provision

Global equity firm adopted a new clawback policy

Several Private Equity managers started reporting portfolio company board diversity through ILPA ESG Data Convergence Initiative

Private equity firm expanded firm-wide DEI efforts, increasing diverse representation, widening recruitment funnels, and focusing on inclusivity within its portfolio company board of directors

Several large firms have adopted HR software to enable employees to voluntarily report self-identified DEI attributes including LGBTQ, disability, and ethnicity or national origin in various global markets

Global equity firm has focused on mid-level investment career progression and retention through coaching and mentorship



Manager Scorecard DEI Assessments

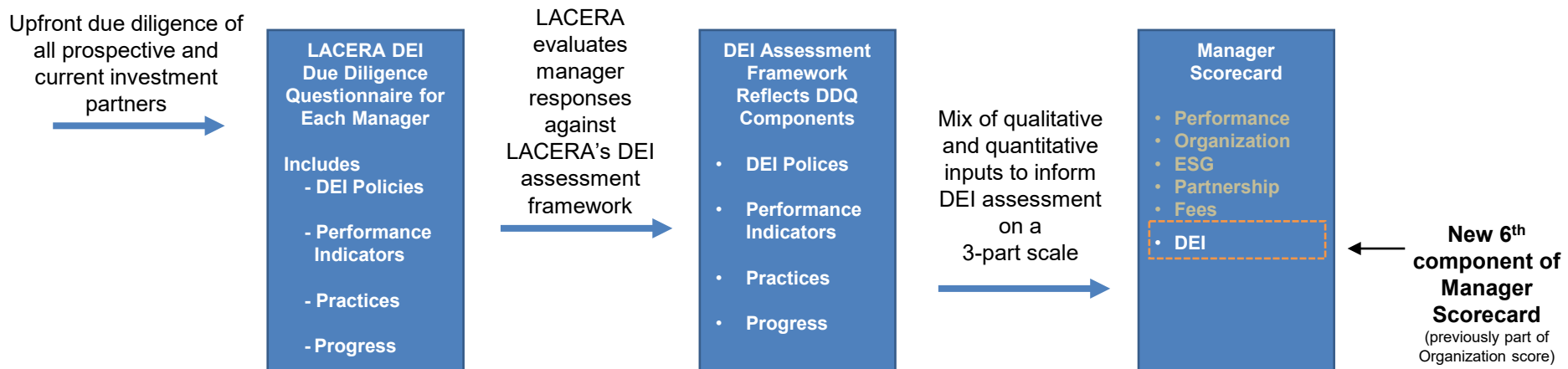
Objective: Develop separate DEI assessment in Manager Scorecard

Recent Activity

- LACERA’s Manager Scorecard covers 5 pillars: organizational strength (includes DEI), fees, performance, ESG, relationship quality
- LACERA developed a DEI assessment framework in 2020 which is aligned with LACERA’s DEI DDQ first launched in 2018
 - All investment mandates assessed and updated across portfolio
 - Each analyst in all asset classes assesses managers’ DEI policies and practices consistent with the same LACERA assessment framework
 - DEI assessment conducted as part of upfront due diligence and then continued through annual DEI update DDQ and manager discussions
 - DEI policies, performance, and progress assessed with both qualitative and quantitative metrics

Next Steps

- LACERA will separate the DEI score from the Organizational Strength pillar and report DEI assessments in performance monitoring reports in 2024



Pillar 3: Active Ownership



Active
Ownership



Stated Objectives

- Vote proxies to advance effective DEI policies and disclosures at portfolio companies
- Advance focused engagement initiative on corporate board quality at portfolio companies, inclusive of (and not limited to) diverse gender, race, and LGBTQ community
- Increase DEI focus in private asset class portfolio companies



Accomplishments

- ✓ Proxy voting and investor focus driving increased DEI disclosures and focus on best practices
- ✓ Over 380 directors of diverse backgrounds appointed at 300 engaged companies in past 5 years
- ✓ Engaged strategic private equity partners on portfolio company board recruitment and DEI practices
- ✓ Reviewed real estate managers on DEI practices within responsible contracting practices



Next Steps

- Continue voting for sensible DEI practices, including disclosure and current market focus on pay parity analysis, clawbacks, equity audits
- Continue board engagement project with California partner funds, including 52 more companies this year
- Integrate takeaways from private equity portfolio boards DEI review into fund underwriting and monitoring

**Active
Ownership**

Encourage sound
DEI practices at
portfolio
companies by
voting proxies and
governance
engagements



Objective: Encourage inclusive board recruitment and workplace practices at portfolio companies through our proxy voting, as outlined in LACERA’s Corporate Governance and Stewardship Principles

Corporate Board Quality and Diversity

Effective Workplace Practices

LACERA Principles Positions

- ✓ Quality boards include diverse backgrounds with the requisite skill mix to oversee strategy and risk on investors’ behalf
- ✓ Diversity is broadly defined, including gender, race, ethnicity, gender identities, sexual orientation, and disability status

- ✓ Effective human capital management helps create firm value
- ✓ Equal opportunity and workplaces free of harassment are key

Notable Voting Updates

- ✓ LACERA opposed 9% of director nominees across markets who serve as Nominating Committee chairs or members in FY2023 for lacking a credible track record of inclusion, based on available board DEI disclosures¹

- LACERA support effective DEI-related shareholder proposals:
- ✓ Pay equity proposals
 - ✓ Civil rights/racial equity audits to assess disparate impacts of business services or products
 - ✓ Assess effectiveness of DEI policies

Market Trendlines

- ✓ All large U.S. firms now have some gender and racial representation
- ✓ Emerging research on LGBTQ inclusion: 3% of Russell 3000 directors²
- ✓ Race/ethnicity representation is uneven among broad U.S. index³
 - ❖ 8% disclosed as Black/African American
 - ❖ 7% disclosed as Asian
 - ❖ 4% disclosed as Hispanic/Latin American
- ✓ Some non-U.S. markets have very low gender inclusion
 - ❖ Highest percentage of firms with no women on boards: Saudia Arabia (73%), Indonesia (44%), Mexico (27%), Taiwan (27%), China (25%), and South Korea (21%)⁴

- ✓ Inaugural civil rights assessments issued by several U.S. financial firms in 2023, including BlackRock and State Street
- ✓ More focus on pay equity analyses
 - ❖ 32% of larger firms disclose gender equity analysis⁵
 - ❖ 24% of larger firms disclose race/ethnicity pay analysis⁵
- ✓ More focus on DEI initiatives
 - ❖ 26% of larger firms disclose initiatives to increase diversity and equal opportunity through hiring, workforce composition, promotion, or retention⁵

¹ Analysis by LACERA and ISS covers FY2023 proxy votes.

² The Conference Board, “How Board Diversity Can Contribute to Board Effectiveness”, <https://www.conference-board.org/pdfdownload.cfm?masterProductID=49284>.

³ ISS Corporate Solutions, “Russell 3000 Boards Becoming More Diverse”, <https://insights.issgovernance.com/posts/russell-3000-boards-becoming-more-diverse/>.

⁴ MSCI ESG Research LLC, “Women On Boards: 2022 Progress Report”, https://www.msci.com/documents/10199/36771346/Women_on_Boards_Progress_Report_2022.pdf.

⁵ Just Capital, “The Corporate Guide to Human Capital Disclosure”, <https://justcapital.com/reports/corporate-guide-to-human-capital-disclosure/>.



Corporate Board Diversity Engagement Initiative



368 directors appointed at
291 engaged companies over
5 years

Objective : Encourage board quality by casting a wide net for director talent, inclusive of diverse backgrounds i.e., gender, race/ethnicity, LGBTQ

Initiative: 5th year of collaborative engagement with peer California funds (CalPERS, CalSTRS, and San Francisco ERS)

- Identify and engage portfolio companies lagging in board diversity based on available disclosures
- Letters and dialogues with corporate directors to encourage robust board self-evaluation to identify requisite skills and wide recruitment

Progress Report

- **36 directors** appointed at 28 of 60 at engaged US firms last year
 - ✓ 26 women and 22 directors of color, of whom 12 women of color
- **368 directors appointed over past four years** at 219 boards of the 291 total engaged companies
 - ✓ Includes both women and people of color
 - ✓ 4 firms disclosed LGBTQ board representation
 - ✓ All disclosures on voluntary, self-identified basis

Next Steps: Current FY2024 Engagement Cycle

- LACERA and partner funds are currently engaging 52 additional firms

Expand DEI Engagements in Private Market Portfolio Companies



Active
Ownership

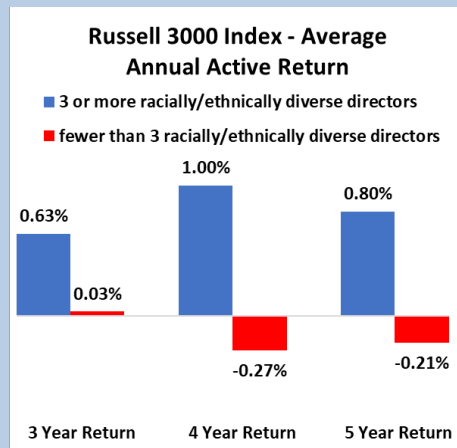
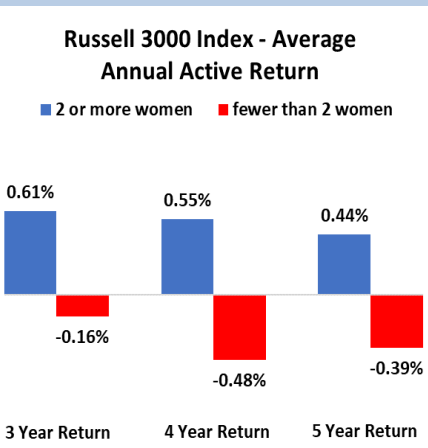
Objective: Advance portfolio company board diversity across range of attributes and constructive DEI practices in private markets to encourage firms to cast wide net for talent

Initiatives

- Launched project to engage a representative sample of nine private equity firms to discuss their strategies to ensure diverse perspectives and backgrounds on portfolio company boards to oversee business strategy and growth
 - All firms engaged recently started tracking diversity statistics of portfolio companies and utilize outside directors on portfolio company boards
 - All firms engaged emphasize diversity as a consideration in ensuring board quality
 - Outside board directors are typically sought out for specific skills or experience outside of deal team expertise
 - Some firms utilize formal value creation plans to guide director search, but most rely on more informal processes
- Restated Responsible Contractor Policy (RCP) in 2022, incorporating DEI expectations of real assets managers (*Reported at Nov 2023 BOI meeting*)

Next Steps

- Incorporate questions into LACERA's standard private markets due diligence questionnaire on how general partners compose portfolio company boards
- Request portfolio company board and workforce DEI data from general partners, when available



- Empirical evidence continues to show board diversity correlates with outperformance¹
- However, private equity portfolio company boards indicate low inclusion profiles across the industry:²
 - 32% have no women³
 - 16% of directors are women
 - 4% are women of color
 - 20% are men of color

¹ Institutional Shareholder Services, "The Content of Their Character: How Diversity & Inclusion Continue to Drive Change", <https://insights.issgovernance.com/posts/the-content-of-their-character/>.

² Him for Her & Crunchbase, "2022 Study Of Gender Diversity On Private Company Boards", <https://news.crunchbase.com/diversity/2022-gender-study-private-boards/>.

³ Data covering corporate board diversity at private companies not widely available; study analyzed 667 companies of which 213 had no women serving on their boards.

Pillar 4: Capital Formation

Capital Formation

Strategies to facilitate capital formation among firms with diverse ownership, such as emerging managers



Stated Objectives

- Systematically track firm ownership attributes across Fund, as available
- Take holistic view of capital formation by tracking allocations by firm demographics
- Ensure robust emerging manager opportunities across Fund
- Identify opportunities to widen sourcing funnel



Accomplishments

- ✓ Expanded systematic reporting on firm ownership demographics
- ✓ Increased emerging manager program opportunities
 - Launched search for Real Assets emerging manager separate account manager
- ✓ Continued annual review of the diversity practices of all LACERA's investment consultants
- ✓ Implemented new centralized routing for incoming opportunities via newopportunities@lacera.com



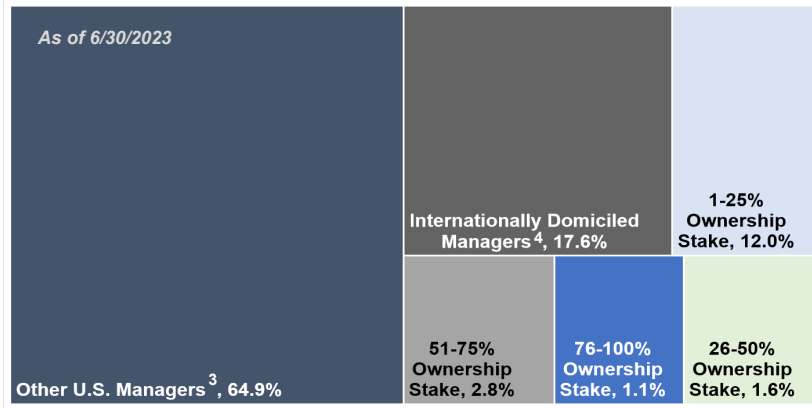
Next Steps

- Continue to enhance insights on firm ownership demographics, where available
- Continuously widen sourcing funnel for managers who embrace diverse teams to improve portfolio results
- Further expand emerging manager opportunities with funding of Real Assets emerging manager program
- Provide the Board statistics on investment managers' utilization of diverse brokerage programs in future presentations

Investment Partners by Firm Ownership

Objective: Systematically track demographics of investment partners' ownership across all mandates (to the extent they are available and reported) to monitor reach of inclusion of LACERA's capital commitments

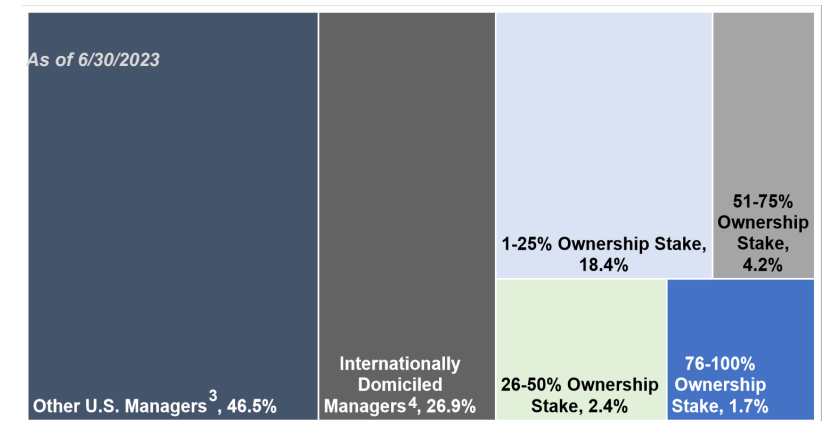
Total Fund AUM by Firm Ownership¹



- An aggregate of 17.5% of total Fund AUM is managed by U.S.-based firms with a portion of firm ownership held by women or people of color²
- This increased from 14.6% in 2022 and 6.9% in 2021 in part due to enhanced reporting. In absolute terms, assets managed by U.S.-based diverse firms equaled US\$12.9 billion compared to \$US\$10.1 billion in 2022, and US\$5.0 billion in 2021
- 1.9% of total Fund AUM (\$1.4 billion) are managed by U.S.-based firms with diverse ownership in LACERA's emerging manager programs, relatively even from 1.8% from last year, compared to 1.3% (\$910.4 million) in 2021 and 1.2% (\$582.6 million) in 2020

Active AUM by Firm Ownership¹

- 26.7% of assets (\$12.9 billion) in actively-managed mandates (i.e., excluding passive index strategies) are managed by U.S.-based firms with diverse ownership, increased from 22.2% in 2022 and up from 10.6% in 2021
- 2.9% (\$1.4 billion) of actively managed strategies are managed by U.S.-based firms with diverse ownership that are in LACERA's emerging manager programs, relatively unchanged from 2.8% from last year, and increased from 1.5% in 2021



¹ Firm ownership profiles assessed for 59 U.S.-based firms where ownership data was disclosed (includes private equity emerging managers but excludes other asset subadvisors' emerging managers who will be assessed in FY2024).

² Diverse ownership indicates firms that report a portion of equity ownership by women and/or people of color based on EEO-1 classifications. Firms were invited to report additional DEI attributes. Additional DEI attributes were not uniformly reported in a manner that could be incorporated into analysis nor had a material impact on the calculations reported in the charts. LACERA will continue to endeavor to incorporate additional reporting in the future.

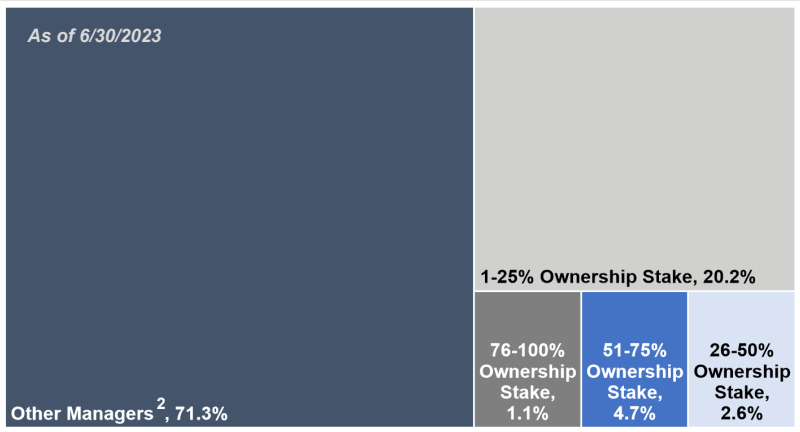
³ "Other US Managers" includes publicly traded companies (individual ownership data not available), co-investments, liquidating mandates, secondaries, terminated firms and US-based managers with no reported equity ownership by women or people of color.

⁴ "Internationally Domiciled Managers" category represents assets managed by non-U.S. firms, regardless of ownership DEI attributes.

Fee Analysis by Firm Ownership

Objective: Monitor fee distribution by reported investment partners' ownership across all mandates (to the extent they are available and reported) to monitor equity and inclusion of LACERA's capital commitments

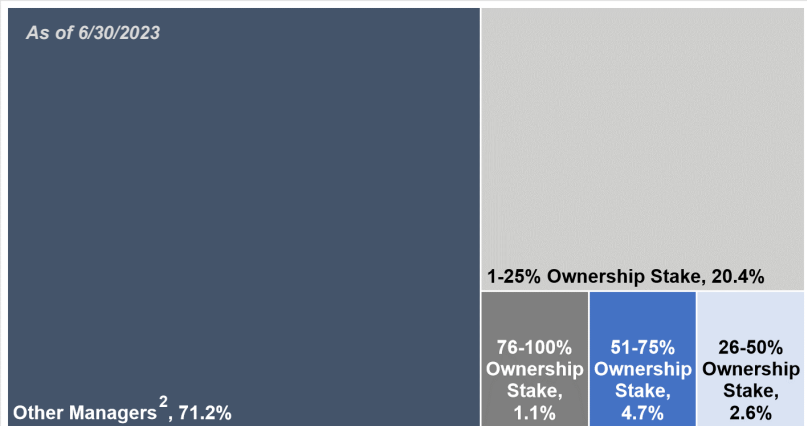
Total Fund Fees Paid by Ownership¹



- Aggregate fees paid to U.S.-based firms with diverse ownership increased to 28.7% of total Fund fees paid, compared to 25.4% in 2022 and 12.7% in 2021
- Fees paid to emerging managers with diverse ownership represent approximately 4.7% of total Fund fees paid. This is modestly increased from 4.1% from previous year and 2.8% from 2021³

Active Fees Paid by Ownership¹

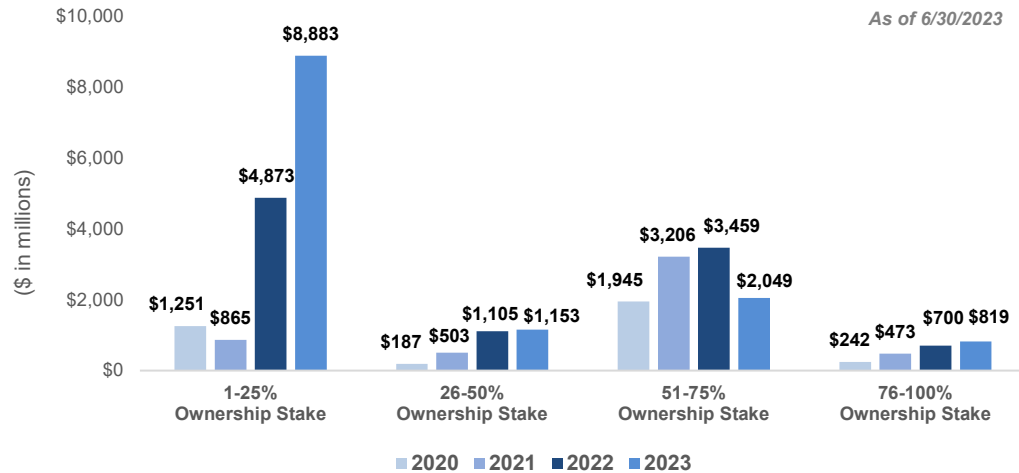
- Fees paid to U.S.-based firms with diverse ownership in actively-managed investment mandates rose to 28.8% of total active fees paid, relative to 25.6% last year and 12.8% in 2021
- Emerging managers with diverse ownership represent approximately 4.7% of fees for actively managed mandates, modestly increased from 4.1% in 2022 and 2.8% in 2021



¹ Firm ownership profiles assessed for 59 U.S.-based firms where ownership data was disclosed (includes private equity emerging managers but excludes other asset subadvisors' emerging managers who will be assessed in FY2024).
² "Other Managers" includes publicly traded companies that do not disclose broad employee ownership, U.S.-based managers with no diverse ownership, and internationally domiciled managers.
³ LACERA's Emerging Manager Policy defines emerging managers as independent firms that have less substantial assets under management and may be composed of diverse-owned firms and non-diverse-owned firms.

Investment Partners Trend Analysis

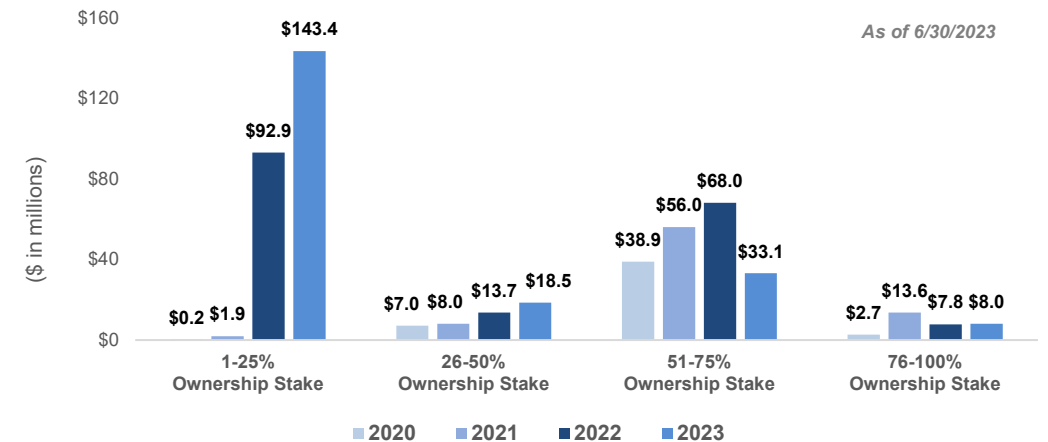
US AUM by Ownership¹



- Increased representation of firms with diverse ownership largely driven by LACERA more deliberately inviting all firms to provide available demographics of their equity owners
- In absolute dollar terms, total AUM managed by firms with diverse ownership equaled \$12.9 billion. This increase is due to more firms reporting demographics of their equity owners and similar to last year, resulted in a substantial rise in the 1-25% diverse ownership category
- After normalizing changes in reporting firms for the year-over-year data, the percentage of assets managed by firms with diverse ownership remained relatively unchanged from prior year

US Fees Paid By Ownership¹

- In absolute dollar terms, total fees paid to managers with diverse ownership rose to \$202.9 million. This gain is mostly due to an increase in number of firms reporting equity ownership demographics
- After normalizing the year-over-year manager data and comparing it to year-over-year AUM, fees paid to managers with diverse ownership remained flat
- LACERA consistently structures each mandate with the best possible terms available across the total Fund to enhance future outcomes

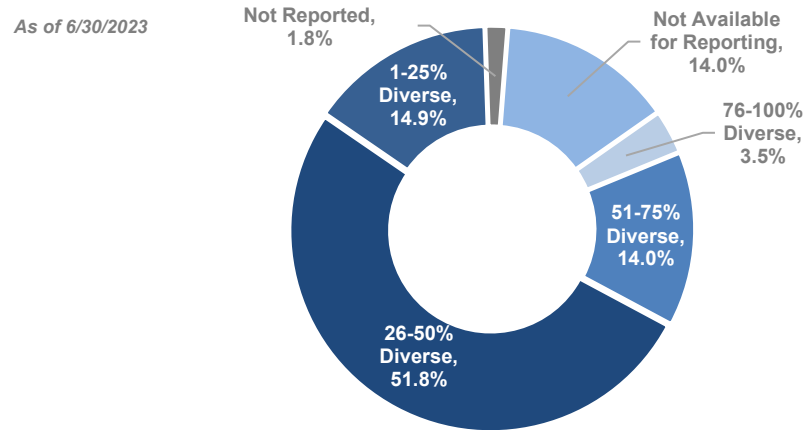


¹ Firm ownership profiles assessed for 59 U.S.-based firms where ownership data was disclosed (includes private equity emerging managers but excludes other asset subadvisors' emerging managers who will be assessed in FY2024).

Investment Partners Demographic Attributes

Objective: Monitor capital commitments by demographics of investment partners' investment and leadership teams as new firms may be founded by professionals from established firms

Breakdown of U.S. Managers by Investment and Leadership Team Demographics¹

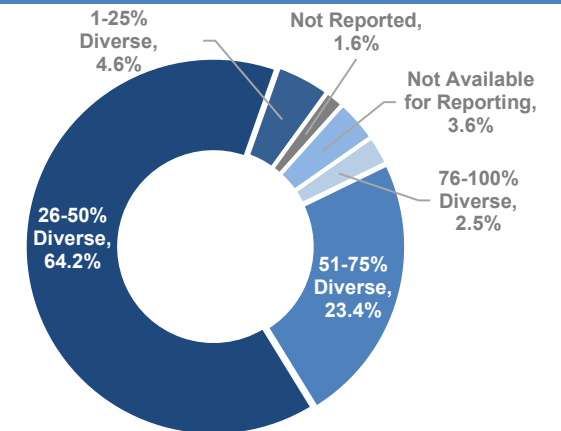


- The U.S. manager distribution by reported demographics shows the percent composition of investment and leadership teams that are women and/or people of color, based on firm-provided demographic information²
- For example, 17.5% of investment partners have investment and leadership teams comprised of over 50% women and/or people of color

Total LACERA AUM by U.S. Demographic Composition¹

- The chart on the right shows the distribution of LACERA's assets managed by U.S.-based managers divided by quartile of their combined investment and leadership team demographics that include women and/or people of color
- For example, over 25% of LACERA assets are managed by teams with greater than 50% of their combined investment and leadership comprised of women and/or people of color. Team demographics remained relatively unchanged across the various categories

As of 6/30/2023



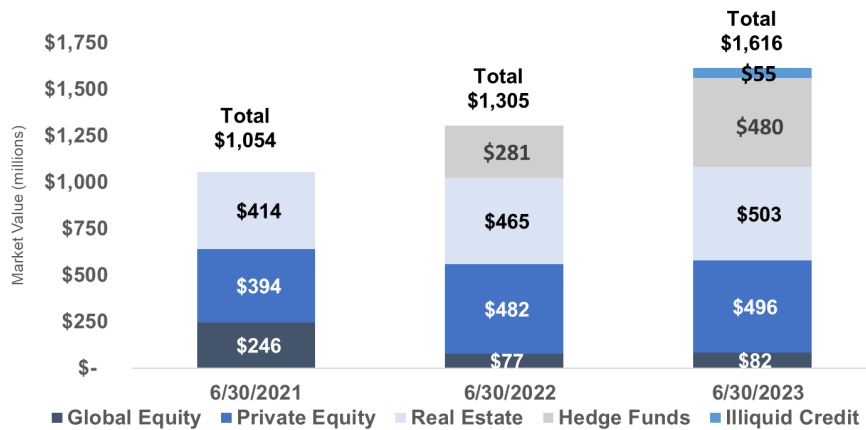
¹ Firm demographic profiles available for 98 U.S.-based firms where demographic data was disclosed. "Not Available for Reporting" category includes co-investments, liquidating mandates, secondaries, terminated firms, and subadvisors' emerging managers; latter will be assessed in FY2024.

² Diverse investment and leadership team demographics reflect firms' composition of their investment and leadership teams by women and/or people of color based on EEO-1 classifications. Firms were invited to report additional DEI attributes. Additional DEI attributes were not uniformly reported in a manner that could be incorporated into analysis nor had a material impact on the calculations reported in the charts. LACERA will continue to endeavor to incorporate additional reporting in the future.

Broadening Inclusion through Emerging Manager Programs

Objective: Evaluate newer firms that may generate attractive returns, stemming from flexibility provided by smaller asset bases and more nimble investment approaches

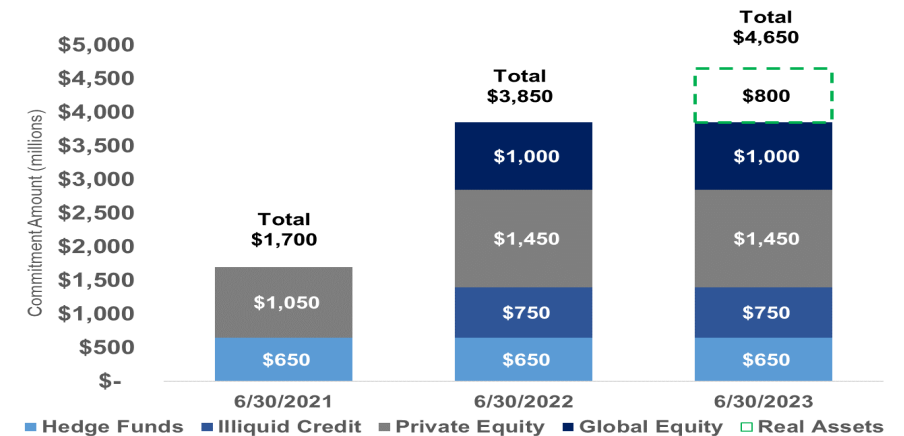
LACERA Emerging Manager Market Value



- LACERA's emerging manager market value increased to \$1.6 billion in June 2023, compared to \$1.3 billion in June 2022 and \$1.0 billion in June 2021 mainly due to increased investments to emerging managers
- LACERA deployed \$255 million to new emerging manager mandates during fiscal year (\$200 million to hedge funds and \$55 million to illiquid credit)
- Majority of new allocations to emerging managers are in drawdown vehicles and may take longer for LACERA to deploy capital
- Two global equity emerging manager separate account manager mandates being finalized

Expanding Allocation Opportunities to Emerging Manager Asset Categories

- LACERA increased its emerging manager target allocations by \$800 million from prior year, and almost by \$3.0 billion from June 2021
 - Illiquid Credit emerging manager program approved for 15% target allocation in October 2021
 - Private equity initiated its 5th emerging manager program with a \$400 million allocation in February 2022
 - Board increased global equity emerging manager program target range by 5% (~\$1 billion) in October 2022
 - Real Assets emerging manager program launched with a \$800 million allocation in January 2023 (\$400 million to Real Estate and \$400 million to Infrastructure and Natural Resources)

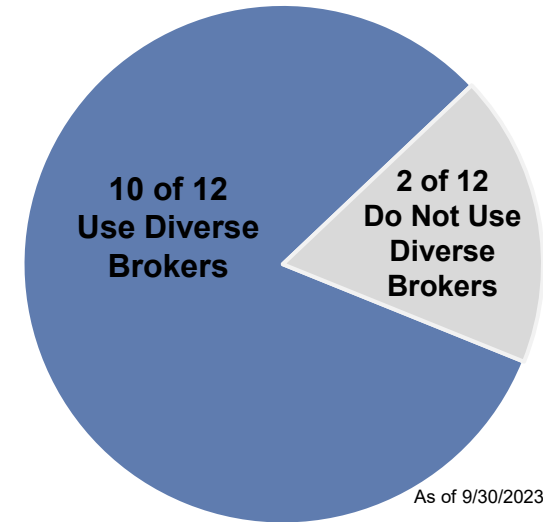


Investment Partners and Diverse Brokers

Objective: Assess and monitor how investment partners access brokerage services, including firms with diverse ownership, to highlight effective practices that deliver optimal outcomes for LACERA’s investments and consider best practices in manager due diligence and monitoring

Update: During 2023, LACERA assessed all investment partners managing public equities mandates for LACERA to understand the reach, opportunities, and constraints of accessing and using brokerage services that have diverse ownership

- Notably, the majority of investment managers (10 of 12) use diverse brokers¹
- Firms’ usage of diverse brokerage providers varies by trade volume depending on the opportunity set available for the specific mandate, the strategy type, and the geographic market (i.e., U.S. versus Europe)
- All of LACERA's investment partners have established programs to evaluate available brokerage firms as part of their efforts to deliver best execution consistent with regulatory requirements
- Four of LACERA’s largest investment partners have dedicated programs to actively seek and engage brokerages with diverse ownership



Next Steps:

- Expand LACERA’s assessment and measurement of investment partners to all asset classes utilizing brokerage services
- Conduct deeper analysis of opportunities and considerations for future presentation and discussion with the Board

¹ Note that firms analyzed define diversity differently, often citing various federal program guidelines and eligibility requirements, and included reference to businesses that are majority-owned by individuals based on attributes such as gender, race/ethnicity, veteran status, physical abilities/disability, and LGBTQ status.

Pillar 5: Industry Advocacy

**Industry
Advocacy**

Strategies to improve LACERA's opportunity set by advancing DEI best practices across the financial services industry



Stated Objectives

- Expand industry influence through active engagement initiatives
- Collaborate with peers to identify and disseminate effective practices and increase reporting reliability
- Sponsor events on diversity, equity and inclusion with increasing reach
- Become a recognized leader in advocating for DEI in investment management industry



Accomplishments

- ✓ Trustees and staff participated at over 75 events since launch of LACERA T.I.D.E.
- ✓ Continued collaboration and outreach with affinity groups, industry organizations and business partners to increase visibility of LACERA's advocacy efforts
- ✓ Board of Investments approval to become a signatory to the CFA Institute DEI Code
- ✓ Co-created a series of nine Southern California investors' roundtable discussions and led two virtual DEI conferences in collaboration with the CFA Society of Los Angeles



Next Steps

- Continue outreach to organizations to broaden advocacy of LACERA T.I.D.E.
- Seek to influence trade organizations, consultants and other business partners to improve quality of DEI data and disclosures and to disseminate best practices
- Support efforts to develop effective DEI disclosures in non-U.S. markets, such as CFA DEI Code market-based codes in development in Australia and more forthcoming markets
- Explore strategies to consolidate data collection and dissemination across the investment management industry

Expand Industry Influence



Objective: Expand industry influence through active engagement initiatives

Update: Trustees and staff participated at over 75 events since launch of LACERA T.I.D.E.

Select Events and Partnerships Since Launching T.I.D.E.

AAAIM Conference
Accelerate Investors West Coast Forum
Bloomberg Women's Network
CALAPRS Trustees Roundtable
Catalyst: California's Diverse Investment Manager Forum
Council of Institutional Investors
Girls Who Invest
Hispanic Heritage Foundation Investors Forum
ILPA Diversity in Action Roundtable
Investment Diversity Advisory Council
LACERA and CFALA annual DEI Conference
LACERA/CFALA Diversity Roundtables
LAVCA - The Association for Private Investments in LatAm
NAIC Diverse Manager Roadshow
NASP SoCal
Nossaman DEI Roundtable
Prequin Women in Alternatives
RFK Compass Winter Investors Conference
Southern California Institutional Forum
Women In Institutional Management
Women Investment Leaders Summit

Highlighted Events Attended within the Past Year



Featured speaker at the Association of Asian American Investment Managers' Elevate Conference



LACERA co-launched an annual diversity, equity, and inclusion conference as well as a series of DEI roundtable discussions throughout the year



Participant in the panel discussion during the Girls Who Invest Orientation of the Summer Intensive Program



Featured speaker at the 10th Annual Hispanic Heritage Foundation Investors Forum



Featured speaker at the IDAC Global Summit, a forum for investment organizations to share best practices and document progress on DEI

Collaborate to Advance Best Practices

Objective: Collaborate with peers to identify and disseminate effective practices

Update: Ongoing outreach with industry organizations, asset managers, consultants and other public pension plans



LACERA actively collaborates with industry groups to advance effective practices within the investment management industry. Highlights include:

Enhance DEI and Human Capital Disclosures

- Chaired Council of Institutional Investors through Spring 2023, including support for DEI educational programming, diverse speaker recruitment, and advocacy for DEI reporting at regulatory and standard setting agencies
- ILPA DEI Committee member and continuous collaboration on ILPA DEI metrics template and DDQ
- Support IFRS sustainability reporting framework including human capital and DEI corporate reporting, including June 2023 launch of global baseline ESG corporate reporting guidance
- PRI committee member and collaboration on PRI DEI DDQ template launched in 2022

Increased Dialogue with Emerging Managers

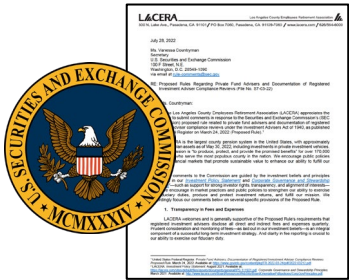
- Emerging manager conversations through AAAIM, NAA, NAIC, and NASP
- NASP SoCal Trustee Conference

Identify and Disseminate Effective Practices



Objective: Collaborate with peers to identify and disseminate effective practices

Update: Continue to make strides through various avenues to promote increased availability, transparency and quality of DEI data



LACERA Engages the SEC on Diversity and Side Letter Matters

- LACERA comment letter and continued advocacy to encourage the Securities and Exchange Commission (SEC) to require public companies to disclose human capital metrics, including workforce composition, such as DEI information
- LACERA SEC comment letter to discourage proposed restrictions on side letter agreements with private fund managers, by which LACERA has successfully prompted routine reporting on manager DEI policies and track records



Board of Investments Approves Becoming a Signatory to the CFA Institute DEI Code

- LACERA became signatory to the CFA Institute's DEI Code in April 2023, committing to the Code's six Principles to drive DEI progress in talent pipeline, staff acquisition, promotion and retention, leadership, influence, and measurement
- Trustee's approval of LACERA's participation allows for potential benefits such as i) further advancement of TIDE advocacy, ii) ability to drive further adoption of the DEI Code, iii) the ability to further standardize disclosures surrounding DEI demographics, including in non-U.S. markets where DEI reporting is currently limited



LACERA supports CII in Advocating for Increased Diversity in Capital Markets

- Moderated conference panel on strategies for asset owners to diligence investment partners
- Support of CII advocacy, including NASDAQ listing requirement for companies to include board directors of diverse racial, gender, and LGBTQ backgrounds or explain why they do not, as well as legislative proposals for board diversity disclosures

Increasing Reach Through Event Sponsorship



Objective: Sponsor events on diversity, equity, and inclusion with increasing reach

Update: LACERA, in partnership with the CFA Society of Los Angeles, has launched nine DEI roundtables and two annual conferences surrounding diversity, equity, and inclusion with local industry participants

LACERA and CFALA Roundtables

- Roundtable discussions include 10 to 40 participants across Southern California asset owners, investment managers, and investment consultants to facilitate intimate DEI discussions
- Topics address advancing DEI within the investment management industry, i.e. establishing diversity policies, expanding recruiting practices, employee retention, and implementing key performance indicators to effectuate change
- Conversations are intimate and genuine to delve into the benefits of increased DEI representations as well as strategies to overcome potential obstacles

CFALA and LACERA Virtual DEI Conference

- Virtual conferences feature fireside chats with senior leaders from Southern California asset managers and owners to discuss DEI progress and implementation
- Guest speakers attend DEI to provide expert insight on topical DEI events and regulation
- Broader platform to disseminate best practices gleaned from the preceding roundtable discussion
- Deliberately virtual to allow for broader participation across geographies and time zones



Observations



1. Increased industry focus on DEI

- Multi-year trendlines indicate more firms with DEI policies, formal practices, and focused initiatives
- DEI recognized as integral to organizational diligence, with almost all firms reporting policies and available demographics
- Uneven advances (i.e., board diversity expansion shows asymmetric advances in inclusion)

2. LACERA's active, routine engagement pays dividends across asset categories

- Upfront due diligence and side letters help set expectations for routine diligence and reporting
- Follow-up and routine reporting cultivate candor and accountability
- Reporting extends across public and private firms, across regions, across firm sizes

3. Information and insights are more available, but still face challenges

- New industry DEI templates have facilitated reporting (new AIMA, PRI, CFA Institute, ILPA templates) and include nascent efforts to facilitate reporting in non-U.S. markets with regulatory restrictions on employee information
- LACERA onboarded diligence software to facilitate reporting and tracking of all investment partners
- Spectrum of reported DEI attributes remains limited, although leading firms increasingly enable employee self-reporting

4. Broadening focus beyond representation to inclusion and equity


- Expanding strategies to proactively assess equitable access and treatment (i.e., pay parity analyses, civil rights equity audits)
- Some industry efforts to assess hard-to-measure dimensions (i.e., diversity of thought)
- Internal efforts include focus on inclusive internal investment committees and workplace practices

5. Wider insight into manager quality helps inform LACERA's investment process

- DEI diligence provides insight into managers' talent management (i.e., recruitment, pipeline, attrition, succession planning)
- More insight strengthens LACERA's diligence to make informed investment decisions

December 4, 2023

TO: Trustees – Board of Investments

FROM: Jonathan Grabel 
Chief Investment Officer

Jude Pérez 
Deputy Chief Investment Officer

FOR: December 13, 2023 Board of Investments Meeting

SUBJECT: STRATEGIC ASSET ALLOCATION REVIEW

One of the Board of Investments ("BOI") core responsibilities is setting LACERA's Strategic Asset Allocation ("SAA"). The SAA is the key driver of long-term risk and return for the Fund, and therefore, is the method to meet LACERA's mission to produce, protect, and provide the promised benefits. SAA studies are performed for the LACERA Pension Plan as well as the OPEB Master Trust.

Furthermore, LACERA's Investment Beliefs state that long-term SAA will be the primary determinant of risk/return and further expresses five key tenants of the SAA:

- 1. It is important that LACERA be forward-looking, as its investment horizon spans decades, if not indefinitely into the future;**
- 2. Asset allocation has a greater effect on return variability than asset class investment structure or manager selection;**
- 3. Asset allocation is a critical source of investment diversification to optimize growth and mitigate risk across the total Fund;**
- 4. Asset allocation must carefully consider plan liabilities, actuarial assumptions, and capital market assumptions; and**
- 5. Rebalancing the portfolio is a key aspect of prudent long-term asset allocation policy.**

Per the Investment Policy Statement ("IPS"), comprehensive asset allocation studies are conducted every three to five years or at the Board's request. The last SAA study was completed and approved in 2021. Per the IPS standard and as highlighted in the 2023 Work Plan, the next SAA review cycle will commence soon after the fiscal year-end.

In the coming months, Meketa and the investment team will provide a series of educational topics on various elements of the SAA study, including an overview of return expectations,

evaluating capital market expectations, reviewing asset classes and benchmarks, and considering a risk budgeting framework for the Fund. These educational sessions will inform recommendations that will be presented to the Board as part of the SAA study.

As part of the ongoing Strategic Asset Allocation study, Meketa recently conducted a brief survey subsequent to an introduction to Asset Liability Management. The survey aimed to gather Trustee input on crucial considerations, risks, and implementation factors pertinent to the strategic asset allocation study. This input is of significance as the survey results will serve as a foundation for prioritizing objectives, ultimately guiding Meketa in proposing alternative allocations anticipated to meet LACERA's return objectives. In the following presentation (**ATTACHMENT**), Meketa will examine the survey findings and engage in discussions to frame optimization parameters, setting the stage for the broader strategic asset allocation dialogue.

Attachment

Los Angeles County Employees Retirement Association

December 2023

Strategic Asset Allocation



Los Angeles County Employees Retirement Association

Agenda

Month	Preliminary Asset-Liability Study Topics
October 2023	<ul style="list-style-type: none">• <i>Key Risk Assessment and Enterprise Risk Management</i>• <i>Actuarial Background</i>• <i>Strategic Considerations</i>
December 2023	<ul style="list-style-type: none">• Survey Results• Baseline Modeling and Preliminary Risk Philosophy• Asset Class Constraints• Optimization Process
February 2024	<ul style="list-style-type: none">• Final Capital Market Expectations
March 2024	<ul style="list-style-type: none">• Updated Baseline Model Output and Risk Philosophy Selection• Sample Portfolio Comparisons
April 2024	<ul style="list-style-type: none">• Finalize Model Output• Stress Testing• Final Portfolio Recommendations



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Intro & Overview

- As part of the Strategic Asset Allocation study, the BOI was asked to complete a brief survey following an introduction to Asset Liability Management.
- The purpose of the survey was to solicit Trustee input of key considerations, risks, and implementations for the strategic asset allocation study.
- This is important as the results of the survey will be used to prioritize objectives. These objectives will then lead to Meketa proposing alternative allocations that are expected to lead to relative better outcomes.
- Today, we will review the survey results, and facilitate a discussion regarding framing the optimization parameters to guide the remainder of the strategic asset allocation discussion.

SAA Survey



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Relative Importance Questions

Questions	Importance Scale						Ranking
	1 = Most Important to 6 = Least Important						
	1 (%)	2 (%)	3 (%)	4 (%)	5 (%)	6 (%)	
Q5 Minimizing major total portfolio declines	22	44	11	11	11	0	456
Q2 Maintaining consistent progress along the current Funding Progress Path	44	11	11	11	22	0	444
Q6 Minimizing liquidity stress (forced selling of illiquid assets to rebalance and make benefit payments)	22	22	22	33	0	0	433
Q4 Maintaining contribution certainty	11	0	56	22	0	11	367
Q3 Minimizing average contributions into the Plan	0	22	0	0	44	33	233
Q1 Achieving a final funding ratio of at least 100% by the end of the funding period	0	0	0	22	22	56	167

- Q5 (Minimizing major portfolio declines) and Q2 (Funding Path) held the highest ranking of importance.
- Q1 (100% Target) and Q3 (Average Contributions) held the least ranking of importance.

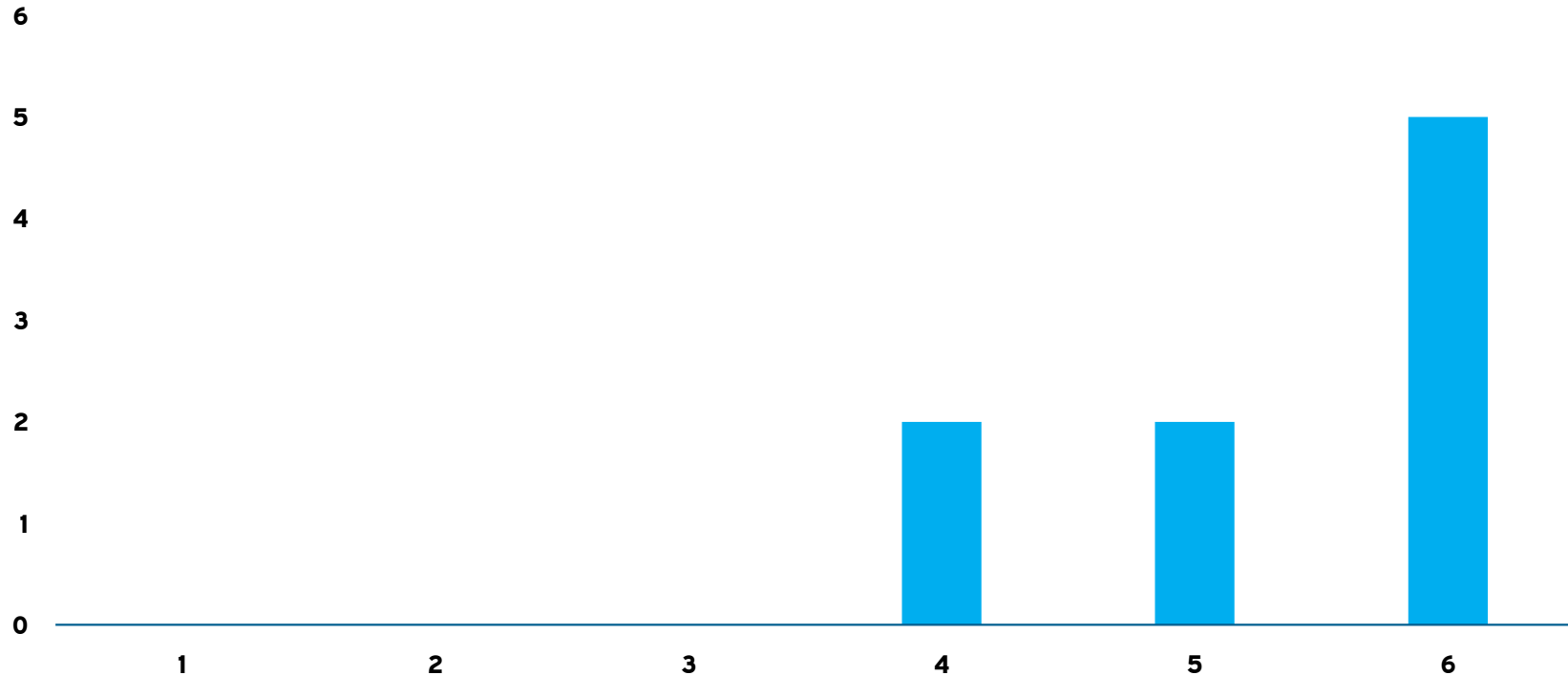
¹ Ranking = 6X Score of 1 + 5X Score of 2 + 4X Score of 3 + 3X Score of 4 + 2X Score of 5 + 1X Score of 6.



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Relative Importance Question #1

Survey Question #1: Achieving a final funding ratio of at least 100% by the end of the funding period (1 being most important and 6 being least important)



- Average score = 5.3; relatively lowest priority (2021 adjusted score of 2.5)*
- There is a strong consensus that achieving a 100% final funding ratio is not an important objective.
- This is a change from 2021 when last surveyed on this issue.

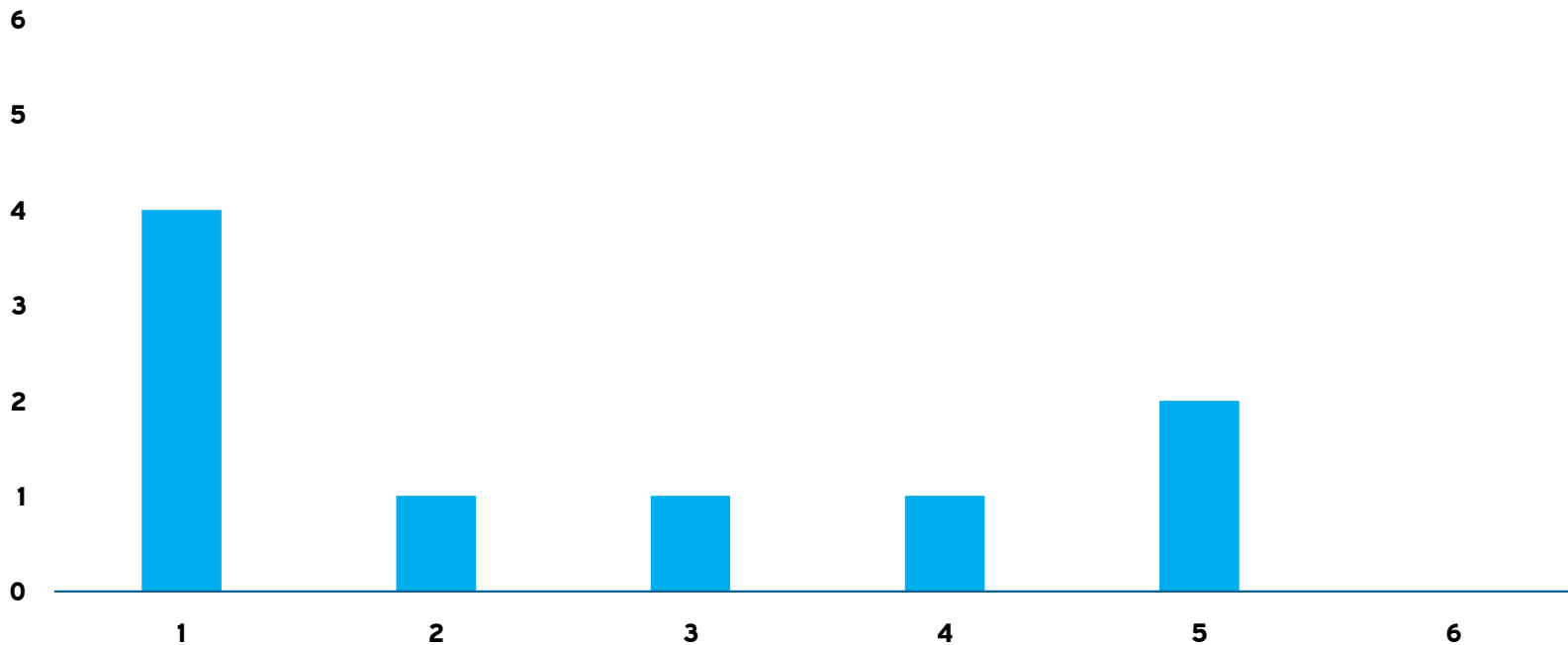
*2021 score adjusted for new 2023 scale given one additional objective in the ranking question.



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Relative Importance Question #2

Survey Question #2: Maintaining consistent progress along the current Funding Progress Path
(Intermediate-term goal focus)
(1 being most important and 6 being least important)



- Average score = 2.6; relatively high priority (2021 adjusted score of 2.5)*
- There is mainly a consensus that maintaining progress along the Progress Path is an important objective.

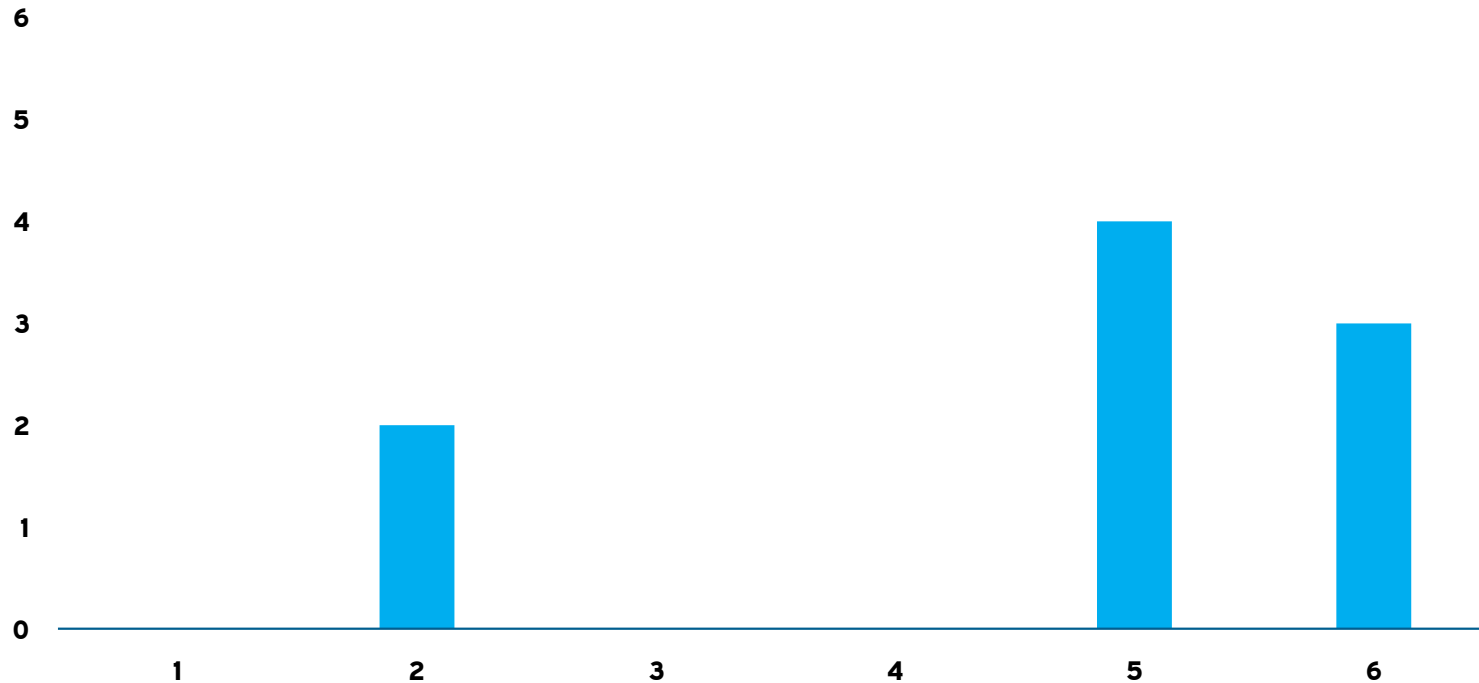
*2021 score adjusted for new 2023 scale given one additional objective in the ranking question.



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Relative Importance Question #3

Survey Question #3: Minimizing average contributions into the Plan
(1 being most important and 6 being least important)



- Average score = 4.7; relatively low priority (2021 adjusted score of 4.4).
- While there is some dispersion among the results, this objective was ranked as one of the least important objectives.

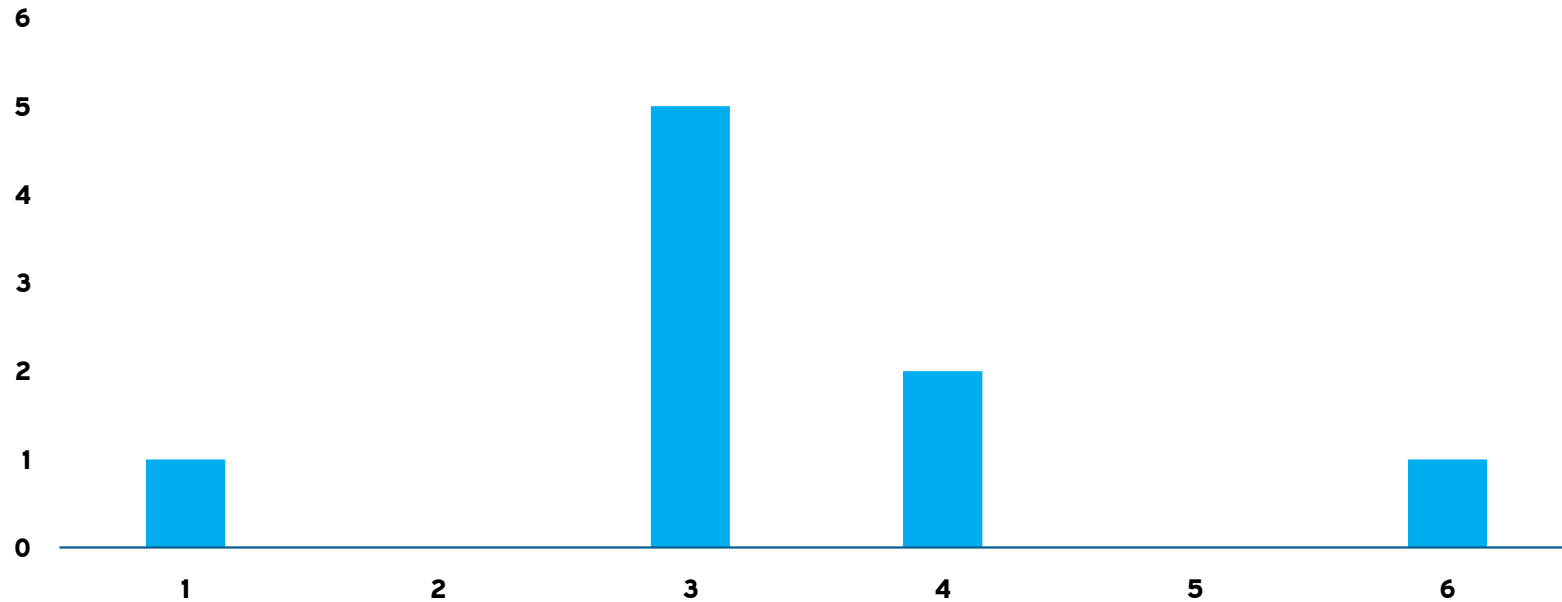
*2021 score adjusted for new 2023 scale given one additional objective in the ranking question.



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Relative Importance Question #4

Survey Question #4: Minimizing contribution uncertainty (providing employer cost certainty)
(1 being most important and 6 being least important)



- Average score = 3.3; relatively average priority (2021 adjusted score of 4.1).
- The Board has a fairly mixed view on this objective, but most ranked the importance as average.

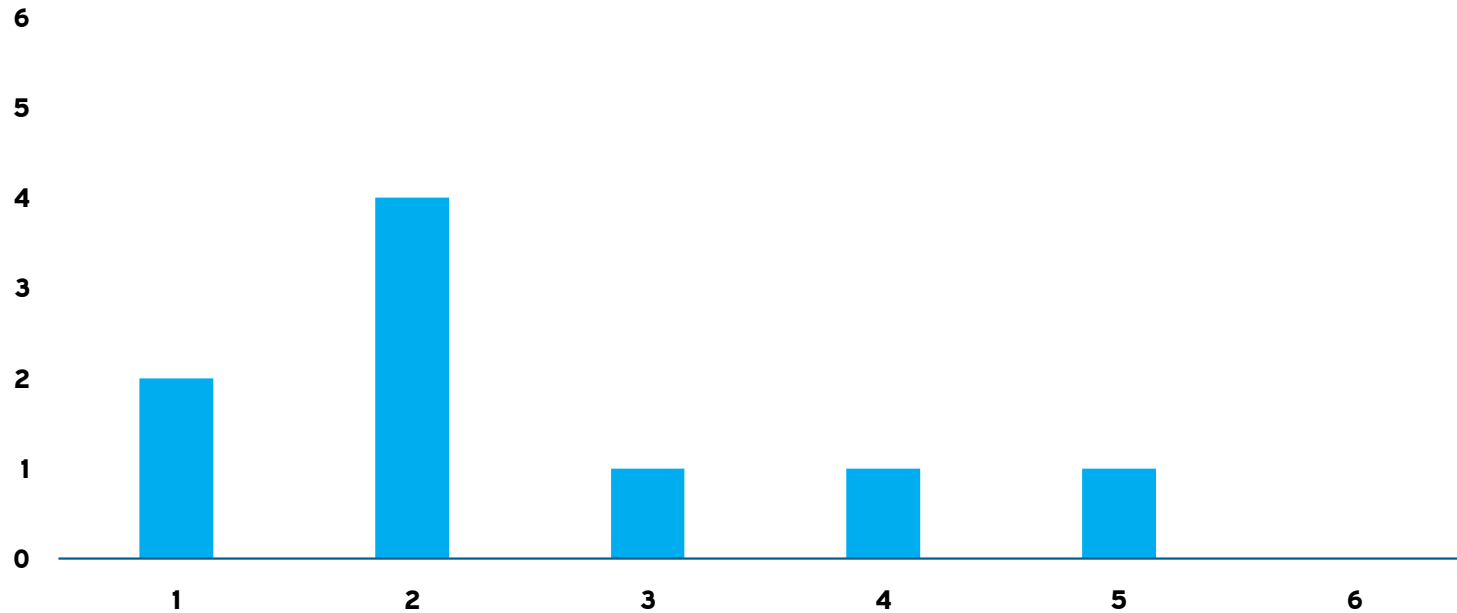
*2021 score adjusted for new 2023 scale given one additional objective in the ranking question



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Relative Importance Question #5

Survey Question #5: Minimizing major total portfolio declines (e.g., larger than -10% in a fiscal year)
(1 being most important and 6 being least important)



- Average score = 2.4; relatively high priority (2021 adjusted score of 4.4)
- There is mainly consensus that minimizing total portfolio declines is an important objective.
- This is a change from 2021 when last surveyed on this issue.

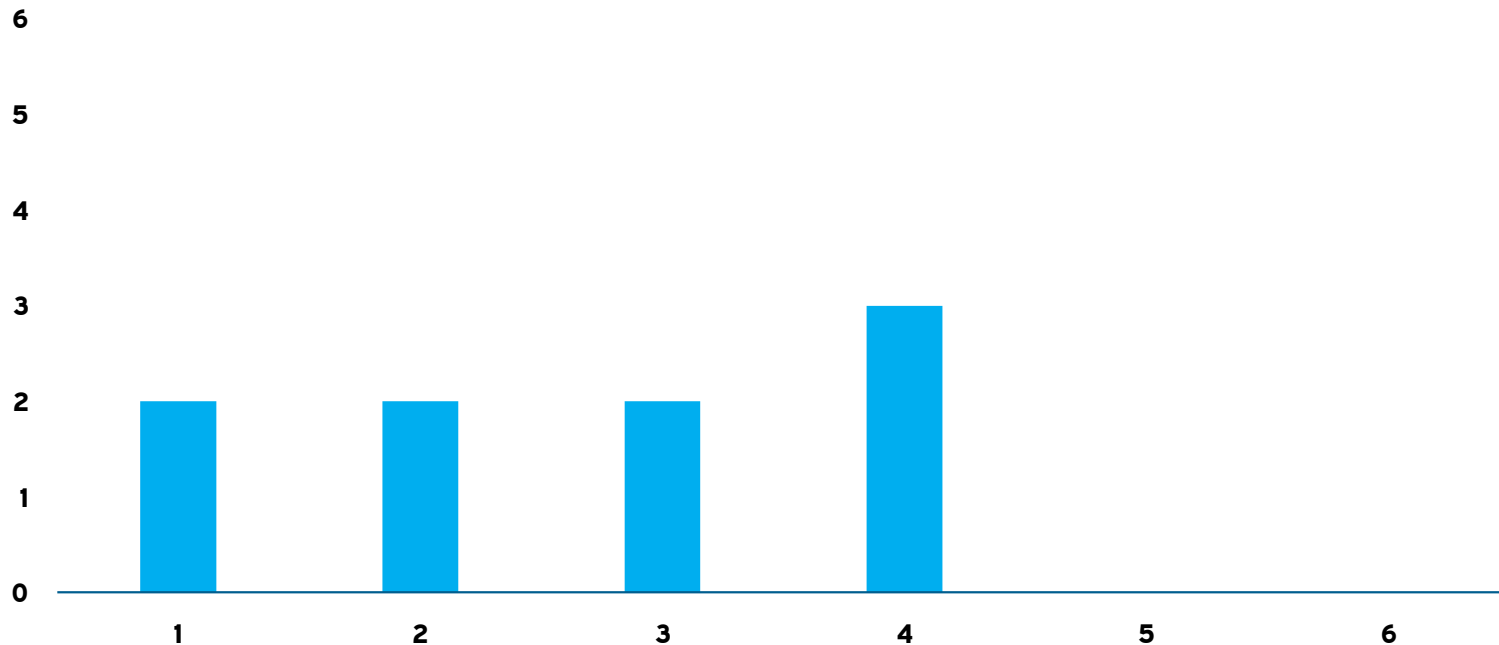
*2021 score adjusted for new 2023 scale given one additional objective in the ranking question.



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Relative Importance Question #6

Survey Question #6: Minimize liquidity stress
(i.e., forced selling of illiquid assets to rebalance and make benefit payments)
(1 being most important and 6 being least important)



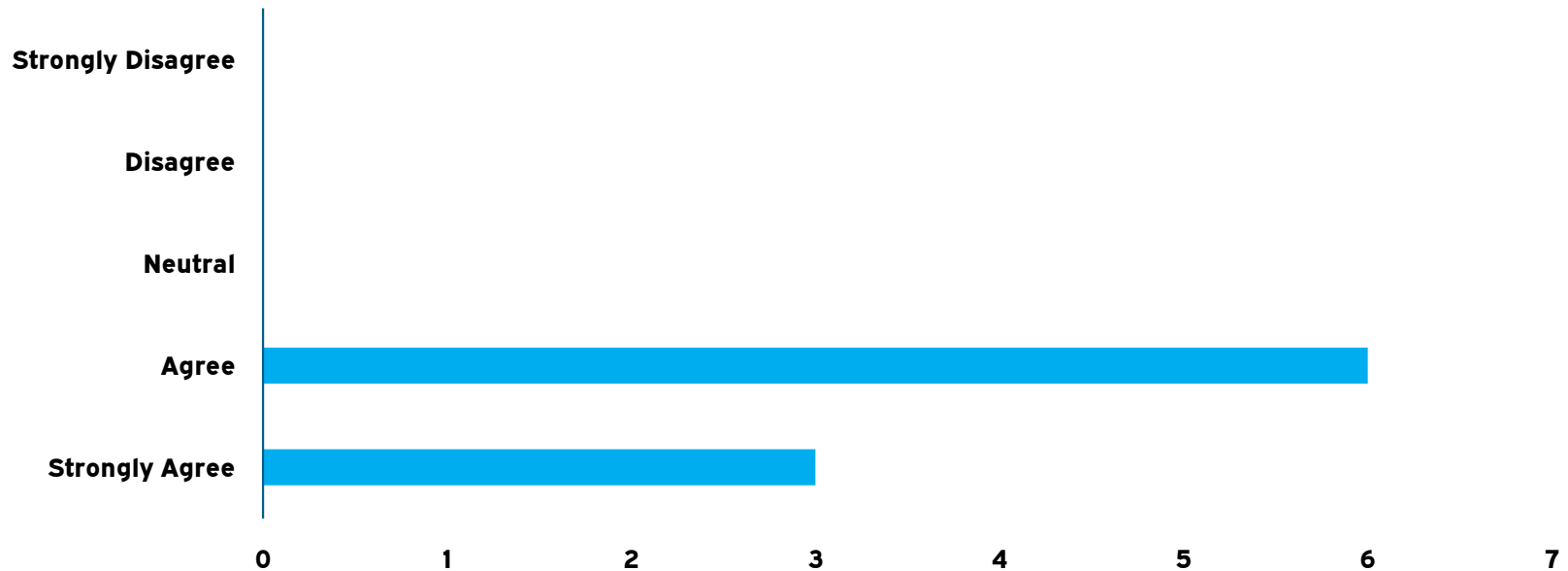
- There is some consensus that minimizing liquidity stress is an important objective.
- This is a new objective in the ranking question.



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Question 7

The cash-flow position of the Plan (e.g., net positive contributions or net negative benefit payments) is a key consideration when constructing an investment portfolio.



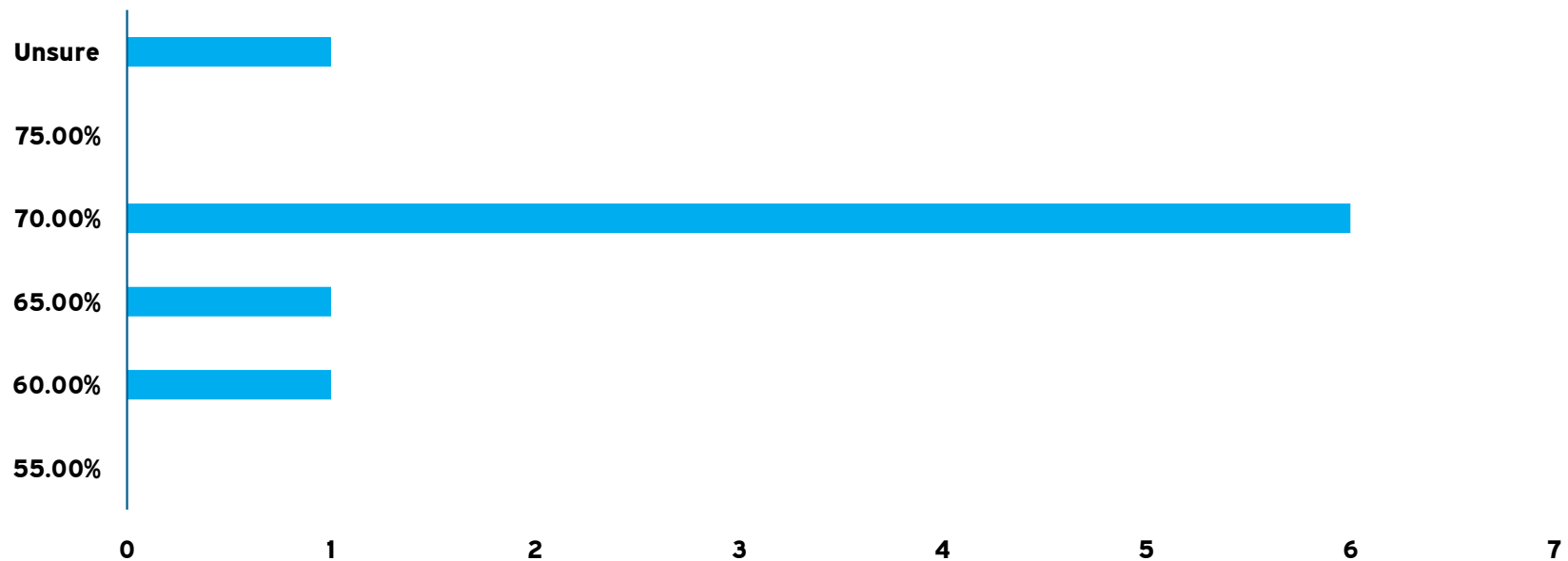
- There is strong consensus that cash flow position of a Plan is a key consideration when constructing a portfolio.



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Question 8

Based on current funded ratio of ~79%, what is the minimum funded ratio LACERA should be willing to accept in a market crisis scenario (i.e., very rapid deterioration in economic conditions)



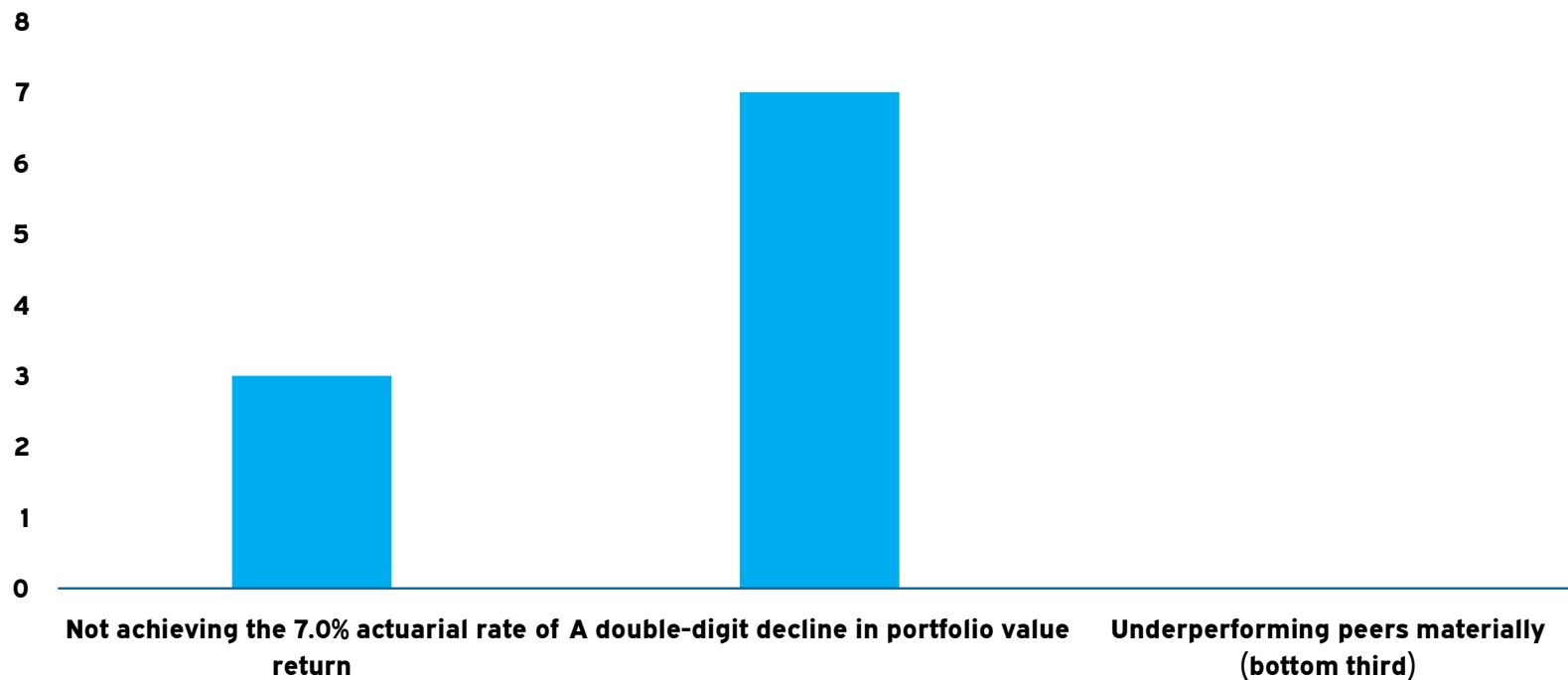
- There is mainly a consensus that 70% would be the minimum funded ratio LACERA should be willing to accept in a market crisis scenario.



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Question 9

Which of the following outcomes are you most concerned about over the next 3 years?



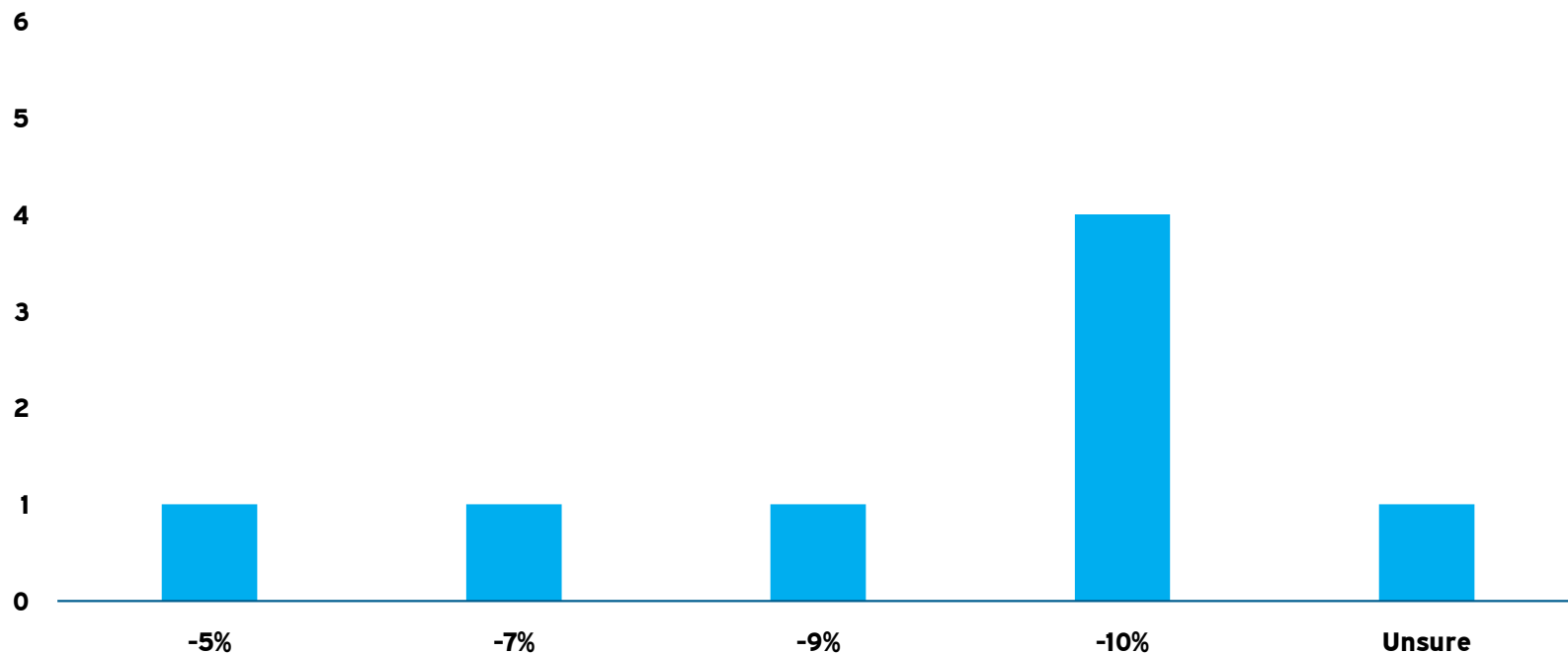
- There is strong consensus that a double-digit decline in portfolio value is of most concern to the board.



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Question 10

Based on the current portfolio, I believe the portfolio's maximum potential drawdown should be no worse than x%. Assume this would be the decline experienced once in a decade, or once during a market cycle crisis



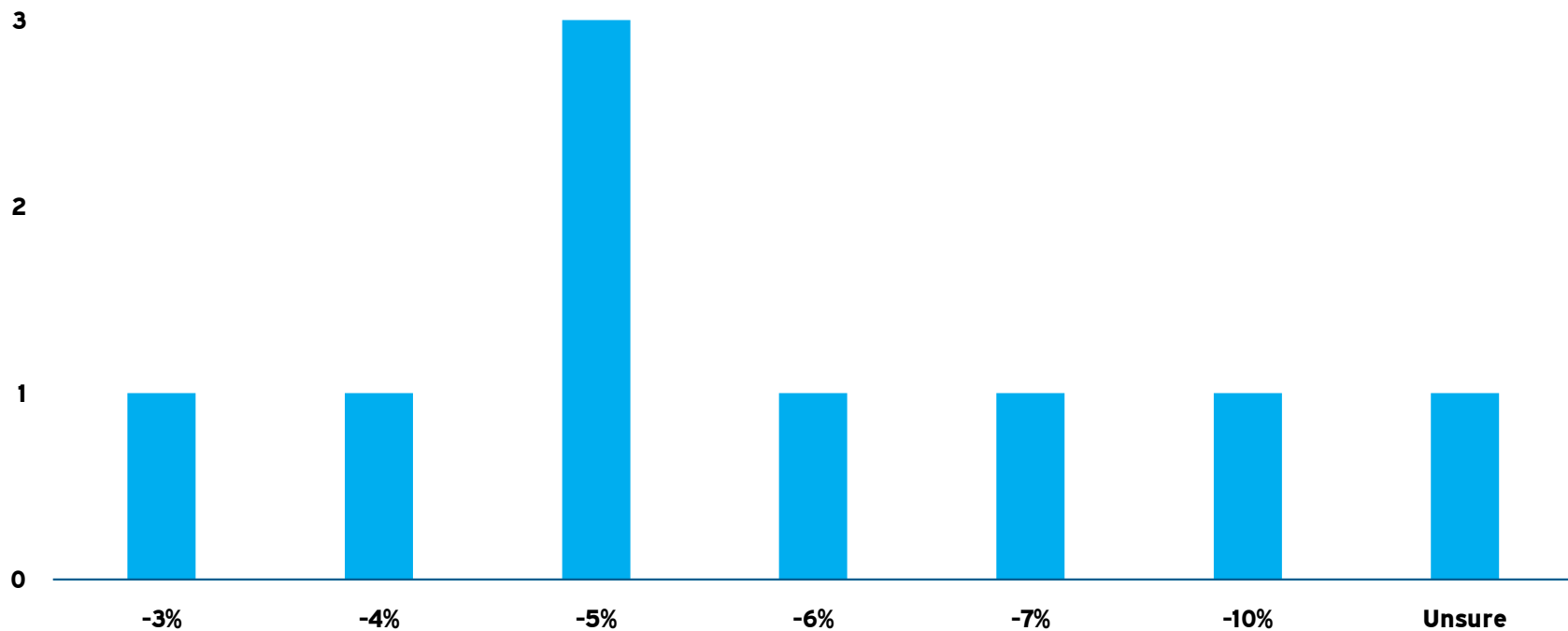
- There is some consensus that a portfolio decline should be no greater than -10% during a stressed market environment.



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Question 11

I would consider x% to be a bad but not necessarily catastrophic year. (Assume that the portfolio is performing in line with the benchmark and peer median.)



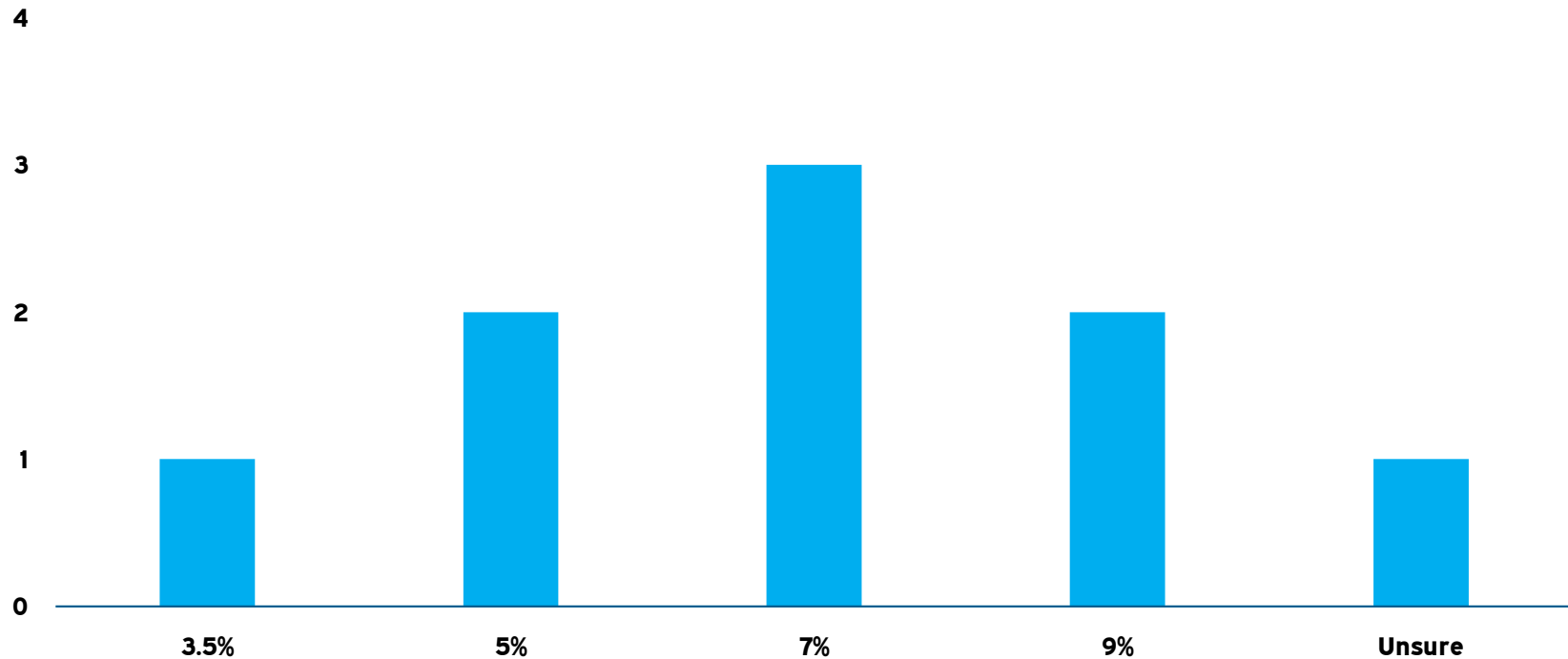
- The responses here have a relatively wide range.



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Question 12

I would consider a return of x% to be a good, but not great, year. (Assume that the portfolio is performing in line with the benchmark and median.)



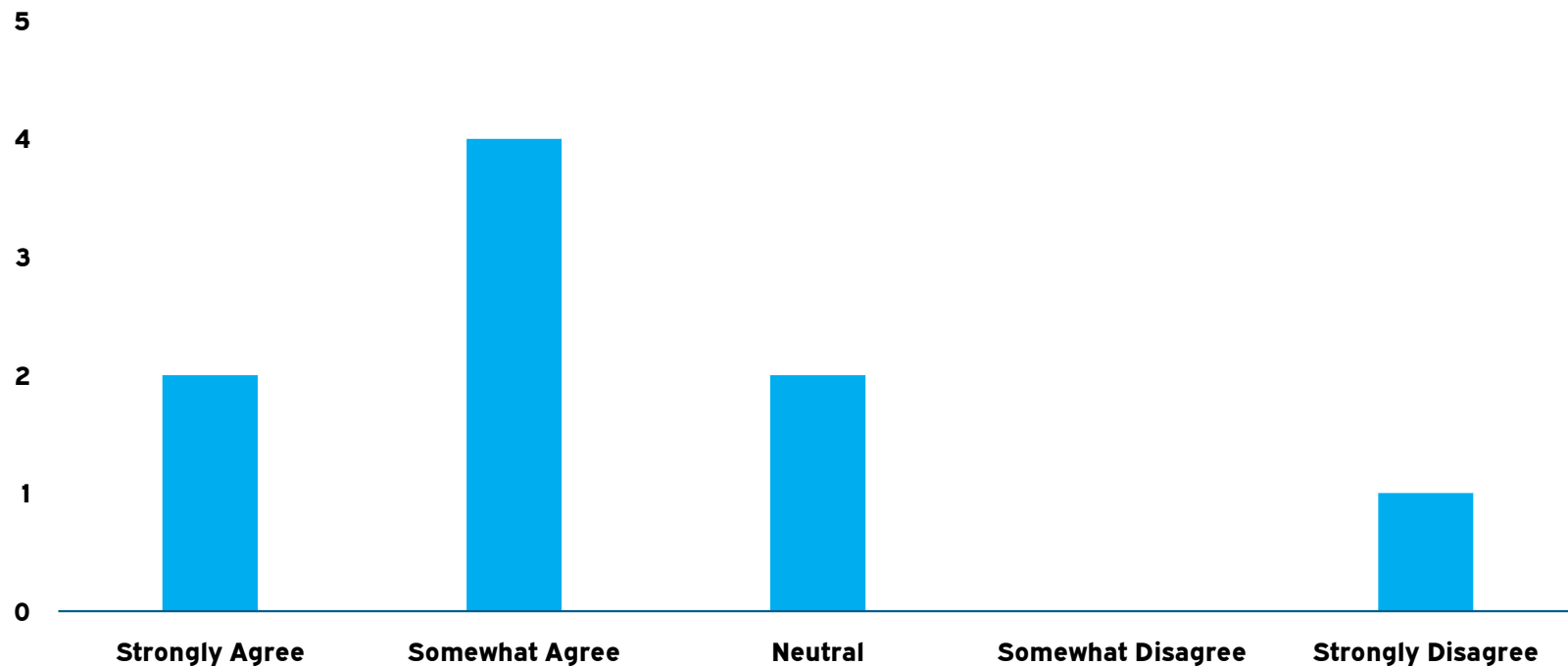
- The responses here were mixed with +7% receiving most votes. +5% and +9% received the next most amount of votes.



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Question 13

If the average pension is down 15% in a given year, and LACERA portfolio is only down 12%, meaning it has outperformed vs. peers by 3%, I would consider the portfolio's performance to be a success, despite the decline in value.



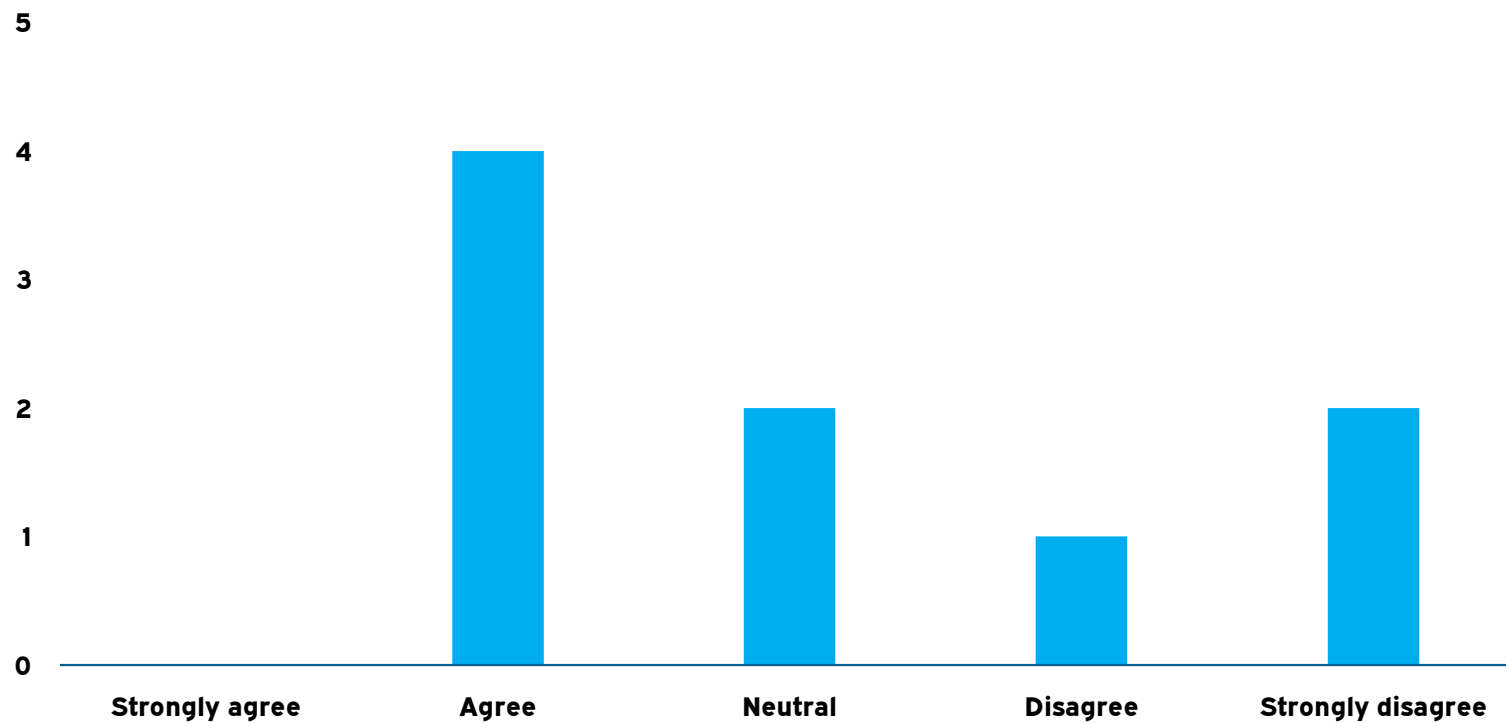
- There is some consensus that a decline less than peers would be considered a success.



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Question 14

If the average pension is up 10% in a given year, and LACERA is only up 7%, meaning it has underperformed vs. peers by 3%, I would consider the portfolio's performance to be a success, despite the relative underperformance.



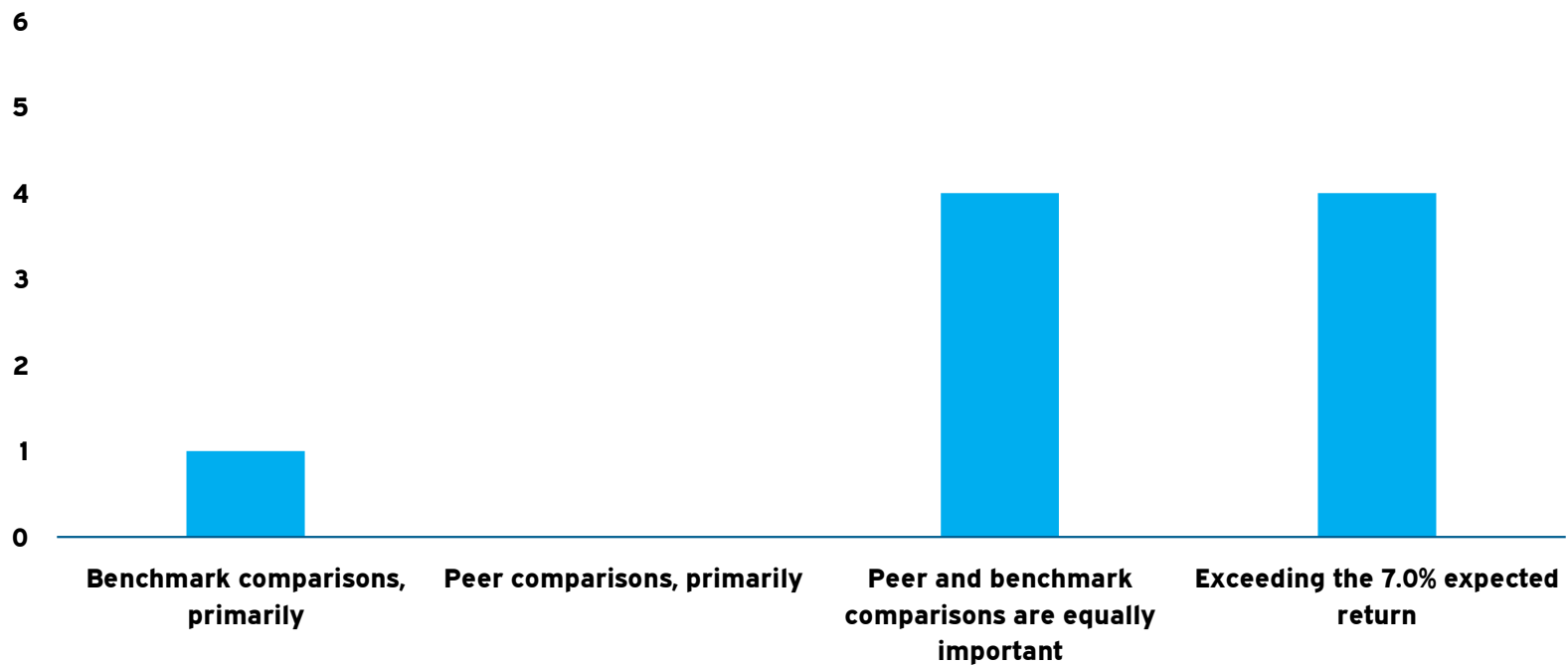
- The responses are fairly mixed for this issue.



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Question 15

Generally, which do you believe is more important for assessing the portfolio?



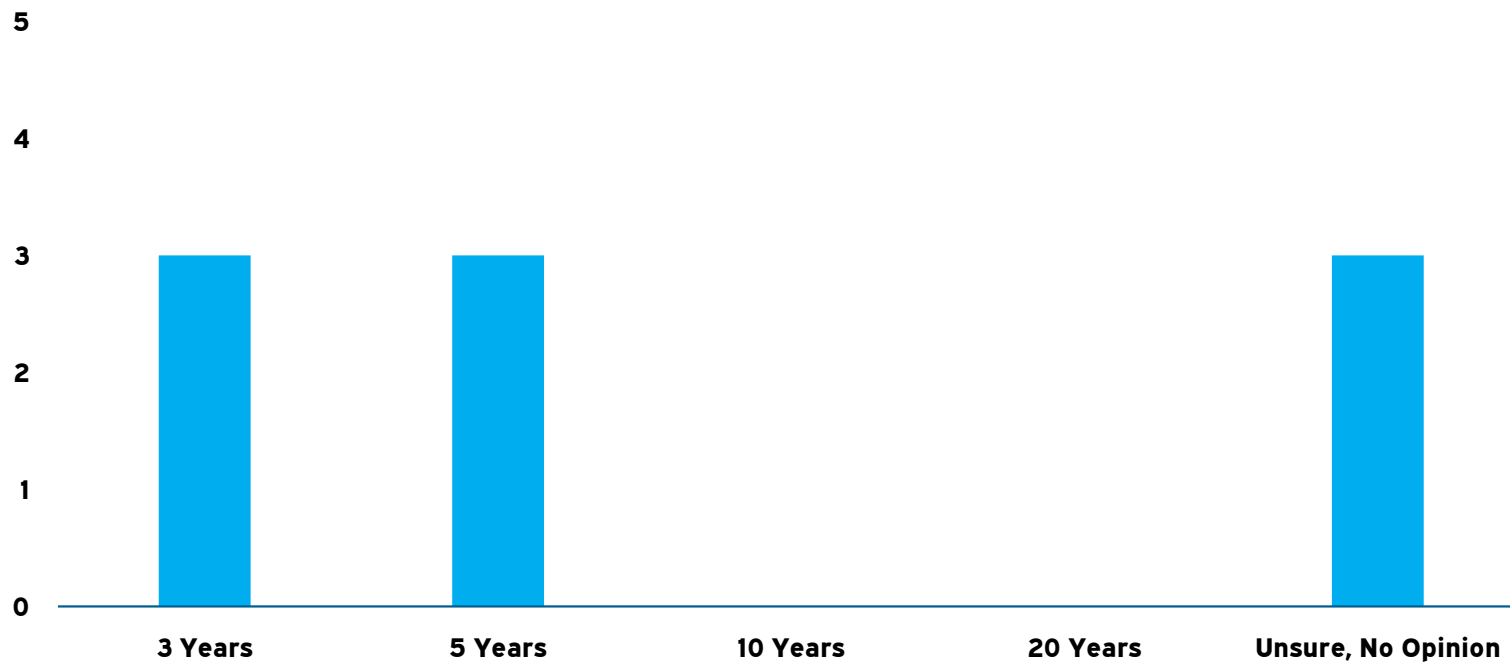
- Responses are fairly dispersed here with some sensitivity to benchmark comparison (primarily or with peers) overall.



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Question 16

What is the minimum relevant time frame for evaluating the portfolio's performance relative to the actuarial rate of return (7.0%)?



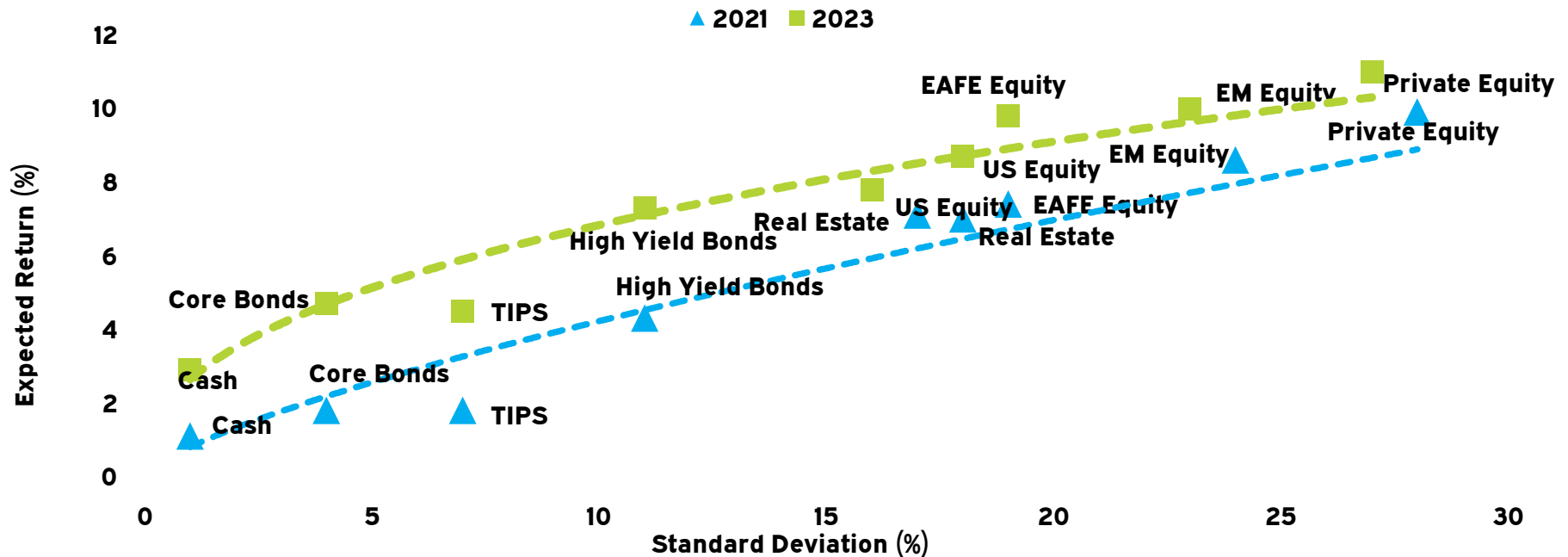
- The responses were divided equally between 3 years, 5 years, and unsure in terms of minimum time frame needed for evaluating portfolio performance.



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Recap & Key Take Aways

- The relationship between long-term return expectations and the level of risk accepted is not static.
- As reviewed in the preceding SAA presentations, capital markets have changed significantly since last SAA study.
- With the increased expected returns across fixed income investors may have an opportunity to reduce risk while still maintaining their long-term return objective
- Trustees indicated a strong preference via the survey, for risk mitigation/downside protection, so that will be a focal point of future recommendations.



Based on 20-year forecast assumptions of expected return and risk.

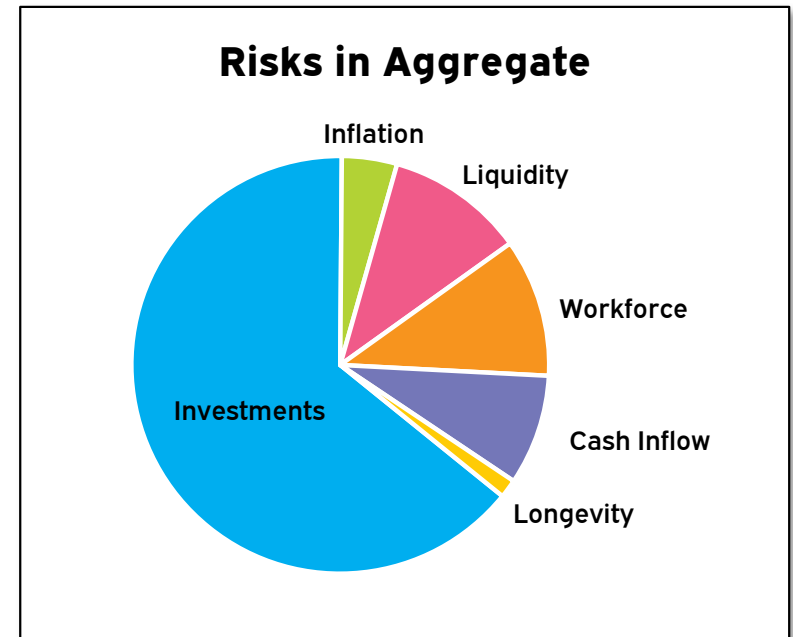
Baseline Model Output
Risk Philosophy Selection



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Summary of Key Risks – Recap from October Meeting

1. **Investments:** Asset return volatility is the biggest risk to the Plan.
2. **Liquidity:** While liquidity doesn't present immediate risks, certain liquidity metrics should be tracked ongoing in a risk report.
3. **Workforce:** The Plan experienced a recent decline in active headcount which puts more onus on the County to increase contributions.
4. **Cash Inflow:** The County has historically contributed the amounts determined by the actuary and will need to continue to budget for increased future expectations.



Recognizing and analyzing these risks is essential in the Strategic Asset Allocation process and in ensuring that LACERA can fulfill its mission to produce, protect and provide the promised benefits.



Project Goal:

To review and possibly modify LACERA's Strategic Allocation Policy, reflecting the Board's unique definition, tolerance for, and beliefs about investment risk.

3 key high-level steps to the A/L process:

1

Understand the financial condition under a variety of market environments

2

Set consensus definition(s) and view of the risk(s) LACERA should bear

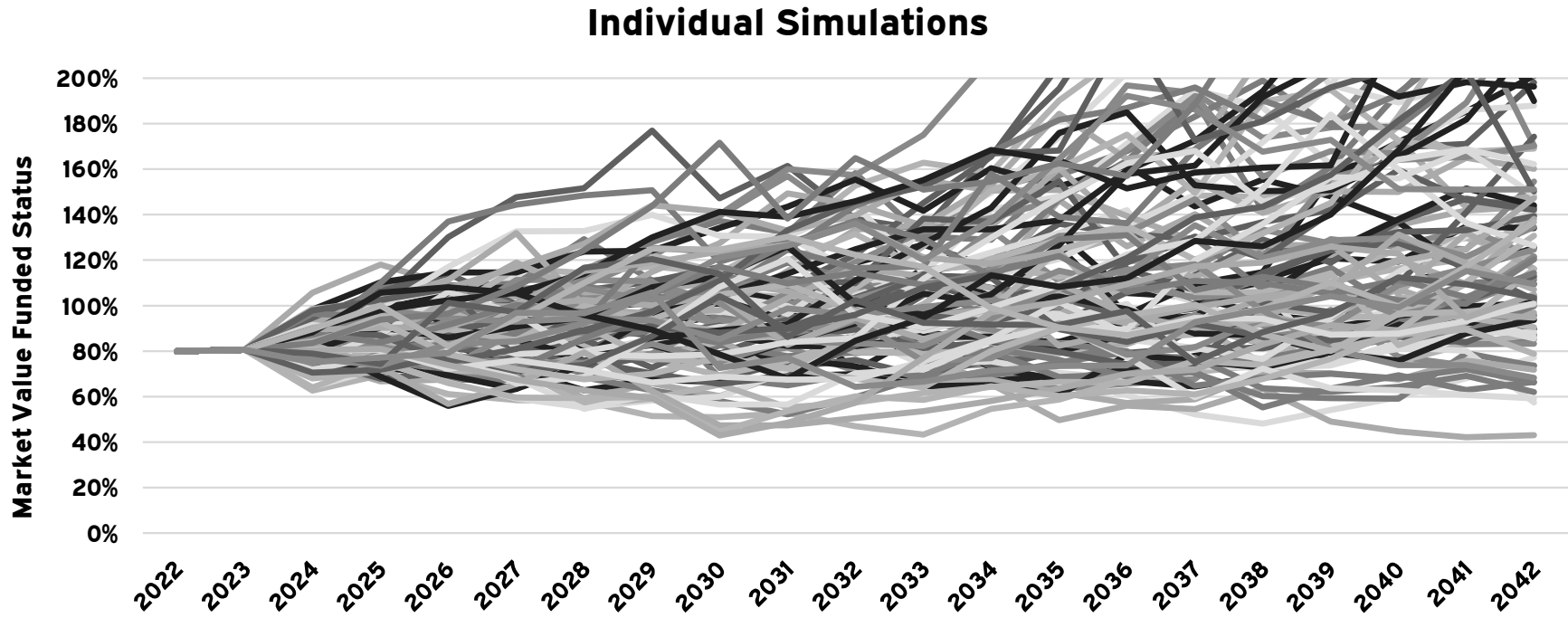
3

Select a long-term investment strategy that is unique to LACERA (i.e., policy allocation)



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Stochastic Forecast of the Current Asset Allocation



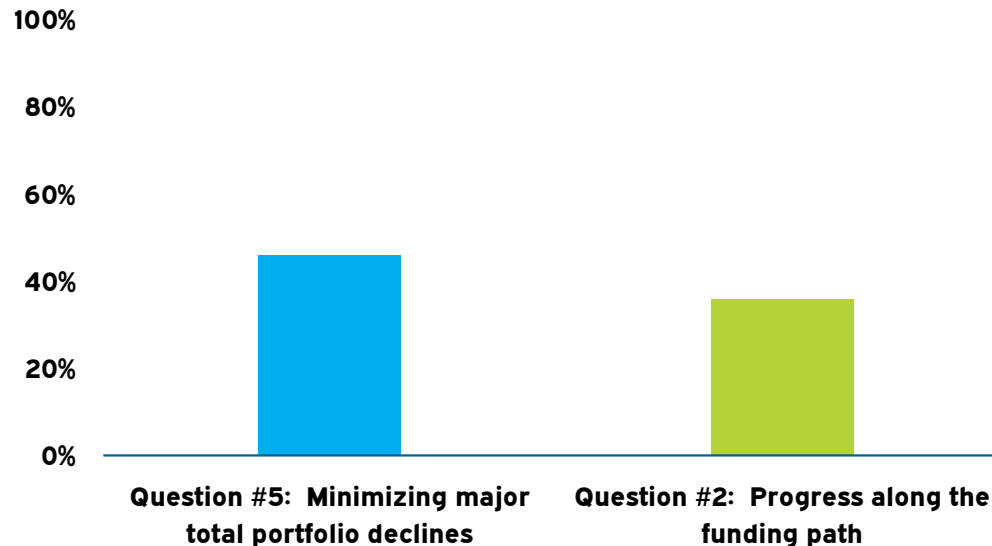
- Funded Status (assets divided by liabilities) are simulated in a variety of market environments
- Analysis reflects the current:
 - Asset allocation
 - Actuarial funded status
 - Projected benefit payments
 - Funding policy
 - LACERA plan provisions
 - Statutory requirements
 - Actuarial assumptions
 - Meketa 2023 Capital Market Assumptions



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Addressing the Highest Rated Survey Objective Results

Probability of Achieving Baseline Stat

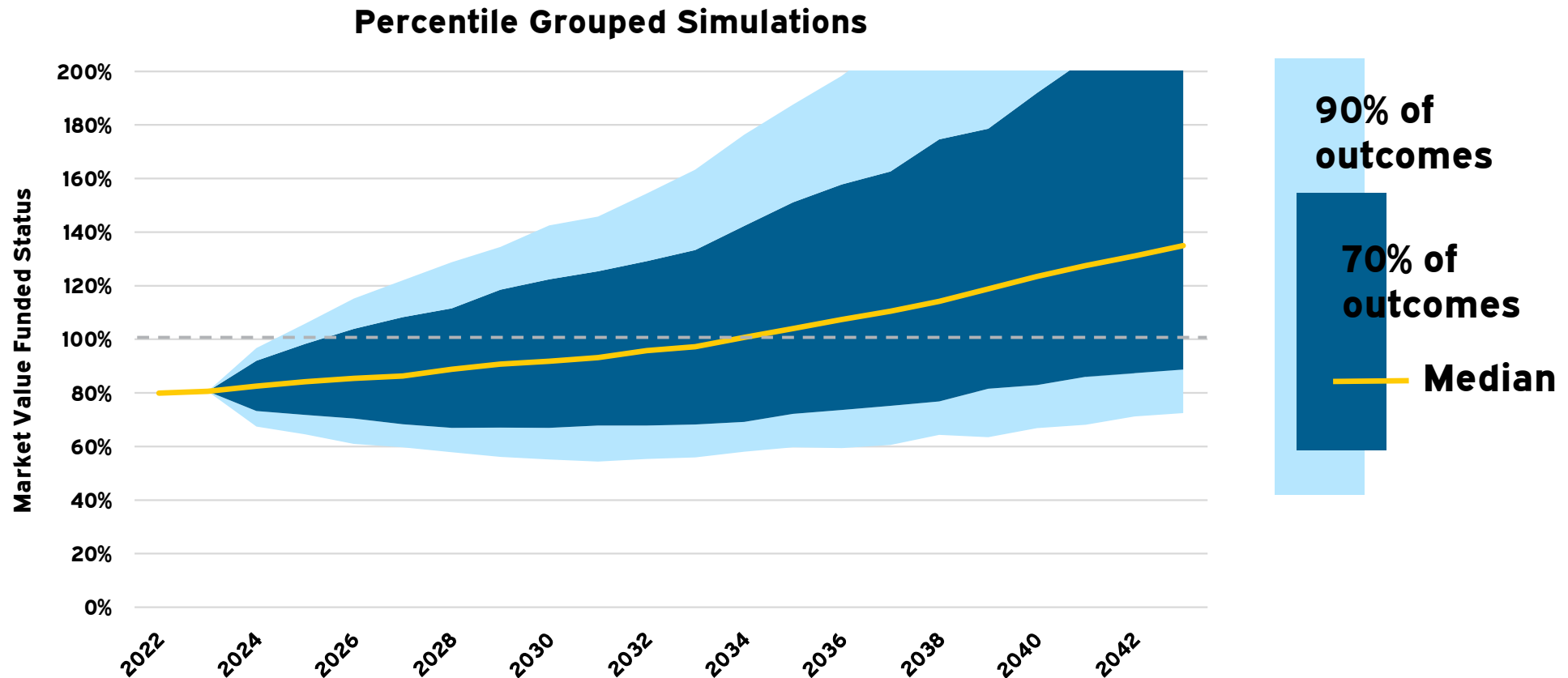


- Question #5: 46% of simulations avoided a portfolio drawdown of -9% during the next 11 years (11 years being the time frame the plan is anticipated to achieve 100% funded).
- Question #2: 36% of the simulations had an annual funded status within -10% of the funded path during the next 11 years. Along this path, if the expected funded status sinks below 10% of that path, it is considered to *not* be meeting this objective.



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Stochastic Forecast of the Current Asset Allocation (cont.)



- The results of the “simulations” are used to develop percentiles of information.
- These percentiles guide the understanding of **Funded Status risk**, given the current asset allocation.
- As an example, the median (50th Percentile) Funded Status in 2034 is 101% -> there is a 50% probability the Funded Status will be greater than 101% and 50% probability it will be less than 101%.

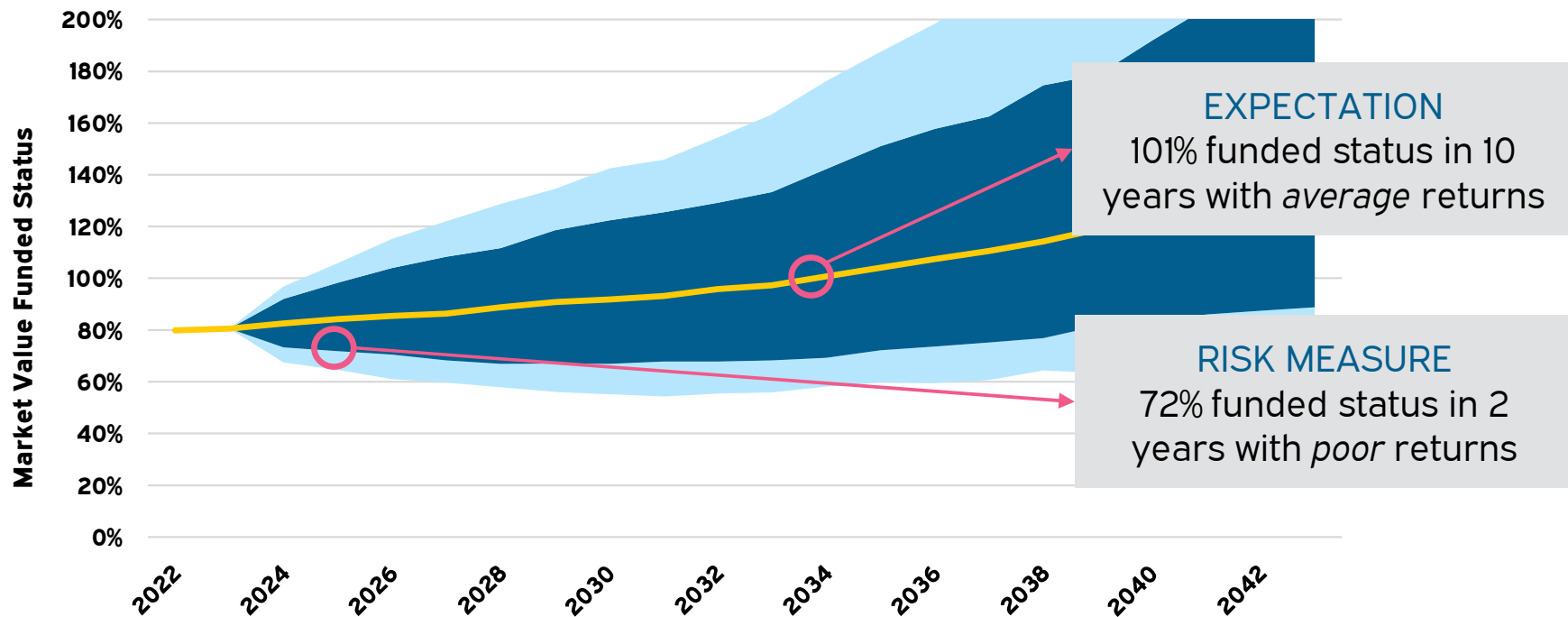


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Record Key Observations

- Key observations are determined during objective setting discussion and analyzed in a “Expectation/Risk Measure” framework.
 - **Expectation** – Outcome where all the underlying assumptions prove to be accurate over the long-term (Example: 50th percentile over a 10-year time horizon).
 - **Risk Measure** – Outcome with a lower probability (Ex: 85th percentile) but a more detrimental impact, especially when that outcome occurs in the short-term (Ex: 2-year time horizon)

Percentile Grouped Simulations





Los Angeles County Employees Retirement Association Optimization Process

How does Meketa optimize the asset allocation?

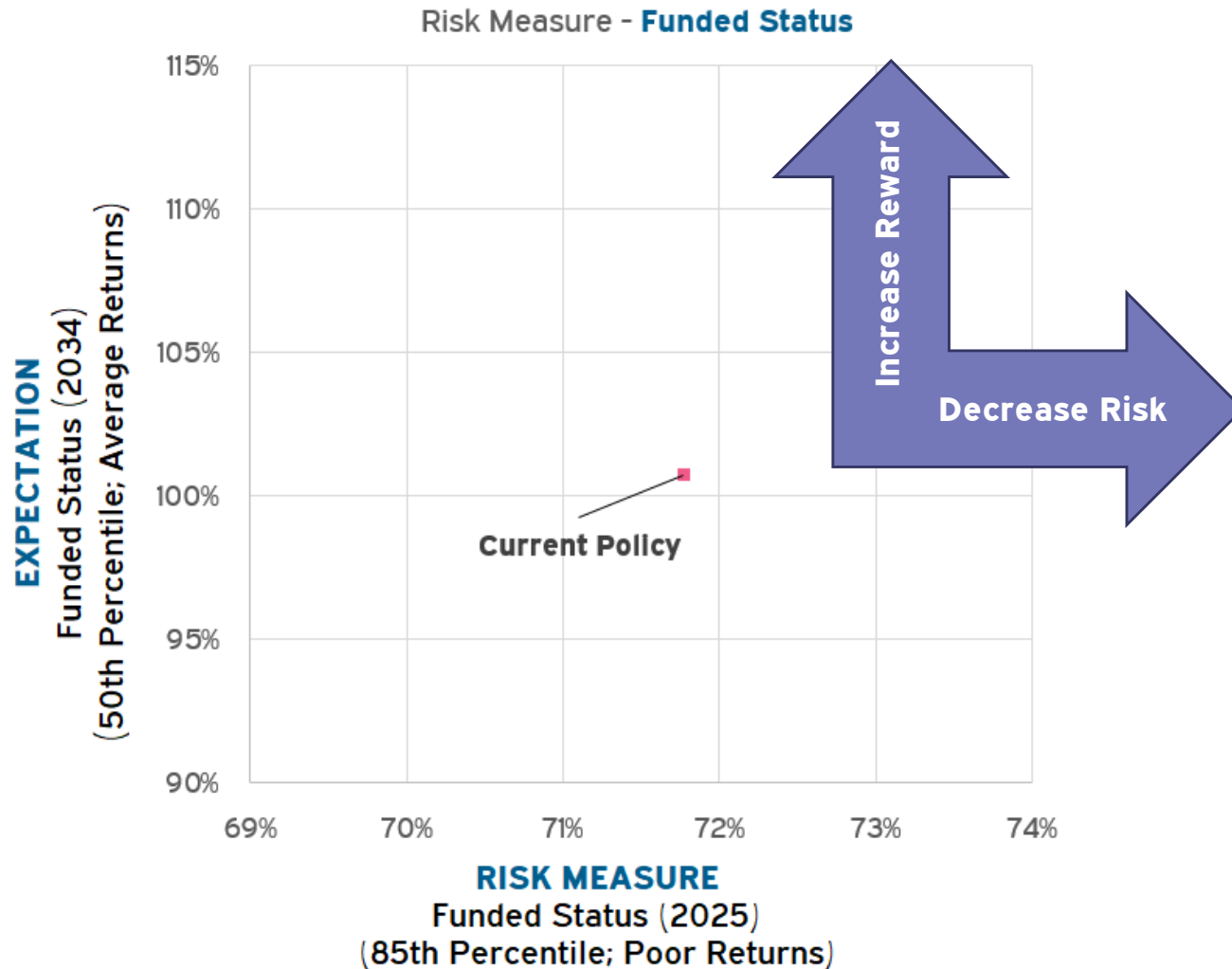
- Step 1 – **Plot the Baseline** - Plot the primary expectation and risk measure for the asset allocation in the Investment Policy Statement
- Step 2 – **Create Constraints** – Asset classes are constrained to a minimum and maximum allocation to prevent impractical allocation recommendations.
- Step 3 – **Compare Alternatives** – The Board agrees on tolerance for allocation levels for each existing or new asset classes
- Step 4 – **Decide on Samples** – Meketa will provide samples of asset allocations that are indicative of the feedback received from the Board as to risk tolerance and return expectations
- Step 5 – **Analyze Secondary (or tertiary) Risk Measures** - Repeat the process for additional risk measures.



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Optimization Step 1: Plot the Baseline (i.e., Current Policy)

- The goal of Optimization is to align the projected health of the pension plan to match the objectives and risk tolerance of the Board.





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Optimization Step 2: Create Asset Class Constraints

- The example constraints below were developed to provide a spectrum of risk/return profiles.

Strategic Class	Min.	Max.	Current Target	10-year Return*	20-year Return*	Standard Deviation
Global Equity	24%	36%	32%	10.1%	10.7%	18.6%
Private Equity	15%	21%	17%	12.2%	13.5%	26.1%
Real Estate	8%	12%	10%	6.6%	8.7%	16.4%
Infrastructure	3%	7%	5%	7.6%	9.2%	15.6%
Commodities (naive)	0%	2%	2%	7.5%	7.0%	17.0%
Sustainability	1%	5%	2%	11.6%	12.9%	26.5%
Hedge Funds	4%	10%	6%	5.9%	6.4%	7.9%
Multi-asset Credit	9%	15%	11%	9.0%	8.6%	12.5%
Short-term TIPS	1%	5%	3%	4.0%	3.7%	5.0%
Investment Grade Bonds	5%	13%	7%	4.9%	4.8%	4.0%
Long Government Bonds	3%	5%	5%	4.9%	5.6%	12.0%
Cash Equivalents	1%	1%	1%	3.1%	2.9%	1.0%

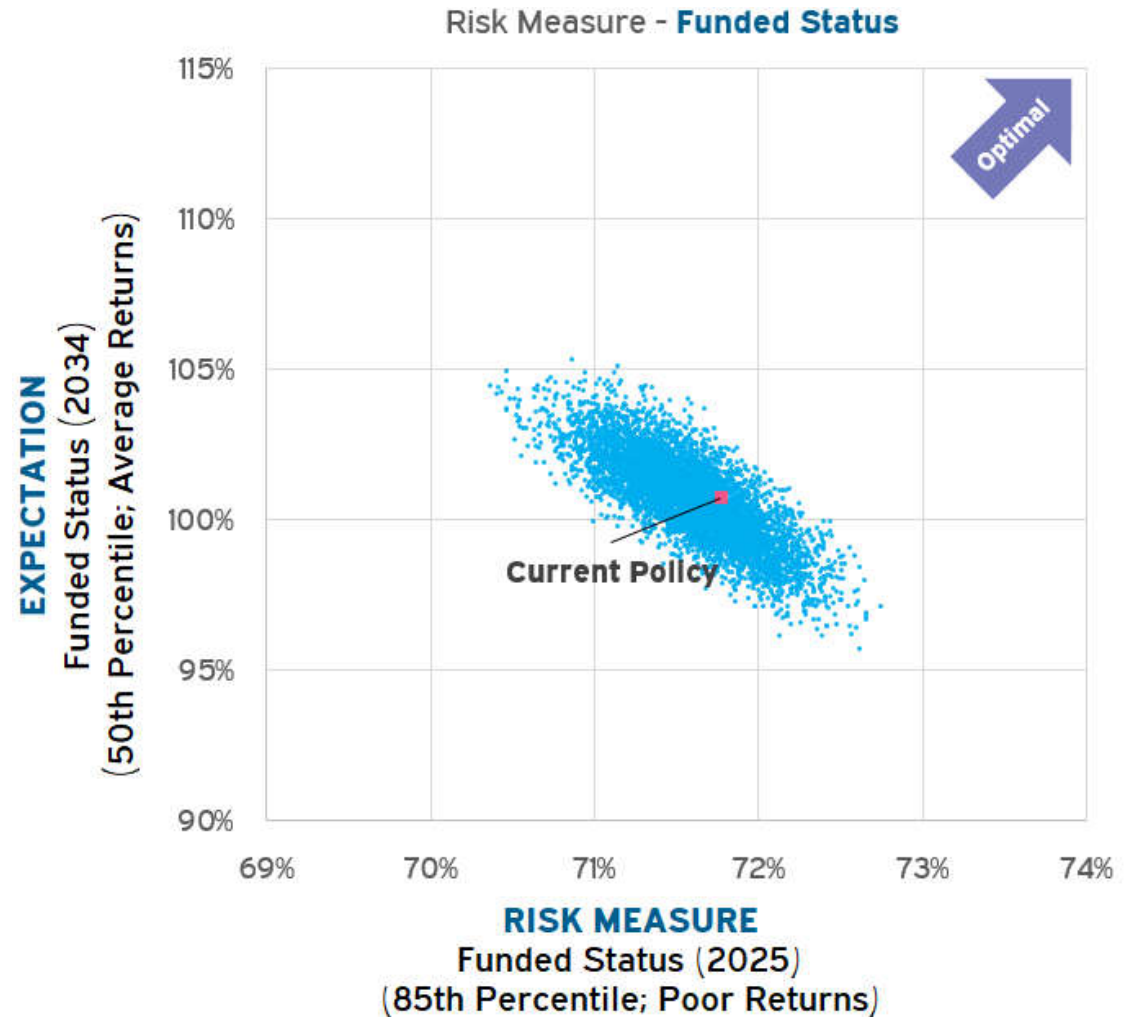
* Geometric returns



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Optimization Step 3: Compare current policy to alternative asset allocations

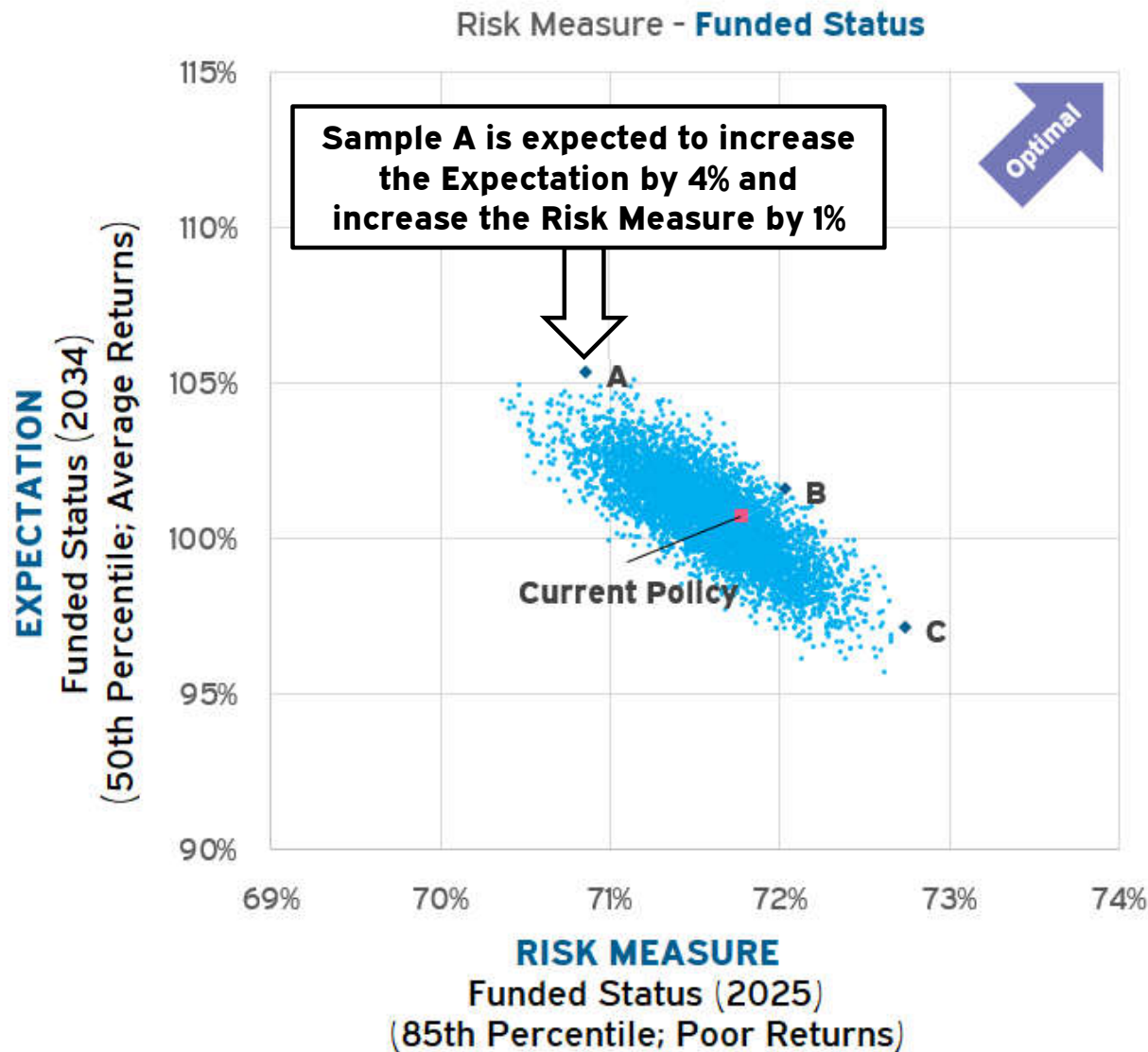
- The Current Policy is compared to thousands of alternative allocations to determine if an alternative provides relatively optimal outcomes.
- Each blue dot represents a unique asset allocation within the asset class constraints.





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Optimization Step 4: Select Samples



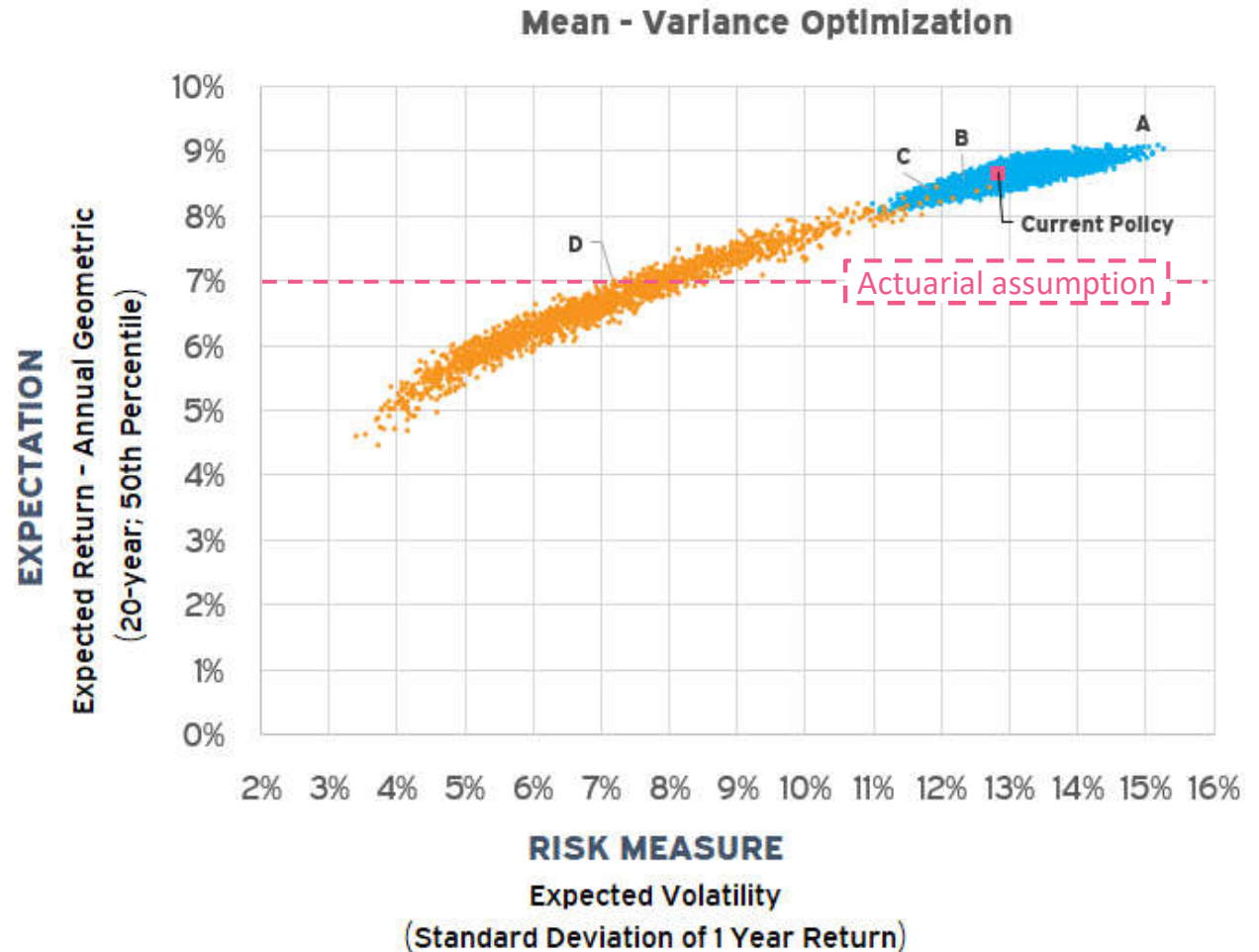
- Alternative asset allocations (Samples A to C) are identified as having “efficient” funded status outcomes.
- Samples are selected spanning the risk/expectation spectrum.
- Sample A is an example of a higher risk/higher expectation alternative.
- Sample C is the opposite - lower risk/lower expectation.
- No outcome is “better” than another given each have beneficial quantitative outcomes.



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Mean-Variance Optimization

- While expected return is not an asset/liability risk measure, it's important to ensure the expected return exceeds the current assumption (7.0%).
- Within the constraints, every asset allocation has an expected return greater than 8.0% (blue dots).
- Widening the constraints creates portfolios closer to the 7.0% return levels (orange dots).
- Portfolios right around Sample D have allocations to fixed income of 45%+





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Asset Allocation Policy Options

	Current Policy (%)	Sample A (%)	Sample B (%)	Sample C (%)	Sample D (%)
Growth	53	56	44	42	24
Global Equity	32	32	24	24	17
Private Equity	17	21	17	15	5
Non-Core Private Real Estate	4	3	3	3	2
Credit	11	15	15	15	15
Liquid Credit	4	5	5	5	5
Illiquid Credit	7	11	11	11	11
Real Assets and Inflation Hedges	17	16	14	14	8
Core Real Estate	6	5	5	5	3
Natural Resources & Commodities	3	5	5	5	5
Infrastructure	5	5	3	3	0
TIPS	3	1	1	1	0
Risk Reduction and Mitigation	19	13	27	29	53
Investment Grade Bonds	7	5	11	13	43
Diversified Hedge Funds	6	4	10	10	10
Long Term Government Bonds	5	3	5	5	0
Cash	1	1	1	1	0
Expected Return (10 years)	8.0	8.4	8.0	7.9	7.0
Standard Deviation	12.8	14.4	12.1	11.6	7.9
Probability of Achieving 7% over 20 Years	63	66	64	63	49
Total	100	100	100	100	100



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MPT-Based Risk Analysis

Scenario	Current Policy (%)	Sample A (%)	Sample B (%)	Sample C (%)	Sample D (%)
Worst Case Returns ¹					
OneYear (annualized)	-17.9	-20.2	-16.7	-16.0	-9.8
ThreeYears (annualized)	-7.8	-9.2	-7.0	-6.6	-3.1
FiveYears (annualized)	-4.5	-5.5	-3.9	-3.5	-0.9
TenYears (annualized)	-1.0	-1.7	-0.5	-0.3	1.3
TwentyYears (annualized)	1.5	1.2	1.9	2.0	2.9
Probability of Experiencing Negative Returns					
OneYear	25.8	27.1	24.6	24.1	18.0
ThreeYears	13.0	14.6	11.7	11.2	5.6
FiveYears	7.3	8.7	6.2	5.8	2.0
TenYears	2.0	2.7	1.5	1.3	0.2
TwentyYears	0.2	0.3	0.1	0.1	0.0
Probability of Achieving at least a 7% Return					
OneYear	52.9	53.8	53.1	52.9	49.8
ThreeYears	55.1	56.5	55.3	55.0	49.6
FiveYears	56.5	58.4	56.9	56.4	49.5
TenYears	59.2	61.8	59.7	59.0	49.3
TwentyYears	62.9	66.4	63.5	62.6	49.0

¹ Calculated with a 99% confidence level and based upon Meketa Investment Group's Annual Capital Markets Expectations. cVaR represents the average loss past the 99th percentile.



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Historical Negative Scenario Analysis¹ (*Cumulative Return*)

Scenario	Current Policy (%)	Sample A (%)	Sample B (%)	Sample C (%)	Sample D (%)
COVID-19 Market Shock (Feb 2020-Mar 2020)	-14.6	-16.1	-13.0	-12.9	-10.3
Taper Tantrum (May - Aug 2013)	1.1	2.0	1.1	0.9	-0.5
Global Financial Crisis (Oct 2007 - Mar 2009)	-23.7	-26.6	-20.7	-20.0	-12.0
Popping of the TMT Bubble (Apr 2000 - Sep 2002)	-9.0	-13.1	-5.7	-4.6	5.9
LTCM (Jul - Aug 1998)	-5.4	-6.1	-4.8	-4.7	-3.1
Asian Financial Crisis (Aug 97 - Jan 98)	6.0	6.2	6.1	5.9	4.6
Rate spike (1994 Calendar Year)	4.2	5.2	4.2	3.9	1.8
Early 1990s Recession (Jun - Oct 1990)	-2.9	-3.9	-2.4	-2.3	-0.7
Crash of 1987 (Sep - Nov 1987)	-7.5	-8.0	-6.0	-6.0	-3.8
Volcker Recession (Jan - Mar 1980)	-3.0	-2.9	-3.0	-3.1	-4.6
Stagflation (Jan 1973 - Sep 1974)	-14.9	-17.7	-13.2	-12.7	-5.3

¹ See the Appendix for our scenario inputs. In periods where the ideal benchmark was not yet available, we used the next closest benchmark(s) as a proxy.

Appendix: Supplemental Asset-Liability Exhibits

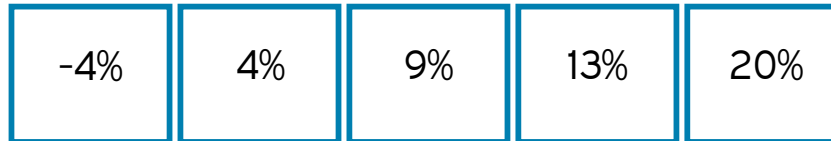


Los Angeles County Employees Retirement Association

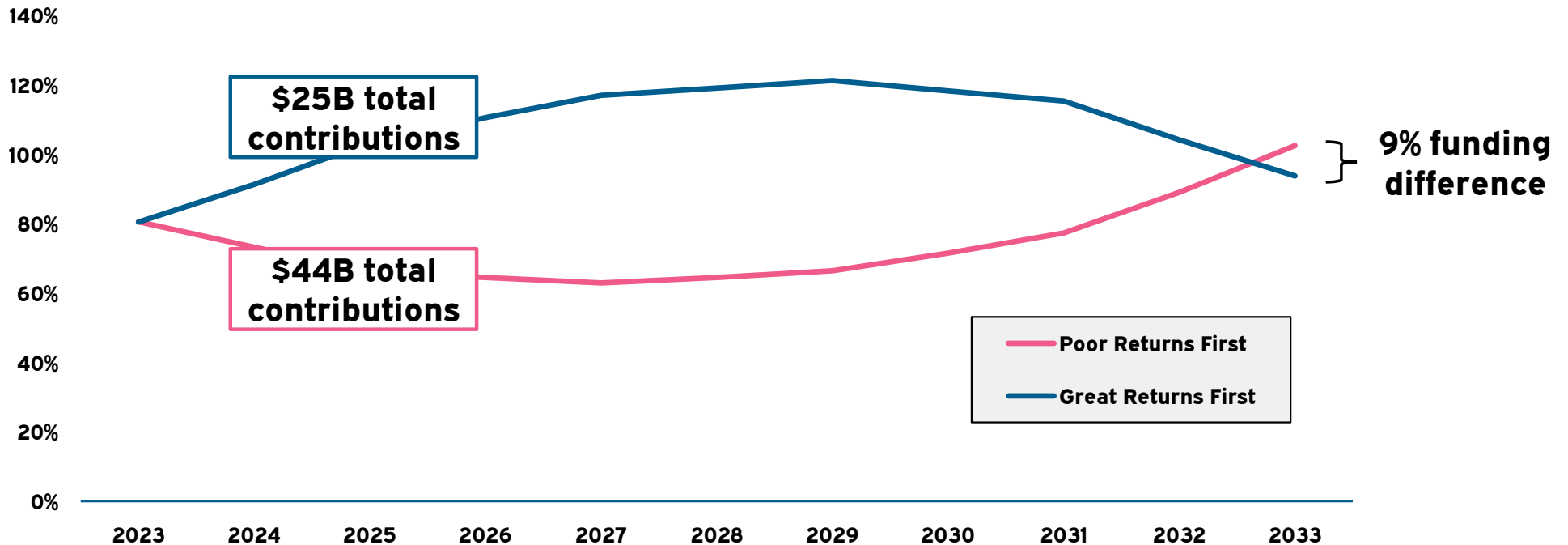
Volatility Should Be Expected....and Timing Matters

If we break up the next 10 years into five two-year segments, we can arrange a sample of returns to show best and worst cases.

Current Policy Samples
(2-yr Returns; ascending)



Timing of Returns Matters





Los Angeles County Employees Retirement Association

Appendix – Assumptions and Methods

- Capital Market Assumptions: Meketa 2023 Capital Market Expectations – 10 & 20-year assumptions.
- Assets: Market value of assets as of June 2023.
- Asset Rebalancing: annual.
- Liabilities and normal cost: The liabilities, normal cost, expected benefit payments and projected payroll used in this study are based on cash flows received from Milliman's valuation as of June 30, 2022. All liability projections assume a 7.0% long-term rate of return unless the dynamic capital market expectation suggest a discount rate of lower than 7.0%. In that event, the discount rate is set equal to the capital market expectation. The liabilities and normal cost are adjusted assuming a duration of 13.2 and 22, respectively.
- Funding policy: Assumes minimum required contributions are made in full until the Plan becomes over 100% funded. At that point, contributions will equal the normal cost plus administrative expenses.
- Plan Provisions and Additional Assumptions: Additional details regarding provisions and assumptions are documented in the June 30, 2022 actuarial valuation report issued by Milliman.



Los Angeles County Employees Retirement Association

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Certain information contained in this document constitutes "forward-looking statements," which can be identified by the use of forward-looking terminology such as "may", "will", "should", "expect", "anticipate", "target", "project", "estimate", "intend", "continue" or "believe" or the negatives thereof or other variations thereon or comparable terminology. Due to various risks and uncertainties, actual events or results or the actual performance of the Funds and investments may differ materially from those reflected or contemplated in such forward-looking statements."

December 1, 2023

TO: Trustees – Board of Investments

FROM: John Kim ^{JK}
Investment Officer

Kathryn Ton ^{KT}
Senior Investment Analyst

FOR: December 13, 2023 Board of Investments Meeting

SUBJECT: **TOTAL FUND INVESTMENT COST REPORT – FISCAL YEAR 2023**

California Government Code Section 7514.7 (§7514.7) requires that public pensions disclose information on fees, expenses, and carried interest information in connection with their investments in alternative investment vehicles (“AIVs”) at least on an annual basis, and distribute the results to the public in an open meeting for all new commitments made on and after January 1, 2017. A subsection of §7514.7 also requires the inclusion of additional information described in subdivision (c) of California Government Code Section 7928.710 (§7928.710). In addition, the law requires each public pension system to undertake reasonable efforts to obtain the aforementioned information for any existing contracts to which the public pension has not made a new capital commitment on or after January 1, 2017.

LACERA’s core investment beliefs recognize that investment costs are a contributing factor to risk-adjusted performance. Given their importance, we believe investment costs should be fully transparent and actively monitored. As a result, this report aims to provide maximum transparency by disclosing all investment costs borne by the total Fund. The report is in compliance with existing confidentiality agreements, but concurrently, above and beyond the requirements issued by the state.

This year’s investment cost report has undergone an extensive redesign to provide consolidated views into LACERA’s investment costs across asset categories and investment strategies. In addition to AIVs, the report includes investment costs for LACERA’s public market and real estate title holding company investments. For fiscal year 2023, LACERA’s investment costs totaled \$655 million for alternative investments and \$61 million for public market and real estate title holding company investments, an increase of 4% and a decrease of 27%, respectively.

Attached is a comprehensive presentation that staff will present to Trustees. (**ATTACHMENT 1**). In the appendix, the report also provides detailed information on each AIV as required by §7514.7 and §7928.710.

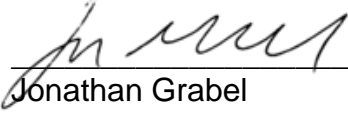
Trustees - Board of Investments

December 1, 2023

Page 2 of 2

Attachments

Noted and Reviewed:



Jonathan Grabel

Chief Investment Officer

cc: Santos H. Kreimann
Jonathan Grabel
Jude Perez
Steven Rice
Investments Division
Legal Division

Total Fund Investment Cost Report

Fiscal Year 2022-2023

Board of Investments Meeting
December 13, 2023

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California (CA) Government Code Section 7514.7

- CA Government Code §7514.7, also referred to as Assembly Bill 2833, is to increase the transparency of fees paid by public investment funds to alternative investments¹ by requiring public investment funds to disclose the fees, expenses, and carried interest in connection with alternative investment vehicles (“AIVs”) and their underlying investments at least once annually at an open meeting. The fee transparency disclosure requirements are applicable to:
 - New contracts entered into on and after January 1, 2017;
 - Existing contracts for which a new capital commitment is made on or after January 1, 2017; and
 - The public investment fund is required to undertake reasonable efforts to disclose such information for any existing contract for which the public investment fund has not made a new capital commitment on or after January 1, 2017.

Disclosure Requirements

- Effective January 1, 2017, annual reporting guidelines require the disclosure of the following items:
 - Item 1: fees and expenses paid directly to the AIV, the fund manager, or related parties;
 - Item 2: pro rata share of fees and expenses not covered by item 1 that are paid from the AIV to the fund manager or related parties;
 - Item 3: pro rata share of carried interest distributed to the fund manager or related parties;
 - Item 4: pro rata share of aggregate fees and expenses paid by all of the portfolio companies held within the AIV to the fund manager or related parties;
 - Item 5: gross and net rate of return of each AIV since inception; and
 - Item 6: any additional information described in subdivision (c) of Section 7928.710.

¹ Defined in CA Government Code Section 7514.7 as an investment in a private equity fund, venture fund, hedge fund, or absolute return fund.



California (CA) Government Code Section 7928.710

- Included as a subsection of §7514.7, CA Government Code §7928.710 requires the disclosure of the following additional information:
 - The name, address, and vintage year of each alternative investment vehicle;
 - The dollar amount of the commitment made to each alternative investment vehicle by the public investment fund since inception;
 - The dollar amount of cash contributions made by the public investment fund to each alternative investment vehicle since inception;
 - The dollar amount, on a fiscal year-end basis, of cash distributions received by the public investment fund from each alternative investment vehicle;
 - The dollar amount, on a fiscal year-end basis, of cash distributions received by the public investment fund plus remaining value of partnership assets attributable to the public investment fund's investment in each alternative investment vehicle;
 - The net internal rate of return of each alternative investment vehicle since inception;
 - The investment multiple of each alternative investment vehicle since inception;
 - The dollar amount of the total management fees and costs paid on an annual fiscal year-end basis, by the public investment fund to each alternative investment vehicle; and
 - The dollar amount of cash profit received by public investment funds from each alternative investment vehicle on a fiscal year-end basis.



Private Markets Investment Costs

Alternative Investments

Fees, Expenses, and Carried Interest



Investment Cost Summary as of June 30, 2023 fiscal year end¹

	Management Fee	Fund Expenses	Carried Interest	Total Costs	Sources of Change
Growth	\$ 166,699,906	\$ 69,597,589	\$ 188,198,786	\$ 424,496,281	
Prior fiscal year period	152,250,120	61,542,152	210,961,171	424,753,443	
\$ change	14,449,786	8,055,437	(22,762,385)	(257,163)	
% change	9.5%	13.1%	-10.8%	-0.1%	
Global Equity	5,311,610	532,654	-	5,844,264	
Prior fiscal year period	7,034,336	785,395	6,707,514	14,527,245	Management fees, fund expenses, and carried interest decreased across the board due to manager terminations during the fiscal year.
\$ change	(1,722,726)	(252,742)	(6,707,514)	(8,682,981)	
% change	-24.5%	-32.2%	-100.0%	-59.8%	
Private Equity	139,554,036	61,980,396	187,773,141	389,307,573	
Prior fiscal year period	135,997,583	53,733,408	204,014,350	393,745,340	Management fees and fund expenses increased as a result of new vintage year fund activations, while carried interest decreased due to a slowdown in mergers and acquisitions activities.
\$ change	3,556,453	8,246,988	(16,241,209)	(4,437,767)	
% change	2.6%	15.3%	-8.0%	-1.1%	
Non-Core Private Real Estate	21,834,260	7,084,539	425,645	29,344,444	
Prior fiscal year period	9,218,202	7,023,349	239,308	16,480,859	Management fees increased due to an increased allocation to non-core global real estate funds. Carried interest also increased as a result of the realization of a fund asset earned by a manager.
\$ change	12,616,058	61,190	186,337	12,863,586	
% change	136.9%	0.9%	77.9%	78.1%	
Credit	\$ 31,750,669	\$ 11,969,038	\$ 23,099	\$ 43,742,806	
Prior fiscal year period	25,792,791	13,150,422	31,607,394	70,550,607	
\$ change	5,957,878	(1,181,384)	(31,584,295)	(26,807,801)	
% change	23.1%	-9.0%	-99.9%	-38.0%	
Illiquid Credit	31,750,669	11,969,038	23,099	43,742,806	
Prior fiscal year period	25,792,791	13,150,422	31,607,394	70,550,607	Management fees increased as a result of an increased allocation to illiquid credit managers, while fund expenses and carried interest decreased due to decreasing cost structures and lower performance relative to the prior year, respectively.
\$ change	5,957,878	(1,181,384)	(31,584,295)	(26,807,801)	
% change	23.1%	-9.0%	-99.9%	-38.0%	

¹ Data source: State Street, Asset Class Consultants.

Alternative Investments

Fees, Expenses, and Carried Interest



Investment Cost Summary as of June 30, 2023 fiscal year end¹

	Management Fee	Fund Expenses	Carried Interest	Total Costs	Sources of Change
Real Assets & Inflation Hedges	\$ 29,474,018	\$ 6,325,049	\$ -	\$ 35,799,067	
Prior fiscal year period	26,630,476	6,349,059	-	32,979,535	
\$ change	2,843,542	(24,010)	-	2,819,532	
% change	10.7%	-0.4%	0.0%	8.5%	
Core Private Real Estate	4,098,290	1,073,753	-	5,172,043	
Prior fiscal year period	4,104,350	942,267	-	5,046,618	Fund expenses increased due to core managers' international operations within Asia & Europe.
\$ change	(6,060)	131,486	-	125,426	
% change	-0.1%	14.0%	0.0%	2.5%	
Natural Resources & Commodities	11,119,783	1,843,957	-	12,963,740	
Prior fiscal year period	10,934,077	1,529,815	-	12,463,892	Management fees and fund expenses increased due to an increased allocation to private natural resources managers and higher operational and organizational expenses relative to the prior year.
\$ change	185,706	314,142	-	499,849	
% change	1.7%	20.5%	0.0%	4.0%	
Infrastructure	14,255,945	3,407,339	-	17,663,283	
Prior fiscal year period	11,592,049	3,876,977	-	15,469,026	Management fees increased as a result of an increased allocation to private infrastructure managers, while fund expenses decreased due to decreasing cost structures.
\$ change	2,663,896	(469,639)	-	2,194,257	
% change	23.0%	-12.1%	0.0%	14.2%	
Risk Reduction & Mitigation	\$ 63,152,449	\$ 21,695,784	\$ 65,641,348	\$ 150,489,581	
Prior fiscal year period	49,318,969	12,255,584	37,900,334	99,474,887	
\$ change	13,833,480	9,440,200	27,741,014	51,014,694	
% change	28.0%	77.0%	73.2%	51.3%	
Diversified Hedge Funds	63,152,449	21,695,784	65,641,348	150,489,581	
Prior fiscal year period	49,318,969	12,255,584	37,900,334	99,474,887	Management fees and fund expenses increased as a result of an increased allocation to hedge fund managers, while carried interest increased due to strong performance relative to the prior year.
\$ change	13,833,480	9,440,200	27,741,014	51,014,694	
% change	28.0%	77.0%	73.2%	51.3%	
Total Alternative Investments	\$ 291,077,042	\$ 109,587,460	\$ 253,863,233	\$ 654,527,735	
Prior fiscal year period	253,992,356	93,297,217	280,468,899	627,758,473	
\$ change	37,084,686	16,290,242	(26,605,666)	26,769,262	
% change	14.6%	17.5%	-9.5%	4.3%	

¹ Data source: State Street, Asset Class Consultants.

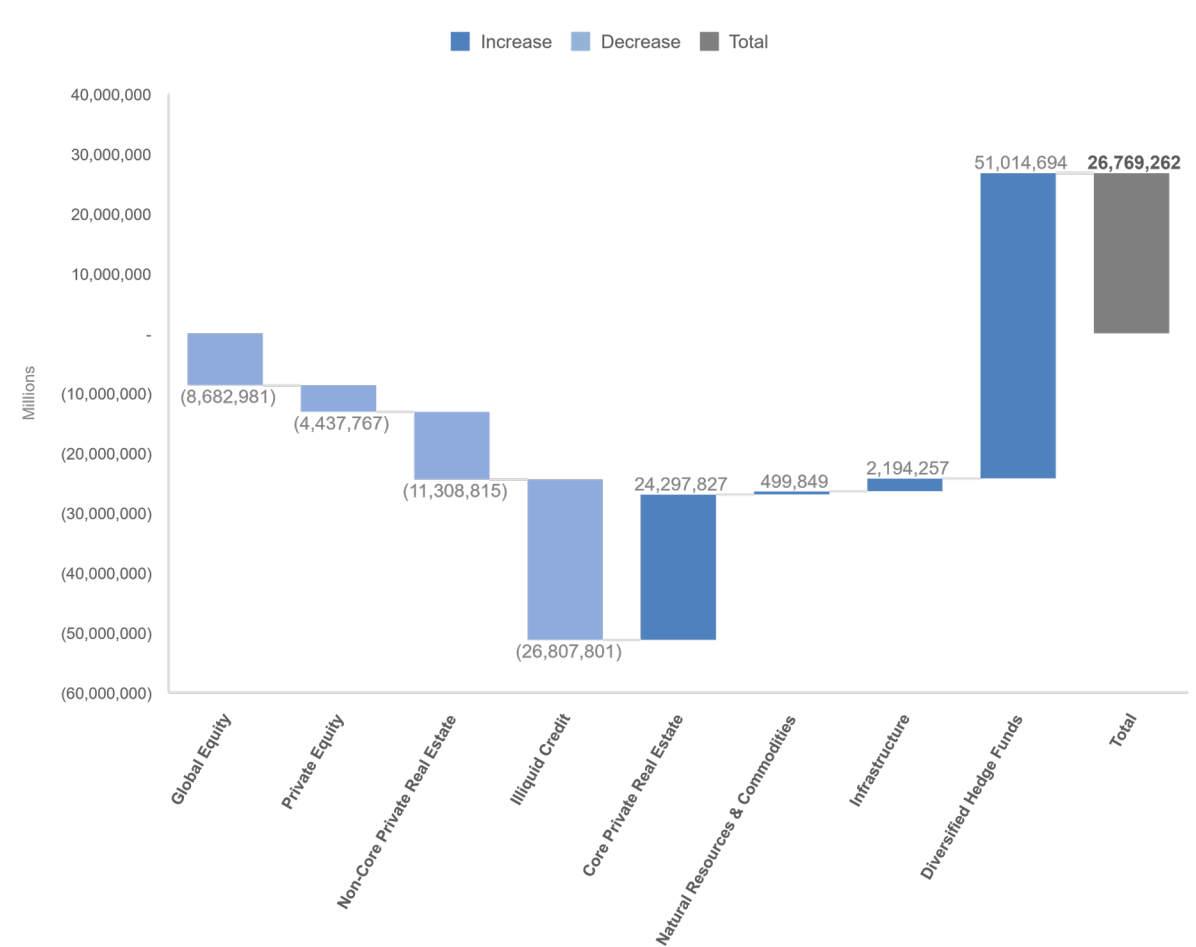
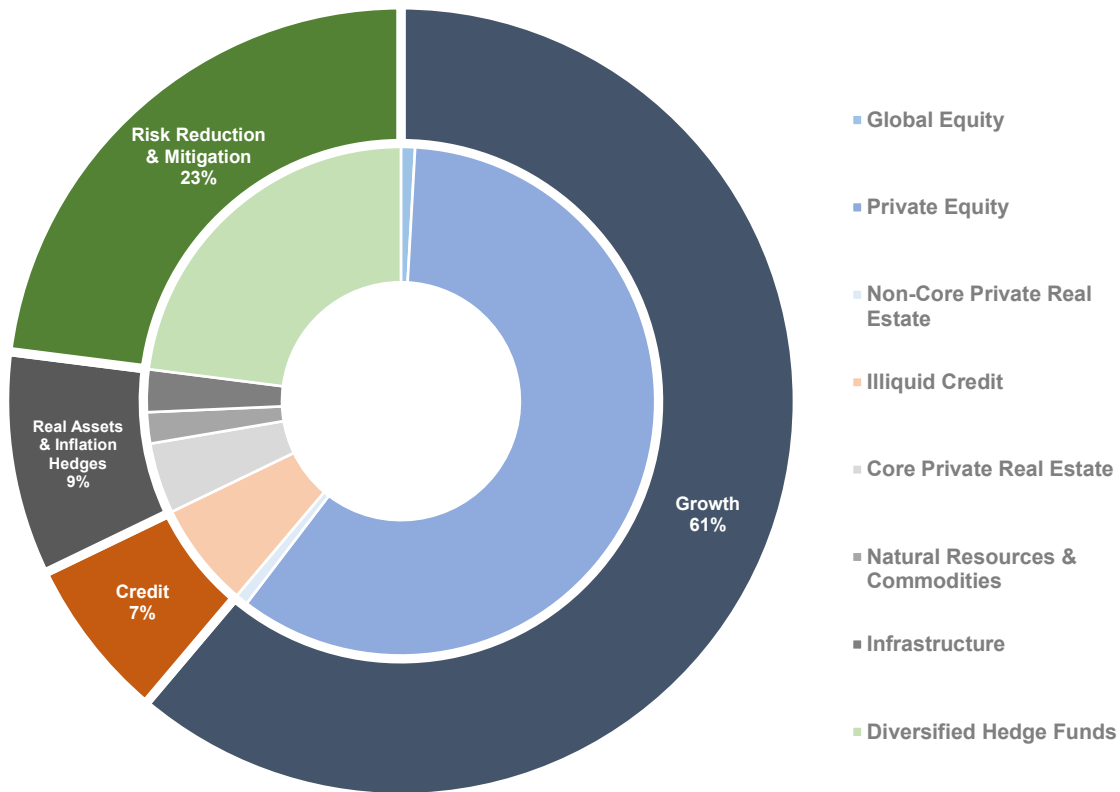
Alternative Investments

Fees, Expenses, and Carried Interest



Distribution of Total Alternative Investment Costs¹

- LACERA's alternative investment costs totaled \$654.5 million, an increase of \$26.8 million (or 4.3%) from the prior fiscal year.



¹ Data source: State Street, Asset Class Consultants.

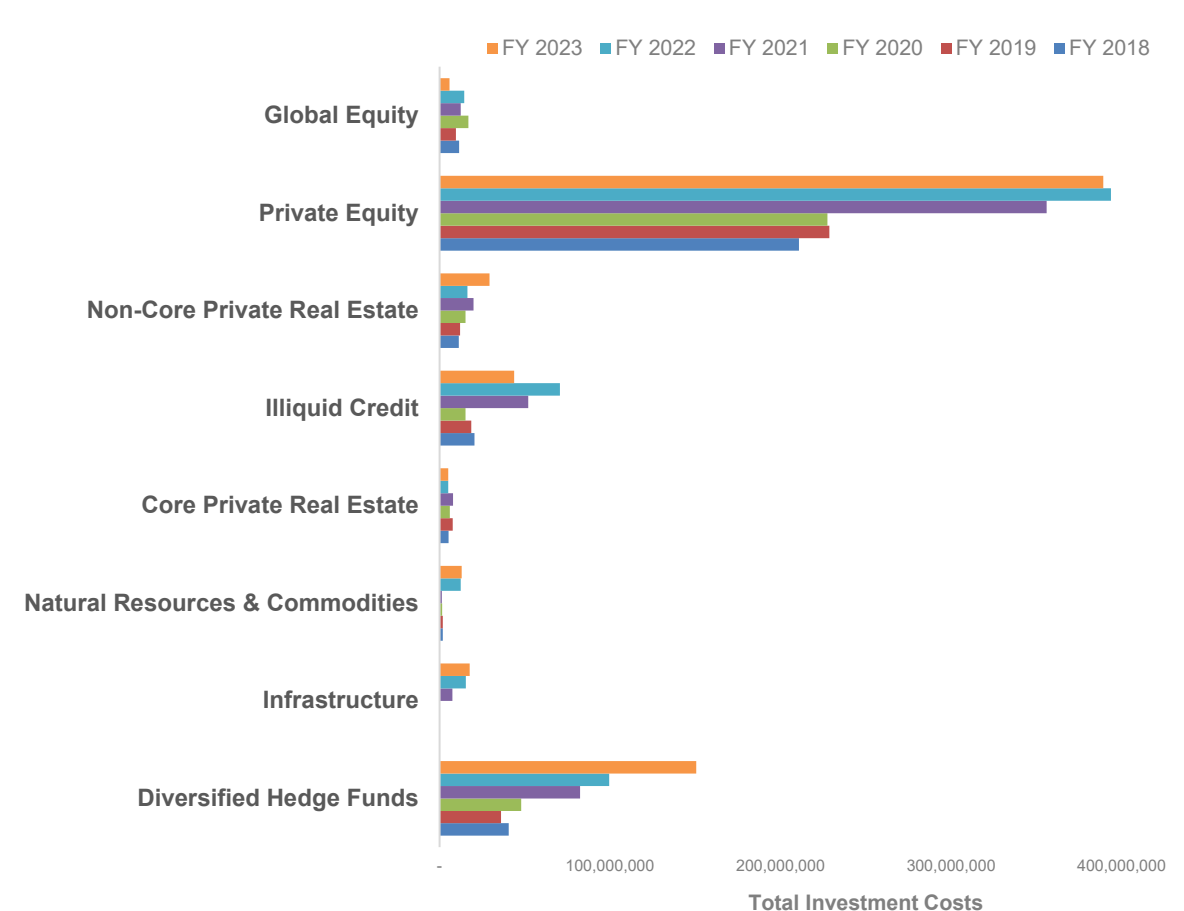
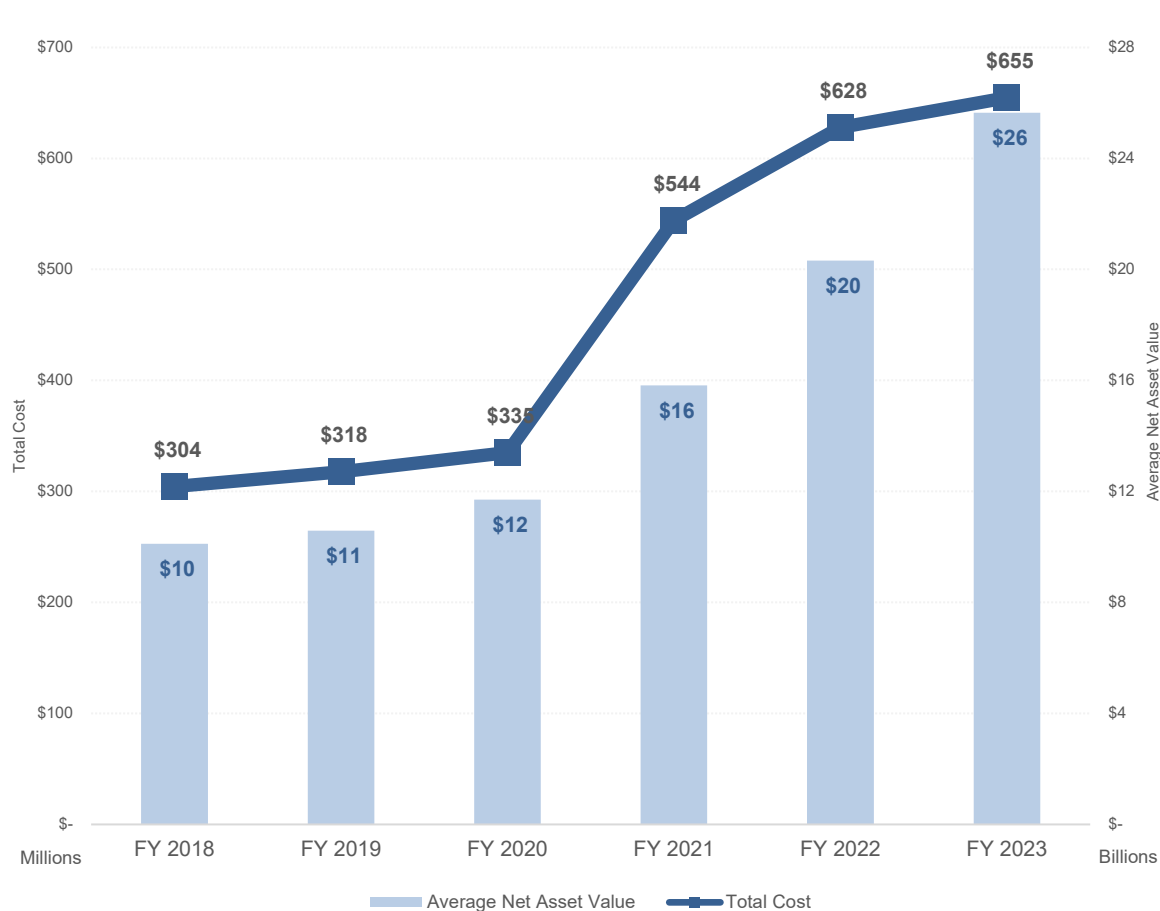
Alternative Investments

Fees, Expenses, and Carried Interest



Historical Alternative Investment Total Costs¹

- Net asset values are growing at a steeper rate than alternative investment costs with incremental capital deployed at lower costs.



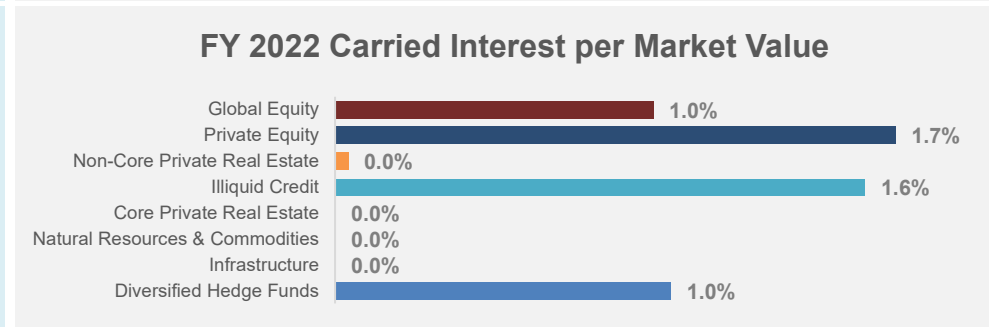
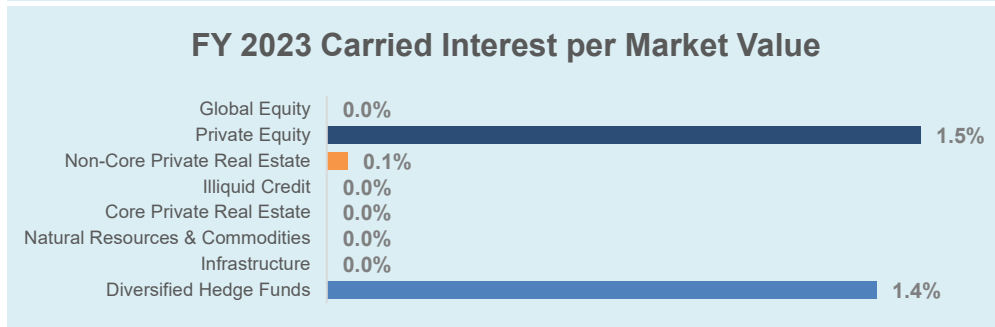
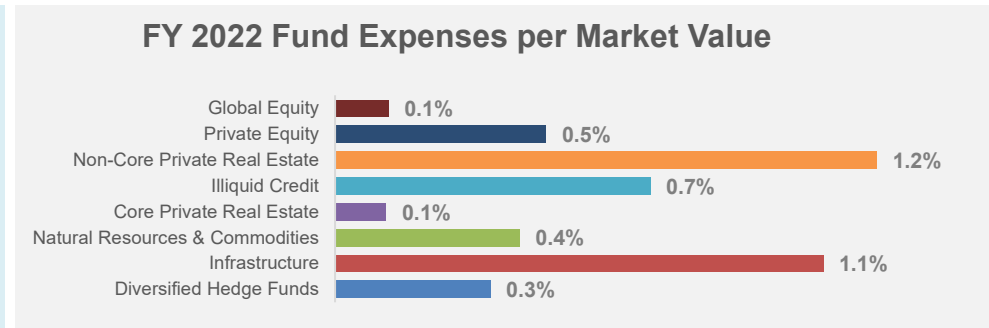
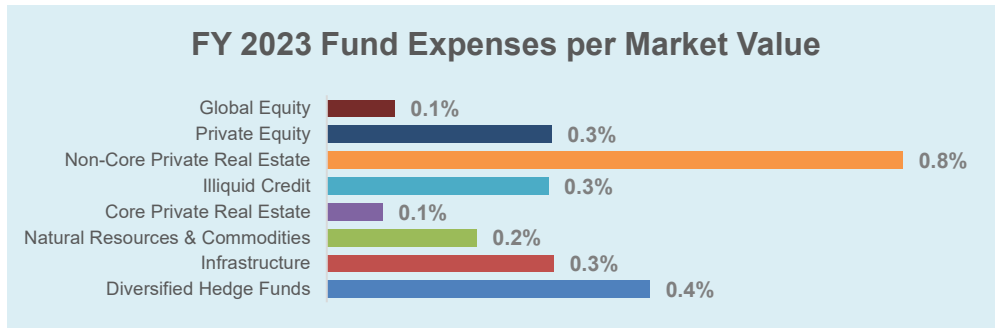
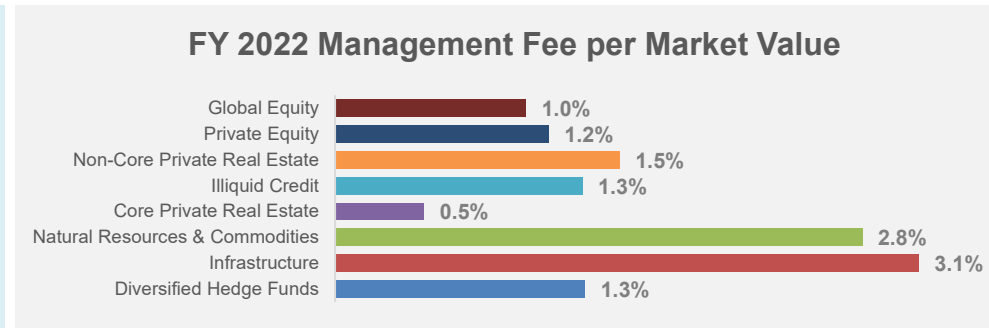
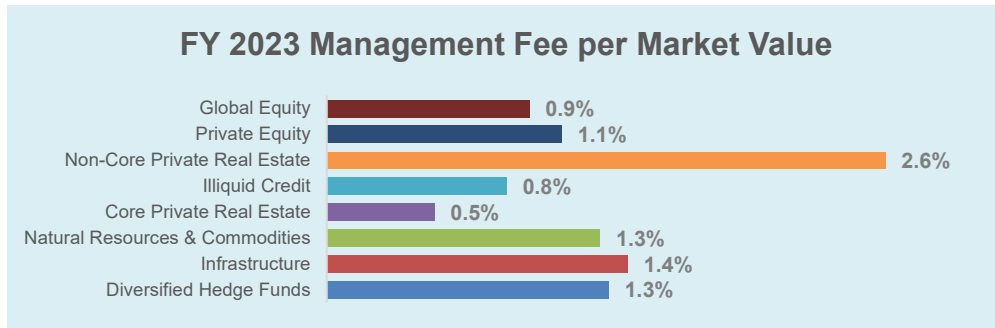
¹ Data source: State Street, Asset Class Consultants.

Alternative Investments

Fees, Expenses, and Carried Interest



Alternative Investment Costs per Market Value¹



- LACERA's cost structure shows continued improvement as cost categories exhibited declines from the prior fiscal year.

¹ Data source: State Street, Asset Class Consultants.



Public Markets & Title Holding Companies Investment Costs

Public Markets & Title Holding Companies

Fees, Expenses, and Carried Interest



Investment Cost Summary as of June 30, 2023 fiscal year end^{1,2}

	Management Fee	Fund Expenses	Carried Interest	Total Costs	Sources of Change
Growth	\$ 15,254,920	\$ -	\$ -	\$ 15,254,920	
Prior fiscal year period	21,000,006	-	-	21,000,006	
\$ change	(5,745,086)	-	-	(5,745,086)	
% change	-27.4%	0.0%	0.0%	-27.4%	
Global Equity	15,254,920	-	-	15,254,920	
Prior fiscal year period	21,000,006	-	-	21,000,006	Year-over-year changes due to market value fluctuations primarily attributed to market movements and rebalancing activity.
\$ change	(5,745,086)	-	-	(5,745,086)	
% change	-27.4%	0.0%	0.0%	-27.4%	
Credit	\$ 14,974,263	\$ -	\$ -	\$ 14,974,263	
Prior fiscal year period	15,982,561	-	-	15,982,561	
\$ change	(1,008,298)	-	-	(1,008,298)	
% change	-6.3%	0.0%	0.0%	-6.3%	
Liquid Credit	14,974,263	-	-	14,974,263	
Prior fiscal year period	15,982,561	-	-	15,982,561	Year-over-year changes due to market value fluctuations primarily attributed to market movements and rebalancing activity.
\$ change	(1,008,298)	-	-	(1,008,298)	
% change	-6.3%	0.0%	0.0%	-6.3%	
Real Assets & Inflation Hedges	\$ 9,227,597	\$ -	\$ -	\$ 9,227,597	
Prior fiscal year period	12,311,548	-	-	12,311,548	
\$ change	(3,083,951)	-	-	(3,083,951)	
% change	-25.0%	0.0%	0.0%	-25.0%	
Natural Resources & Commodities	3,985,213	-	-	3,985,213	
Prior fiscal year period	7,578,535	-	-	7,578,535	Year-over-year changes due to market value fluctuations primarily attributed to market movements and rebalancing activity.
\$ change	(3,593,322)	-	-	(3,593,322)	
% change	-47.4%	0.0%	0.0%	-47.4%	
Infrastructure	5,052,579	-	-	5,052,579	
Prior fiscal year period	4,527,504	-	-	4,527,504	Year-over-year changes due to market value fluctuations primarily attributed to market movements and rebalancing activity.
\$ change	525,075	-	-	525,075	
% change	11.6%	0.0%	0.0%	11.6%	
TIPS	189,805	-	-	189,805	
Prior fiscal year period	205,509	-	-	205,509	Year-over-year changes due to market value fluctuations primarily attributed to market movements and rebalancing activity.
\$ change	(15,704)	-	-	(15,704)	
% change	-7.6%	0.0%	0.0%	-7.6%	

¹ Data source: State Street, Asset Class Consultant.

² Public market investment cost structures are less complex with fees based on a percentage of assets under management (AUM).

Public Markets & Title Holding Companies

Fees, Expenses, and Carried Interest



Investment Cost Summary as of June 30, 2023 fiscal year end^{1,2}

	Management Fee	Fund Expenses	Carried Interest	Total Costs	Sources of Change
Risk Reduction & Mitigation	\$ 3,343,305	\$ -	\$ -	\$ 3,343,305	
Prior fiscal year period	4,529,411	-	-	4,529,411	
\$ change	(1,186,106)	-	-	(1,186,106)	
% change	-26.2%	0.0%	0.0%	-26.2%	
Investment Grade Bonds	2,787,322	-	-	2,787,322	
Prior fiscal year period	4,251,858	-	-	4,251,858	Year-over-year changes due to market value fluctuations primarily attributed to market movements and rebalancing activity.
\$ change	(1,464,536)	-	-	(1,464,536)	
% change	-34.4%	0.0%	0.0%	-34.4%	
Long-Term Government Bonds	293,039	-	-	293,039	
Prior fiscal year period	-	-	-	-	N/A
\$ change	293,039	-	-	293,039	
% change	0.0%	0.0%	0.0%	0.0%	
Cash	262,944	-	-	262,944	
Prior fiscal year period	277,553	-	-	277,553	Year-over-year changes due to market value fluctuations primarily attributed to market movements and rebalancing activity.
\$ change	(14,609)	-	-	(14,609)	
% change	-5.3%	0.0%	0.0%	-5.3%	
Overlays & Hedges	\$ 1,624,397	\$ -	\$ -	\$ 1,624,397	
Prior fiscal year period	1,694,902	-	-	1,694,902	
\$ change	(70,505)	-	-	(70,505)	
% change	-4.2%	0.0%	0.0%	-4.2%	
Cash Overlay	638,388	-	-	638,388	
Prior fiscal year period	596,848	-	-	596,848	Year-over-year changes due to market value fluctuations primarily attributed to market movements and rebalancing activity.
\$ change	41,540	-	-	41,540	
% change	7.0%	0.0%	0.0%	7.0%	
Currency Hedge	986,010	-	-	986,010	
Prior fiscal year period	1,098,054	-	-	1,098,054	Year-over-year changes due to market value fluctuations primarily attributed to market movements and rebalancing activity.
\$ change	(112,045)	-	-	(112,045)	
% change	-10.2%	0.0%	0.0%	-10.2%	

¹ Data source: State Street, Asset Class Consultant.

² Public market investment cost structures are less complex with fees based on a percentage of assets under management (AUM).

Public Markets & Title Holding Companies

Fees, Expenses, and Carried Interest



Investment Cost Summary as of June 30, 2023 fiscal year end^{1,2}

	Management Fee	Fund Expenses	Carried Interest	Total Costs	Sources of Change
Total Public Markets	\$ 44,424,481	\$ -	\$ -	\$ 44,424,481	
Prior fiscal year period	55,518,427	-	-	55,518,427	
\$ change	(11,093,946)	-	-	(11,093,946)	
% change	-20.0%	0.0%	0.0%	-20.0%	
Title Holding Companies (THC)	15,433,042	807,699	-	16,240,740	
Prior fiscal year period	17,739,652	836,618	8,838,794	27,415,064	Management fees decreased due to disposition of retail assets, while no carried interest was earned by managers in these sales.
\$ change	(2,306,610)	(28,919)	(8,838,794)	(11,174,324)	
% change	-13.0%	-3.5%	-100.0%	-40.8%	
Total Public Markets + THC	\$ 59,857,523	\$ 807,699	\$ -	\$ 60,665,222	
Prior fiscal year period	73,258,079	836,618	8,838,794	82,933,491	
\$ change	(13,400,557)	(28,919)	(8,838,794)	(22,268,270)	
% change	-18.3%	-3.5%	-100.0%	-26.9%	

¹ Data source: State Street, Asset Class Consultant.

² Public market investment cost structures are less complex with fees based on a percentage of assets under management (AUM).

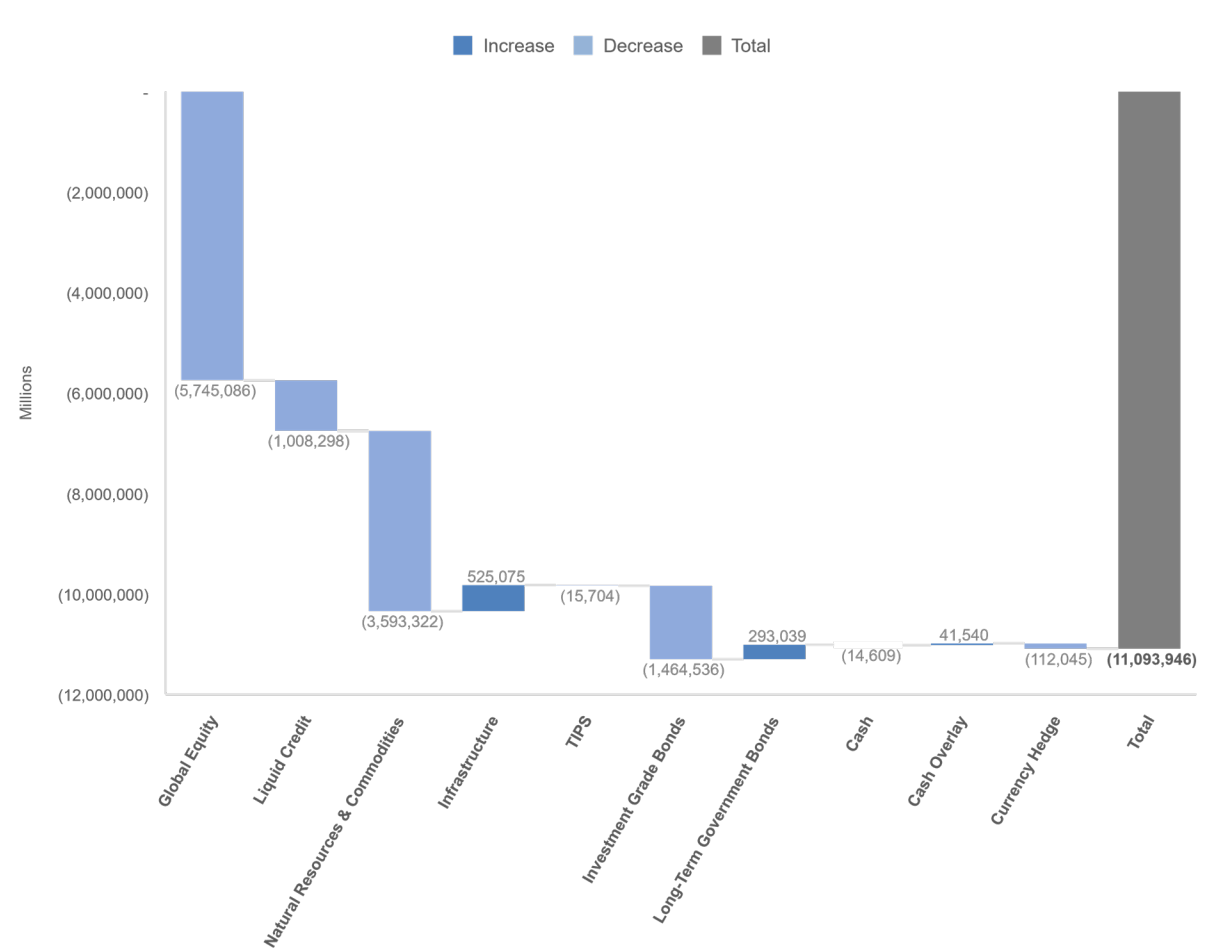
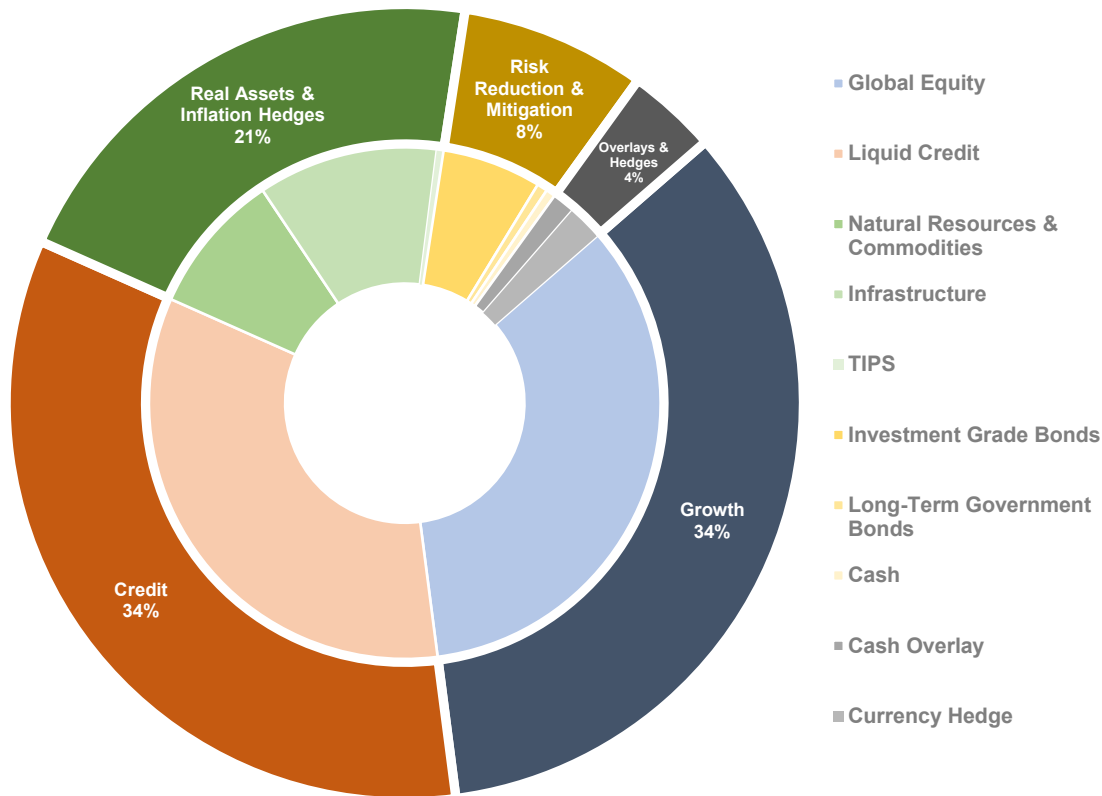
Public Markets & Title Holding Companies

Fees, Expenses, and Carried Interest



Distribution of Total Public Market Investment Costs^{1,2}

- LACERA's public market investment costs totaled \$44.4 million, a decrease of \$11.1 million (or 20.0%) from the prior fiscal year.



¹ Data source: State Street, Asset Class Consultant.

² Public market investment cost structures are less complex with fees based on a percentage of assets under management (AUM).

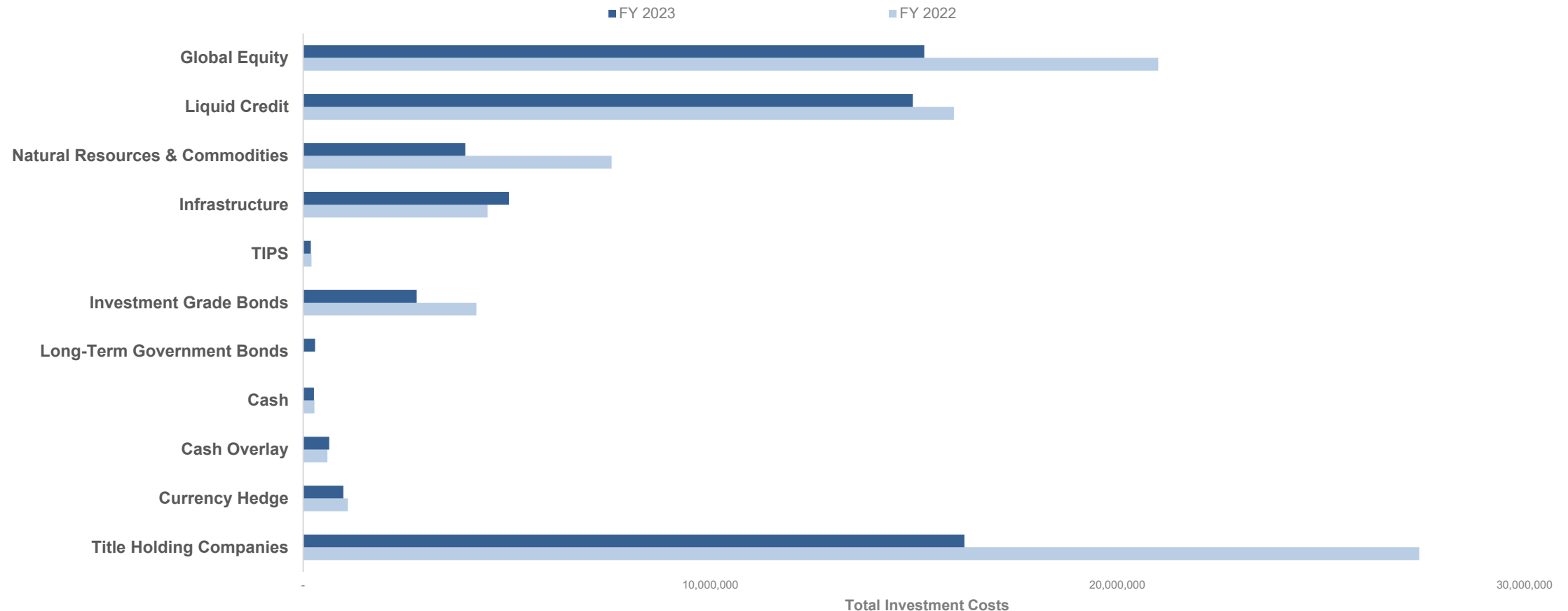
Public Markets & Title Holding Companies

Fees, Expenses, and Carried Interest



Historical Public Markets & Title Holding Companies Total Costs^{1,2}

- Total investment costs by asset category largely declined compared to the prior fiscal year.



¹ Data source: State Street, Asset Class Consultant.

² Public market investment cost structures are less complex with fees based on a percentage of assets under management (AUM).



Appendix

Appendix 1 – Diversified Hedge Funds



Required disclosures by AIV as of June 30, 2023 fiscal year end^{1,2,3,4}

Section 7928.710											Section 7514.7					
Alternative Investment Vehicle (AIV) Name	Address	Vintage Year	Capital Committed (USD)	Cash Contributions (USD)	Cash Distributions (USD)	Cash Distributions + Remaining Value (USD)	Net IRR (ITD)	Investment Multiple (ITD)	Management Fees and Costs (FY)	Cash Profit Received (FY)	Management Fees (USD)	Fund Expenses (USD)	Carried Interest (USD)	Portfolio Company Expenses (USD)	Gross IRR (ITD)	Net IRR (ITD)
AM Asia Strategies Fund, L.P.	www.am-squared.com	2021	225,000,000	225,000,000	-	245,062,059	4.9%	1.09x	1,640,034	-	1,198,023	442,011	3,064,805	-	6.7%	4.9%
Amundsen Diversified Master Fund ICAV	www.amundsen-im.com	2021	65,000,000	65,000,000	-	62,355,642	-2.0%	0.96x	1,317,750	-	979,443	338,307	-	-	-0.7%	-2.0%
Brevan Howard Master Fund, Ltd.	www.brevanhoward.com	2021	550,000,000	550,000,000	-	623,516,458	5.6%	1.13x	13,689,081	-	12,328,522	1,360,559	20,345,743	-	9.4%	5.6%
Capula Global Relative Value Fund, L.P.	www.capulaglobal.com	2019	567,000,000	567,000,000	-	681,008,839	7.5%	1.20x	12,309,369	-	9,885,864	2,423,505	15,608,885	-	10.8%	7.5%
Caxton Global Investments, LLC - Class T	www.caxton.com	2021	250,000,000	250,000,000	-	279,063,464	5.5%	1.12x	4,979,435	-	4,479,878	499,557	11,089,087	-	9.3%	5.5%
ClearAlpha Technologies, L.P. - Niche Plus	www.clearalphatech.com	2023	93,000,000	93,000,000	-	92,952,447	NM	NM	1,229,078	-	-	1,229,078	-	-	NM	NM
Davidson Kempner Institutional Partners, L.P.	www.davidsonkempner.com	2018	450,000,000	450,000,000	-	501,669,930	4.5%	1.11x	8,890,609	-	7,315,946	1,574,663	-	-	6.9%	4.5%
HBK Multi-Strategy Fund, L.P.	www.hbk.com	2018	500,000,000	500,000,000	-	589,406,314	5.4%	1.18x	10,325,542	-	7,713,205	2,612,337	3,914,450	-	8.1%	5.4%
Hudson Bay Fund, L.P.	www.hudsonbaycapital.com	2020	550,000,000	550,000,000	-	673,856,545	9.9%	1.23x	16,494,374	-	9,775,810	6,718,564	5,909,231	-	14.1%	9.9%
Linear B Onshore Fund, L.P.	www.linearbpartners.com	2021	64,999,000	64,999,000	-	72,656,011	6.7%	1.12x	651,779	-	651,779	-	1,313,327	-	9.7%	6.7%
Lucid Clarity Offshore Fund, Ltd.	www.clearskyim.com	2022	89,999,000	89,999,000	-	85,567,664	-3.3%	0.95x	1,685,561	-	1,281,681	403,880	634,086	-	-1.6%	-3.3%
Palmetto Catastrophe Fund, L.P.	N/A	2018	15,000,000	15,000,000	15,041,098	15,116,857	24.0%	1.01x	3,684	-	3,577	107	-	-	26.2%	24.0%
Polar Multi-Strategy Fund (US), L.P.	www.polaramp.com	2020	375,000,000	375,000,000	-	486,804,756	10.2%	1.30x	4,777,798	-	4,745,300	32,498	3,696,167	-	13.7%	10.2%
San Gabriel Fund, L.P.	www.gcmgrosvenor.com	2011	397,525,000	397,525,000	481,629,745	504,973,013	2.7%	1.27x	198,383	-	198,383	-	-	-	3.3%	2.7%
Sparta Global Opportunities Fund, Ltd.	www.spartacapital.co.uk	2021	50,763,080	50,763,080	-	51,211,701	1.1%	1.01x	1,257,544	-	710,571	546,972	-	-	10.3%	1.1%
Stable Asset Management	www.stableam.com	2021	475,400,000	475,400,000	-	480,644,993	-0.1%	1.01x	1,091,651	-	1,091,651	-	-	-	0.3%	-0.1%
TQ Intermediate Fund, L.P.	www.quarrylp.com	2022	82,400,000	82,400,000	-	83,400,694	1.1%	1.01x	3,655,071	-	288,136	3,366,935	-	-	5.7%	1.1%
Trutino Relative Value Rates Fund, L.P.	www.trutino.com	2021	29,999,000	29,999,000	-	32,564,126	4.6%	1.09x	651,491	-	504,680	146,811	65,568	-	9.6%	4.6%

¹ Source: State Street, Asset Class Consultant.

² AIVs marked "NM" (Not Meaningful) represent investments in the initial stages of their investment life cycle and therefore do not generate meaningful performance results.

³ AIVs marked "NA" (Not Available) represent older vintage investments where data was not available at the time of this report.

⁴ Cash Profit Received column calculation methodology refined. Amounts represent fiscal year net cash flows excluding return of capital distributions.

Appendix 2 – Global Equity



Required disclosures by AIV as of June 30, 2023 fiscal year end^{1,2,3,4}

Section 7928.710											Section 7514.7					
Alternative Investment Vehicle (AIV) Name	Address	Vintage Year	Capital Committed (USD)	Cash Contributions (USD)	Cash Distributions (USD)	Cash Distributions + Remaining Value (USD)	Net IRR (ITD)	Investment Multiple (ITD)	Management Fees and Costs (FY)	Cash Profit Received (FY)	Management Fees (USD)	Fund Expenses (USD)	Carried Interest (USD)	Portfolio Company Expenses (USD)	Gross IRR (ITD)	Net IRR (ITD)
Cevian Capital II Master Fund, L.P.	www.ceviancapital.com	2016	250,000,000	250,000,000	-	452,147,538	9.2%	1.81x	4,685,057	-	4,495,574	189,484	-	-	10.7%	9.2%
JANA Strategic Investment Fund V, L.P.	www.janapartners.com	2016	120,000,000	590,610,821	663,325,605	663,325,606	14.4%	1.12x	517,461	-	346,005	171,456	-	-	22.0%	14.4%
The SFP Value Realization Master Fund, Ltd.	www.symphony-fp.com	2016	100,000,000	100,000,000	192,825,373	192,825,373	11.6%	1.93x	641,745	192,825,373	470,031	171,714	-	-	14.2%	11.6%

¹ Source: State Street, Asset Class Consultant.

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⁴ Cash Profit Received column calculation methodology refined. Amounts represent fiscal year net cash flows excluding return of capital distributions.

Appendix 3 – Illiquid Credit



Required disclosures by AIV as of June 30, 2023 fiscal year end^{1,2,3,4}

Section 7928.710											Section 7514.7					
Alternative Investment Vehicle (AIV) Name	Address	Vintage Year	Capital Committed (USD)	Cash Contributions (USD)	Cash Distributions (USD)	Cash Distributions + Remaining Value (USD)	Net IRR (ITD)	Investment Multiple (ITD)	Management Fees and Costs (FY)	Cash Profit Received (FY)	Management Fees (USD)	Fund Expenses (USD)	Carried Interest (USD)	Portfolio Company Expenses (USD)	Gross IRR (ITD)	Net IRR (ITD)
BPC Opportunities Fund II, L.P.	www.beachpoint.capital	2014	150,000,000	150,000,000	186,379,310	198,286,156	7.9%	1.32x	457,879	110,959	173,821	284,058	-	-	8.9%	7.9%
BPC Opportunities Fund III, L.P.	www.beachpoint.capital	2017	170,000,000	170,000,000	143,127,015	259,060,007	10.3%	1.52x	783,409	314,890	436,738	336,483	-	10,187	13.4%	10.3%
Glendon Opportunities Fund II, L.P.	N/A	2017	100,000,000	85,000,000	-	121,128,728	14.7%	1.43x	2,441,578	-	2,124,817	239,906	-	76,855	20.1%	14.7%
Glendon Opportunities Fund, L.P.	N/A	2014	60,000,000	51,000,000	68,406,838	82,173,455	8.2%	1.61x	544,317	7,022,061	372,401	166,391	-	5,525	10.7%	8.2%
HarbourView Royalties Fund I, L.P.	www.harbourviewequity.com	2022	100,000,000	55,198,968	-	56,346,491	4.7%	1.02x	1,992,599	-	203,937	1,788,662	-	-	5.6%	4.7%
Lake Cascade Fund, L.P.	www.waterfallam.com	2023	675,000,000	500,650,459	-	519,109,381	12.0%	1.04x	1,287,933	-	935,400	352,533	-	-	15.0%	12.0%
Lake Cottage Fund, L.P.	www.varde.com	2022	775,000,000	505,593,102	-	526,432,924	10.8%	1.04x	2,006,585	-	1,278,562	728,023	-	-	13.6%	10.8%
Lake Vineyard Fund, L.P.	www.silver-rock.com	2022	950,000,000	514,873,437	-	551,754,432	8.4%	1.07x	3,349,038	-	2,417,106	931,932	-	-	8.8%	8.4%
Magnetar Lake Credit Fund, LLC	www.magnetar.com	2020	832,500,000	832,500,000	33,000,000	1,000,969,164	19.5%	1.20x	9,018,144	-	7,936,294	1,081,850	-	-	23.6%	19.5%
Napier Park Lake Credit Fund, L.P.	www.napierparkglobal.com	2020	688,000,000	688,000,000	-	924,624,828	16.2%	1.34x	12,141,234	-	8,017,067	4,124,167	-	-	20.0%	16.2%
Oaktree Opportunities Fund VIII, L.P.	www.oaktreecapital.com	2010	37,500,000	37,500,000	54,617,234	54,781,005	9.1%	1.46x	(10,006)	80,817	-	(10,006)	19,874	-	12.9%	9.1%
Oaktree Opportunities Fund VIII-B, L.P.	www.oaktreecapital.com	2010	37,500,000	37,500,000	48,820,153	61,647,266	8.1%	1.64x	40,617	6,284,534	27,794	12,823	-	-	10.6%	8.1%
Oaktree Opportunities Fund IX, L.P.	www.oaktreecapital.com	2012	100,000,000	100,000,000	90,076,125	170,465,987	7.8%	1.70x	946,626	-	687,981	108,567	-	150,078	9.7%	7.8%
OCM Opportunities Fund V, L.P.	www.oaktreecapital.com	2004	32,400,000	32,400,000	53,467,468	53,467,468	14.2%	1.65x	-	-	-	-	-	-	NA	14.2%
OCM Opportunities Fund VII, L.P.	www.oaktreecapital.com	2007	30,000,000	30,000,000	41,280,406	41,547,933	7.3%	1.38x	(980)	24,000	-	(980)	-	-	10.1%	7.3%
OCM Opportunities Fund VII-B, L.P.	www.oaktreecapital.com	2007	45,000,000	40,500,000	70,155,994	70,173,776	16.5%	1.73x	(6,661)	12,899	-	(6,661)	3,225	-	21.8%	16.5%
PIMCO Tactical Opportunities Onshore Fund, L.P.	www.pimco.com	2018	225,000,000	225,000,000	-	285,390,228	5.1%	1.27x	3,553,034	-	2,716,713	836,321	-	-	6.8%	5.1%
San Gabriel Fund 3, L.P.	www.gcmgrosvenor.com	2016	300,000,000	300,000,000	328,979,004	349,756,581	4.0%	1.17x	186,420	7,829,142	186,420	-	-	-	4.7%	4.0%
Tennenbaum Senior Loan Fund V, LLC	www.blackrock.com	2014	475,000,000	449,465,276	44,995,500	682,425,974	7.6%	1.52x	4,987,940	2,738,679	4,235,618	752,322	-	-	8.2%	7.6%

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⁴ Cash Profit Received column calculation methodology refined. Amounts represent fiscal year net cash flows excluding return of capital distributions.

Appendix 4 – Private Equity



Required disclosures by AIV as of June 30, 2023 fiscal year end^{1,2,3,4}

Section 7928.710											Section 7514.7					
Alternative Investment Vehicle (AIV) Name	Address	Vintage Year	Capital Committed (USD)	Cash Contributions (USD)	Cash Distributions (USD)	Cash Distributions + Remaining Value (USD)	Net IRR (ITD)	Investment Multiple (ITD)	Management Fees and Costs (FY)	Cash Profit Received (FY)	Management Fees (USD)	Fund Expenses (USD)	Carried Interest (USD)	Portfolio Company Expenses (USD)	Gross IRR (ITD)	Net IRR (ITD)
ABRY Advanced Securities Fund III, L.P.	www.abry.com	2014	25,000,000	15,295,308	23,853,755	23,853,755	18.0%	1.56x	-	-	-	-	-	-	NA	18.0%
ABRY Partners VIII, L.P.	www.abry.com	2014	35,000,000	36,590,937	44,820,102	44,820,102	9.7%	1.22x	-	-	-	-	-	-	NA	9.7%
Accel IV, L.P.	www.accel.com	1993	5,000,000	5,010,800	40,440,003	40,440,003	78.0%	8.07x	-	-	-	-	-	-	NA	78.0%
Accel V, L.P.	www.accel.com	1996	9,000,000	9,000,000	176,580,105	176,580,105	188.4%	19.62x	-	-	-	-	-	-	NA	188.4%
Accel VI, L.P.	www.accel.com	1998	9,000,000	9,000,000	3,267,735	3,472,188	-7.9%	0.39x	NA	-	NA	NA	NA	NA	NA	-7.9%
Accel VIII, L.P.	www.accel.com	2000	7,293,000	5,858,250	8,462,773	8,462,773	4.7%	1.44x	-	-	-	-	-	-	NA	4.7%
Accel VI-S, L.P.	www.accel.com	2001	1,451,613	1,154,031	5,112,722	5,256,952	14.3%	4.56x	1,433	618,314	-	1,433	-	-	NA	14.3%
Accel-KKR Capital Partners CV III, L.P.	www.accel-kr.com	2018	16,000,000	14,245,874	2,855,619	20,116,190	11.5%	1.41x	130,049	-	117,872	12,177	27,988	-	15.0%	11.5%
Accel-KKR Capital Partners CV IV Strategic Fund, L.P.	www.accel-kr.com	2022	10,391,355	8,111,409	312,440	9,635,492	NM	NM	35,953	-	-	35,953	-	-	NM	NM
Accel-KKR Capital Partners CV IV, L.P.	www.accel-kr.com	2022	102,318,913	79,426,107	2,790,230	85,669,902	NM	NM	271,066	-	-	271,066	-	-	NM	NM
Accel-KKR Capital Partners VI, L.P.	www.accel-kr.com	2019	110,000,000	63,643,544	-	63,643,530	0.0%	1.00x	2,551,446	-	903,357	1,648,089	-	-	8.0%	0.0%
Accel-KKR Capital Partners VII, L.P.	www.accel-kr.com	2023	150,000,000	-	-	-	NM	NM	-	-	-	-	-	-	NM	NM
Accel-KKR Growth Capital Partners III, L.P.	www.accel-kr.com	2018	50,000,000	42,645,657	7,672,071	53,432,133	10.4%	1.25x	263,732	2,142,162	-	263,732	388,062	-	19.0%	10.4%
Accel-KKR Growth Capital Partners IV, L.P.	www.accel-kr.com	2022	65,000,000	19,776,062	-	18,699,033	NM	NM	973,383	-	641,585	331,798	-	-	NM	NM
Access Foundation Partners Group II, LLC	www.accessholdings.com	2019	30,000,000	23,206,226	35,709,271	35,709,271	28.1%	1.54x	-	180,316	-	-	-	-	NA	28.1%
Access Holdings Fund I, L.P.	www.accessholdings.com	2019	15,000,000	12,616,858	3,905,914	25,662,212	35.6%	2.03x	283,786	-	232,056	51,730	-	-	47.4%	35.6%
Advent International GPE IX, L.P.	www.adventinternational.com	2019	100,000,000	93,506,392	9,996,007	139,672,772	22.2%	1.49x	1,497,387	-	1,171,832	313,457	-	12,098	33.3%	22.2%
Advent International GPE X, L.P.	www.adventinternational.com	2022	130,000,000	30,225,000	-	28,678,469	-14.3%	0.95x	1,927,394	-	1,458,990	465,311	-	3,093	13.5%	-14.3%
AE Industrial Partners Fund II, L.P.	www.aeroequity.com	2018	100,000,000	101,612,142	45,804,153	158,363,277	23.8%	1.56x	1,035,564	2,766,102	845,679	189,885	2,310,601	-	26.9%	23.8%
AE Industrial Partners Fund III, L.P.	www.aeroequity.com	2022	100,000,000	23,663,914	-	21,198,587	NM	NM	1,519,170	-	854,615	575,806	-	88,749	NM	NM
Agilitas 2020 Private Equity Fund	www.agilitaspe.com	2021	13,525,131	4,511,030	-	3,659,691	-31.9%	0.81x	286,908	-	260,813	26,292	-	(197)	0.8%	-31.9%
Alchemy Plan (Pasadena), L.P.	www.alchemypartners.co.uk	2005	28,986,797	28,572,282	32,514,416	32,514,416	1.7%	1.14x	-	-	-	-	-	-	NA	1.7%
Alchemy Special Opportunities Fund IV, L.P.	www.alchemypartners.co.uk	2018	82,637,799	45,977,861	5,783,224	60,481,413	17.8%	1.32x	1,748,508	-	1,355,190	339,394	-	53,923	20.9%	17.8%
Aldrich Capital Partners Fund, L.P.	www.aldrichcap.com	2018	10,000,000	9,880,431	-	15,116,856	14.9%	1.53x	189,237	-	123,653	11,008	-	54,576	35.7%	14.9%
Alpine Investors IX, L.P.	www.alpineinvestors.com	2023	150,000,000	-	-	-	NM	NM	-	-	-	-	-	-	NM	NM
Alsop Louie Capital II, L.P.	www.alsop-louie.com	2010	5,000,000	5,000,000	-	4,731,340	-0.5%	0.95x	20,975	-	-	20,975	-	-	-0.5%	-0.5%
Alsop Louie Capital III, L.P.	www.alsop-louie.com	2015	5,000,000	4,750,000	672,682	10,084,971	12.2%	2.12x	74,079	20,572	59,428	14,651	-	-	13.5%	12.2%
Alta California Partners II, L.P.	www.altapartners.com	1998	15,000,000	15,000,000	10,576,049	10,576,049	-5.6%	0.71x	-	-	-	-	-	-	NA	-5.6%
Alta California Partners III, L.P.	www.altapartners.com	2000	15,000,000	14,574,076	17,101,670	17,101,670	2.2%	1.17x	-	-	-	-	-	-	NA	2.2%
Ampersand CF, L.P.	www.ampersandcapital.com	2020	70,000,000	70,000,000	71,913,653	110,139,691	32.1%	1.57x	261,340	-	258,019	3,321	-	-	37.0%	32.1%

¹ Source: State Street, Asset Class Consultant.

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Appendix 4 – Private Equity



Required disclosures by AIV as of June 30, 2023 fiscal year end^{1,2,3,4}

Section 7928.710											Section 7514.7					
Alternative Investment Vehicle (AIV) Name	Address	Vintage Year	Capital Committed (USD)	Cash Contributions (USD)	Cash Distributions (USD)	Cash Distributions + Remaining Value (USD)	Net IRR (ITD)	Investment Multiple (ITD)	Management Fees and Costs (FY)	Cash Profit Received (FY)	Management Fees (USD)	Fund Expenses (USD)	Carried Interest (USD)	Portfolio Company Expenses (USD)	Gross IRR (ITD)	Net IRR (ITD)
Apax Europe IV-A, L.P.	www.apax.com	1999	21,820,007	20,079,264	27,299,605	27,299,605	7.1%	1.36x	-	-	-	-	-	-	NA	7.1%
Apax Europe V-A, L.P.	www.apax.com	2001	54,550,017	59,047,867	125,378,745	125,378,745	36.1%	2.12x	-	-	-	-	-	-	NA	36.1%
Apollo Investment Fund III, L.P.	www.apollo.com	1995	15,000,000	17,236,337	24,695,084	24,695,084	9.6%	1.43x	-	-	-	-	-	-	NA	9.6%
Apollo Investment Fund IV, L.P.	www.apollo.com	1998	50,000,000	51,160,746	84,562,235	84,562,235	8.5%	1.65x	-	-	-	-	-	-	NA	8.5%
Apollo Investment Fund V, L.P.	www.apollo.com	2001	30,000,000	45,638,384	92,513,248	92,513,248	37.6%	2.03x	-	-	-	-	-	-	NA	37.6%
ASC Network Corporation	www.ascnetworks.net	1992	5,000,000	5,000,000	8,502,725	8,502,725	14.2%	1.70x	-	-	-	-	-	-	NA	14.2%
Atlantic Street Capital II, L.P.	www.atlanticstreetcapital.com	2011	7,000,000	9,369,005	21,551,217	37,505,836	36.5%	4.00x	14,003	94,669	-	14,003	23,667	-	NA	36.5%
Atlantic Street Capital III, L.P.	www.atlanticstreetcapital.com	2015	10,000,000	11,049,348	6,842,986	22,178,687	19.5%	2.01x	17,482	-	-	17,482	-	-	NA	19.5%
Atlantic Street Capital IV, L.P.	www.atlanticstreetcapital.com	2019	50,000,000	41,625,256	21,581,308	73,126,496	32.0%	1.76x	666,043	-	590,498	75,545	-	-	46.6%	32.0%
Atlantic Street Capital V, L.P.	www.atlanticstreetcapital.com	2022	150,000,000	3,424,280	-	(104,909)	NM	NM	3,530,624	-	3,107,143	423,481	-	-	NM	NM
Aurora Equity Partners II, L.P.	www.auroracap.com	1998	30,000,000	33,792,031	47,497,863	47,497,863	4.7%	1.41x	-	-	-	-	-	-	NA	4.7%
Austin Ventures VII, L.P.	www.austinventures.com	1999	5,000,000	5,000,000	4,037,188	4,037,188	-2.8%	0.81x	-	-	-	-	-	-	NA	-2.8%
Austin Ventures VIII, L.P.	www.austinventures.com	2001	11,066,667	11,563,792	18,908,284	18,908,284	6.9%	1.64x	-	-	-	-	-	-	NA	6.9%
Austin Ventures IX, L.P.	www.austinventures.com	2006	7,600,000	7,664,734	10,453,298	10,453,298	5.1%	1.36x	-	-	-	-	-	-	NA	5.1%
Australis Partners Fund, L.P.	www.australispartners.com	2016	125,000,000	128,291,510	55,678,947	174,521,077	8.8%	1.36x	NA	7,752,716	NA	NA	NA	NA	NA	8.8%
Banneker Partners Fund II, L.P.	www.bannekerpartners.com	2022	7,500,000	3,219,661	-	3,332,004	5.8%	1.03x	257,283	-	208,750	48,533	-	-	18.3%	5.8%
BDCM Opportunity Fund IV, L.P.	www.bdc.com	2015	100,000,000	142,722,155	95,102,256	278,259,861	17.9%	1.95x	NA	2,113,451	NA	NA	NA	NA	NA	17.9%
Behrman Capital II, L.P.	www.behrmancap.com	1998	34,101,071	34,101,071	41,945,892	41,945,892	3.0%	1.23x	-	-	-	-	-	-	NA	3.0%
Behrman Capital III, L.P.	www.behrmancap.com	2000	35,000,000	34,999,999	62,109,146	62,109,146	11.8%	1.77x	-	-	-	-	-	-	NA	11.8%
Berkshire Fund III, L.P.	www.berkshirepartners.com	1993	5,000,000	4,839,500	18,502,393	18,502,393	55.1%	3.82x	-	-	-	-	-	-	NA	55.1%
Berkshire Fund IV, L.P.	www.berkshirepartners.com	1996	20,000,000	19,160,798	49,899,467	49,899,467	33.4%	2.60x	-	-	-	-	-	-	NA	33.4%
Berkshire Fund V, L.P.	www.berkshirepartners.com	1998	40,000,000	38,259,380	100,517,633	100,517,633	23.0%	2.63x	-	-	-	-	-	-	NA	23.0%
Berkshire Fund VI, L.P.	www.berkshirepartners.com	2002	60,000,000	59,683,417	176,349,021	176,349,021	25.1%	2.95x	-	-	-	-	-	-	NA	25.1%
Berkshire Fund VII, L.P.	www.berkshirepartners.com	2006	60,000,000	61,474,445	123,232,538	123,232,538	16.8%	2.00x	-	-	-	-	-	-	NA	16.8%
Berkshire Fund VIII, L.P.	www.berkshirepartners.com	2011	75,000,000	73,176,141	123,350,909	123,350,909	15.8%	1.69x	-	-	-	-	-	-	NA	15.8%
Bertram Growth Capital I, L.P.	www.bertramcapital.com	2006	10,000,000	9,533,755	17,118,391	17,232,350	11.1%	1.81x	2,370	725,653	-	2,370	-	-	NA	11.1%
Best Friends Pet Care	www.bestfriendspetcare.com	1994	3,665,530	3,665,530	64,260	64,260	NA	0.02x	-	-	-	-	-	-	NA	NA
Blackfin Financial Services Fund III, L.P.	www.blackfin.com	2019	95,462,530	62,272,706	-	64,964,218	3.5%	1.04x	1,438,784	-	894,190	544,593	-	-	15.5%	3.5%
Blackstone Capital Partners II, L.P.	www.blackstone.com	1993	25,000,000	26,330,670	59,014,041	59,014,041	37.6%	2.24x	-	-	-	-	-	-	NA	37.6%
Blackstone Capital Partners III Merchant, L.P.	www.blackstone.com	1997	50,000,000	54,055,169	105,633,891	105,633,891	14.6%	1.95x	-	-	-	-	-	-	NA	14.6%
Blackstone Capital Partners IV, L.P.	www.blackstone.com	2003	75,000,000	90,179,755	212,492,970	212,709,355	37.5%	2.36x	5,765	8,123	-	5,718	41,293	47	NA	37.5%

¹ Source: State Street, Asset Class Consultant.

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Appendix 4 – Private Equity



Required disclosures by AIV as of June 30, 2023 fiscal year end^{1,2,3,4}

Section 7928.710											Section 7514.7					
Alternative Investment Vehicle (AIV) Name	Address	Vintage Year	Capital Committed (USD)	Cash Contributions (USD)	Cash Distributions (USD)	Cash Distributions + Remaining Value (USD)	Net IRR (ITD)	Investment Multiple (ITD)	Management Fees and Costs (FY)	Cash Profit Received (FY)	Management Fees (USD)	Fund Expenses (USD)	Carried Interest (USD)	Portfolio Company Expenses (USD)	Gross IRR (ITD)	Net IRR (ITD)
Blackstone Capital Partners IV, L.P. (Secondary)	www.blackstone.com	2012	5,000,000	3,147,826	4,020,035	4,034,461	13.9%	1.28x	-	542	-	-	-	-	NA	13.9%
Blackstone Capital Partners V, L.P.	www.blackstone.com	2006	75,000,000	74,019,600	124,190,197	124,254,060	7.6%	1.68x	5,786	4,629	-	3,554	-	2,231	NA	7.6%
Blackstone Capital Partners VI, L.P.	www.blackstone.com	2010	75,000,000	90,185,853	128,350,873	154,880,060	12.4%	1.72x	45,469	6,003,236	-	33,202	1,228,252	12,267	NA	12.4%
Blackstone Capital Partners VII, L.P.	www.blackstone.com	2016	180,000,000	205,021,488	136,196,511	315,035,635	13.7%	1.54x	1,559,532	17,361,919	1,292,631	144,645	3,657,649	122,256	NA	13.7%
Blackstone Communications Partners I, L.P.	www.blackstone.com	2000	25,000,000	27,657,709	33,725,886	33,900,826	6.5%	1.23x	1,586	-	-	1,556	-	31	NA	6.5%
Blackstone Mezzanine Partners, L.P.	www.blackstone.com	1999	10,000,000	6,785,498	9,127,513	9,127,513	10.2%	1.35x	-	-	-	-	-	-	NA	10.2%
BN Capital Fund II, L.P.	www.lererhippeau.com	2017	34,000,000	2,567,833	2,126,793	2,701,747	1.4%	1.05x	33,371	-	6,766	26,605	-	-	NA	1.4%
Brinson International Partners Fund	www.adamsstreetpartners.com	1998	49,256,579	53,350,625	92,452,261	92,788,113	11.2%	1.74x	-	-	-	-	-	-	NA	11.2%
Bruckmann, Rosser, Sherrill & Co., L.P.	www.brs.com	1996	28,000,000	29,307,496	51,731,311	51,731,311	10.4%	1.77x	-	-	-	-	-	-	NA	10.4%
Bruckmann, Rosser, Sherrill & Co. II, L.P.	www.brs.com	1999	25,000,000	26,673,337	53,836,427	53,836,427	12.0%	2.02x	-	-	-	-	-	-	NA	12.0%
BRV Aster Fund II, L.P.	www.lanchiventures.com	2017	40,000,000	40,127,993	6,659,473	80,726,738	19.2%	2.01x	830,542	-	775,000	54,278	1,135,160	1,264	32.1%	19.2%
BRV Aster Fund III, L.P.	www.lanchiventures.com	2019	50,000,000	39,000,000	-	48,624,058	16.2%	1.25x	1,302,214	-	1,250,000	52,214	1,377,078	-	37.6%	16.2%
BRV Aster Opportunity Fund II, L.P.	www.lanchiventures.com	2019	25,000,000	8,000,000	-	7,960,977	-0.3%	1.00x	299,639	-	250,000	29,639	69,011	20,000	8.0%	-0.3%
Canaan VII, L.P.	www.canaan.com	2005	9,500,000	9,500,000	21,419,157	23,163,492	14.5%	2.44x	2,837	-	-	2,837	-	-	21.6%	14.5%
Canaan XI, L.P.	www.canaan.com	2017	50,000,000	47,250,000	2,924,496	97,198,470	22.4%	2.06x	977,783	-	911,452	66,331	34,430	-	36.1%	22.4%
Canaan XII, L.P.	www.canaan.com	2020	100,000,000	54,000,000	-	71,940,402	19.6%	1.33x	1,941,109	-	1,828,572	112,537	-	-	31.8%	19.6%
Candover 2005 Fund, L.P.	www.arle.com	2005	63,278,020	93,794,335	51,095,857	51,095,857	-11.2%	0.54x	-	-	-	-	-	-	NA	-11.2%
Cardinal Health Partners, L.P.	www.cardinalpartners.com	1997	10,000,000	10,000,000	18,733,679	18,733,679	9.7%	1.87x	-	-	-	-	-	-	NA	9.7%
Carlye U.S. Equity Opportunity Fund II, L.P.	www.carlyle.com	2015	200,000,000	239,933,463	256,779,193	390,605,409	15.4%	1.63x	1,761,402	18,489,774	1,167,839	147,538	12,529,242	446,025	NA	15.4%
Carlyle Management Group Partners, L.P.	www.carlyle.com	2002	5,364,308	5,364,308	5,798,577	5,798,577	6.0%	1.08x	-	-	-	-	-	-	NA	6.0%
Carlyle Partners II, L.P.	www.carlyle.com	1994	30,000,000	33,939,244	81,622,138	81,622,138	25.7%	2.40x	-	-	-	-	-	-	NA	25.7%
Carlyle Partners III, L.P.	www.carlyle.com	2000	22,487,354	26,871,391	58,770,979	58,770,979	22.9%	2.19x	-	-	-	-	-	-	NA	22.9%
Carlyle Partners IV, L.P.	www.carlyle.com	2005	75,000,000	78,154,551	154,156,184	154,156,184	13.0%	1.97x	-	-	-	-	-	-	NA	13.0%
Carlyle Partners V, L.P.	www.carlyle.com	2007	75,000,000	70,140,595	131,302,435	134,884,230	13.7%	1.92x	14,031	-	(7,059)	7,059	751,273	14,031	NA	13.7%
Carlyle Partners VI, L.P.	www.carlyle.com	2013	150,000,000	191,775,018	271,831,718	339,223,430	14.8%	1.77x	464,186	14,428,991	300,915	116,464	4,198,984	46,807	NA	14.8%
Centerbridge Capital Partners, L.P.	www.centerbridge.com	2006	60,000,000	59,448,630	131,422,327	133,808,598	19.2%	2.25x	23,069	-	(11,600)	20,118	-	14,551	29.1%	19.2%
Centerbridge Capital Partners II, L.P.	www.centerbridge.com	2010	50,000,000	61,113,827	41,137,990	46,709,456	-7.3%	0.76x	45,164	-	(215)	45,231	-	148	-4.3%	-7.3%
Centerbridge Capital Partners III, L.P.	www.centerbridge.com	2014	75,000,000	111,388,619	106,331,673	179,167,598	18.0%	1.61x	835,084	4,267,032	600,986	199,976	1,177,070	34,122	25.5%	18.0%
Centerbridge Capital Partners IV, L.P.	www.centerbridge.com	2020	150,000,000	108,411,904	13,550,547	148,537,474	44.7%	1.37x	3,007,999	-	1,891,004	1,092,614	-	24,381	36.4%	44.7%
Chart Capital Partners II, L.P.	www.ccpicap.com	2010	6,700,000	8,668,299	12,750,968	13,027,770	9.3%	1.50x	NA	-	NA	NA	NA	NA	NA	9.3%
CHP II, L.P.	www.cardinalpartners.com	2000	10,000,000	10,000,000	15,345,207	15,345,207	12.6%	1.53x	-	-	-	-	-	-	NA	12.6%

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Appendix 4 – Private Equity



Required disclosures by AIV as of June 30, 2023 fiscal year end^{1,2,3,4}

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Alternative Investment Vehicle (AIV) Name	Address	Vintage Year	Capital Committed (USD)	Cash Contributions (USD)	Cash Distributions (USD)	Cash Distributions + Remaining Value (USD)	Net IRR (ITD)	Investment Multiple (ITD)	Management Fees and Costs (FY)	Cash Profit Received (FY)	Management Fees (USD)	Fund Expenses (USD)	Carried Interest (USD)	Portfolio Company Expenses (USD)	Gross IRR (ITD)	Net IRR (ITD)
CHS Private Equity V, L.P.	N/A	2005	60,000,000	53,524,388	99,389,794	99,389,794	9.9%	1.86x	-	-	-	-	-	-	NA	9.9%
Churchill Capital Partners II, L.P.	www.churchillcap.com	1992	25,000,000	25,000,000	34,314,641	34,314,641	10.1%	1.37x	-	-	-	-	-	-	NA	10.1%
Clarion Investors II, L.P.	www.clarion-capital.com	2013	7,500,000	7,492,540	25,408,909	26,235,333	39.2%	3.50x	33,928	5,503,369	-	9,034	1,370,960	24,894	NA	39.2%
Clarion Investors III, L.P.	www.clarion-capital.com	2018	42,500,000	33,391,416	14,114,115	44,742,539	25.0%	1.34x	1,568,120	-	540,396	408,516	-	619,208	28.1%	25.0%
Clearlake Capital Partners III, L.P.	www.clearlake.com	2012	75,000,000	155,402,277	351,217,624	354,592,064	40.4%	2.28x	144,926	9,748,953	127,014	17,912	4,069,452	-	NA	40.4%
Clearlake Capital Partners IV, L.P.	www.clearlake.com	2015	77,000,000	138,307,378	209,765,091	265,392,275	29.6%	1.92x	505,206	7,808,271	449,710	55,496	4,298,887	-	NA	29.6%
Clearlake Capital Partners V, L.P.	www.clearlake.com	2017	100,000,000	152,357,305	190,424,776	315,564,402	41.5%	2.07x	2,306,099	9,712,151	859,061	556,099	1,568,936	890,939	47.1%	41.5%
Clearlake Capital Partners VI, L.P.	www.clearlake.com	2020	160,000,000	161,899,832	13,402,200	258,187,982	26.2%	1.59x	3,657,678	-	1,254,506	857,678	-	1,545,494	31.3%	26.2%
Clearlake Capital Partners VII, L.P.	www.clearlake.com	2021	200,000,000	102,746,890	4,868	107,186,772	4.9%	1.04x	4,405,916	-	959,905	2,006,038	-	1,439,973	9.8%	4.9%
Clearstone Venture Partners II-A, L.P.	www.clearstone.com	1999	5,000,000	5,000,000	1,184,982	1,184,982	-20.0%	0.24x	-	-	-	-	-	-	NA	-20.0%
Columbia Capital Equity Partners II (QP), L.P.	www.colcap.com	1999	12,000,000	12,039,711	9,537,357	9,537,357	-4.6%	0.79x	-	-	-	-	-	-	NA	-4.6%
Columbia Capital Equity Partners III (QP), L.P.	www.colcap.com	2000	15,000,000	16,899,640	19,910,812	19,910,812	3.1%	1.18x	-	-	-	-	-	-	NA	3.1%
Copley Partners 1, L.P.	www.copleyequity.com	1986	15,000,000	15,000,000	27,320,000	27,320,000	9.5%	1.82x	-	-	-	-	-	-	NA	9.5%
Copley Partners 2, L.P.	www.copleyequity.com	1986	15,000,000	15,000,000	21,782,515	21,782,515	5.7%	1.45x	-	-	-	-	-	-	NA	5.7%
Cornerstone Equity Partners IV, L.P.	www.cornerstonepe.com	1996	25,000,000	25,000,000	40,412,377	40,412,377	8.6%	1.62x	-	-	-	-	-	-	NA	8.6%
CVC Capital Partners VI (B), L.P.	www.cvc.com	2013	109,100,034	157,216,206	190,910,148	286,342,138	16.8%	1.82x	710,621	40,039,779	672,807	35,162	9,853,768	2,652	21.4%	16.8%
CVC Capital Partners VII, L.P.	www.cvc.com	2017	218,200,068	217,693,892	76,540,191	393,094,212	23.1%	1.81x	2,115,681	16,657,881	2,002,898	110,466	-	2,317	27.3%	23.1%
CVC Capital Partners VIII, L.P.	www.cvc.com	2020	218,200,068	123,841,376	141,994	135,345,563	9.1%	1.09x	3,939,449	-	2,984,604	954,844	-	-	13.0%	9.1%
CVC European Equity Partners, L.P.	www.cvc.com	1996	25,000,000	24,301,498	61,070,457	61,070,457	23.0%	2.51x	-	-	-	-	-	-	NA	23.0%
CVC European Equity Partners II, L.P.	www.cvc.com	1998	50,000,000	46,360,215	110,703,608	110,703,608	18.9%	2.39x	-	-	-	-	-	-	NA	18.9%
CVC European Equity Partners III, L.P.	www.cvc.com	2001	30,000,000	29,566,313	83,252,788	85,450,331	41.0%	2.89x	4,710	-	-	4,710	-	-	40.0%	41.0%
CVC European Equity Partners IV (D), L.P.	www.cvc.com	2005	63,278,020	69,979,390	137,316,177	137,316,177	16.6%	1.96x	6,580	-	-	6,580	-	-	22.6%	16.6%
CVC European Equity Partners V (A), L.P.	www.cvc.com	2008	70,915,022	101,726,490	193,029,286	194,903,736	16.4%	1.92x	7,087	215,630	-	7,087	32,435	-	26.4%	16.4%
CVC European Equity Partners Tandem Fund, L.P.	www.cvc.com	2006	24,002,007	28,712,000	38,530,788	38,530,788	6.5%	1.34x	3,349	-	-	3,349	-	-	12.0%	6.5%
Cypress Merchant Banking Partners, L.P.	N/A	1995	10,000,000	10,465,248	12,641,091	12,641,091	2.6%	1.21x	-	-	-	-	-	-	NA	2.6%
Cypress Merchant Banking Partners II, L.P.	N/A	1999	40,000,000	41,816,808	40,563,605	40,563,605	-0.5%	0.97x	-	-	-	-	-	-	NA	-0.5%
DLJ Merchant Banking Partners II, L.P.	www.credit-suisse.com	1997	25,000,000	28,545,519	36,654,221	36,654,221	6.0%	1.28x	-	-	-	-	-	-	NA	6.0%
Draper Fisher Jurvetson Fund VII, L.P.	www.djf.com	2000	10,000,000	10,000,000	7,238,170	7,238,170	-3.1%	0.72x	-	-	-	-	-	-	NA	-3.1%
Enterprise Partners III, L.P.	www.ei.com.pl	1993	10,000,000	10,000,000	74,198,158	74,198,158	63.7%	7.42x	-	-	-	-	-	-	NA	63.7%
Excellere Capital Fund, L.P.	www.excellere.com	2007	25,000,000	21,410,078	45,443,673	45,443,673	32.7%	2.12x	-	-	-	-	-	-	NA	32.7%
Excellere Capital Fund II, L.P.	www.excellere.com	2011	50,000,000	47,580,135	77,850,897	104,344,042	30.1%	2.19x	190,668	-	165,572	25,096	34,780	-	NA	30.1%

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Alternative Investment Vehicle (AIV) Name	Address	Vintage Year	Capital Committed (USD)	Cash Contributions (USD)	Cash Distributions (USD)	Cash Distributions + Remaining Value (USD)	Net IRR (ITD)	Investment Multiple (ITD)	Management Fees and Costs (FY)	Cash Profit Received (FY)	Management Fees (USD)	Fund Expenses (USD)	Carried Interest (USD)	Portfolio Company Expenses (USD)	Gross IRR (ITD)	Net IRR (ITD)
Excellere Capital Fund III, L.P.	www.excellere.com	2016	70,000,000	69,419,121	39,521,003	107,466,602	16.6%	1.55x	935,415	-	894,922	40,492	40,300	-	NA	16.6%
Excellere Capital Fund IV, L.P.	www.excellere.com	2021	100,000,000	37,354,330	-	43,271,385	17.7%	1.16x	1,067,926	-	880,136	45,573	-	142,217	22.7%	17.7%
Exponent Private Equity Partners, L.P.	www.exponentpe.com	2004	31,783,769	52,872,752	69,894,830	69,894,830	7.2%	1.32x	-	-	-	-	-	-	NA	7.2%
Exponent Private Equity Partners II, L.P.	www.exponentpe.com	2007	31,783,769	41,386,185	61,948,434	61,948,434	8.9%	1.50x	-	-	-	-	-	-	NA	8.9%
Falcon Mezzanine Partners, L.P.	N/A	2003	20,000,000	19,559,608	37,695,417	37,695,417	26.0%	1.93x	-	-	-	-	-	-	NA	26.0%
First Data Corporation	www.merchants.fiserv.com	1992	5,000,000	5,000,000	24,897,520	24,897,520	91.8%	4.98x	-	-	-	-	-	-	NA	91.8%
First Reserve Fund XI, L.P.	www.firstreserve.com	2006	60,000,000	60,000,000	39,646,621	39,646,621	-8.7%	0.66x	-	-	-	-	-	-	NA	-8.7%
First Reserve Fund XII, L.P.	www.firstreserve.com	2008	100,000,000	101,822,018	69,240,943	69,240,943	-7.9%	0.68x	-	-	-	-	-	-	NA	-7.9%
Forward Ventures IV, L.P.	www.forwardventures.com	2000	10,000,000	10,051,899	6,371,752	6,371,752	-4.7%	0.63x	-	-	-	-	-	-	NA	-4.7%
Foundation Investment Partners, L.P.	www.foundationpartners.net	2015	5,021,835	6,210,169	8,301,493	9,115,192	29.3%	1.47x	15,995	-	8,837	4,508	25,443	2,650	48.2%	29.3%
Foundation Investment Partners II, L.P.	www.foundationpartners.net	2018	14,886,882	11,173,911	586,230	14,450,579	9.0%	1.29x	232,112	-	212,234	11,265	-	8,613	17.5%	9.0%
Gateway Private Equity Fund, L.P.	www.pathwaycapital.com	2010	300,000,000	295,330,676	395,606,236	573,718,911	13.2%	1.94x	2,746,170	15,358,334	1,102,212	93,971	-	1,549,987	NA	13.2%
Gateway Private Equity Fund-B, L.P.	www.pathwaycapital.com	2015	300,000,000	281,188,190	305,041,101	773,529,090	25.8%	2.75x	5,604,980	18,317,412	1,015,744	74,133	-	4,515,104	NA	25.8%
GBOF V Feeder SCS	www.riveancapital.com	2016	81,825,025	84,190,637	178,019,963	214,056,241	27.9%	2.54x	1,119,932	94,295,720	424,646	675,256	23,735,977	20,030	NA	27.9%
Geocapital IV, L.P.	N/A	1996	9,000,000	9,000,000	15,606,095	15,606,095	14.1%	1.73x	-	-	-	-	-	-	NA	14.1%
GGV Capital IV, L.P.	www.ggvc.com	2012	50,000,000	50,409,342	82,375,182	89,397,609	8.9%	1.77x	306,389	13,742,371	248,812	57,577	-	-	NA	8.9%
GGV Capital V, L.P.	www.ggvc.com	2014	50,000,000	47,750,070	99,961,190	213,790,169	25.7%	4.48x	561,792	31,329,399	516,011	45,781	-	-	NA	25.7%
GGV Capital VI, L.P.	www.ggvc.com	2016	45,000,000	44,550,000	21,607,384	81,356,390	12.9%	1.83x	672,412	8,109,351	622,402	50,010	-	-	NA	12.9%
GGV Capital VI Plus, L.P.	www.ggvc.com	2017	15,000,000	14,175,000	12,871,777	26,464,187	18.1%	1.87x	38,354	5,377,966	-	38,354	215,050	-	22.8%	18.1%
GGV Capital VII, L.P.	www.ggvc.com	2018	64,000,000	60,800,000	438,474	83,396,864	11.0%	1.37x	1,080,401	-	1,043,037	37,364	-	-	18.6%	11.0%
GGV Capital VII Plus, L.P.	www.ggvc.com	2018	16,000,000	15,600,000	-	20,185,395	8.9%	1.29x	12,961	-	-	12,961	-	-	11.6%	8.9%
GGV Capital VIII, L.P.	www.ggvc.com	2020	72,000,000	42,120,000	-	47,366,877	8.1%	1.12x	1,472,041	-	1,440,000	32,041	-	-	19.4%	8.1%
GGV Capital VIII Plus, L.P.	www.ggvc.com	2020	18,000,000	8,280,000	-	8,591,860	2.3%	1.04x	11,273	-	-	11,273	-	-	3.4%	2.3%
GGV Discovery I, L.P.	www.ggvc.com	2016	15,000,000	14,775,000	88,348	24,035,031	9.8%	1.63x	14,176	-	-	14,176	-	-	NA	9.8%
GGV Discovery II, L.P.	www.ggvc.com	2018	20,000,000	19,200,000	-	36,486,384	24.7%	1.90x	377,506	-	352,555	24,951	-	-	36.4%	24.7%
GGV Discovery III, L.P.	www.ggvc.com	2020	30,000,000	15,150,000	-	21,894,643	26.2%	1.45x	624,089	-	600,000	24,089	-	-	48.2%	26.2%
GHO Capital III, L.P.	www.ghocapital.com	2021	90,553,028	51,765,528	-	56,400,962	8.1%	1.09x	2,762,886	-	1,451,904	1,261,607	-	49,375	12.8%	8.1%
GHO Capital Virtue	www.ghocapital.com	2022	85,000,000	65,958,984	-	63,206,889	-3.5%	0.96x	759,678	-	646,685	112,993	-	-	-2.3%	-3.5%
GI Mint Holdings, L.P.	www.gipartners.com	2021	65,672,942	57,937,019	-	69,155,387	10.7%	1.19x	583,927	-	449,678	28,939	-	105,310	14.9%	10.7%
GKH Investments, L.P.	www.gkhpartners.com	1988	150,000,000	166,588,304	350,453,542	350,453,542	13.1%	2.10x	-	-	-	-	-	-	NA	13.1%
Goode Partners Consumer Fund II, L.P.	www.goodepartners.com	2013	8,040,750	12,869,915	31,490,243	34,463,748	47.8%	2.68x	44,969	129,777	-	4,717	29,956	40,252	50.0%	47.8%

¹ Source: State Street, Asset Class Consultant.

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⁴ Cash Profit Received column calculation methodology refined. Amounts represent fiscal year net cash flows excluding return of capital distributions.

Appendix 4 – Private Equity



Required disclosures by AIV as of June 30, 2023 fiscal year end^{1,2,3,4}

Section 7928.710											Section 7514.7					
Alternative Investment Vehicle (AIV) Name	Address	Vintage Year	Capital Committed (USD)	Cash Contributions (USD)	Cash Distributions (USD)	Cash Distributions + Remaining Value (USD)	Net IRR (ITD)	Investment Multiple (ITD)	Management Fees and Costs (FY)	Cash Profit Received (FY)	Management Fees (USD)	Fund Expenses (USD)	Carried Interest (USD)	Portfolio Company Expenses (USD)	Gross IRR (ITD)	Net IRR (ITD)
Goode Partners Consumer Fund III, L.P.	www.goodepartners.com	2015	10,000,000	12,560,030	2,956,460	8,675,341	-11.1%	0.69x	174,940	-	140,955	7,611	-	26,374	-9.1%	-11.1%
Great Hill Equity Partners VIII, L.P.	www.greathillpartners.com	2022	100,000,000	20,828,957	-	16,371,858	NM	NM	3,055,738	-	1,695,175	1,354,500	-	6,063	NM	NM
Great Point Partners III, L.P.	www.gppfunds.com	2019	15,000,000	14,564,470	8,109,451	22,544,592	28.3%	1.55x	418,491	-	215,465	45,620	-	157,406	33.3%	28.3%
Green Equity Investors VII, L.P.	www.leonardgreen.com	2017	150,000,000	162,111,012	137,138,420	325,556,848	22.0%	2.01x	937,175	9,777,151	798,807	138,368	4,831,466	-	28.3%	22.0%
Green Equity Investors VIII, L.P.	www.leonardgreen.com	2020	150,000,000	134,227,860	1,215,295	156,514,141	9.0%	1.17x	2,316,418	-	2,141,718	174,700	-	-	13.3%	9.0%
Green Equity Investors IX, L.P.	www.leonardgreen.com	2023	150,000,000	-	-	850,081	NM	NM	243,799	-	-	243,799	-	-	NM	NM
Greycroft Growth, L.P.	www.greycroft.com	2014	7,500,000	9,186,596	4,632,850	16,811,693	10.8%	1.83x	131,128	223,830	120,000	11,128	-	-	15.3%	10.8%
Greycroft Growth II, L.P.	www.greycroft.com	2017	7,500,000	8,551,957	3,697,531	17,273,164	23.0%	2.02x	151,930	27,760	142,500	9,430	-	-	31.8%	23.0%
Greycroft Partners II, L.P.	www.greycroft.com	2010	7,500,000	11,486,679	18,647,192	30,004,933	19.1%	2.61x	16,324	162,912	-	16,324	-	-	25.6%	19.1%
Greycroft Partners III, L.P.	www.greycroft.com	2012	8,560,000	11,343,563	12,685,719	26,267,785	15.8%	2.32x	151,209	963,979	130,558	20,651	-	-	21.8%	15.8%
Greycroft Partners IV, L.P.	www.greycroft.com	2015	7,500,000	10,320,838	5,842,162	25,191,040	23.2%	2.44x	183,952	315,505	162,188	21,765	-	-	32.1%	23.2%
Gridiron Capital Fund II, L.P.	www.gridironcapital.com	2012	10,000,000	10,961,185	17,196,778	19,164,520	12.8%	1.75x	9,685	78,550	-	9,685	15,273	-	NA	12.8%
GRO Capital III, L.P.	www.grocapital.dk	2022	14,728,505	2,980,908	-	2,584,934	NM	NM	334,542	-	294,837	39,705	-	-	NM	NM
GS Capital Partners II, L.P.	www.goldmansachs.com	1995	20,000,000	19,716,236	24,256,758	24,256,758	4.8%	1.23x	-	-	-	-	-	-	NA	4.8%
GTB Capital Partners, L.P.	www.morganstanley.com	2006	250,000,000	264,962,800	502,979,007	502,979,007	12.0%	1.90x	-	-	-	-	-	-	NA	12.0%
GTB Capital Partners II, L.P.	www.morganstanley.com	2014	400,000,000	389,544,604	288,000,089	624,728,207	11.5%	1.60x	1,721,839	-	1,477,383	244,456	-	-	13.4%	11.5%
GTCR Fund VIII, L.P.	www.gtcr.com	2003	75,000,000	69,393,692	120,641,835	120,641,835	22.3%	1.74x	-	-	-	-	-	-	NA	22.3%
GTCR Fund IX/A, L.P.	www.gtcr.com	2006	60,000,000	57,132,136	103,011,717	103,011,717	13.7%	1.80x	-	-	-	-	-	-	NA	13.7%
Halpern Denny Fund II, L.P.	N/A	1997	10,000,000	10,199,997	2,334,835	2,334,835	-22.4%	0.23x	-	-	-	-	-	-	NA	-22.4%
Hamilton Lane EM Program I	www.hamiltonlane.com	2023	375,000,000	3,573,744	-	5,012,446	NM	NM	-	-	-	-	-	-	NA	NM
HarbourVest International Private Equity Partners III, L.P.	www.harbourvest.com	1998	25,000,000	24,625,000	38,182,604	38,182,604	8.5%	1.55x	-	-	-	-	-	-	NA	8.5%
Harvest Partners VII, L.P.	www.harvestpartners.com	2016	80,000,000	92,936,889	145,389,340	204,185,558	24.4%	2.20x	26,280	-	-	26,280	14,742	-	26.2%	24.4%
Hellman & Friedman Capital Partners V, L.P.	www.hf.com	2004	39,953,351	38,227,150	102,043,445	102,043,445	27.9%	2.67x	-	-	-	-	-	-	NA	27.9%
Hellman & Friedman Capital Partners VI, L.P.	www.hf.com	2007	60,000,000	61,161,727	99,900,479	99,900,479	10.3%	1.63x	-	1,027,139	-	-	-	-	NA	10.3%
Hellman & Friedman Capital Partners VIII, L.P.	www.hf.com	2016	125,000,000	131,612,384	70,976,997	260,010,130	17.1%	1.98x	717,216	-	682,257	34,722	254,804	237	NA	17.1%
Hellman & Friedman Capital Partners IX, L.P.	www.hf.com	2018	150,000,000	149,308,022	4,188,993	208,995,276	14.8%	1.40x	1,748,093	-	1,684,785	54,100	-	9,208	20.0%	14.8%
Hellman & Friedman Capital Partners X, L.P.	www.hf.com	2021	150,000,000	112,391,779	4,447,321	119,510,340	5.4%	1.06x	2,513,455	-	2,250,000	261,194	-	2,261	7.0%	5.4%
HPH II FF, L.P.	www.hphllc.com	2021	14,189,000	14,314,509	2,810,312	20,907,204	27.7%	1.46x	296,160	1,356,998	248,155	48,005	239,974	-	33.0%	27.7%
Icon Partners II, L.P.	www.clearlake.com	2021	19,661,682	17,045,557	24,482,809	33,403,535	70.1%	1.96x	57,541	1,947,389	-	2,248	1,390,319	55,293	90.0%	70.1%
Icon Partners V, L.P.	www.clearlake.com	2021	70,000,000	52,192,217	28	55,678,829	4.4%	1.07x	533,028	-	319,033	14,510	-	199,485	5.4%	4.4%
Incline Equity Partners III, L.P.	www.inclineequity.com	2013	10,000,000	12,021,502	29,185,472	29,287,944	37.1%	2.44x	2,655	-	-	2,655	-	-	50.3%	37.1%

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Incline Equity Partners IV, L.P.	www.inclineequity.com	2017	37,500,000	37,837,794	34,400,154	75,658,080	30.2%	2.00x	275,429	-	150,126	14,169	-	111,134	34.3%	30.2%
Incline Equity Partners IV, L.P. (JPM)	www.inclineequity.com	2017	10,000,000	10,090,079	9,173,375	20,175,489	30.2%	2.00x	173,696	-	79,967	17,382	-	76,347	34.3%	30.2%
Indigo N.V.	N/A	1996	8,385,925	7,000,000	9,251,063	9,251,063	5.1%	1.32x	-	-	-	-	-	-	NA	5.1%
Infinity Capital Venture Fund 1999, L.P.	N/A	1999	15,000,000	15,000,000	1,643,938	1,643,938	-33.7%	0.11x	-	-	-	-	-	-	NA	-33.7%
Information Technology Venture II, L.P.	N/A	1998	15,000,000	15,000,000	11,580,601	11,580,601	-11.1%	0.77x	-	-	-	-	-	-	NA	-11.1%
Insight Venture Partners V, L.P.	www.insightpartners.com	2005	9,500,000	9,916,890	26,581,388	26,581,388	20.9%	2.68x	-	-	-	-	-	-	NA	20.9%
Insight Venture Partners V Co-investment Fund, L.P.	www.insightpartners.com	2005	8,180,615	8,348,123	28,122,135	28,122,135	26.9%	3.37x	-	-	-	-	-	-	NA	26.9%
Insignia Capital Partners (Parallel A), L.P.	www.insigniacap.com	2013	100,000,000	119,981,839	199,140,141	342,849,453	28.0%	2.86x	1,297,704	103,794,863	1,087,143	132,517	9,341,834	78,044	36.7%	28.0%
Institutional Venture Partners XIV, L.P.	www.ivp.com	2012	60,000,000	60,217,604	64,033,593	92,500,142	8.0%	1.54x	677,244	7,870,829	649,968	27,276	-	-	NA	8.0%
Institutional Venture Partners XV, L.P.	www.ivp.com	2015	90,000,000	90,660,077	169,699,083	281,415,924	27.1%	3.10x	1,792,740	5,021,759	1,737,621	55,119	1,355,301	-	NA	27.1%
Intersouth Partners VII, L.P.	www.intersouth.com	2006	6,700,000	6,700,000	3,455,010	3,455,010	-9.9%	0.52x	-	-	-	-	-	-	NA	-9.9%
Invesco Partnership Fund II, L.P.	www.invesco.com	1999	20,000,000	21,480,641	16,500,663	16,500,663	-4.1%	0.77x	-	-	-	-	-	-	NA	-4.1%
J.P. Morgan Emerging Managers Program I	www.jpmorgan.com	2009	150,000,000	171,184,288	328,788,014	411,968,467	18.4%	2.41x	308,000	-	308,000	-	2,276,397	-	20.3%	18.4%
J.P. Morgan Emerging Managers Program II	www.jpmorgan.com	2014	100,000,000	113,094,587	198,092,795	281,142,545	31.7%	2.49x	301,208	-	301,208	-	412,151	-	33.9%	31.7%
J.P. Morgan Emerging Managers Program III	www.jpmorgan.com	2017	100,000,000	107,732,313	109,329,943	225,411,512	24.1%	2.09x	370,793	-	370,793	-	-	-	26.2%	24.1%
J.P. Morgan Emerging Managers Program IV	www.jpmorgan.com	2018	300,000,000	208,872,627	16,074,354	268,547,752	13.0%	1.29x	1,178,295	-	964,907	213,389	-	-	14.4%	13.0%
Jade Equity Investors, L.P.	www.leonardgreen.com	2019	50,000,000	38,520,861	9,354,481	51,788,163	24.4%	1.34x	849,538	-	746,156	103,382	127,936	-	38.3%	24.4%
Jade Equity Investors II, L.P.	www.leonardgreen.com	2022	50,000,000	-	-	(94,931)	NM	NM	94,931	-	-	94,931	-	-	NM	NM
JMI Equity Fund V, L.P.	www.jmi.com	2005	16,200,000	16,203,728	87,013,410	87,013,410	39.4%	5.37x	-	-	-	-	-	-	NA	39.4%
JMI Equity Fund VI, L.P.	www.jmi.com	2007	19,500,000	19,568,427	35,147,044	35,147,044	11.6%	1.80x	3,650	-	-	3,650	169,000	-	NA	11.6%
JMI Equity Fund VII, L.P.	www.jmi.com	2010	30,000,000	32,712,250	73,021,920	77,319,219	17.9%	2.36x	4,062	-	-	4,062	-	-	NA	17.9%
Joy Capital I, L.P.	www.joycapital.com.cn	2015	5,000,000	5,927,358	10,457,754	16,535,514	32.8%	2.79x	57,429	-	53,125	4,304	-	-	40.2%	32.8%
Joy Capital II, L.P.	www.joycapital.com.cn	2017	5,000,000	4,819,169	-	6,807,562	7.6%	1.41x	83,397	-	78,125	5,272	-	-	12.0%	7.6%
Joy Capital III, L.P.	www.joycapital.com.cn	2019	40,000,000	34,819,911	-	53,547,169	18.1%	1.54x	1,019,618	-	989,770	29,848	-	-	25.8%	18.1%
Joy Capital Opportunity, L.P.	www.joycapital.com.cn	2019	25,000,000	23,185,314	-	29,389,692	6.9%	1.27x	242,094	-	216,308	25,787	-	-	9.4%	6.9%
Joy Capital Opportunity, L.P. (JPM)	www.joycapital.com.cn	2018	15,000,000	13,905,043	-	17,633,815	6.2%	1.27x	145,256	-	129,785	15,472	-	-	9.4%	6.2%
Juggernaut Capital Partners II, L.P.	www.juggernautcap.com	2012	75,000,000	99,934,003	126,041,611	165,929,862	11.2%	1.66x	1,014,126	-	813,259	151,390	-	49,477	17.3%	11.2%
Juggernaut Capital Partners III, L.P.	www.juggernautcap.com	2015	100,000,000	114,384,241	130,684,506	211,802,738	14.9%	1.85x	1,282,210	2,642,312	977,273	293,837	-	11,101	20.3%	14.9%
Juggernaut Capital Partners IV, L.P.	www.juggernautcap.com	2018	125,000,000	107,988,070	15,655,053	211,740,091	30.2%	1.96x	2,275,314	-	1,994,285	220,504	-	60,525	39.2%	30.2%
JZI Fund III, L.P.	www.jzcp.com	2015	6,546,002	7,342,725	2,182,447	7,710,118	1.4%	1.05x	120,571	-	40,256	80,315	-	-	NA	1.4%
KarpReilly Capital Partners II, L.P.	www.karpreilly.com	2012	10,000,000	9,934,109	7,474,235	12,148,470	3.5%	1.22x	NA	-	NA	NA	NA	NA	NA	3.5%

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Appendix 4 – Private Equity



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Kelso Investment Associates VII, L.P.	www.kelso.com	2004	46,000,000	49,479,790	78,216,333	78,216,333	11.3%	1.58x	-	-	-	-	-	-	NA	11.3%
Kelso Investment Associates VIII, L.P.	www.kelso.com	2007	75,000,000	74,241,945	87,934,223	87,934,223	4.0%	1.18x	-	-	-	-	-	-	NA	4.0%
Kerogen Expansion Fund, L.P.	www.kerogencap.com	2017	6,666,667	6,363,495	2,330,575	8,702,322	10.3%	1.37x	84,916	-	66,286	18,630	-	-	16.2%	10.3%
Kidd Kamm Equity Partners, L.P.	www.kiddcompany.com	1992	15,000,000	14,874,159	587,583	587,583	-49.8%	0.04x	-	-	-	-	-	-	NA	-49.8%
Kinderhook Capital III, L.P.	www.kinderhookpartners.com	2010	7,000,000	8,665,862	14,731,228	14,731,228	12.9%	1.70x	-	-	-	-	-	-	NA	12.9%
KKR 1996 Fund, L.P.	www.kkr.com	1997	125,000,000	131,822,098	235,069,550	235,069,550	13.2%	1.78x	-	-	-	-	-	-	NA	13.2%
KKR 2006 Fund, L.P.	www.kkr.com	2006	60,000,000	64,488,155	100,624,957	100,624,957	7.7%	1.56x	-	-	-	-	-	-	NA	7.7%
KKR Millennium Fund, L.P.	www.kkr.com	2002	50,000,000	67,839,702	122,794,809	122,794,809	16.4%	1.81x	-	-	-	-	-	-	NA	16.4%
Kleiner Perkins Caufield & Byers VI, L.P.	www.kleinerperkins.com	1992	5,000,000	5,000,000	16,562,188	16,562,188	39.4%	3.31x	-	-	-	-	-	-	NA	39.4%
Kleiner Perkins Caufield & Byers VII, L.P.	www.kleinerperkins.com	1994	3,750,000	3,750,000	121,557,017	121,557,017	124.6%	32.42x	-	-	-	-	-	-	NA	124.6%
Kline Hawkes Pacific, L.P.	N/A	2000	5,000,000	5,000,000	3,372,135	3,372,135	-4.8%	0.67x	-	-	-	-	-	-	NA	-4.8%
Knightsbridge Integrated Holdings IV, L.P.	www.knightsbridgevc.com	1999	12,000,000	11,817,257	11,834,267	11,834,267	0.0%	1.00x	-	-	-	-	-	-	NA	0.0%
Knightsbridge Integrated Holdings V, L.P.	www.knightsbridgevc.com	2000	20,000,000	19,743,132	21,401,367	21,401,367	1.1%	1.08x	-	-	-	-	-	-	NA	1.1%
Kohlberg Investors IV, L.P.	www.kohlberg.com	2001	25,000,000	21,656,624	29,236,119	29,236,119	9.4%	1.35x	-	-	-	-	-	-	NA	9.4%
Landmark Equity Partners III, L.P.	www.landmarkpartners.com	1993	10,000,000	10,286,670	26,789,111	26,789,111	35.1%	2.60x	-	-	-	-	-	-	NA	35.1%
Landmark Equity Partners IV, L.P.	www.landmarkpartners.com	1994	10,533,677	11,011,182	16,218,022	16,218,022	15.8%	1.47x	-	-	-	-	-	-	NA	15.8%
LAV Biosciences Fund IV, L.P.	www.lilyasiaventures.com	2017	40,000,000	46,510,747	32,514,568	81,121,898	16.7%	1.74x	726,587	-	664,287	62,300	-	-	21.3%	16.7%
LAV Biosciences Fund V, L.P.	www.lilyasiaventures.com	2019	48,000,000	55,331,492	12,399,979	69,886,090	9.5%	1.26x	1,185,100	-	1,114,682	70,418	-	-	14.6%	9.5%
LAV Biosciences Fund VI, L.P.	www.lilyasiaventures.com	2021	62,000,000	39,921,835	386,381	35,399,719	-8.2%	0.89x	1,395,100	-	1,311,545	83,555	-	-	-1.8%	-8.2%
LAV Biosciences Fund VI Opportunities, L.P.	www.lilyasiaventures.com	2021	31,000,000	18,677,273	119,509	14,453,818	-15.4%	0.77x	173,773	-	141,647	32,126	-	-	-13.1%	-15.4%
Levine Leichtman Capital Partners II, L.P.	www.llcp.com	1998	30,000,000	50,043,193	57,532,192	57,532,192	4.9%	1.15x	-	-	-	-	-	-	NA	4.9%
Lexington Capital Partners II, L.P.	www.lexingtonpartners.com	1998	50,000,000	49,406,937	65,710,274	65,710,274	8.2%	1.33x	-	-	-	-	-	-	NA	8.2%
Lexington Capital Partners III, L.P.	www.lexingtonpartners.com	1999	25,000,000	24,654,618	31,126,135	31,126,135	8.6%	1.26x	-	-	-	-	-	-	NA	8.6%
Lexington Capital Partners V, L.P.	www.lexingtonpartners.com	2001	50,000,000	49,756,618	83,315,442	83,512,780	18.2%	1.68x	NA	-	NA	NA	NA	NA	NA	18.2%
Lightspeed Venture Partners VI, L.P.	www.lsvp.com	2000	8,000,000	7,340,182	7,782,321	7,782,321	1.1%	1.06x	-	-	-	-	-	-	NA	1.1%
Lightyear Fund III, L.P.	www.lycap.com	2011	105,000,000	121,139,193	248,980,402	256,593,684	24.7%	2.12x	175,098	226,522	86,079	85,602	553,272	3,417	31.0%	24.7%
Lightyear Fund IV, L.P.	www.lycap.com	2016	150,000,000	171,298,576	162,811,078	347,563,402	20.9%	2.03x	1,314,917	40,734,658	1,027,128	287,789	8,149,946	-	27.0%	20.9%
Lightyear Fund V, L.P.	www.lycap.com	2021	100,000,000	60,862,795	-	67,761,241	8.0%	1.11x	2,441,528	-	1,643,457	737,948	-	60,123	20.4%	8.0%
Lindsay Goldberg & Bessemer, L.P.	www.lindsaygoldbergllc.com	2002	30,000,000	29,160,283	70,239,033	70,239,033	33.3%	2.41x	-	-	-	-	-	-	NA	33.3%
Livingbridge 6, L.P.	www.livingbridge.com	2016	50,854,030	49,138,522	22,304,556	88,564,542	16.2%	1.80x	632,738	4,881,718	431,699	92,220	-	108,819	22.0%	16.2%
M/C Venture Partners VI, L.P.	www.mcpartners.com	2006	19,000,000	18,813,924	39,761,999	39,761,999	13.3%	2.11x	-	-	-	-	-	-	NA	13.3%

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Madison Dearborn Capital Partners III, L.P.	www.mdcp.com	1999	30,000,000	30,021,318	45,791,560	45,791,560	8.6%	1.53x	-	-	-	-	-	-	NA	8.6%
Madison Dearborn Capital Partners IV, L.P.	www.mdcp.com	2000	25,000,000	24,258,894	46,347,176	46,347,176	13.8%	1.91x	-	-	-	-	-	-	NA	13.8%
Madison Dearborn Capital Partners V-A, L.P.	www.mdcp.com	2006	75,000,000	72,683,212	115,385,291	115,385,291	7.1%	1.59x	-	-	-	-	-	-	NA	7.1%
Madison Dearborn Capital Partners VI, L.P.	www.mdcp.com	2008	75,000,000	68,228,887	149,537,439	149,537,439	24.3%	2.19x	-	-	-	-	-	-	NA	24.3%
Marlin Equity IV, L.P.	www.marlinequity.com	2013	50,000,000	50,203,022	44,604,831	70,349,549	7.6%	1.40x	NA	-	NA	NA	NA	NA	NA	7.6%
MBK Partners Fund III, L.P.	www.mbkpartnerslp.com	2013	100,000,000	118,120,537	158,828,747	197,179,376	11.7%	1.67x	38,398	-	-	38,398	-	-	17.3%	11.7%
MBK Partners Fund IV, L.P.	www.mbkpartnerslp.com	2017	120,000,000	120,269,324	40,193,873	199,425,371	15.2%	1.66x	1,235,470	-	1,176,338	59,132	-	-	21.1%	15.2%
MBK Partners Fund V, L.P.	www.mbkpartnerslp.com	2021	150,000,000	81,419,370	1,814,367	119,296,754	40.5%	1.47x	2,240,674	-	1,867,260	373,414	-	-	61.2%	40.5%
McCown DeLeeuw & Co. Fund IV, L.P.	N/A	1998	25,000,000	21,327,148	15,493,357	15,493,357	-4.5%	0.73x	-	-	-	-	-	-	NA	-4.5%
Media Communications Partners, L.P.	www.mcpartners.com	1986	25,000,000	25,000,000	40,272,681	40,272,681	7.2%	1.61x	-	-	-	-	-	-	NA	7.2%
Mediphase Venture Partners II, L.P.	N/A	2002	10,000,000	9,703,163	17,662,114	17,662,114	7.6%	1.82x	-	-	-	-	-	-	NA	7.6%
Menlo Ventures IX, L.P.	www.menlovc.com	2001	10,000,000	10,000,000	9,812,008	9,812,008	-0.3%	0.98x	-	-	-	-	-	-	NA	-0.3%
Mercato Partners Growth II, L.P.	www.mercatopartners.com	2011	7,000,000	7,000,000	13,052,193	13,052,193	10.1%	1.86x	-	-	-	-	-	-	NA	10.1%
MetroPCS	www.metropcs.com	1995	5,784,200	5,920,141	54,529,368	54,529,368	26.3%	9.21x	-	-	-	-	-	-	NA	26.3%
Moelis Capital Partners Opp. Fund I-B, L.P.	www.nexphase.com	2014	10,000,000	10,914,929	19,509,680	21,050,470	17.7%	1.93x	43,080	-	27,930	15,150	-	-	21.1%	17.7%
Montagu III, L.P.	www.montagu.com	2005	63,278,020	74,273,058	97,904,295	97,904,295	7.3%	1.32x	-	-	-	-	-	-	NA	7.3%
Montefiore Investment V, SLP	www.montefiore.eu	2020	43,640,014	22,134,595	-	29,667,354	25.7%	1.34x	1,294,440	-	802,845	491,595	-	-	31.3%	25.7%
Montefiore Investment VI, SLP	www.montefiore.eu	2023	109,100,034	-	-	-	NM	NM	-	-	-	-	-	-	NM	NM
Montefiore Investment Expansion, SLP	www.montefiore.eu	2023	54,550,017	-	-	-	NM	NM	-	-	-	-	-	-	NM	NM
Morgan Stanley Dean Witter Venture Partners IV, L.P.	www.morganstanley.com	1999	5,000,000	5,126,102	4,166,577	4,166,577	-2.7%	0.81x	-	-	-	-	-	-	NA	-2.7%
Morgan Stanley Venture Partners 2002 Fund, L.P.	www.morganstanley.com	2002	5,000,000	5,618,225	8,827,330	8,827,330	9.3%	1.57x	-	-	-	-	-	-	NA	9.3%
NeoTribe Ventures I, L.P.	www.neotribe.vc	2017	5,000,000	4,841,923	3,108,960	12,134,330	25.8%	2.51x	97,401	1,600,024	87,500	9,901	-	-	36.0%	25.8%
NeoTribe Ventures II, L.P.	www.neotribe.vc	2020	9,537,500	5,627,125	-	4,926,777	-9.8%	0.88x	262,186	-	238,438	23,748	-	-	2.0%	-9.8%
New Mainstream Capital II, L.P.	www.nms-capital.com	2014	10,000,000	11,946,548	11,785,140	16,895,973	9.7%	1.41x	90,464	246,777	-	19,252	71,212	14.0%	9.7%	
NewView Capital Fund III, L.P.	www.nvc.vc	2023	15,000,000	1,800,000	-	2,298,446	NM	NM	124,818	-	61,690	30,222	-	32,906	NM	NM
NexPhase Capital Fund IV, L.P.	www.nexphase.com	2021	12,578,500	11,710,366	-	16,069,318	21.8%	1.37x	312,254	-	224,507	38,429	49,318	24.9%	21.8%	
Next Coast ETA I, L.P.	www.nextcoastventures.com	2021	10,000,000	4,500,000	-	4,175,102	-7.3%	0.93x	233,649	-	200,000	33,649	-	-	2.9%	-7.3%
Next Coast Ventures I, L.P.	www.nextcoastventures.com	2016	5,000,000	5,070,502	3,695,501	11,762,356	22.7%	2.32x	109,953	-	100,000	9,953	-	-	31.0%	22.7%
Next Coast Ventures II, L.P.	www.nextcoastventures.com	2019	15,000,000	15,000,000	-	15,754,397	2.2%	1.05x	401,453	-	374,996	26,458	-	-	7.7%	2.2%
Nordic Capital V, L.P.	www.nordiccapital.com	2003	40,351,186	51,554,628	144,088,760	144,088,760	20.6%	2.79x	-	-	-	-	-	-	NA	20.6%
Nordic Capital VI, L.P.	www.nordiccapital.com	2006	46,585,714	62,739,995	96,405,726	96,405,726	6.9%	1.54x	-	-	-	-	-	-	NA	6.9%

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Nordic Capital VII Beta, L.P.	www.nordiccapital.com	2007	54,550,017	66,746,134	89,420,866	89,420,866	4.8%	1.34x	-	-	-	-	-	-	NA	4.8%
Nordic Capital VIII Beta, L.P.	www.nordiccapital.com	2012	81,825,025	94,897,540	141,748,184	141,748,184	16.7%	1.49x	-	-	-	-	-	-	NA	16.7%
Northgate Venture Partners VI, L.P.	www.northgate.com	2012	50,000,000	45,500,000	62,179,857	62,179,857	9.3%	1.37x	-	-	-	-	-	-	NA	9.3%
Novacap International TMT VI-A, L.P.	www.novacap.ca	2021	75,000,000	21,971,082	-	24,040,516	8.2%	1.09x	1,683,900	-	1,500,000	183,900	-	-	20.9%	8.2%
Oak Investment Partners V, L.P.	www.oakvc.com	1992	11,250,000	11,250,000	17,094,361	17,094,361	10.5%	1.52x	-	-	-	-	-	-	NA	10.5%
Oak Investment Partners VI, L.P.	www.oakvc.com	1994	14,000,000	14,000,000	40,701,314	40,701,314	34.6%	2.91x	-	-	-	-	-	-	NA	34.6%
Oak Investment Partners VIII, L.P.	www.oakvc.com	1998	10,000,000	10,000,000	18,005,960	18,005,960	54.3%	1.80x	-	-	-	-	-	-	NA	54.3%
Oak Investment Partners IX, L.P.	www.oakvc.com	1999	10,000,000	9,999,798	6,514,343	6,514,343	-6.7%	0.65x	1,455	-	-	1,455	-	-	NA	-6.7%
Oak Investment Partners X, L.P.	www.oakvc.com	2001	20,000,000	20,000,000	25,293,184	25,293,184	3.5%	1.26x	3,782	37,358	-	3,782	-	-	NA	3.5%
Oak Investment Partners XI, L.P.	www.oakvc.com	2004	32,050,000	32,040,260	26,300,795	26,442,881	-2.4%	0.83x	9,681	-	-	9,681	-	-	NA	-2.4%
Oak Investment Partners XII, L.P.	www.oakvc.com	2006	40,000,000	39,933,414	37,081,980	37,786,700	-0.8%	0.95x	12,614	1,544,239	-	12,614	-	-	NA	-0.8%
OCM Opportunities Fund II, L.P.	www.oaktreecapital.com	1997	25,000,000	25,000,000	37,729,349	37,729,349	8.4%	1.51x	-	-	-	-	-	-	NA	8.4%
OCM Opportunities Fund III, L.P.	www.oaktreecapital.com	1999	25,000,000	26,250,000	38,931,640	38,931,640	11.9%	1.48x	-	-	-	-	-	-	NA	11.9%
OCM Opportunities Fund IV, L.P.	www.oaktreecapital.com	2001	35,000,000	35,000,000	57,818,378	57,818,378	28.0%	1.65x	-	-	-	-	-	-	NA	28.0%
OCM Opportunities Fund VI, L.P.	www.oaktreecapital.com	2005	32,400,000	32,400,000	51,174,285	51,174,285	8.8%	1.58x	-	-	-	-	-	-	NA	8.8%
Olympus Growth Fund IV, L.P.	www.olympuspartners.com	2003	18,000,000	16,361,176	26,995,690	26,995,690	8.4%	1.65x	-	-	-	-	-	-	NA	8.4%
One Rock Capital Partners II, L.P.	www.onerock.com	2017	72,500,000	65,431,978	14,002,204	112,057,378	14.0%	1.71x	1,172,440	3,924,044	693,932	66,328	-	412,180	18.5%	14.0%
One Rock Capital Partners III, L.P.	www.onerock.com	2020	150,000,000	113,248,332	15,142,348	153,706,173	28.1%	1.36x	4,098,952	-	2,583,473	1,098,952	-	416,527	36.6%	28.1%
Onex Partners, L.P.	www.onex.com	2003	75,000,000	73,984,802	221,598,361	221,922,182	38.3%	3.00x	NA	-	NA	NA	NA	NA	NA	38.3%
Onex Partners II, L.P.	www.onex.com	2006	60,000,000	53,620,551	96,860,529	97,028,568	12.7%	1.81x	5,174	-	-	5,174	-	-	NA	12.7%
Onex Partners III, L.P.	www.onex.com	2008	75,000,000	84,508,662	125,163,711	138,376,564	11.3%	1.64x	16,230	854,032	-	16,230	209,300	-	NA	11.3%
Onex Partners IV, L.P.	www.onex.com	2014	150,000,000	150,678,038	120,883,070	217,895,098	8.0%	1.45x	817,091	12,313,200	644,397	70,394	-	102,300	NA	8.0%
Onex Partners V, L.P.	www.onex.com	2017	200,000,000	175,893,951	17,144,988	226,484,430	10.8%	1.29x	3,791,417	1,981,876	3,282,656	488,815	1,365,477	19,946	24.0%	10.8%
Osceola Fund I, L.P.	www.osceola.com	2020	15,000,000	14,576,395	-	22,908,155	21.7%	1.57x	693,448	-	223,120	34,958	-	435,370	31.3%	21.7%
Oxford Bioscience Partners IV, L.P.	N/A	2001	20,000,000	20,000,000	12,341,882	12,341,882	-9.7%	0.62x	-	-	-	-	-	-	NA	-9.7%
PAI Europe VII, L.P.	www.paipartners.com	2019	163,650,051	133,420,477	14,243,500	195,342,465	19.0%	1.46x	NA	-	NA	NA	NA	NA	NA	19.0%
Palladium Equity Partners IV, L.P.	www.palladiumequity.com	2014	100,000,000	113,528,539	81,777,397	180,000,260	10.8%	1.59x	1,084,972	3,116,500	504,868	374,252	1,427,558	205,852	16.6%	10.8%
Palm Beach Capital Fund III, L.P.	www.pbcap.com	2011	7,000,000	6,846,163	13,876,101	16,861,462	21.2%	2.46x	49,902	3,266,264	-	49,902	314,472	-	27.2%	21.2%
Palm Beach Capital Fund III, L.P. (Secondary)	www.pbcap.com	2015	1,053,866	949,156	1,893,878	2,550,600	24.1%	2.69x	9,624	629,922	-	9,624	60,648	-	27.2%	24.1%
Palm Beach Capital Fund IV, L.P.	www.pbcap.com	2017	10,000,000	11,253,500	31,504,857	36,726,279	29.5%	3.26x	144,504	4,470,511	-	92,915	1,415,831	51,589	36.5%	29.5%
Peak Rock Capital Fund, L.P.	www.peakrockcapital.com	2013	11,000,000	10,202,241	11,085,414	16,031,288	18.2%	1.57x	NA	-	NA	NA	NA	NA	NA	18.2%

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Appendix 4 – Private Equity



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Section 7928.710											Section 7514.7					
Alternative Investment Vehicle (AIV) Name	Address	Vintage Year	Capital Committed (USD)	Cash Contributions (USD)	Cash Distributions (USD)	Cash Distributions + Remaining Value (USD)	Net IRR (ITD)	Investment Multiple (ITD)	Management Fees and Costs (FY)	Cash Profit Received (FY)	Management Fees (USD)	Fund Expenses (USD)	Carried Interest (USD)	Portfolio Company Expenses (USD)	Gross IRR (ITD)	Net IRR (ITD)
Peloton Equity II, L.P.	www.pelotonequity.com	2021	15,000,000	10,789,355	-	9,270,790	-8.1%	0.86x	309,953	-	300,000	9,953	-	-	3.1%	-8.1%
Pemba Capital Fund II, L.P.	www.pemba.com.au	2022	13,313,000	9,995,380	-	12,249,625	NM	NM	377,771	-	248,762	129,009	-	-	NM	NM
Permira Europe III, L.P.	www.permira.com	2003	85,543,964	106,897,940	174,655,249	174,909,933	25.8%	1.64x	5,069	-	-	5,069	19,717	-	NA	25.8%
Permira Europe IV, L.P.	www.permira.com	2006	53,459,017	75,442,780	114,483,141	114,483,141	8.4%	1.52x	-	-	-	-	-	-	NA	8.4%
Phillips-Smith Specialty Retail Group III, L.P.	N/A	1993	5,000,000	5,000,000	10,942,836	10,942,836	23.3%	2.19x	-	-	-	-	-	-	NA	23.3%
Phoenix Equity Partners III, L.P.	www.phoenix-vp.com	2000	4,118,713	4,017,518	5,407,525	5,407,525	6.0%	1.35x	-	-	-	-	-	-	NA	6.0%
Phoenix Equity Partners IV, L.P.	www.phoenix-vp.com	2001	15,999,743	23,037,526	49,761,889	49,761,889	31.4%	2.16x	-	-	-	-	-	-	NA	31.4%
Primary Select III, L.P.	www.primary.vc	2023	25,000,000	-	-	-	NM	NM	-	-	-	-	-	-	NM	NM
Primary Venture Partners IV, L.P.	www.primary.vc	2023	25,000,000	750,000	-	569,073	NM	NM	195,309	-	140,797	54,513	-	-	NM	NM
Prospect Venture Partners I, L.P.	www.prospectventures.com	1997	10,000,000	10,000,000	7,477,919	7,477,919	-3.8%	0.75x	-	-	-	-	-	-	NA	-3.8%
Prospect Venture Partners II, L.P.	www.prospectventures.com	2001	20,000,000	18,500,000	23,938,622	23,938,622	5.2%	1.29x	-	-	-	-	-	-	NA	5.2%
Providence Equity Partners III, L.P.	www.provequity.com	1999	21,765,349	25,250,994	38,781,756	38,781,756	14.5%	1.54x	-	-	-	-	-	-	NA	14.5%
Providence Equity Partners IV, L.P.	www.provequity.com	2000	35,000,000	43,939,032	89,498,730	89,498,730	23.8%	2.04x	-	-	-	-	-	-	NA	23.8%
Providence Equity Partners IV, L.P. (Secondary)	www.provequity.com	2005	1,330,097	1,251,039	2,233,649	2,233,649	19.5%	1.79x	-	-	-	-	-	-	NA	19.5%
Providence Equity Partners V, L.P.	www.provequity.com	2005	73,000,000	69,499,729	85,416,140	85,416,140	3.1%	1.23x	-	-	-	-	-	-	NA	3.1%
Providence Equity Partners VI, L.P.	www.provequity.com	2007	80,000,000	77,988,274	107,823,757	107,823,757	5.4%	1.38x	-	-	-	-	-	-	NA	5.4%
Providence Growth Investors, L.P.	www.provequity.com	2000	10,000,000	10,245,962	12,397,723	12,397,723	4.8%	1.21x	-	-	-	-	-	-	NA	4.8%
Prudential Venture Partners II	N/A	1987	50,000,000	50,000,000	116,405,441	116,405,441	23.4%	2.33x	-	-	-	-	-	-	NA	23.4%
Quad C Partners V, L.P.	www.quadcmanagement.com	1998	25,000,000	24,966,260	36,516,994	36,516,994	9.1%	1.46x	-	-	-	-	-	-	NA	9.1%
Quad-C Partners VII, L.P.	www.quadcmanagement.com	2006	43,723,396	44,927,887	73,036,197	73,036,197	10.9%	1.63x	-	-	-	-	-	-	NA	10.9%
Quad-C Partners VII Co-Investment Fund, L.P.	www.quadcmanagement.com	2007	13,639,253	13,561,143	19,291,212	19,291,212	8.2%	1.42x	-	-	-	-	-	-	NA	8.2%
Questor Partners Fund, L.P.	www.questorcapitalgroup.com	1996	30,000,000	30,335,510	42,894,358	42,894,358	15.7%	1.41x	-	-	-	-	-	-	NA	15.7%
Questor Partners Fund II, L.P.	www.questorcapitalgroup.com	1999	30,000,000	32,873,554	39,052,065	39,052,065	3.9%	1.19x	-	-	-	-	-	-	NA	3.9%
Red Arts Capital Opportunity Fund I, L.P.	www.redartscapital.com	2023	10,000,000	1,773,744	-	2,714,000	NM	NM	429,811	-	335,068	81,497	-	13,246	NM	NM
RedBird Capital Partners Series 2019, L.P.	www.redbirdcap.com	2019	150,000,000	207,269,096	111,187,269	303,824,434	19.9%	1.47x	4,594,898	-	1,252,544	2,164,804	5,789,771	1,177,550	28.7%	19.9%
Redpoint Ventures II, L.P.	www.redpoint.com	2000	4,800,000	4,656,000	6,546,873	6,546,873	5.1%	1.41x	-	-	-	-	-	-	NA	5.1%
Reliant Equity Partners, L.P.	N/A	2003	10,000,000	9,058,279	126,988	126,988	-48.1%	0.01x	-	-	-	-	-	-	NA	-48.1%
Revelstoke Capital Partners III, L.P.	www.revelstokecapital.com	2021	100,000,000	48,072,477	9,404,776	61,067,991	38.0%	1.27x	1,291,934	-	1,192,088	99,846	-	-	16.4%	38.0%
Revelstoke Capital Partners Single Asset Fund I, L.P.	www.revelstokecapital.com	2019	60,000,000	55,950,086	-	125,876,168	26.3%	2.25x	663,780	-	467,307	196,473	-	-	29.4%	26.3%
Ripplewood Partners, L.P.	www.revelstokecapital.com	1996	20,000,000	19,604,622	36,396,534	36,396,534	13.6%	1.86x	-	-	-	-	-	-	NA	13.6%
Rivean Special Opportunity Fund I Coop U.A.	www.riveancapital.com	2022	76,370,024	60,293,869	-	129,925,405	NM	NM	243,022	-	180,120	62,903	-	-	NM	NM

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Appendix 4 – Private Equity



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Riverside Capital Appreciation Fund VI, L.P.	www.riversidecompany.com	2013	100,000,000	122,240,721	150,327,240	182,674,097	12.0%	1.49x	759,492	3,719,458	602,241	157,251	1,421,287	-	NA	12.0%
Riverside Micro-Cap Fund V, L.P.	www.riversidecompany.com	2018	65,000,000	54,944,973	5,402,275	80,892,830	17.0%	1.47x	801,618	-	727,934	73,684	-	-	27.0%	17.0%
Rizvi Opportunistic Equity Fund II, L.P.	www.rizvitaverse.com	2010	4,293,000	5,003,029	4,753,927	5,308,590	1.2%	1.06x	26,473	-	23,094	3,379	-	-	NA	1.2%
RLH Investors II, L.P.	www.rlhequity.com	2006	10,000,000	11,482,112	24,916,208	24,916,208	21.7%	2.17x	-	-	-	-	-	-	NA	21.7%
RLH Investors III, L.P.	www.rlhequity.com	2010	50,000,000	45,145,545	56,342,040	56,342,040	6.6%	1.25x	-	-	-	-	-	-	NA	6.6%
Rockwood IV, L.P.	www.rockwoodcap.com	2023	7,500,000	2,428,125	-	2,335,733	NM	NM	470,482	-	385,314	48,607	-	36,561	NM	NM
RSTW Partners III, L.P.	N/A	1997	25,000,000	23,010,874	21,623,881	21,623,881	-1.2%	0.94x	-	-	-	-	-	-	NA	-1.2%
Sevin Rosen Fund IV, L.P.	www.srfundstest.com	1992	5,000,000	5,032,048	51,249,370	51,249,370	87.2%	10.18x	-	-	-	-	-	-	NA	87.2%
Sevin Rosen Fund V, L.P.	www.srfundstest.com	1996	10,000,000	10,029,497	11,068,441	11,068,441	9.3%	1.10x	-	-	-	-	-	-	NA	9.3%
Sevin Rosen Fund VI, L.P.	www.srfundstest.com	1998	5,000,000	5,000,000	9,184,249	9,184,249	53.5%	1.84x	-	-	-	-	-	-	NA	53.5%
Sevin Rosen Fund VII, L.P.	www.srfundstest.com	1999	10,000,000	9,875,000	2,054,166	2,054,166	-10.3%	0.21x	-	-	-	-	-	-	NA	-10.3%
Sevin Rosen Fund VIII, L.P.	www.srfundstest.com	2000	13,720,000	13,514,200	15,631,811	15,631,811	1.6%	1.16x	-	-	-	-	-	-	NA	1.6%
Sierra Ventures V, L.P.	www.sierraventures.com	1995	5,000,000	5,000,000	21,267,421	21,267,421	80.0%	4.25x	-	-	-	-	-	-	NA	80.0%
Sierra Ventures VIII-A, L.P.	www.sierraventures.com	2000	15,000,000	15,000,497	11,739,026	11,739,026	-3.9%	0.78x	-	-	-	-	-	-	NA	-3.9%
Silver Lake Partners III, L.P.	www.silverlake.com	2007	60,000,000	61,966,349	116,427,510	143,978,847	18.0%	2.32x	97,616	479,517	81,308	16,308	-	-	NA	18.0%
Silver Lake Partners IV, L.P.	www.silverlake.com	2013	105,000,000	136,687,110	145,431,919	326,054,828	22.4%	2.39x	723,056	1,748,589	660,104	61,238	173,969	1,714	NA	22.4%
Silver Lake Partners V, L.P.	www.silverlake.com	2017	180,000,000	187,818,414	73,593,488	280,797,627	14.0%	1.50x	1,502,441	134,266	1,312,729	148,964	1,303,333	40,748	18.0%	14.0%
Silver Lake Partners VI, L.P.	www.silverlake.com	2020	200,000,000	180,275,449	14,171,271	188,681,568	3.5%	1.05x	4,437,432	-	2,999,741	1,437,549	-	142	7.0%	3.5%
Silver Lake Partners VII, L.P.	www.silverlake.com	2023	200,000,000	-	-	(899,943)	NM	NM	899,943	-	400,000	499,943	-	-	NM	NM
Silver Oak Services Partners II, L.P.	www.silveroaksp.com	2012	12,000,000	13,217,171	31,046,226	44,421,165	29.1%	3.36x	NA	542,982	NA	NA	NA	NA	NA	29.1%
Silverhawk Capital Partners II, L.P.	www.silverhawkcapitalpartners.com	2010	7,000,000	8,312,366	13,793,300	15,886,597	20.9%	1.91x	8,057	341,507	-	8,057	481,350	-	28.6%	20.9%
Sinovation Fund IV, L.P.	www.sinovationventures.com	2018	75,000,000	67,500,000	-	90,437,044	9.4%	1.34x	1,948,210	-	1,875,000	70,944	-	2,266	18.6%	9.4%
Siris Partners III, L.P.	www.siris.com	2014	60,000,000	69,349,872	49,922,205	99,298,794	11.0%	1.43x	382,519	-	52,161	42,834	-	287,524	16.4%	11.0%
Siris Partners IV, L.P.	www.siris.com	2017	100,000,000	85,112,689	12,418,745	126,997,973	15.5%	1.49x	2,177,364	-	1,472,844	445,247	-	259,273	20.0%	15.5%
Solera Partners, L.P.	www.soleracapital.com	2002	10,000,000	5,119,929	14,890,218	14,890,218	9.6%	2.91x	-	-	-	-	-	-	NA	9.6%
Southfield Capital III, L.P.	www.southfieldcapital.com	2020	15,000,000	7,078,831	-	7,760,037	7.5%	1.10x	63,872	-	24,011	39,861	-	-	12.1%	7.5%
Southvest Fund V, L.P.	www.gencapamerica.com	2005	8,811,316	8,598,559	19,396,231	20,280,157	15.9%	2.36x	NA	889,511	NA	NA	NA	NA	NA	15.9%
Spectrum Equity Investors V, L.P.	www.spectrumequity.com	2005	35,000,000	32,871,719	80,418,795	80,418,795	18.0%	2.45x	-	-	-	-	-	-	NA	18.0%
Sprout VIII, L.P.	www.sproutcapital.in	1998	20,000,000	20,000,000	18,911,128	18,911,128	-0.9%	0.95x	-	-	-	-	-	-	NA	-0.9%
SSID CV Fund AB	www.adelisequity.com	2022	77,897,424	57,297,912	96	58,733,871	NM	NM	1,258,915	-	427,684	831,231	-	-	NM	NM
Sterling Investment Partners III, L.P.	www.sterlinglp.com	2013	100,000,000	107,241,369	157,527,810	239,902,644	23.3%	2.24x	NA	3,450,263	NA	NA	NA	NA	NA	23.3%

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Sterling Investment Partners IV, L.P.	www.sterlinglp.com	2020	125,000,000	24,262,718	-	55,094,042	69.9%	2.27x	4,874,917	-	1,209,477	1,255,522	-	2,409,918	156.0%	69.9%
STG Allegro-A, L.P.	www.stg.com	2021	75,000,000	7,648,190	-	5,160,995	-44.6%	0.67x	1,282,575	-	1,122,839	150,354	-	9,382	27.2%	-44.6%
STG VI, L.P.	www.stg.com	2020	85,000,000	77,099,334	2,843,659	80,548,220	5.3%	1.04x	348,899	-	-	341,034	-	7,865	9.9%	5.3%
STG VII, L.P.	www.stg.com	2023	150,000,000	-	-	-	NM	NM	-	-	-	-	-	-	NM	NM
Storm Ventures Fund V, L.P.	www.stormventures.com	2015	50,000,000	43,000,000	21,612,362	188,505,615	27.6%	4.38x	585,527	3,733,416	551,984	33,543	-	-	35.3%	27.6%
Storm Ventures Fund VI, L.P.	www.stormventures.com	2018	50,000,000	43,500,000	-	57,612,162	12.5%	1.32x	949,848	-	908,519	41,329	-	-	22.1%	12.5%
Storm Ventures Fund VII, L.P.	www.stormventures.com	2022	50,000,000	7,000,000	-	5,679,067	NM	NM	1,321,242	-	1,250,000	71,242	-	-	NM	NM
Summit Accelerator Fund, L.P.	www.summitpartners.com	1999	5,600,000	5,498,422	9,711,301	9,711,301	9.9%	1.77x	-	-	-	-	-	-	NA	9.9%
Summit Park I-A, L.P.	www.summitparkllc.com	2012	7,406,250	7,680,659	32,368,283	34,318,283	28.5%	4.47x	12,093	9,232,014	-	12,093	1,553,086	-	30.9%	28.5%
Summit Park II, L.P.	www.summitparkllc.com	2014	10,000,000	10,591,653	24,998,923	26,217,489	29.3%	2.48x	51,358	1,667,325	-	9,706	294,903	41,653	40.7%	29.3%
Summit Park III, L.P.	www.summitparkllc.com	2019	9,375,000	8,944,687	4,089,906	11,933,302	12.6%	1.33x	229,407	2,441,141	30,213	10,967	595,221	188,227	17.7%	12.6%
Summit Partners Europe Growth Equity Fund III SCS	www.summitpartners.com	2020	38,185,012	27,322,887	-	30,304,379	8.1%	1.11x	963,595	-	718,419	245,175	-	-	14.0%	8.1%
Summit Partners Growth Equity Fund VIII-A, L.P.	www.summitpartners.com	2011	75,000,000	106,449,653	196,717,530	232,651,732	26.2%	2.19x	7,059	2,677,817	-	7,059	429,750	-	NA	26.2%
Summit Partners Growth Equity Fund XI-A, L.P.	www.summitpartners.com	2022	100,000,000	24,406,645	-	25,635,102	NM	NM	1,768,046	-	1,617,498	137,068	-	13,480	NM	NM
Summit Partners Private Equity Fund VII-A, L.P.	www.summitpartners.com	2006	69,900,000	76,376,809	134,689,734	140,369,336	10.4%	1.84x	NA	2,145,149	NA	NA	NA	NA	NA	10.4%
Summit Partners Venture Capital Fund II-A, L.P.	www.summitpartners.com	2006	8,400,000	10,338,908	20,981,793	20,981,793	19.3%	2.03x	-	-	-	-	-	-	NA	19.3%
Summit Ventures III, L.P.	www.summitpartners.com	1992	25,000,000	20,000,000	78,763,052	78,763,052	61.7%	3.94x	-	-	-	-	-	-	NA	61.7%
Summit Ventures IV, L.P.	www.summitpartners.com	1995	24,750,000	24,007,500	181,655,345	181,655,345	104.0%	7.57x	-	-	-	-	-	-	NA	104.0%
Summit Ventures V, L.P.	www.summitpartners.com	1998	37,000,000	35,705,000	49,485,953	49,485,953	8.1%	1.39x	-	-	-	-	-	-	NA	8.1%
Summit Ventures VI-A, L.P.	www.summitpartners.com	2001	50,000,000	53,824,371	112,714,091	112,714,091	15.4%	2.09x	NA	527,903	NA	NA	NA	NA	NA	15.4%
Symantec Corp.	www.broadcom.com	1992	5,569,791	5,569,791	2,222,145	2,222,145	-28.5%	0.40x	-	-	-	-	-	-	NA	-28.5%
Syndicated Communications II, L.P.	N/A	1990	7,500,000	7,500,000	16,664,333	16,664,333	13.0%	2.22x	-	-	-	-	-	-	NA	13.0%
Syndicated Communications Venture Partners IV, L.F.N/A		2000	7,500,000	7,445,705	5,205,401	5,205,401	-5.3%	0.70x	-	-	-	-	-	-	NA	-5.3%
T3 Partners II, L.P.	www.ta.com	2001	18,707,131	18,360,961	56,361,527	56,361,527	93.8%	3.07x	-	-	-	-	-	-	NA	93.8%
TA Select Opportunities Fund II, L.P.	www.ta.com	2021	30,000,000	15,750,000	-	15,467,887	-2.2%	0.98x	20,855	-	-	20,855	-	-	-0.6%	-2.2%
TA X, L.P.	www.ta.com	2006	7,900,000	7,623,500	10,044,003	10,044,003	5.2%	1.32x	-	-	-	-	-	-	NA	5.2%
TA XIII, L.P.	www.ta.com	2019	75,000,000	77,730,754	34,793,254	130,561,517	31.4%	1.68x	1,194,699	-	1,094,789	99,910	581,361	-	38.8%	31.4%
TA XIV, L.P.	www.ta.com	2021	110,000,000	72,600,000	-	67,064,285	-8.2%	0.92x	2,332,173	-	1,899,894	432,279	-	-	-1.4%	-8.2%
TCV V, L.P.	www.tcv.com	2004	39,000,000	38,668,500	74,015,827	74,015,827	10.8%	1.91x	-	2,366,044	-	-	-	-	NA	10.8%
TCV VI, L.P.	www.tcv.com	2006	50,000,000	52,975,818	80,836,466	80,836,466	12.3%	1.53x	-	-	-	-	-	-	NA	12.3%
TCV VII, L.P.	www.tcv.com	2007	75,000,000	75,186,699	237,077,295	239,274,514	23.5%	3.18x	6,228	2,814,189	-	4,295	816,236	1,933	31.3%	23.5%

¹ Source: State Street, Asset Class Consultant.

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⁴ Cash Profit Received column calculation methodology refined. Amounts represent fiscal year net cash flows excluding return of capital distributions.

Appendix 4 – Private Equity



Required disclosures by AIV as of June 30, 2023 fiscal year end^{1,2,3,4}

Section 7928.710											Section 7514.7					
Alternative Investment Vehicle (AIV) Name	Address	Vintage Year	Capital Committed (USD)	Cash Contributions (USD)	Cash Distributions (USD)	Cash Distributions + Remaining Value (USD)	Net IRR (ITD)	Investment Multiple (ITD)	Management Fees and Costs (FY)	Cash Profit Received (FY)	Management Fees (USD)	Fund Expenses (USD)	Carried Interest (USD)	Portfolio Company Expenses (USD)	Gross IRR (ITD)	Net IRR (ITD)
Ten Coves Capital I, L.P.	www.tencoves.com	2018	2,902,557	5,179,385	12,065,270	15,702,482	84.3%	3.03x	32,038	-	23,281	8,757	-	-	43.3%	84.3%
Ten Coves Capital II, L.P.	www.tencoves.com	2017	8,225,000	8,098,899	2,011,573	11,436,395	13.3%	1.41x	130,221	-	102,477	27,744	-	-	21.0%	13.3%
Ten Coves Capital III, L.P.	www.tencoves.com	2021	7,521,000	3,750,683	3,383	3,867,807	3.3%	1.03x	210,098	-	141,573	68,525	-	-	16.0%	3.3%
TH Lee Putnam Parallel Ventures, L.P.	N/A	2000	5,000,000	5,055,906	5,833,008	5,833,008	3.0%	1.15x	-	-	-	-	-	-	NA	3.0%
The 1818 Fund II, L.P.	www.bbhc.com	1993	15,000,000	12,862,874	23,988,308	23,988,308	12.1%	1.86x	-	-	-	-	-	-	NA	12.1%
The Beacon Group III - Focus Value Fund, L.P.	www.beaconcapital.co.uk	1996	40,000,000	39,634,747	10,102,452	10,102,452	-18.2%	0.25x	-	-	-	-	-	-	NA	-18.2%
The Fifth Alcuin Fund Limited Partnership	www.alcuincapital.com	2021	13,698,804	6,588,007	659,064	6,812,457	2.2%	1.03x	319,304	-	220,382	59,763	-	39,159	14.9%	2.2%
The Resolute Fund, L.P.	www.resolotecap.com	2002	50,000,000	47,806,413	120,845,133	120,845,133	17.0%	2.53x	-	-	-	-	-	-	NA	17.0%
The Resolute Fund II, L.P.	www.resolotecap.com	2007	60,000,000	61,670,887	85,432,018	85,432,018	7.5%	1.39x	-	-	-	-	-	-	NA	7.5%
The Veritas Capital Fund VIII, L.P.	www.veritascapital.com	2022	100,000,000	43,158,021	20,267	41,094,900	NM	NM	3,006,241	-	1,527,088	347,527	-	1,131,626	NM	NM
The Veritas Capital Vantage Fund, L.P.	www.veritascapital.com	2021	100,000,000	36,895,508	-	40,768,462	8.5%	1.10x	2,740,984	-	1,730,008	658,198	-	352,778	23.0%	8.5%
Thoma Bravo Discover Fund III, L.P.	www.thomabravo.com	2020	50,000,000	49,198,963	-	54,439,208	6.4%	1.11x	669,712	-	626,738	21,871	-	21,103	11.6%	6.4%
Thoma Bravo Discover Fund IV, L.P.	www.thomabravo.com	2022	50,000,000	16,625,874	-	17,373,846	NM	NM	1,375,079	-	1,239,011	133,799	-	2,269	NM	NM
Thoma Bravo Fund XIV, L.P.	www.thomabravo.com	2020	100,000,000	98,506,197	-	106,939,801	4.7%	1.09x	1,512,970	-	1,364,165	15,845	-	132,960	8.1%	4.7%
Thoma Bravo Fund XV, L.P.	www.thomabravo.com	2022	100,000,000	67,879,513	-	66,993,105	NM	NM	2,068,465	-	1,492,509	142,866	-	433,090	NM	NM
Thomas H. Lee Equity Fund IV, L.P.	www.thl.com	1998	70,000,000	63,149,612	54,841,198	54,841,198	-2.6%	0.87x	-	-	-	-	-	-	NA	-2.6%
Thomas H. Lee Equity Fund V, L.P.	www.thl.com	2000	45,000,000	47,123,524	79,014,823	79,014,823	13.7%	1.68x	-	-	-	-	-	-	NA	13.7%
Thomas H. Lee Equity Fund VI, L.P.	www.thl.com	2006	60,000,000	59,938,866	99,651,791	99,651,791	8.1%	1.66x	-	-	-	-	-	-	NA	8.1%
TPG Partners II, L.P.	www.tpg.com	1997	75,000,000	76,009,954	132,273,911	132,273,911	9.9%	1.74x	-	-	-	-	-	-	NA	9.9%
TPG Partners III, L.P.	www.tpg.com	2000	25,750,055	27,527,988	68,499,799	68,499,799	24.5%	2.49x	-	-	-	-	-	-	NA	24.5%
TPG Partners IV, L.P.	www.tpg.com	2003	69,768,736	81,274,076	157,203,357	157,342,728	15.2%	1.94x	46,881	-	-	46,881	-	-	NA	15.2%
TPG Partners V, L.P.	www.tpg.com	2006	75,000,000	65,377,267	87,755,202	87,755,202	4.1%	1.34x	-	-	-	-	-	-	NA	4.1%
TPG Partners VI, L.P.	www.tpg.com	2008	100,000,000	99,595,863	144,234,418	144,234,418	9.1%	1.45x	-	-	-	-	-	-	NA	9.1%
Triton Fund V, L.P.	www.tritoncap.com	2018	182,085,275	103,826,344	13,448,528	175,338,458	24.5%	1.69x	3,500,953	-	2,257,763	880,128	-	363,062	24.0%	24.5%
TSG 9, L.P.	www.tsgconsumer.com	2023	100,000,000	5,024,224	-	2,739,486	NM	NM	1,771,018	-	1,476,252	294,766	-	-	NM	NM
Union Square Ventures 2004, L.P.	www.usv.com	2005	10,000,000	8,900,000	122,970,020	122,970,020	68.0%	13.82x	-	593,898	-	-	-	-	NA	68.0%
Union Square Ventures 2008, L.P.	www.usv.com	2008	9,500,000	9,500,000	38,864,814	42,975,338	21.2%	4.52x	41,999	377,073	32,856	9,143	5,532,488	-	27.9%	21.2%
Union Square Ventures 2012 Fund, L.P.	www.usv.com	2011	10,285,000	10,285,000	236,988,951	249,138,046	53.6%	24.22x	93,586	4,572,208	82,280	11,306	17,397,557	-	63.6%	53.6%
Union Square Ventures Opportunity Fund, L.P.	www.usv.com	2010	5,110,000	5,110,000	17,690,609	18,519,983	58.2%	3.62x	27,482	-	22,228	5,254	902,644	-	71.5%	58.2%
USV 2014, L.P.	www.usv.com	2014	7,672,500	7,672,500	12,526,318	40,415,397	30.1%	5.27x	140,613	134,428	124,678	15,935	7,549,458	-	33.8%	30.1%
USV 2016, L.P.	www.usv.com	2016	9,000,000	7,290,000	20,954,085	39,533,618	50.2%	5.42x	830,824	3,907,037	213,750	617,074	9,810,292	-	56.8%	50.2%

¹ Source: State Street, Asset Class Consultant.

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⁴ Cash Profit Received column calculation methodology refined. Amounts represent fiscal year net cash flows excluding return of capital distributions.

Appendix 4 – Private Equity



Required disclosures by AIV as of June 30, 2023 fiscal year end^{1,2,3,4}

Section 7928.710											Section 7514.7					
Alternative Investment Vehicle (AIV) Name	Address	Vintage Year	Capital Committed (USD)	Cash Contributions (USD)	Cash Distributions (USD)	Cash Distributions + Remaining Value (USD)	Net IRR (TTD)	Investment Multiple (TTD)	Management Fees and Costs (FY)	Cash Profit Received (FY)	Management Fees (USD)	Fund Expenses (USD)	Carried Interest (USD)	Portfolio Company Expenses (USD)	Gross IRR (TTD)	Net IRR (TTD)
USV 2019, L.P.	www.usv.com	2018	9,000,000	6,480,000	3,868,142	19,358,401	54.4%	2.99x	261,076	-	225,000	36,076	489,663	-	62.7%	54.4%
USV Opportunity 2014, L.P.	www.usv.com	2014	6,022,500	6,022,500	31,054,972	38,957,714	41.0%	6.47x	30,905	-	22,541	8,364	5,419,584	-	45.6%	41.0%
USV Opportunity 2019, L.P.	www.usv.com	2018	11,250,000	7,875,000	393,848	8,509,462	2.8%	1.08x	124,708	-	112,500	12,208	250,016	-	3.5%	2.8%
Vestar Capital Partners IV, L.P.	www.vestarcapital.com	1999	25,000,000	24,468,267	43,362,057	43,362,057	13.5%	1.77x	-	-	-	-	-	-	NA	13.5%
Vestar Capital Partners V, L.P.	www.vestarcapital.com	2005	75,000,000	76,707,066	93,397,012	93,397,012	2.9%	1.22x	-	-	-	-	-	-	NA	2.9%
Vestar Equity Partners, L.P.	www.vestarcapital.com	1993	8,000,000	6,796,492	23,880,961	23,880,961	56.5%	3.51x	-	-	-	-	-	-	NA	56.5%
Vestar Equity Partners III, L.P.	www.vestarcapital.com	1997	17,500,000	17,154,331	19,588,323	19,588,323	2.6%	1.14x	-	-	-	-	-	-	NA	2.6%
Vinci Capital Partners III, L.P.	www.vincipartners.com	2019	75,000,000	64,726,455	1,198,345	95,708,293	21.2%	1.48x	1,310,300	-	862,501	447,799	-	-	31.8%	21.2%
Vista Equity Partners Fund III, L.P.	www.vistaequitypartners.com	2008	50,000,000	52,566,881	129,772,132	131,939,942	27.8%	2.51x	16,334	3,295,713	-	16,334	1,372,547	-	NA	27.8%
Vista Equity Partners Fund IV, L.P.	www.vistaequitypartners.com	2011	100,000,000	107,703,818	138,884,762	211,686,233	14.5%	1.97x	686,932	593,026	617,418	69,514	7,279,439	-	NA	14.5%
Vista Equity Partners Fund V, L.P.	www.vistaequitypartners.com	2014	200,000,000	286,087,386	328,978,729	601,123,163	19.3%	2.10x	1,842,031	11,665,217	1,695,956	146,075	3,308,543	-	NA	19.3%
Vista Equity Partners Fund VI, L.P.	www.vistaequitypartners.com	2016	200,000,000	298,738,279	287,149,885	574,592,264	19.5%	1.92x	2,300,508	16,698,651	2,116,456	184,052	5,914,982	-	NA	19.5%
Vista Equity Partners Fund VII, L.P.	www.vistaequitypartners.com	2018	200,000,000	181,359,918	19,233,418	231,347,383	9.8%	1.28x	3,379,596	-	3,000,000	379,596	-	-	15.8%	9.8%
Warburg Pincus Capital Company, L.P.	www.warburgpincus.com	1986	50,000,000	50,000,000	218,432,276	218,432,276	18.4%	4.37x	-	-	-	-	-	-	NA	18.4%
Warren Equity Partners Fund II, L.P.	www.warrenequity.com	2018	10,500,000	14,881,578	19,475,061	32,092,271	43.2%	2.16x	130,687	2,788,254	89,022	41,665	902,170	-	53.3%	43.2%
Warren Equity Partners Fund III, L.P.	www.warrenequity.com	2021	10,500,000	7,679,857	-	9,772,719	16.8%	1.27x	122,578	-	88,890	33,688	-	-	23.4%	16.8%
Wayzata Opportunities Fund, LLC	N/A	2005	40,000,000	37,428,325	62,803,809	62,803,809	8.4%	1.68x	-	-	-	-	-	-	NA	8.4%
Wayzata Opportunities Fund II, L.P.	N/A	2007	75,000,000	23,175,000	100,495,702	100,495,702	16.5%	4.34x	-	-	-	-	-	-	NA	16.5%
Wayzata Opportunities Fund III, L.P.	N/A	2012	100,000,000	47,460,000	47,683,053	47,683,053	0.2%	1.00x	-	-	-	-	-	-	NA	0.2%
Webster Equity Partners V, L.P.	www.websterequitypartners.com	2021	125,000,000	89,460,490	-	93,500,755	4.5%	1.05x	960,305	-	478,182	482,123	-	-	12.6%	4.5%
Welsh, Carson, Anderson & Stowe VI, L.P.	www.wcas.com	1993	10,000,000	10,000,000	20,712,010	20,712,010	13.9%	2.07x	-	-	-	-	-	-	NA	13.9%
Welsh, Carson, Anderson & Stowe VII, L.P.	www.wcas.com	1995	20,000,000	20,000,000	43,513,904	43,513,904	17.7%	2.18x	-	-	-	-	-	-	NA	17.7%
Welsh, Carson, Anderson & Stowe VIII, L.P.	www.wcas.com	1998	25,000,000	25,000,000	32,204,360	32,204,360	3.1%	1.29x	-	-	-	-	-	-	NA	3.1%
Weston Presidio Capital IV, L.P.	N/A	2000	9,665,712	9,665,712	11,401,437	11,401,437	3.0%	1.18x	-	-	-	-	-	-	NA	3.0%
Weston Presidio Capital IV, L.P. (Secondary)	N/A	2003	1,811,720	1,811,720	2,311,117	2,311,117	5.2%	1.28x	-	-	-	-	-	-	NA	5.2%
Weston Presidio Capital V, L.P.	N/A	2005	35,000,000	34,660,903	79,153,937	79,153,937	15.3%	2.28x	-	-	-	-	-	-	NA	15.3%
Whitman Heffernan & Rhein Fund II, L.P.	N/A	1992	14,200,000	14,232,703	8,329,230	8,329,230	-23.3%	0.59x	-	-	-	-	-	-	NA	-23.3%
William Blair Mezzanine Capital Fund II, L.P.	N/A	1997	10,000,000	10,000,000	16,954,398	16,954,398	11.8%	1.70x	-	-	-	-	-	-	NA	11.8%
Worldview Technology Partners I, L.P.	N/A	1996	8,500,000	8,500,000	32,237,243	32,237,243	68.5%	3.79x	-	-	-	-	-	-	NA	68.5%
Worldview Technology Partners II, L.P.	N/A	1998	5,000,000	5,000,000	8,406,737	8,406,737	10.1%	1.68x	-	-	-	-	-	-	NA	10.1%
Worldview Technology Partners III, L.P.	N/A	1999	10,000,000	10,000,000	1,532,976	1,532,976	-22.6%	0.15x	-	-	-	-	-	-	NA	-22.6%
Worldview Technology Partners IV, L.P.	N/A	2000	12,086,682	11,300,783	5,670,097	5,670,097	-9.2%	0.50x	-	-	-	-	-	-	NA	-9.2%
Wynnchurch Capital Partners V, L.P.	www.wynnchurch.com	2020	75,000,000	52,933,695	1,007,893	64,131,822	15.1%	1.21x	1,914,394	-	1,465,152	182,379	32,371	266,864	25.3%	15.1%

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Appendix 5 – Real Assets ex. Real Estate



Required disclosures by AIV as of June 30, 2023 fiscal year end^{1,2,3,4}

Section 7928.710											Section 7514.7					
Alternative Investment Vehicle (AIV) Name	Address	Vintage Year	Capital Committed (USD)	Cash Contributions (USD)	Cash Distributions (USD)	Cash Distributions + Remaining Value (USD)	Net IRR (ITD)	Investment Multiple (ITD)	Management Fees and Costs (FY)	Cash Profit Received (FY)	Management Fees (USD)	Fund Expenses (USD)	Carried Interest (USD)	Portfolio Company Expenses (USD)	Gross IRR (ITD)	Net IRR (ITD)
Antin Infrastructure Partners Mid Cap I-A SCSp	www.antin-ip.com	2021	109,090,000	48,730,503	-	50,343,851	4.0%	1.03x	1,654,504	-	1,636,350	18,154	-	-	15.0%	4.0%
AxInfra US II, L.P.	www.axiuminfra.com	2019	250,000,000	252,957,951	7,068,982	275,088,975	9.9%	1.09x	2,087,954	-	2,058,691	29,263	-	-	11.0%	9.9%
Axium Infrastructure Canada II, L.P.	www.axiuminfra.com	2021	155,363,940	153,338,585	6,149,901	160,400,322	14.1%	1.05x	669,446	-	661,145	8,301	-	-	15.5%	14.1%
Cibus Enterprise II, L.P.	www.cibuscap.com	2021	11,000,000	5,027,110	-	4,597,656	-8.3%	0.91x	200,860	-	165,000	35,860	-	-	-2.4%	-8.3%
Cibus Fund II, L.P.	www.cibuscap.com	2021	89,000,000	31,862,889	-	28,700,264	-14.2%	0.90x	1,989,533	-	1,334,999	654,534	-	-	-5.0%	-14.2%
DIF Core-plus Infrastructure Fund III Coöperatief U.A.	www.dif.eu	2022	163,635,000	43,416,240	-	45,231,450	9.4%	1.04x	4,002,615	-	2,749,933	1,252,682	-	-	18.2%	9.4%
DIF Infrastructure IV Coöperatief U.A.	www.dif.eu	2020	163,635,000	106,120,726	1,782,199	124,434,227	15.4%	1.17x	2,402,167	-	2,045,438	356,730	-	-	19.7%	15.4%
First Reserve Fund X, L.P.	www.firstreserve.com	2004	50,000,000	50,000,000	91,380,804	91,380,804	31.0%	1.83x	-	-	-	-	-	-	NA	31.0%
Grain Communications Opportunity Fund III, L.P.	www.graingp.com	2021	67,500,000	47,733,266	163,212	41,251,299	-10.5%	0.86x	1,545,325	-	1,220,300	325,025	-	-	-6.2%	-10.5%
Grain Spectrum Holdings III, L.P.	www.graingp.com	2020	60,000,000	48,922,811	-	66,207,484	12.6%	1.35x	317,074	-	266,651	50,423	-	-	16.6%	12.6%
HitecVision New Energy Fund, L.P.	www.hitecvision.com	2022	136,362,500	78,748,116	-	101,495,049	36.0%	1.29x	(33,376)	-	2,653	(36,029)	-	-	37.0%	36.0%
KKR Diversified Core Infrastructure Fund, L.P.	www.kkr.com	2021	500,000,000	500,071,112	14,098,024	528,708,309	6.6%	1.06x	2,566,757	-	1,862,887	703,870	-	-	7.0%	6.6%
Orion Mine Finance (Onshore) Fund III, L.P.	www.orionrp.com	2019	150,000,000	125,937,064	23,107,501	170,023,522	26.3%	1.35x	2,798,420	-	2,437,500	360,920	-	-	31.0%	26.3%
Orion Mineral Royalty Fund I, L.P.	www.orionrp.com	2019	100,000,000	24,528,661	339,894	25,305,755	3.0%	1.03x	227,334	-	-	227,334	-	-	3.0%	3.0%
Pan-Europe Infrastructure III, L.P.	www.dws.com	2020	109,090,000	73,917,941	6,734,454	84,837,244	10.7%	1.15x	1,151,245	-	1,090,900	60,345	-	-	14.4%	10.7%
Partners Group Direct Infrastructure 2020 (USD) A, L.P.	www.partnersgroup.com	2020	200,000,000	85,000,000	2,000,000	96,395,271	11.1%	1.13x	2,920,700	-	2,300,000	436,016	-	184,684	19.7%	11.1%
Sprott Private Resource Streaming & Royalty Annex (US), L.P.	www.sprott.com	2023	100,000,000	45,096,445	-	45,285,330	NM	NM	603,026	-	411,815	191,211	-	-	NM	NM
The Energy & Minerals Group Fund III, L.P.	www.emgb.com	2014	150,000,000	150,349,177	22,677,806	103,612,045	-5.0%	0.69x	1,261,263	4,564,820	1,208,539	35,981	-	16,743	-3.3%	-5.0%
TIAA-CREF Global Agriculture, LLC	www.nuveen.com	2021	250,000,000	271,773,398	25,938,142	327,832,004	4.4%	1.21x	1,859,378	-	1,637,556	221,823	-	-	5.8%	4.4%
TIAA-CREF Global Agriculture II, LLC	www.nuveen.com	2021	300,000,000	280,042,673	58,446,491	335,646,196	3.8%	1.20x	2,402,798	11,720,611	2,285,371	117,427	-	-	5.8%	3.8%

¹ Source: State Street, Asset Class Consultant.

² AIVs marked "NM" (Not Meaningful) represent investments in the initial stages of their investment life cycle and therefore do not generate meaningful performance results.

³ AIVs marked "NA" (Not Available) represent older vintage investments where data was not available at the time of this report.

⁴ Cash Profit Received column calculation methodology refined. Amounts represent fiscal year net cash flows excluding return of capital distributions.

Appendix 6 – Real Estate



Required disclosures by AIV as of June 30, 2023 fiscal year end^{1,2,3,4}

Section 7928.710											Section 7514.7					
Alternative Investment Vehicle (AIV) Name	Address	Vintage Year	Capital Committed (USD)	Cash Contributions (USD)	Cash Distributions (USD)	Cash Distributions + Remaining Value (USD)	Net IRR (ITD)	Investment Multiple (ITD)	Management Fees and Costs (FY)	Cash Profit Received (FY)	Management Fees (USD)	Fund Expenses (USD)	Carried Interest (USD)	Portfolio Company Expenses (USD)	Gross IRR (ITD)	Net IRR (ITD)
Aermont Capital Real Estate Fund IV SCSp	www.aermont.com	2019	54,550,017	40,334,181	-	32,216,292	-8.0%	0.80x	529,207	-	449,002	80,205	-	-	-3.0%	-8.0%
AEW Value Investors Asia III, L.P.	www.aew.com	2018	50,000,000	47,376,250	26,017,067	54,942,259	4.5%	1.16x	350,322	-	305,737	44,585	-	-	5.8%	4.5%
AG Asia Realty Fund IV, L.P.	www.angelogordon.com	2019	100,000,000	81,390,064	34,327,713	107,358,218	13.5%	1.32x	1,145,430	2,349,885	924,051	221,379	-	-	21.0%	13.5%
AG Europe Realty Fund II, L.P.	www.angelogordon.com	2018	50,000,000	46,254,068	22,806,340	67,164,060	10.5%	1.45x	680,543	1,724,017	546,458	134,085	-	-	15.0%	10.5%
Bain Capital Real Estate Fund I-A, L.P.	www.baincapitalrealestate.com	2019	100,000,000	86,552,228	51,205,960	128,778,499	22.4%	1.49x	1,151,234	-	706,704	444,530	-	-	24.2%	22.4%
Bain Capital Real Estate Fund II-B, L.P.	www.baincapitalrealestate.com	2021	100,000,000	49,485,886	2,890,770	55,412,793	11.1%	1.12x	1,910,201	-	1,400,000	510,201	-	-	19.3%	11.1%
Blackstone Real Estate Partners X, L.P.	www.blackstone.com	2022	300,000,000	13,602,762	-	11,285,356	NM	NM	4,053,772	-	3,400,833	440,227	-	212,712	NM	NM
Brookfield Strategic Real Estate Partners IV, L.P.	www.brookfield.com	2022	300,000,000	153,700,763	3,849,633	163,404,280	NM	NM	8,464,580	-	7,386,987	1,077,593	-	-	NM	NM
CapMan Nordic Real Estate II FCP-RAIF	www.capman.com	2017	54,550,017	58,838,753	34,189,720	75,634,294	11.2%	1.29x	531,678	-	359,085	130,657	-	41,936	15.3%	11.2%
CapMan Nordic Real Estate III FCP-RAIF	www.capman.com	2021	81,825,025	35,736,873	-	36,293,726	2.3%	1.02x	1,316,106	-	563,678	674,040	-	78,387	7.6%	2.3%
Capri Urban Investors, LLC	www.capri.global	2008	150,000,000	149,951,767	96,041,024	96,041,024	2.2%	0.64x	167,280	-	167,280	-	-	-	5.5%	2.2%
Carlyle Europe Real Estate Partners III, L.P.	www.carlyle.com	2007	19,297,614	26,476,257	23,549,988	23,638,370	0.9%	0.89x	3,689	23,461	473	3,216	-	-	4.0%	0.9%
CBRE Strategic Partners Europe Fund III, L.P.	www.cbreim.com	2011	17,456,005	21,347,230	5,956,290	5,956,290	-16.4%	0.28x	-	-	-	-	-	-	NA	-16.4%
CBRE US Core Partners Fund, L.P.	www.cbreim.com	2023	600,000,000	100,000,000	-	100,000,000	NM	NM	-	-	-	-	-	-	NM	NM
CityView Bay Area Fund II, L.P.	www.cityview.com	2012	134,100,000	145,427,867	145,914,557	221,938,943	10.3%	1.53x	1,381,923	-	1,185,496	196,427	-	-	13.5%	10.3%
CityView Southern California Fund II, L.P.	www.cityview.com	2013	100,000,000	99,104,064	158,964,702	158,964,702	14.2%	1.60x	72,077	883,846	-	72,077	-	-	19.1%	14.2%
CityView Western Fund I, L.P.	www.cityview.com	2016	150,000,000	139,923,943	10,659,793	221,769,180	12.4%	1.58x	2,023,216	-	1,554,937	468,279	-	-	17.0%	12.4%
Core Property Index Fund	www.idrinvestments.com	2019	100,000,000	100,372,510	8,548,140	123,069,549	12.6%	1.23x	353,391	2,903,671	244,106	109,285	-	-	12.7%	12.6%
Europa Fund III, L.P.	www.europacapital.com	2009	18,874,306	22,542,525	28,816,690	28,977,272	10.0%	1.29x	9,557	140,812	-	9,557	-	-	15.0%	10.0%
Europa Fund IV, L.P.	www.europacapital.com	2014	54,550,017	60,094,842	57,845,166	68,556,329	3.2%	1.14x	1,853,800	845,248	196,064	1,657,736	-	-	7.4%	3.2%
Heitman Asia-Pacific Property Investors, L.P.	www.heitman.com	2018	50,000,000	45,408,696	16,344,957	48,141,786	2.7%	1.06x	423,564	654,223	333,346	90,218	-	-	5.1%	2.7%
Hunt UK Realty Partners, L.P.	www.huntcompanies.com	2007	18,706,421	30,180,110	2,175,705	2,239,063	-22.3%	0.07x	-	-	-	-	-	-	NA	-22.3%
Invesco Real Estate Asia Fund, L.P.	www.invesco.com	2014	100,000,000	135,998,910	47,424,531	192,883,135	3.9%	1.42x	1,390,783	2,299,626	927,013	276,576	-	187,194	4.8%	3.9%
Prologis European Logistics Fund, L.P.	www.pelf.prologis.com	2014	109,100,034	281,658,040	204,658,627	393,031,076	7.9%	1.40x	2,547,279	-	2,046,580	249,867	-	250,832	9.3%	7.9%
RREEF Core Plus Industrial Fund, L.P.	www.rreefpropertytrust.com	2017	125,000,000	127,452,272	32,957,715	320,331,190	17.7%	2.51x	880,591	5,379,996	880,591	-	-	-	18.1%	17.7%
Starwood Capital Hospitality Fund II, L.P.	www.starwoodcapital.com	2010	100,000,000	97,134,161	152,016,156	158,308,027	10.0%	1.63x	85,685	4,219,020	67,641	18,044	89,407	-	12.7%	10.0%
TPG Real Estate Partners III, L.P.	www.tpg.com	2019	58,750,000	44,558,523	16,286,292	54,466,118	11.0%	1.22x	984,290	-	705,487	278,803	336,238	-	18.0%	11.0%
TPG Real Estate Partners IV, L.P.	www.tpg.com	2022	110,000,000	6,960,836	-	4,122,377	NM	NM	1,780,646	-	1,581,001	199,645	-	-	NM	NM

¹ Source: State Street, Asset Class Consultant.

² AIVs marked "NM" (Not Meaningful) represent investments in the initial stages of their investment life cycle and therefore do not generate meaningful performance results.

³ AIVs marked "NA" (Not Available) represent older vintage investments where data was not available at the time of this report.

⁴ Cash Profit Received column calculation methodology refined. Amounts represent fiscal year net cash flows excluding return of capital distributions.



Report Definitions

	Description
Alternative Investment Vehicle (AIV) Name	Legal name of the AIV.
Address	Website of the investment manager of the AIV. An “N/A” represents a firm that does not have a website or is no longer operational.
Vintage Year	Year of LACERA commitment and/or first takedown of capital.
Capital Committed	Since inception dollar amount of commitments made to the AIV.
Cash Contributions	Since inception dollar amount of cash contributions made to the AIV.
Cash Distributions	Since inception dollar amount of cash distributions received from the AIV.
Cash Distributions + Remaining Value	Since inception dollar amount of cash distributions received plus the remaining value of the AIV.
Investment Multiple	Calculated as the ratio of the current value of the remaining assets within the AIV, plus the total value of all distributions received to date, relative to the total amount of capital paid into the AIV.
Management Fees and Costs	Dollar amount of total management fees and costs paid or accrued to the AIV on a fiscal year-end basis. Negative values indicate a recovery of previously paid or accrued fees.
Cash Profit Received	Dollar amount of cash profit received from the AIV on a fiscal year-end basis.
Management Fees	Dollar amount of total management fees paid or accrued to the AIV during the fiscal year period. Negative values indicate a recovery of previously paid or accrued fees.
Fund Expenses	Dollar amount of total fund expenses paid or accrued to the AIV during the fiscal year period. Negative values indicate a recovery of previously paid or accrued expenses.
Carried Interest	Dollar amount of carried interest paid to the AIV during the fiscal year period. Negative values indicate a recovery of previously paid fees.
Portfolio Company Expenses	LACERA's pro-rata share of fees and expenses paid by the portfolio companies to the general partner or related parties.
Gross IRR	Since inception internal rate of return (IRR) before all fees, expenses, and carried interest.
Net IRR	Since inception internal rate of return (IRR) after all fees, expenses, and carried interest.



November 28, 2023

TO: Each Trustee,
Board of Retirement
Board of Investments

FROM: Jessica C. Rivas, *JR*
Staff Counsel

FOR: December 6, 2023 Board of Retirement Meeting
December 13, 2023 Board of Investments Meeting

SUBJECT: Presentation on FPPC Form 700 e-Filing for Trustees

At the December Board meetings, Staff Counsel Jessica Rivas will present an overview of LACERA's upcoming move to electronic filing of Fair Political Practices Commission (FPPC) Form 700 Statement of Economic Interests for Trustees.

Reviewed and Approved:

Steven P. Rice
Chief Counsel

Attachment

cc: Santos H. Kreimann Jonathan Grabel Luis A. Lugo JJ Popowich
 Laura Guglielmo Carly Ntoya, Ph.D. Richard Bendall



Form 700 E-Filing for Trustees

Jessica Rivas, Staff Counsel

Background – Past Process



- **Filing Requirement**

- Board of Retirement – based on LACERA’s Conflicts of Interest Code
- Board of Investments – based on Gov. Code § 87200

- **Filing Methods**

- Paper
- E-Filing

- **Place of Filing**

- County - Trustees
- LACERA - Staff

Changes



- Filing Requirement

- Board of Retirement – no change
- Board of Investments – no change

- Filing Methods

- Paper – available if necessary
- E-Filing – strongly preferred

- Place of Filing

- ~~County – Trustees~~ (However, see slide 8 regarding multiple positions)
- LACERA – Trustees + Staff



Timeline



	Staff	Trustees
Pre-2023	Paper Filing with LACERA	Paper Filing or E-Filing with County
2023	E-Filing with LACERA	Paper Filing or E-Filing with County
2024 Onwards	E-Filing with LACERA	E-Filing with LACERA

What to Expect



On or about **March 1, 2024**, you will receive two e-mails:

- Account login information for eDiscosure website
- Notice re: annual statement filing requirement and deadline

Deadline is **April 1, 2024**.

If you would like to work on your statement before March 1, 2024, please let Legal Services know.

What to Expect



Training video available upon login:



LACERA

Login

- Home
- Change Password
- Change Login ID
- Change Email
- Sign Out

Filer

- Current Filings
- Previous Filings
- View Profile

Contact Us

- Report an Issue
- FPPC Hotline

Help

- eFiler Quick Reference Card
- Filer's User Guide

Video Tutorials

- Filer Video Tutorial

Welcome to LACERA Form 700 Electronic Filing System

Welcome to eDisclosure™!

LACERA is pleased to offer electronic filing for your Form 700 Statement of Economic Interests. eDisclosure™ is your online

[Getting Started and Help Guides](#)
Via the **Help** menu located at the bottom of the Navigation Pane, you will find video tutorials that will help you get up and run

Thank you! We hope you enjoy your electronic filing experience!

Fair Political Practices Commission Hotline
2/17/2023
Contact the Fair Political Practices Commission Toll Free Help Line at 1-866-ASK-FPPC (1-866-275-3772) to speak with a Pol
[More >>](#)

eDisclosure™ Version 3.23.0111 | Copyright

What to Expect



Have a lot of data? Spreadsheets are available on the eDisclosure website and can be provided in advance:

The screenshot displays the eDisclosure website interface. At the top, there are tabs for 'Cover Page', 'Schedule A-1', 'Schedule C', and 'Schedule D'. Below the tabs is a navigation bar with various icons and labels: 'Accessibility Mode', 'Show Menu', 'Fit to Width', 'Zoom In', 'Zoom Out', 'Add Sheet', 'Delete Section', 'Sort Sections', 'Nothing to Report', 'Save', 'Print Preview', 'Import - Excel', 'Instructions', 'Disclosure Category', 'COI Codes', 'Report an Issue', 'FPPC Hotline', and 'Close'. A blue arrow points to the 'Import - Excel' button. In the foreground, an 'Upload File' dialog box is open. The dialog box contains the following text: 'The Excel file that will be used for import must be in a correct format. Click [here to download template.](#) You are about to import entries from the Excel. Please do not use this utility more than once for the selected period because it might create duplicates. Are you sure you want to continue?'. Below the text is a text input field labeled 'Select file to import.' with a 'Browse...' button to its right. At the bottom of the dialog box are 'Import' and 'Cancel' buttons. A red arrow points to the first line of text in the dialog box.

Multiple Positions



Per FPPC regulation 18723.1, filers with multiple filing positions can:

1. File separate statements with each agency, or
2. File an **Expanded Statement** with the agency at which they hold their **primary position** and submit a copy to the other agency or agencies.

Legal Services will work directly with each Trustee who has multiple positions to confirm their plan and assist with Expanded Statements as needed.

Thank You!



Legal Services

Questions?

Jessica Rivas, Staff Counsel

jrivas@lacera.com

November 28, 2023

TO: Each Trustee,
Board of Retirement
Board of Investments

FROM: Santos H. Kreimann ^{SHK}
Chief Executive Officer

FOR: Board of Retirement Meeting on December 6, 2023
Board of Investments Meeting on December 13, 2023

SUBJECT: **BOARD OF RETIREMENT AND BOARD OF INVESTMENTS 2024
MEETING CALENDAR**

RECOMMENDATION

It is recommended the Boards review the 2024 meeting and education calendar and consider rescheduling meeting dates that conflict with a holiday and/or the potential of a lack of quorum.

DISCUSSION

Regular meetings of the Board of Retirement shall be held on the first Wednesday of each month. Regular meetings of the Board of Investments shall be held on the second Wednesday of each month. It is encouraged to focus on rescheduling meeting dates that conflict with other events that may result in a lack of quorum.

A copy of the 2024 meeting and educational calendar is attached for your reference.

SHK:bn

Attachment

January

2024

SUN	MON	TUE	WED	THU	FRI	SAT
31	1 New Year's Day	2	3 BOR & Committees	4	5	6
7	8	9	10 BOI	11	12	13
14	15 Martin Luther King Day	16	17	18	19	20
21	22	23	24	25	26	27
	NCPERS Legislative Conference – Washington, DC January 22 -24					
28	29	30	31	1	2	3
	IFEBP Health Benefits Conference – Clearwater Beach, FL January 29-31					

February

2024

SUN	MON	TUE	WED	THU	FRI	SAT
28	29	30	31	1	2	3
4	5	6	7	8	9	10
			BOR & Committees			IFEBP Trustees Institute (Level II) – Orlando, FL February 10-11
11	12	13	14	15	16	17
IFEBP Trustees Institute (Level II) – Orlando, FL February 10-11	IFEBP New Trustees Institute (Level I, Advanced) – Orlando, FL February 12-14		Valentine's Day BOI & Committees			
18	19	20	21	22	23	24
	Presidents' Day					
25	26	27	28	29	1	2
		BOR Board Offsite (Tentative)				

March

2024

SUN	MON	TUE	WED	THU	FRI	SAT
25	26	27	28	29	1	2
						CALAPRS General Assembly – Rancho Mirage – March 2 - 5
3	4	5	6	7	8	9
CALAPRS General Assembly – Rancho Mirage March 2 - 5			BOR & Committees IFEBP Investments Institute – Rancho Mirage, CA - March 6-7			
	CII Spring Conference – Washington, DC - March 4 –6		PPI Winter Roundtable – Napa, CA March 6-8			
10	11	12	13	14	15	16
			BOI & Committees			
	AHIP Medicare, Medicaid, Duals Forum – Baltimore, MD – March 12-14					
17	18	19	20	21	22	23
				PREA Spring Conference – Nashville, TN – March 21-22		
			NASP Day of Education in Private Equity Marina Del Rey – March 20 - 21			
24	25	26	27	28	29	30
	Cesar Chavez Day				Good Friday	
31	1	2	3	4	5	6
Easter Sunday						

April

2024

SUN	MON	TUE	WED	THU	FRI	SAT
31	1	2	3	4	5	6
			BOR & Committees	IFEBP Healthcare Management Conference – Rancho Mirage, CA April 4-5		
7	8	9	10	11	12	13
			BOI & Committees			
14	15	16	17	18	19	20
	Wharton Investment Strategies and Portfolio Management – Philadelphia, PA – April 15 - 19					
21	22	23	24	25	26	27
28	29	30	1	2	3	4

May

2024

SUN	MON	TUE	WED	THU	FRI	SAT
28	29	30	1	2	3	4
BOR & Committees						
5	6	7	8	9	10	11
IFEBP Washington Legislative Update – Washington, DC May 6-7		SACRS Spring Conference – Santa Barbara, CA - May 7 - 10				
12	13	14	15	16	17	18
19	20	21	22	23	24	25
NCPERS Annual Conference – Seattle, WA May 19-22						
26	27	28	29	30	31	1
Memorial Day		thINc360 – The Healthcare Innovation Congress (formerly World Healthcare Congress) – Washington, DC May 29-30				

June

2024

SUN	MON	TUE	WED	THU	FRI	SAT
26	27	28	29	30	31	1
2	3	4	5	6	7	8
BOR & Committees						
9	10	11	12	13	14	15
BOI & Committees						
		NASP Conference – Atlanta, GA - June 10-12				
		AHIP Conference – Las Vegas, NV - June 11-13				
16	17	18	19	20	21	22
Juneteenth						
23	24	25	26	27	28	29
		IFEBP Trustee Institute (Level I, II, Advanced) – Las Vegas, NV June 24-26				
30	1	2	3	4	5	6

July

2024

SUN	MON	TUE	WED	THU	FRI	SAT
30	1	2	3	4	5	6
			BOR & Committees	Independence Day		
7	8	9	10	11	12	13
			BOI & Committees			
			PPI Roundtable – Amsterdam, The Netherlands – July 10 - 12			
14	15	16	17	18	19	20
	ICGN 2024 Annual Conference – London July 15 - 17					
21	22	23	24	25	26	27
28	29	30	31	1	2	3

August

2024

SUN	MON	TUE	WED	THU	FRI	SAT
28	29	30	31	1	2	3
4	5	6	7	8	9	10
			BOR & Committees			
11	12	13	14	15	16	17
			BOI & Committees			
18	19	20	21	22	23	24
NCPERS Public Pension Funding Forum – Boston, MA August 18-20						
25	26	27	28	29	30	31

September

2024

SUN	MON	TUE	WED	THU	FRI	SAT
1	2	3	4	5	6	7
	Labor Day		BOR & Committees			
8	9	10	11	12	13	14
		BOI Offsite	BOI Offsite			
	CII Fall Conference – Brooklyn, NY - September 9 – 11					
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	1	2	3	4	5

October

2024

SUN	MON	TUE	WED	THU	FRI	SAT
29	30	1	2	3	4	5
BOR & Committees						
6	7	8	9	10	11	12
BOI & Committees						
Yom Kippur						
NACD Directors Summit – Washington, DC October 6-9						
13	14	15	16	17	18	19
Indigenous People's Day						
Investment Strategies & Portfolio Management – Pennsylvania October 14-18						
20	21	22	23	24	25	26
PREA Annual Investor Conference – Washington, DC October 23-25						
PPI Asia Roundtable – Hong Kong – October 23 - 25						
27	28	29	30	31	1	2
NCPERS Public Safety Conference – Palm Springs, CA October 27-30						

November

2024

SUN	MON	TUE	WED	THU	FRI	SAT
27	28	29	30	31	1	2
3	4	5	6	7	8	9
			BOR & Committees			
10	11 Veteran's Day	12	13 BOI & Committees	14	15	16
IFEBP Annual Employee Benefits Conference – San Diego, CA November 10-13						
17	18	19	20	21	22	23
24	25	26	27	28	29	30
				Thanksgiving Day	Thanksgiving Break	

December

2024

SUN	MON	TUE	WED	THU	FRI	SAT
1	2	3	4	5	6	7
			BOR & Committees			
8	9	10	11	12	13	14
			BOI & Committees			
15	16	17	18	19	20	21
22	23	24	25	26	27	28
			Christmas Day			
29	30	31	1	2	3	4

FOR INFORMATION ONLY

November 27, 2023

TO: Trustees – Board of Investments

FROM: Esmeralda del Bosque, Principal Investment Officer 
John Kim, Investment Officer 
Kathryn Ton, Sr. Investment Analyst 
Soniah Ginoyan, Sr. Investment Analyst 

FOR: December 13, 2023, Board of Investments Meeting

SUBJECT: **PRIVATE MARKET ANALYTICS PLATFORM SEARCH - UPDATE**

BACKGROUND

At the August Board of Investments ("BOI" or "Board") meeting, Trustees approved a private market analytics platform Request for Proposal ("RFP"). This memo is to update the Board on the status of that search.

As of September 30, 2023, LACERA's allocation to private markets assets was approximately \$35 billion of LACERA's \$72 billion total Fund. Given LACERA's significant allocation to private markets, staff noted that a private markets analytics provider could increase transparency and enhance the monitoring and reporting of those assets. The scope of work for the search was intentionally broad to recognize that analytic services for private market assets have developed extensively over the last several years. Specifically, the scope of work for the provider included private capital portfolio monitoring, performance measurement, and exposure management tools inclusive of ESG data.

DISCUSSION

The evaluation team ("Team") included eight investment office representatives from private markets, corporate governance, and portfolio analytics. Through its standard two-phase process, the Team evaluated responses that met the minimum qualifications. In phase one, the Team read and scored RFP responses and in phase two, the Team held virtual and in-house interviews, as well as analytics demonstrations with semi-finalist firms. In phase two, it became evident that the private market analytics platform would be better suited as a component to LACERA's broader risk management program. Consequently, the Team believes that the most prudent course of action is to pause the existing search in order to expand it to include a more comprehensive set of services. This broader RFP will be brought to the Board in early 2024. The aim would be to find a multi-asset class portfolio analytics and risk management solution that encompasses both private and public market assets, with an emphasis on ESG and climate data analytics.

Integrating the private markets analytics tool into a wider risk management solution is consistent with staff's intent to run an RFP for a total Fund risk measurement provider in 2024 given that LACERA's Procurement Policy allows for a review of service vendors every five years.

A consolidated RFP is expected to enhance the integration of data across all asset classes, improve analytics and risk measurement reporting, and streamline operations for the LACERA pension and OPEB Master Trust. The Team also anticipates that the expansion of the existing search to include private and public market analytics and risk management systems into a single unified RFP may provide LACERA greater negotiation leverage to arrive at contractual terms that, to the extent of economic benefit, would be most favorable and financially prudent for LACERA.

Moreover, if approved, this expanded search could offer an opportunity to reassess all current analytics services, with the potential to eliminate duplicative services, as well as explore specialized ESG and climate data analytics providers. Our existing agreements in these areas expire in 2025, and there has been significant evolution in the field since our last search, so an assessment of ESG and climate data analytics service providers as part of a broad risk system search is warranted.

CONCLUSION

By seeking to incorporate the private markets analytics platform RFP into a broader, multi-asset class risk measurement platform search, staff aims to find a comprehensive, tailored solution that strengthens LACERA's overall risk management framework. We expect to present revised minimum qualifications and scope of work criteria for the combined search in early 2024.

Attachment

Noted and Reviewed:



Jonathan Grabel
Chief Investment Officer

Private Market Analytics Platform - Request for Proposal

Dale Johnson - Investment Officer

John Kim - Investment Officer

Soniah Ginoyan - Senior Investment Analyst

Kathryn Ton - Senior Investment Analyst

Recommendation and Background



Recommendation

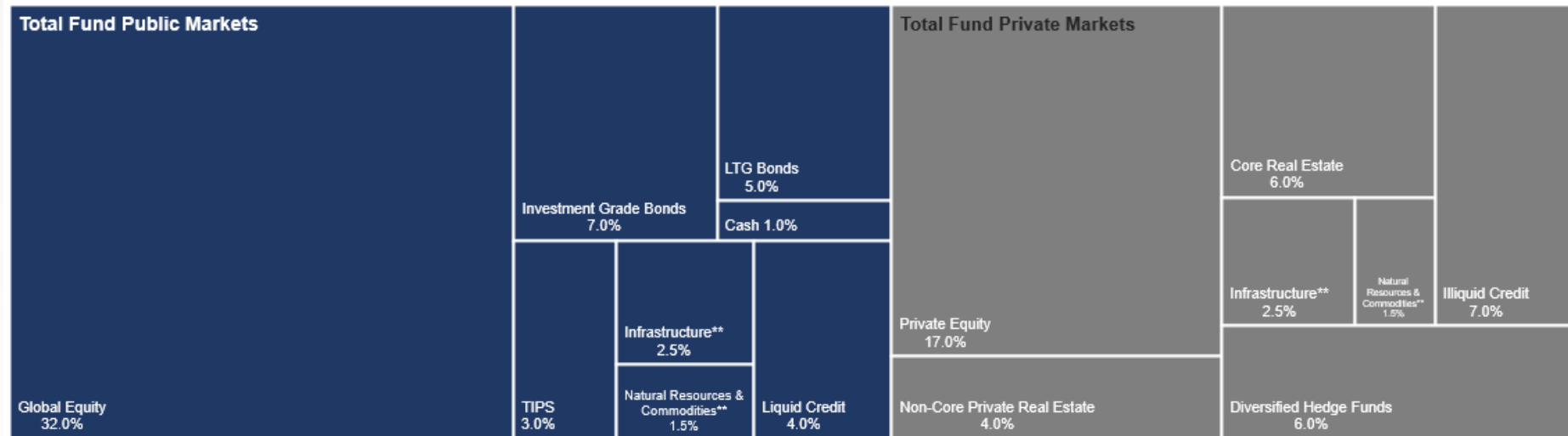
- Approve the proposed search criteria for a private market analytics platform Request for Proposal (“RFP”).

Background

- LACERA’s private market categories consist of private equity, illiquid credit, real estate, natural resources and commodities, infrastructure, and diversified hedge funds.¹
- The proposed search would be to select an analytics provider that has demonstrated experience in delivering private capital portfolio monitoring, performance measurement, and reporting to help LACERA improve oversight and manage operational risk.
- The search aims to facilitate monitoring of private market investments, including environmental, social, and governance (“ESG”) factors, as available.
- The search would elevate several of LACERA’s strategic initiatives.

¹ Natural resources and commodities and infrastructure consist of both public and private investments.

Private Markets Allocation*



Top Tree Map

LACERA's private markets is shaded in grey and accounts for approximately 44% (or \$32 billion) of the total Fund.



Bottom Tree Map

OPEB's private markets is shaded in grey and accounts for approximately 21% (or \$0.6 billion) of the Master Trust.

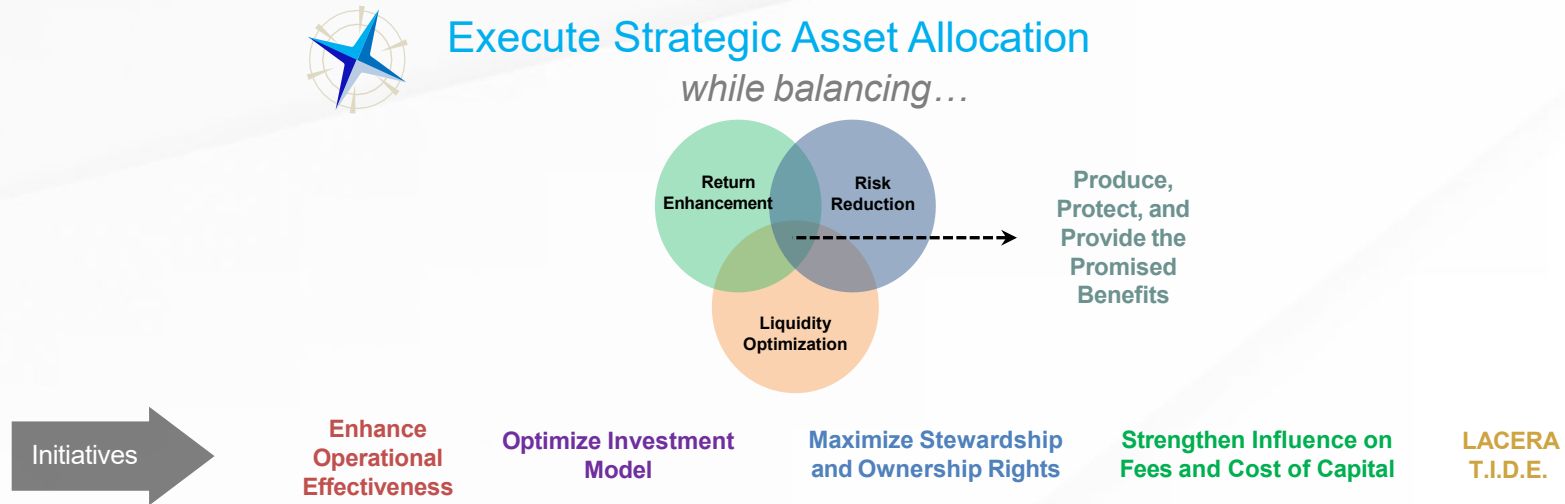
* Percentages shown represent current implementation plan targets as of June 30, 2023.

** Natural Resources & Commodities and Infrastructure consist of both public and private investments.

Strategic Considerations



Strategic Initiatives



Recommendation advances the following initiatives:

Enhance Operational Effectiveness

- Enhanced analytics and reporting.
- Improved asset transparency.
- Improvement of investment and operational due diligence.
- Optimize presentation and quality of information provided to the Board.

Optimize Investment Model

- Harness technology to maximize investment decision-making.
- Further cultivate an investor mindset.
- Enhanced transparency could aid the rebalancing process of private market portfolios.

Maximize Stewardship and Ownership Rights

- Institutionalize consistent ESG due diligence and monitoring across all mandates.
- Expand climate analysis to private markets.



1. Data Collection and Integration

- Gather and integrate monthly and quarterly reporting data from LACERA's fund managers across private markets.
- Reconcile and validate data from various vendors to ensure comparability and consistency.
- Record, classify, and calculate cashflows and commitments at the fund level.
- Collect private market ESG data, metrics, and key performance indicators (“KPIs”) where available and provide tools for modeling and scenario analysis as applicable.

2. Monitoring and Reporting Services

- Provide detailed reports at the manager and portfolio level.
- Deliver monthly and quarterly reports that include benchmarks, measures of return, performance multiples, transaction summaries, and peer comparisons.
- Track and analyze energy transition, climate, and other ESG exposures, data, and metrics over time.
- Create and run custom reports.

Minimum Qualifications



In order to be eligible, responding firms must meet the following Minimum Qualifications (“MQs”):

1. Service provider must have at least five (5) years of history providing portfolio monitoring, performance measurement, and reporting relating to private markets.
2. Must have experience providing a private market analytics system to institutional investors such as pension funds, endowments, or other large asset managers. The proposing firm must have at least five (5) such clients each overseeing assets in excess of \$5 billion.
3. Must include tools for analyzing LACERA’s private markets.
4. Must offer tools to collect and report private market portfolio holdings exposures, data, and metrics related to ESG factors.
5. Must offer technical support services including guidance in the configuration and use of the proposed product.
6. At least one key professional member of the firm assigned to the LACERA account must have a minimum of five (5) years of experience in assisting clients with the implementation of the system.

Evaluation Criteria



Firms that have met the stated MQs will be subject to further evaluations on the following criteria:

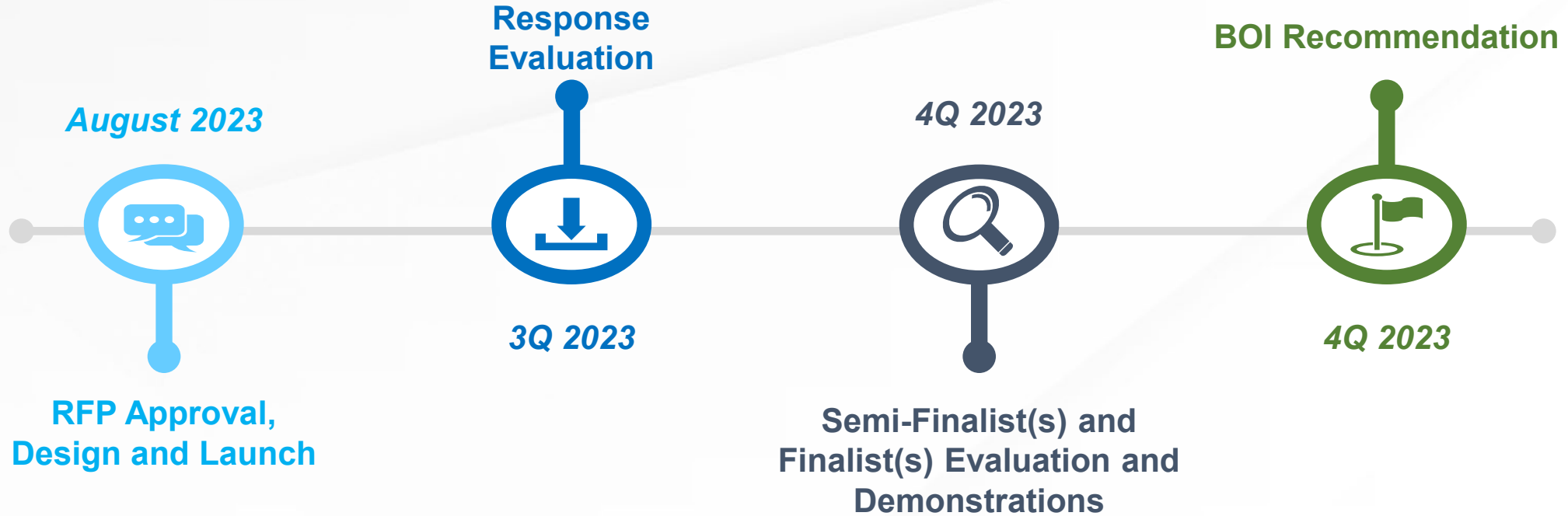
1. Organization and Professional Staff (20%)
2. Operational Process (25%)
3. Portfolio Monitoring and Reporting (25%)
4. ESG & Climate Analytics (20%)
5. Fees (10%)

Evaluation Process



- Proposed **Evaluation Team** includes multiple asset class representatives:
 - Portfolio Analytics, Corporate Governance, Private Equity, Illiquid Credit, Real Assets
- Evaluation Team will conduct the RFP process in **two phases**:
 - Phase I: Evaluation of written responses
 - Phase II: Candidate interviews
- The RFP **selection** will be made by LACERA's Board of Investments ("BOI").
- Final scores, evaluation review, and recommendation will be provided to the BOI.

Search Timeline






Recommendation

- Approve the proposed search criteria for a private market analytics platform RFP.
- The RFP will be to select an analytics provider that has demonstrated experience in providing private capital portfolio monitoring, performance measurement, and reporting.

FOR INFORMATION ONLY

December 1, 2023

TO: Trustees – Board of Investments

FROM: Esmeralda del Bosque, Principal Investment Officer 

FOR: December 13, 2023 Board of Investments Meeting

SUBJECT: **LACERA TOTAL FUND QUARTERLY PERFORMANCE BOOK**

Attached is LACERA's total Fund quarterly performance book as of September 30, 2023. The report contains both performance and risk sections utilizing data from our platform providers, Solovis and MSCI BarraOne, respectively.

Highlights for this quarter include the addition of fiscal year-to-date (“FYTD”) return columns in the total Fund and functional category sections as well as dedicated FYTD attribution pages for the total Fund.

Noted and Reviewed:



Jonathan Grabel
Chief Investment Officer

Attachments



Los Angeles County Employees Retirement Association

Investments Division

TOTAL FUND

**PERFORMANCE
REPORT**

For the quarter ended
September 30, 2023

A photograph of a cityscape at dusk. The California State Capitol building is the central focus, illuminated with warm lights. The sky is a mix of purple, pink, and blue. In the foreground, there are trees and a street with some traffic. The word 'review' is overlaid in a large, light blue, lowercase font across the bottom half of the image.

review

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01 TOTAL FUND

02 GROWTH

03 CREDIT

04 REAL ASSETS & INFLATION HEDGES

05 RISK REDUCTION & MITIGATION

06 PRIVATE MARKETS

07 EMERGING MANAGER PROGRAM

08 MANAGER SCORECARDS

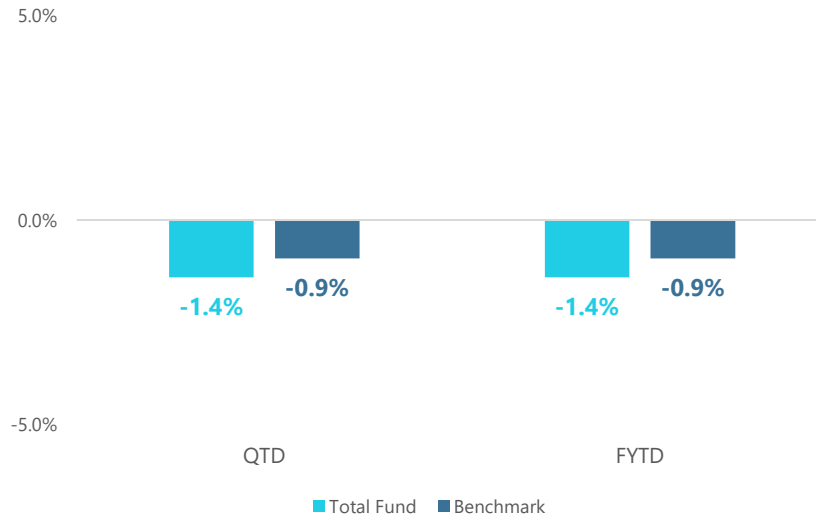
09 APPENDIX

total fund

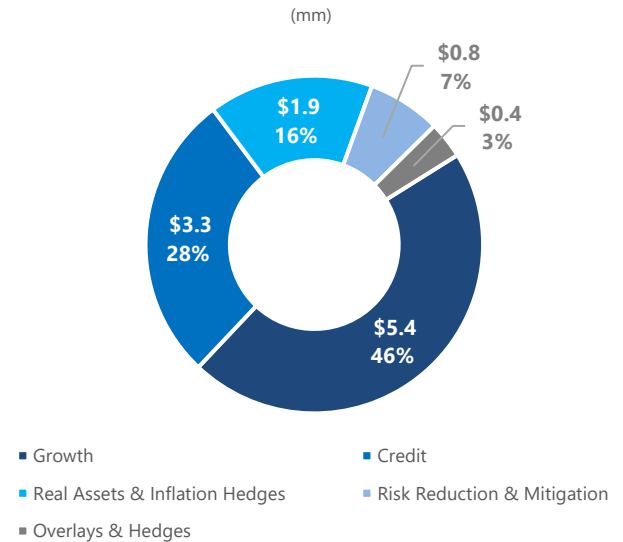
Quarterly Snapshot

for the quarter ended September 30, 2023

Performance (net)



Public Markets Fees¹



Ending Market Value

72,167

↓ -2%
from prior quarter

Sharpe Ratio²

0.8

↓ -27%
from prior quarter

Batting Average³

58%

↑ 25%
from prior quarter

Standard Deviation²

8.2

↓ -1%
from prior quarter

Tracking Error²

2.9

—
from prior quarter

¹ Reflects estimated investment management fees. Additional details found in the appendix.

² 3 Year Annualized.

³ Percentage of managers that outperformed their assigned benchmark for the quarter.

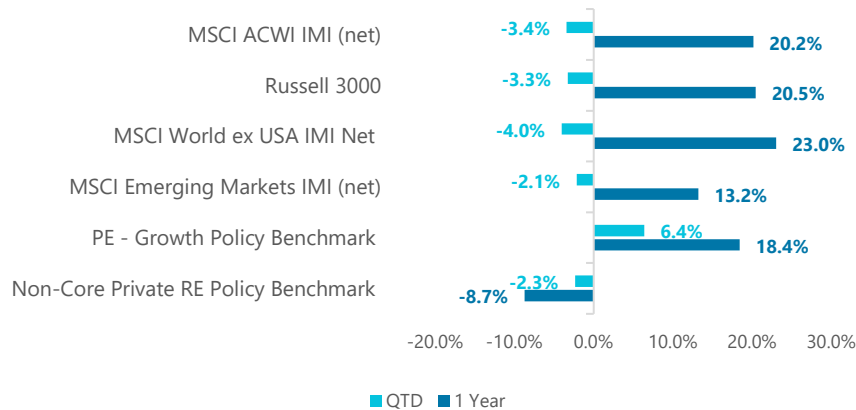
Market Environment

for the quarter ended September 30, 2023

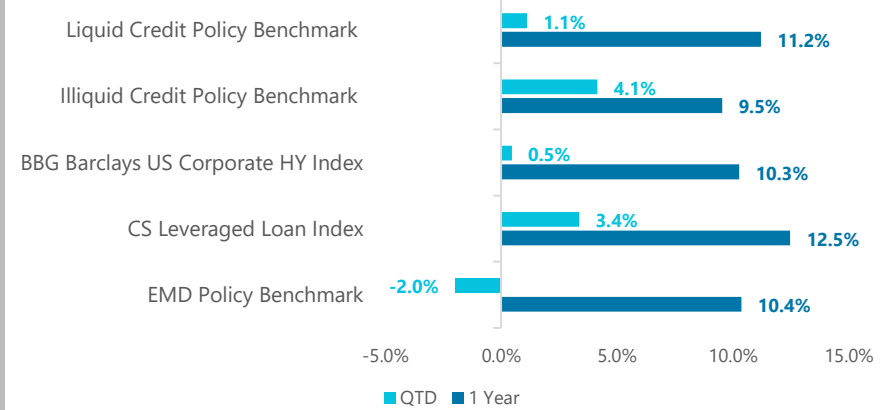


Los Angeles County Employees Retirement Association

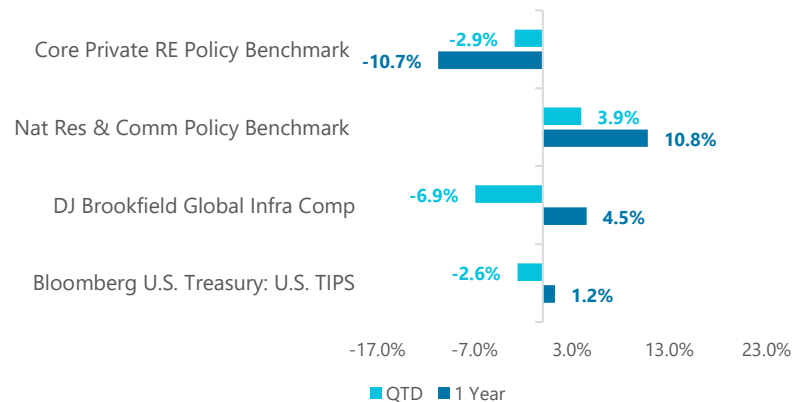
Growth



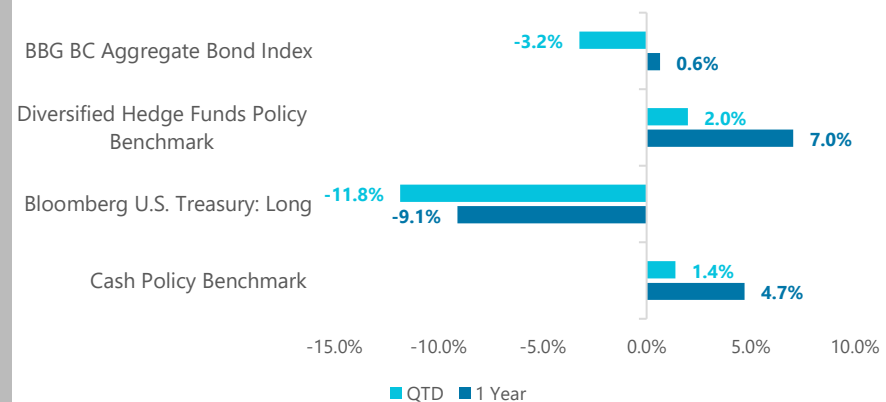
Credit



Real Assets & Inflation Hedges



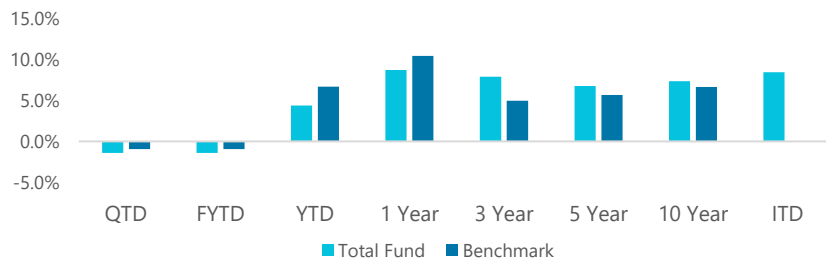
Risk Reduction & Mitigation



Summary

for the quarter ended September 30, 2023

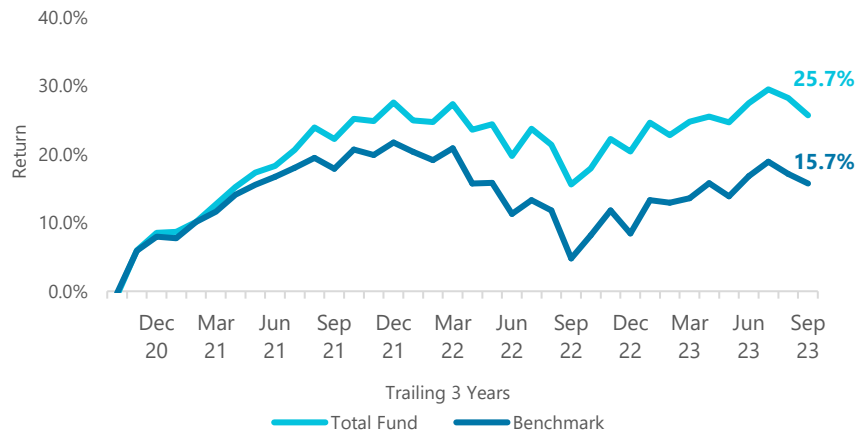
Performance (net)



	QTD	FYTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD
Total Fund	-1.4%	-1.4%	4.4%	8.7%	7.9%	6.8%	7.4%	8.5%
Benchmark	-0.9%	-0.9%	6.7%	10.5%	5.0%	5.7%	6.7%	--
Excess	-0.5%	-0.5%	-2.3%	-1.7%	2.9%	1.1%	0.7%	--

	FY23	FY22	FY21	FY20	FY19
Total Fund	6.4%	0.1%	25.2%	1.8%	6.4%
Benchmark	5.0%	-4.6%	23.1%	2.0%	8.6%

Cumulative Return

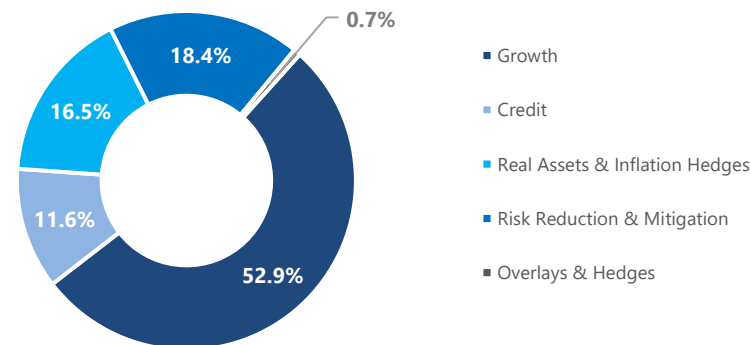


Functional Category¹

	QTD	FYTD	YTD	1 Year	3 Year
Growth	-1.6%	-1.6%	7.5%	14.0%	12.2%
Growth Policy Benchmark	-0.2%	-0.2%	13.3%	17.8%	8.9%
Excess	-1.4%	-1.4%	-5.8%	-3.8%	3.3%
Credit	3.1%	3.1%	9.2%	11.6%	6.1%
Credit Policy Benchmark	3.0%	3.0%	8.2%	10.2%	2.3%
Excess	0.0%	0.0%	1.1%	1.4%	3.9%
Real Assets & Inflation Hedges	-2.3%	-2.3%	-3.9%	-0.1%	8.4%
RA & IH Policy Benchmark	-2.8%	-2.8%	-5.4%	-0.3%	7.5%
Excess	0.5%	0.5%	1.5%	0.2%	0.9%
Risk Reduction & Mitigation	-3.2%	-3.2%	-0.8%	0.3%	-3.3%
RR & M Policy Benchmark	-3.7%	-3.7%	-0.7%	0.3%	-4.0%
Excess	0.4%	0.4%	-0.1%	0.0%	0.7%
Overlays & Hedges	13.0%	13.0%	68.8%	50.9%	--

¹ Cash Overlay composite returns reflect non-notionalized returns.

Exposure



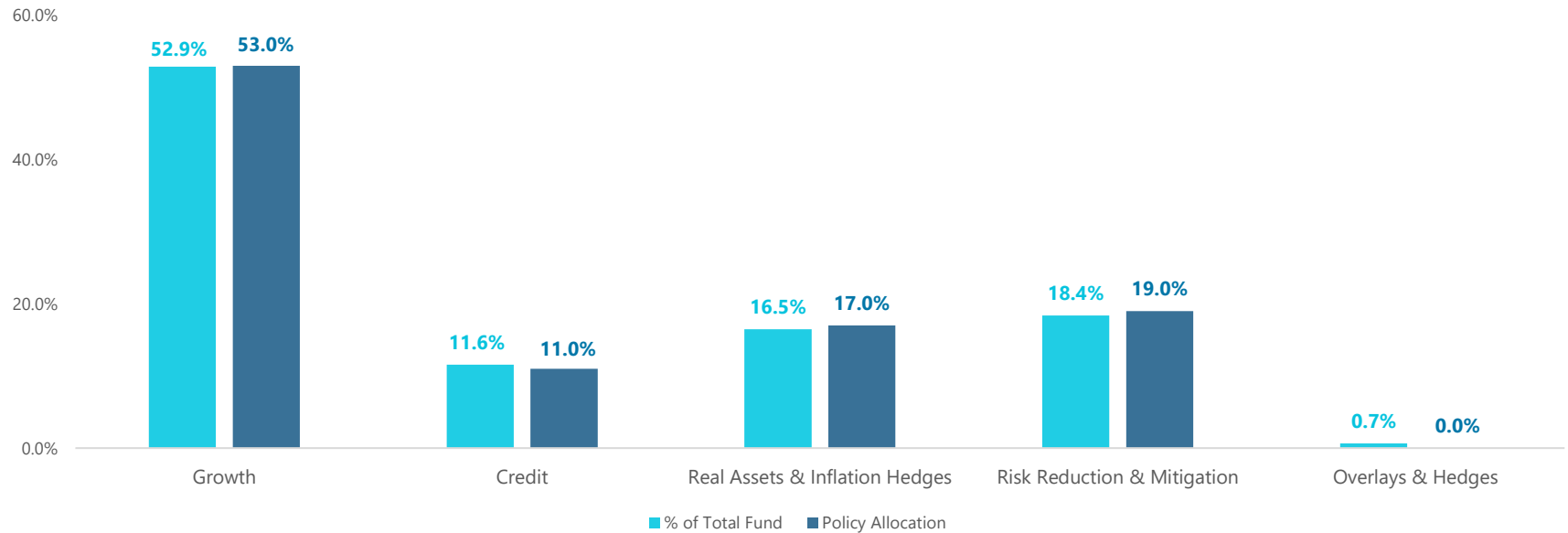
Asset Allocation

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Actual vs. Policy

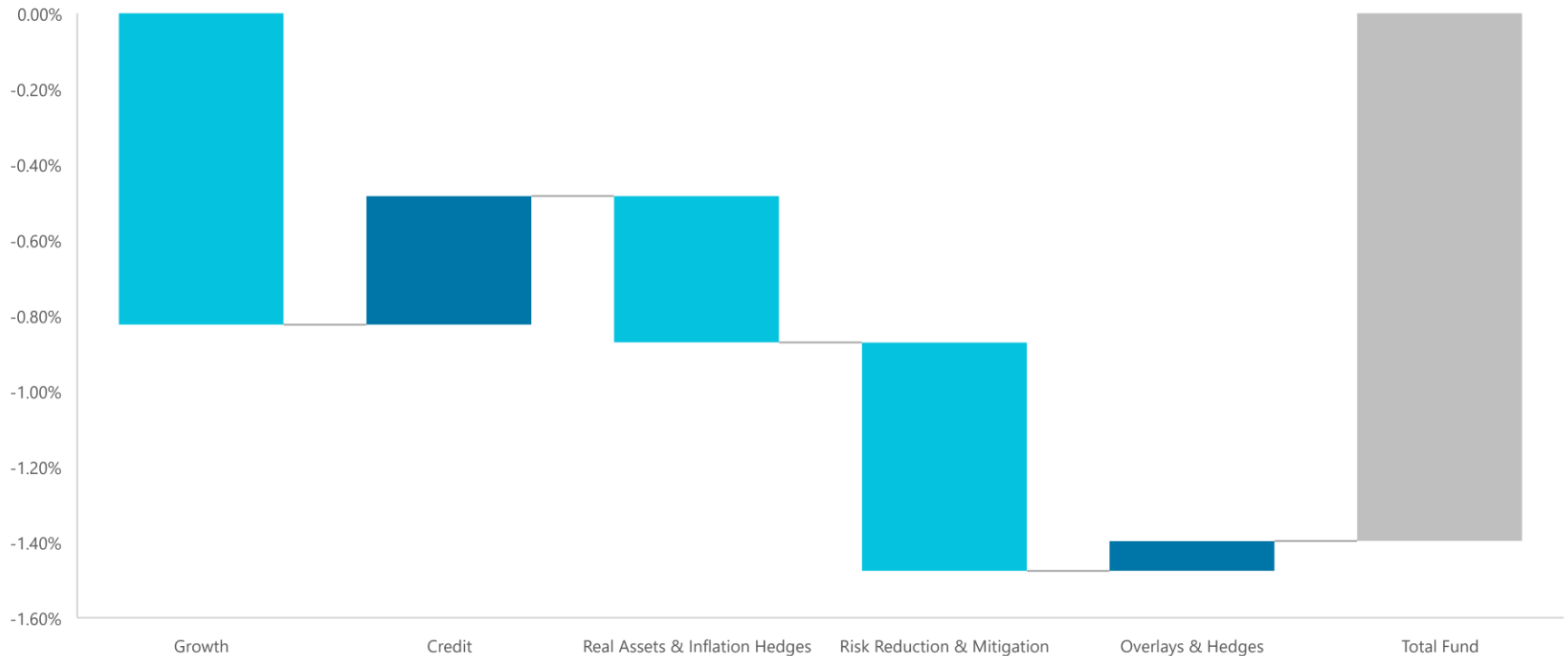


	Ending Market Value (mm)	% of Total Fund	Policy Allocation	Over/Under (%)	Over/Under (mm)
Total Fund	72,167	100.0%	100.0%		
Growth	38,154	52.9%	53.0%	-0.1%	-94
Credit	8,351	11.6%	11.0%	0.6%	413
Real Assets & Inflation Hedges	11,912	16.5%	17.0%	-0.5%	-356
Risk Reduction & Mitigation	13,268	18.4%	19.0%	-0.6%	-444
Overlays & Hedges	482	0.7%	0.0%	0.7%	482

Contribution to Return

for the quarter ended September 30, 2023

QTD/FYTD Contribution to Return



Functional Category	Contributors	Detractors
Growth	-0.83% Private Equity - Growth	0.27% SSGA MSCI ACWI IMI
Credit	0.34% Napier Park	0.08% BlackRock Long Treasury Bonds
Real Assets & Inflation Hedges	-0.39% Magnetar	0.06% Real Estate - Real Assets
Risk Reduction & Mitigation	-0.61% Lake Cascade	0.03% DWS Infrastructure
Overlays & Hedges	0.08% Credit Suisse Bank Loans	0.03% JPMAM Strategic Beta US
Total Fund	-1.40%	

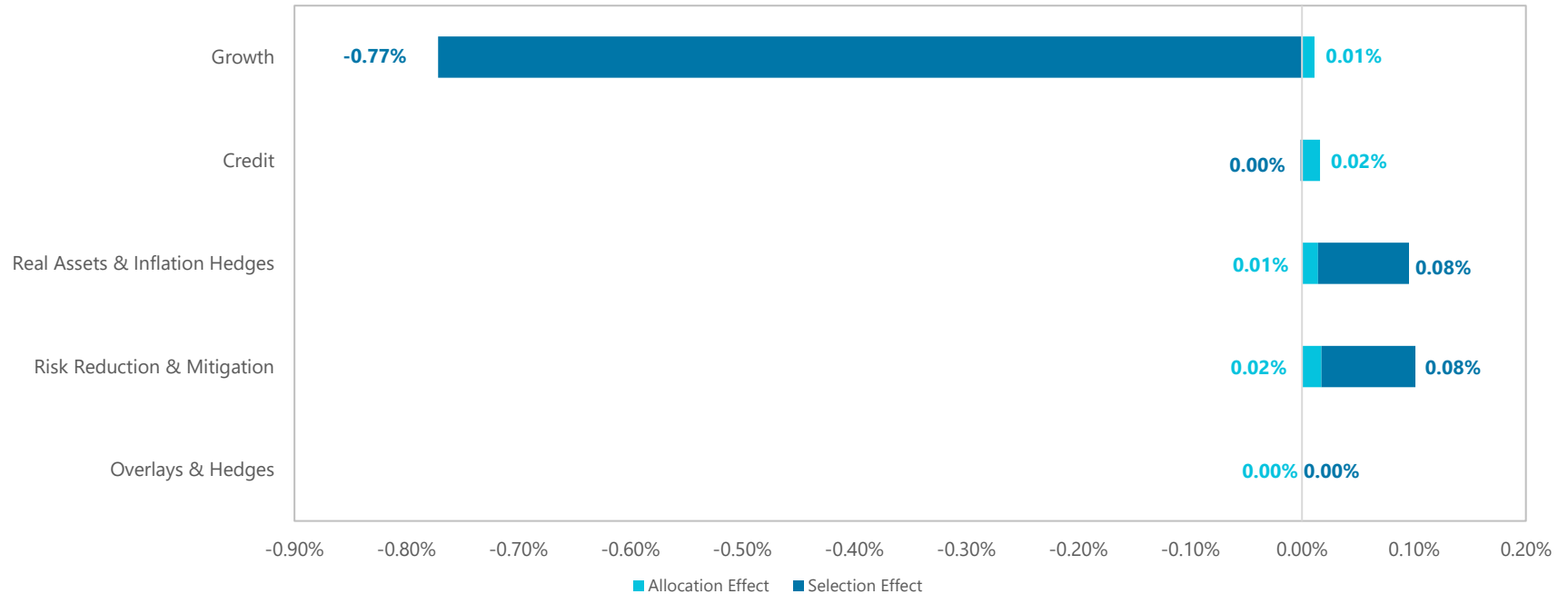
Return Attribution

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

QTD/FYTD Performance Attribution¹



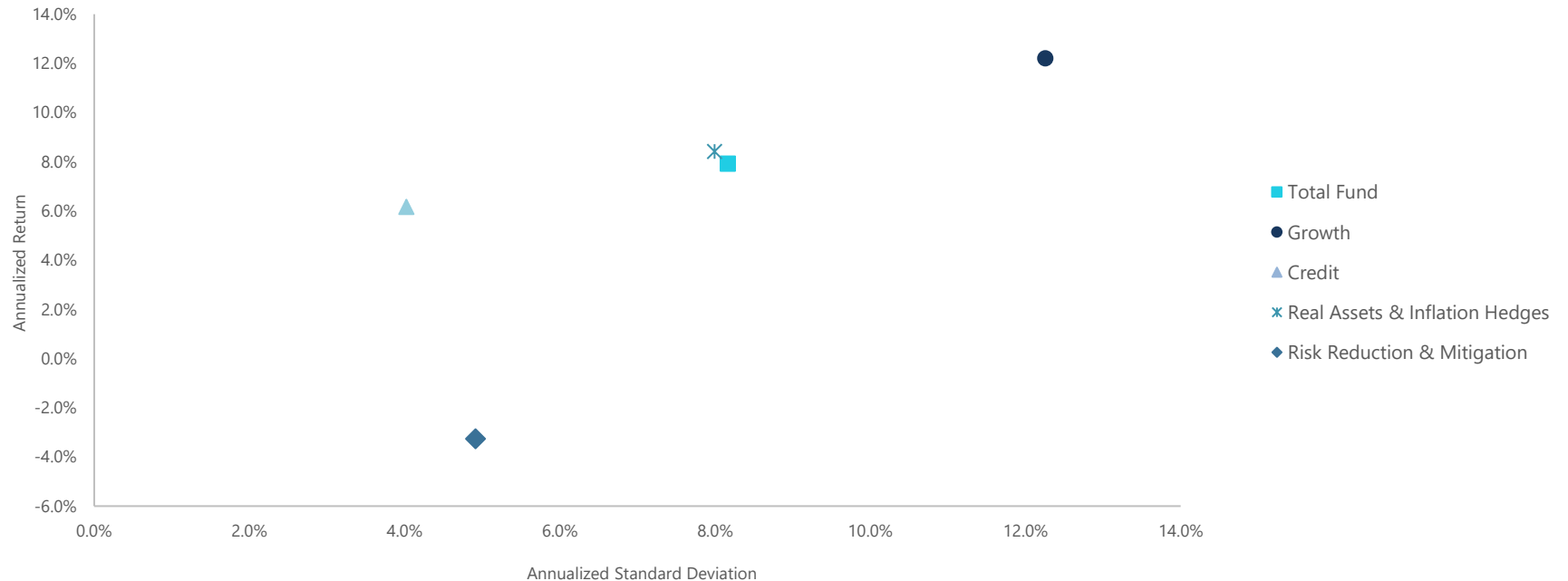
	Ending Market Value (mm)	% of Total Fund	Policy Allocation	Portfolio Return	Benchmark Return	Allocation Effect	Selection Effect	Total Value Add
Total Fund	72,167	100.0%	100.0%	-1.4%	-0.9%	0.07%	-0.53%	-0.46%
Growth	38,154	52.9%	53.0%	-1.6%	-0.2%	0.01%	-0.77%	-0.76%
Credit	8,351	11.6%	11.0%	3.1%	3.0%	0.02%	0.00%	0.01%
Real Assets & Inflation Hedges	11,912	16.5%	17.0%	-2.3%	-2.8%	0.01%	0.08%	0.10%
Risk Reduction & Mitigation	13,268	18.4%	19.0%	-3.2%	-3.7%	0.02%	0.08%	0.10%
Overlays & Hedges	482	0.7%	0.0%	13.0%	--	--	--	--

¹ Total Value Add column includes Interaction Effect.

Risk vs. Return

for the quarter ended September 30, 2023

3 Year (Annualized)¹



	Annualized Return	Standard Deviation	Sharpe Ratio	Information Ratio	Beta	Tracking Error
Total Fund	7.9%	8.2%	0.77	0.95	0.90	2.9%
Growth	12.2%	12.3%	0.87	0.56	0.86	5.2%
Credit	6.1%	4.0%	1.09	1.21	0.68	3.1%
Real Assets & Inflation Hedges	8.4%	8.0%	0.84	0.32	0.89	2.5%
Risk Reduction & Mitigation	-3.3%	4.9%	(1.00)	0.93	0.91	0.8%
Overlays & Hedges	125.0%	51.6%				

¹ Cash Overlay composite returns reflect non-notionalized returns.

Performance Detail

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Annualized Net Returns¹

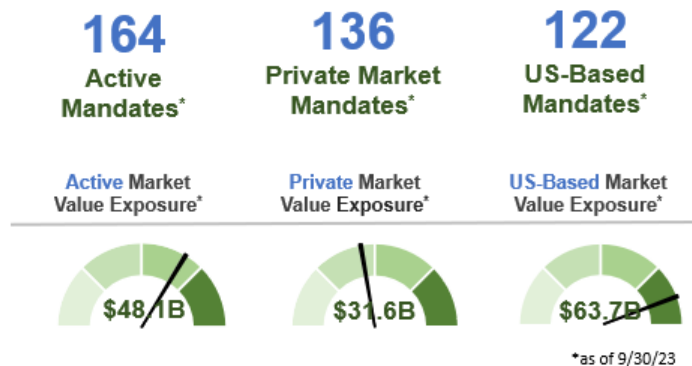
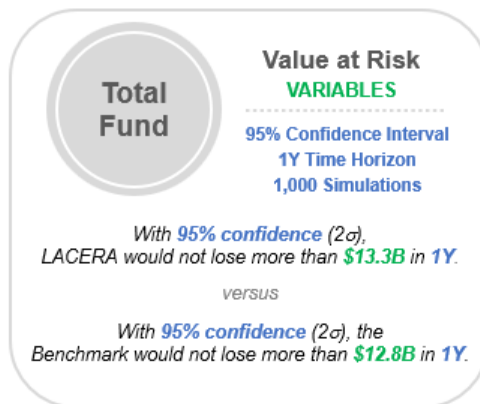
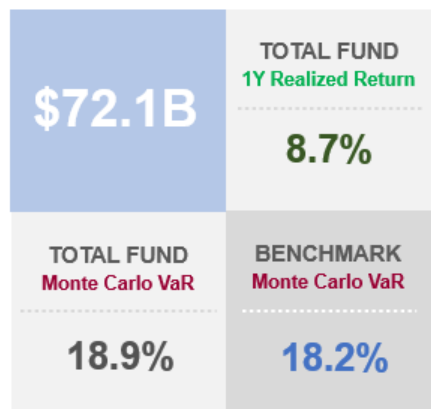
	% of Total Fund	Ending Market Value (mm)	Prior Quarter Ending MV (mm)	QTD	FYTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date
Total Fund	100.0%	72,167	73,569	-1.4%	-1.4%	4.4%	8.7%	7.9%	6.8%	7.4%	8.5%	Dec-1988
Total Fund Policy Benchmark				-0.9%	-0.9%	6.7%	10.5%	5.0%	5.7%	6.7%	--	
Growth	52.9%	38,154	39,155	-1.6%	-1.6%	7.5%	14.0%	12.2%	--	--	11.1%	Apr-2019
Growth Policy Benchmark				-0.2%	-0.2%	13.3%	17.8%	8.9%	--	--	9.3%	
Global Equity	32.4%	23,352	24,583	-3.2%	-3.2%	9.6%	20.6%	7.8%	--	--	8.0%	Apr-2019
Global Equity Policy Benchmark				-3.4%	-3.4%	9.4%	20.2%	6.9%	--	--	7.4%	
Private Equity - Growth	18.9%	13,625	13,428	1.4%	1.4%	4.6%	4.7%	22.8%	--	--	17.6%	Jan-2019
PE - Growth Policy Benchmark				6.4%	6.4%	26.2%	18.4%	13.2%	--	--	9.3%	
Non-Core Private Real Estate	1.6%	1,177	1,145	-1.4%	-1.4%	-3.9%	-2.1%	11.5%	10.2%	10.3%	4.5%	Jan-1996
Non-Core Private RE Policy Benchmark				-2.3%	-2.3%	-9.5%	-8.7%	9.7%	8.4%	10.8%	10.9%	
Credit	11.6%	8,351	8,297	3.1%	3.1%	9.2%	11.6%	6.1%	--	--	5.0%	Apr-2019
Credit Policy Benchmark				3.0%	3.0%	8.2%	10.2%	2.3%	--	--	3.4%	
Liquid Credit	4.3%	3,089	3,458	1.8%	1.8%	8.0%	12.2%	--	--	--	-0.4%	Oct-2021
Liquid Credit Policy Benchmark				1.1%	1.1%	6.9%	11.2%	--	--	--	--	
Illiquid Credit	7.3%	5,262	4,839	3.8%	3.8%	9.7%	9.6%	12.7%	--	--	9.9%	Apr-2019
Illiquid Credit Policy Benchmark				4.1%	4.1%	8.8%	9.5%	1.5%	--	--	5.0%	
Real Assets & Inflation Hedges	16.5%	11,912	12,050	-2.3%	-2.3%	-3.9%	-0.1%	8.4%	--	--	5.0%	Apr-2019
RA & IH Policy Benchmark				-2.8%	-2.8%	-5.4%	-0.3%	7.5%	--	--	5.3%	
Core Private Real Estate	5.4%	3,920	4,071	-4.0%	-4.0%	-11.7%	-10.2%	7.4%	4.9%	7.0%	6.9%	Oct-1985
Core Private RE Policy Benchmark				-2.9%	-2.9%	-11.0%	-10.7%	7.2%	5.9%	8.2%	6.7%	
Natural Resources & Commodities	3.0%	2,179	2,110	3.4%	3.4%	3.8%	8.4%	19.7%	7.2%	0.5%	-0.6%	Jul-2007
Nat Res & Comm Policy Benchmark				3.9%	3.9%	-1.1%	10.8%	18.1%	7.1%	-0.3%	-1.7%	
Infrastructure	5.5%	3,966	3,974	-3.5%	-3.5%	-1.0%	6.1%	7.3%	--	--	5.7%	Jun-2019
DJ Brookfield Global Infra Comp				-6.9%	-6.9%	-4.5%	4.5%	5.8%	--	--	1.8%	
TIPS	2.6%	1,847	1,896	-2.6%	-2.6%	-0.8%	1.3%	-2.0%	--	--	1.6%	May-2019
Bloomberg U.S. Treasury: U.S. TIPS				-2.6%	-2.6%	-0.8%	1.2%	-2.0%	--	--	1.7%	
Risk Reduction & Mitigation	18.4%	13,268	13,659	-3.2%	-3.2%	-0.8%	0.3%	-3.3%	--	--	0.3%	Apr-2019
RR & M Policy Benchmark (BMLACE)				-3.7%	-3.7%	-0.7%	0.3%	-4.0%	--	--	-0.3%	
Investment Grade Bonds	6.8%	4,883	5,044	-3.2%	-3.2%	-0.9%	0.9%	-5.1%	0.2%	1.5%	5.0%	Nov-1994
BBG BC Aggregate Bond Index				-3.2%	-3.2%	-1.2%	0.6%	-5.2%	0.1%	1.1%	4.5%	
Diversified Hedge Funds	6.5%	4,677	4,570	1.5%	1.5%	3.4%	4.9%	7.0%	--	--	6.3%	Apr-2019
Diversified Hedge Funds Policy Benchmark				2.0%	2.0%	5.6%	7.0%	4.2%	--	--	4.2%	
Long-Term Government Bonds	3.9%	2,792	2,962	-11.9%	-11.9%	-8.7%	-9.2%	--	--	--	-20.3%	Nov-2021
Bloomberg U.S. Treasury: Long				-11.8%	-11.8%	-8.6%	-9.1%	--	--	--	-21.0%	
Long Treasury Bonds Transition	0.0%	0	0	--	--	--	--	--	--	--	75.9%	Jun-2022
Bloomberg U.S. Treasury: Long				--	--	--	--	--	--	--	-14.1%	
Cash	1.3%	916	1,083	0.6%	0.6%	3.8%	5.1%	2.7%	2.4%	1.6%	1.9%	Jun-2001
Cash Policy Benchmark				1.4%	1.4%	3.8%	4.7%	1.8%	1.7%	1.2%	1.5%	
Overlays & Hedges	0.7%	482	407	13.0%	13.0%	68.8%	50.9%	--	--	--	125.0%	Oct-2021
Cash Overlay	0.5%	353	364	-15.1%	-15.1%	7.0%	49.1%	19.6%	--	--	0.7%	Aug-2019
Total Overlay Custom BM				-3.0%	-3.0%	5.6%	12.6%	3.0%	--	--	4.4%	
Currency Hedge	0.2%	129	43	1.7%	1.7%	2.4%	-0.9%	--	--	--	3.8%	Oct-2021
50% FX Hedge Custom Benchmark				1.7%	1.7%	2.4%	-0.9%	--	--	--	3.9%	

¹ Cash Overlay composite returns reflect non-notionalized returns.

Risk Summary

for the quarter ended September 30, 2023

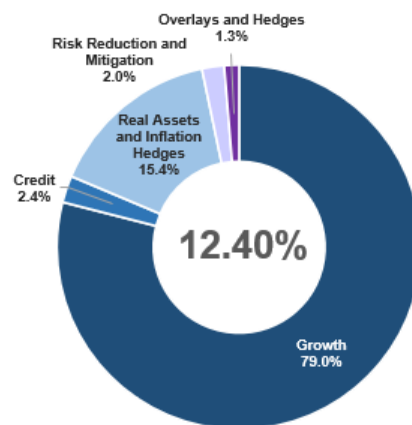
Realized (Ex-Post) Risks



Projected (Ex-Ante) Risks

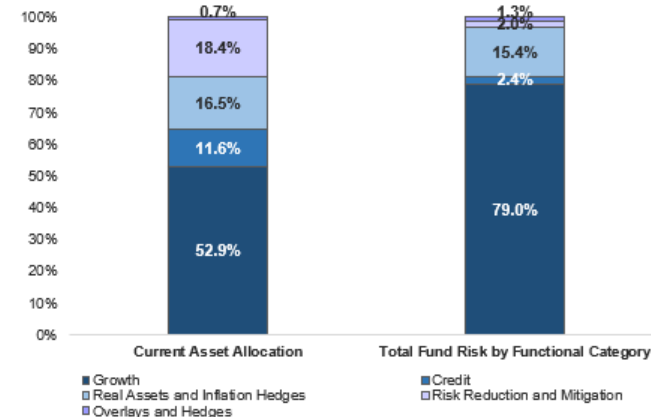


Functional Category Contributions to Total Fund Risk



Total Fund Asset Allocation

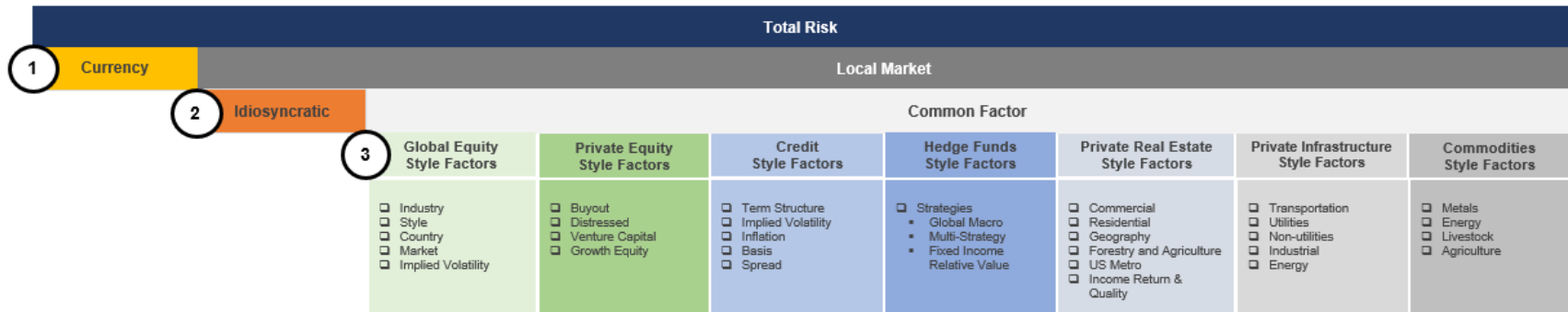
Capital-based versus Risk-based



Risk Summary

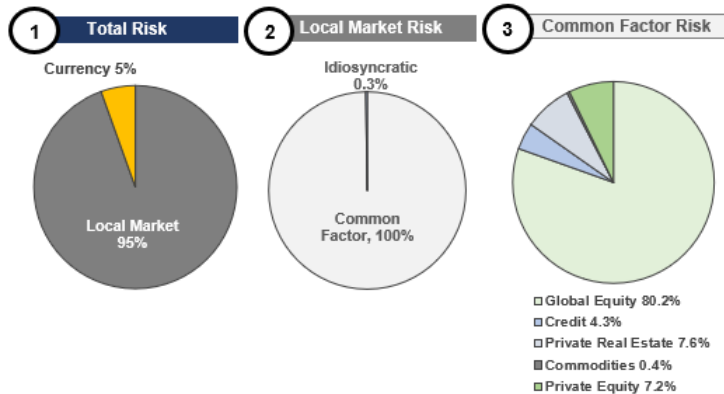
for the quarter ended September 30, 2023

Decomposition of MSCI Risk Factors



Total Fund Risk Decomposition

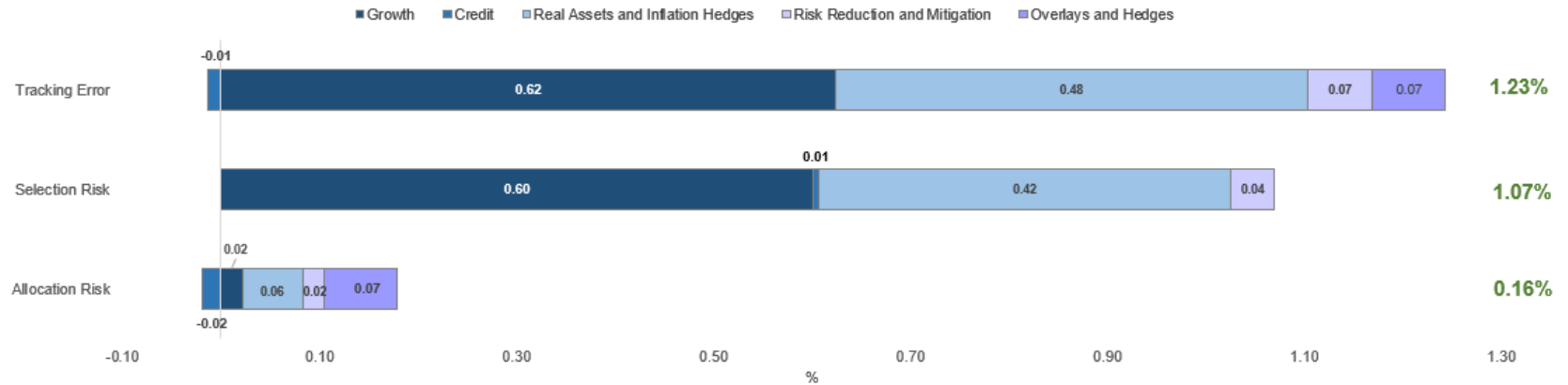
Total Fund Contribution by Risk Factor



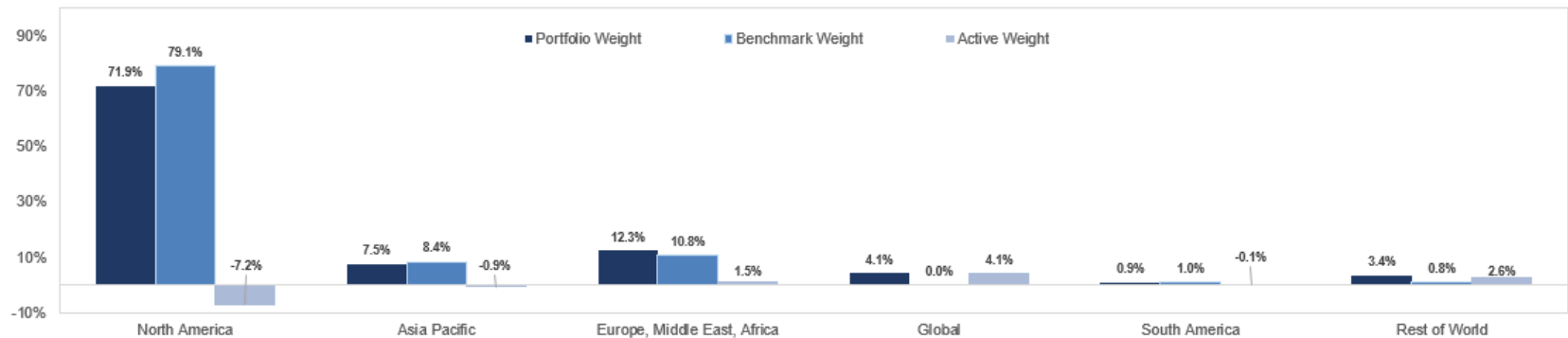
Risk Summary

for the quarter ended September 30, 2023

Functional Category Contributions to Tracking Error



Portfolio Allocation by Region^{1,2}



¹ Global represents investments made in regions where specific country allocations are not available.²

² Rest of World is sum of countries with weights below 0.5%.

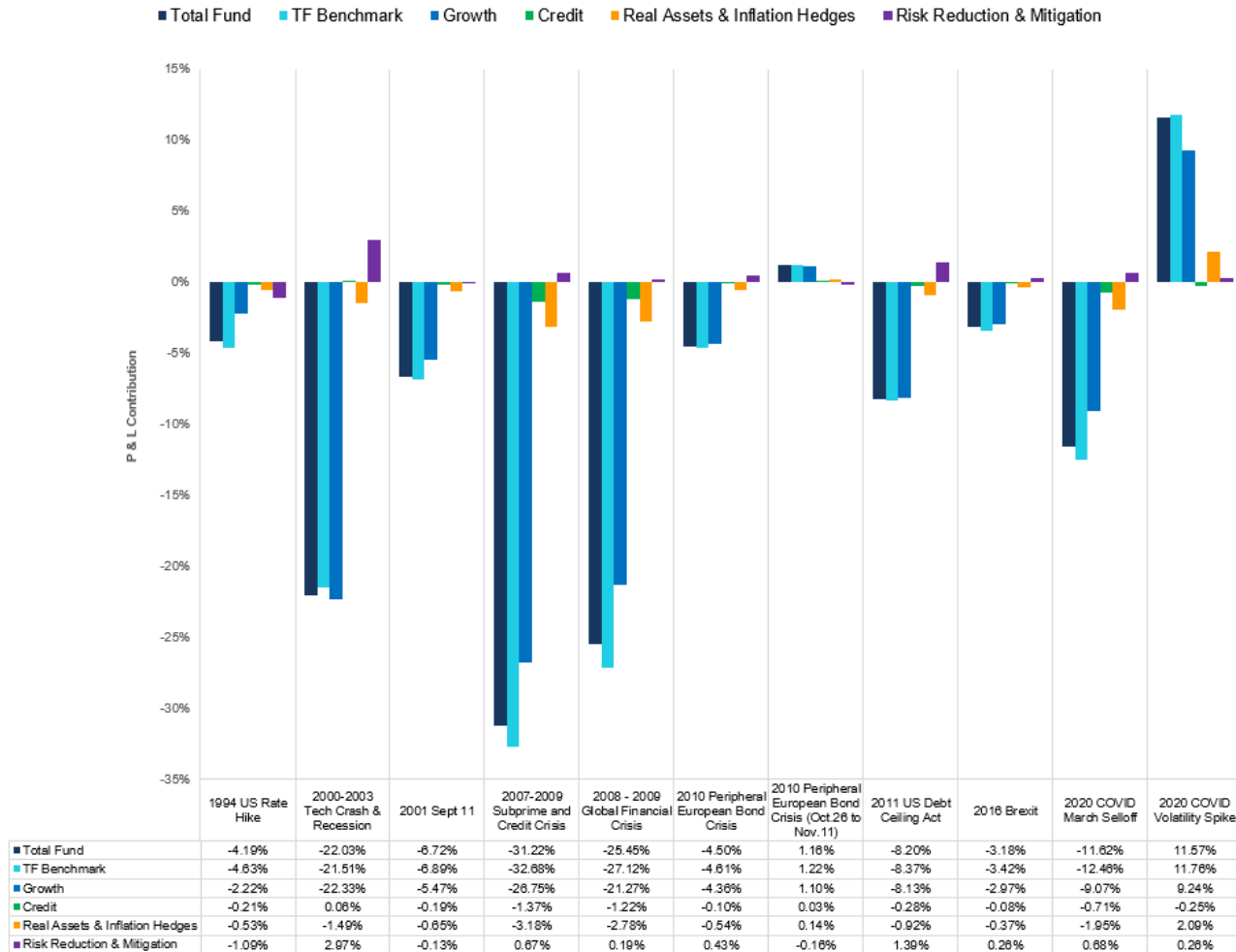
Stress Tests

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Scenarios by Asset Category



Stress Tests

for the quarter ended September 30, 2023

Historical Scenario	Description	Stock Market	Interest Rates	Bond Market	Commodity Market
1994 US Rate Hike	In combating inflation, the US Federal Reserve raised rates from 3.25% in February to 5.5% in November 1994.				
2000-2003 Tech Crash & Recession	Period of crisis and slowdown for technological firms due to a rapid jump in stock prices when tech bubble began to burst.				
2001 September 11th	The US stock market was closed for a week upon a series of coordinated suicide attacks upon the US on September 11, 2001.				
2008-2009 Global Financial Crisis	Major financial crisis starting with the failure of several US-based financial firms. Extended into 2009, when stock markets reached their lowest.				
2010 European Bond Crisis	During crisis, the liquidity access for peripheral countries was affected by budget deficits, high borrowing costs, and failing banking systems.				
2011 US Debt Ceiling Act	Political deadlock on appropriate level of US government spending and its impacts. Debt and equity markets experienced significant volatility.				
2016 Brexit	The referendum by British voters to exit the European Union roiled global markets causing the pound to fall to its lowest level in decades.				
2020 COVID March Selloff	Peak and Valley of the MSCI ACWI index when Covid became a Global Pandemic.				
2020 COVID Volatility Spike	Period it took for the Cboe Volatility Index (VIX) to revert to pre-pandemic levels.				

Market Trend Signals

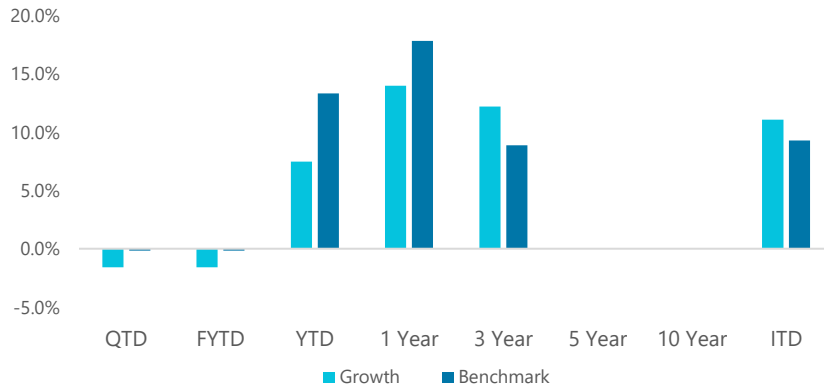
Slightly Up
 Neutral
 Down
 Slightly Down

growth

Summary

for the quarter ended September 30, 2023

Performance (net)



	QTD	FYTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD
Growth	-1.6%	-1.6%	7.5%	14.0%	12.2%	--	--	11.1%
Benchmark	-0.2%	-0.2%	13.3%	17.8%	8.9%	--	--	9.3%
Excess	-1.4%	-1.4%	-5.8%	-3.8%	3.3%	--	--	1.8%

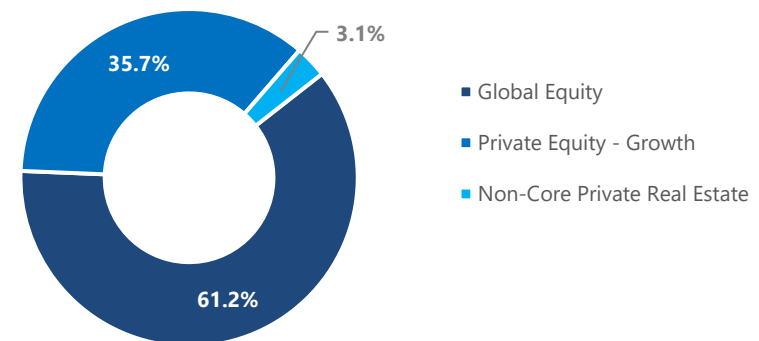
Cumulative Return



Functional Category

	QTD	FYTD	YTD	1 Year	3 Year
Global Equity	-3.2%	-3.2%	9.6%	20.6%	7.8%
Global Equity Policy Benchmark	-3.4%	-3.4%	9.4%	20.2%	6.9%
Excess	0.2%	0.2%	0.2%	0.4%	1.0%
Private Equity - Growth	1.4%	1.4%	4.6%	4.7%	22.8%
PE - Growth Policy Benchmark	6.4%	6.4%	26.2%	18.4%	13.2%
Excess	-5.0%	-5.0%	-21.6%	-13.7%	9.6%
Non-Core Private Real Estate	-1.4%	-1.4%	-3.9%	-2.1%	11.5%
Non-Core Private RE Policy Benchmark	-2.3%	-2.3%	-9.5%	-8.7%	9.7%
Excess	1.0%	1.0%	5.6%	6.6%	1.8%

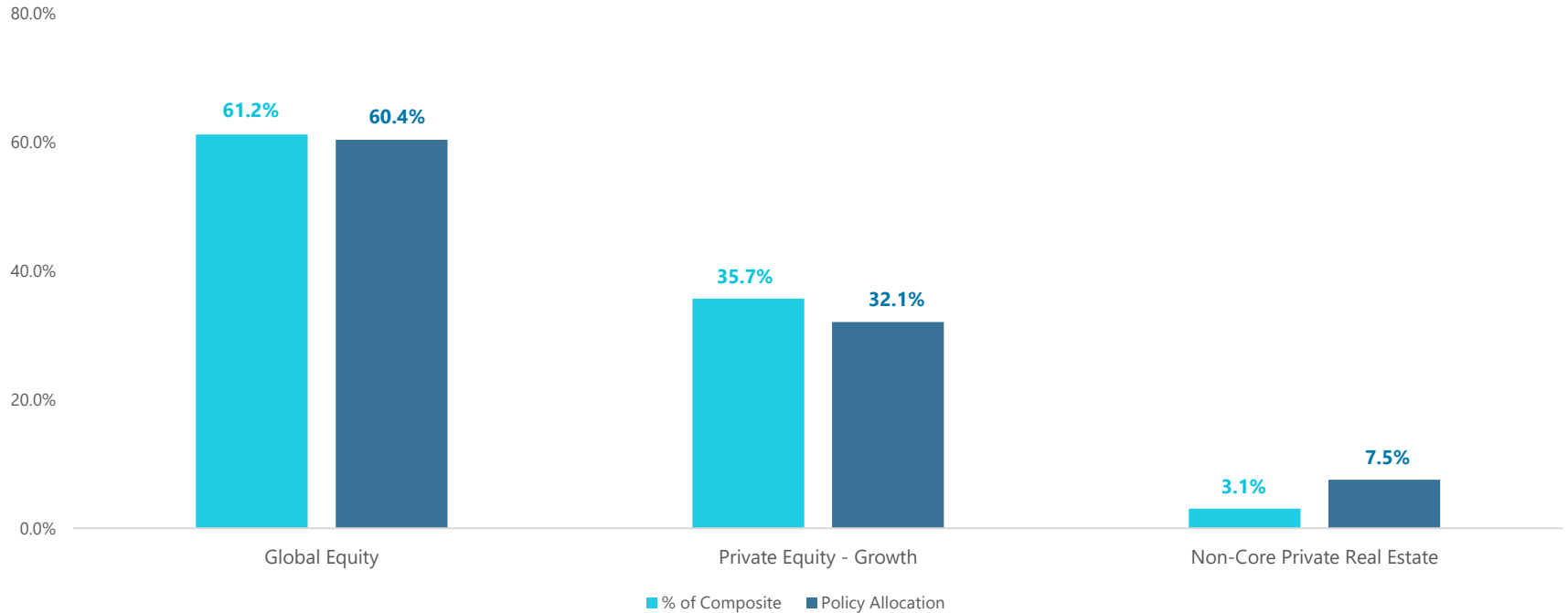
Exposure



Asset Allocation

for the quarter ended September 30, 2023

Actual vs. Policy

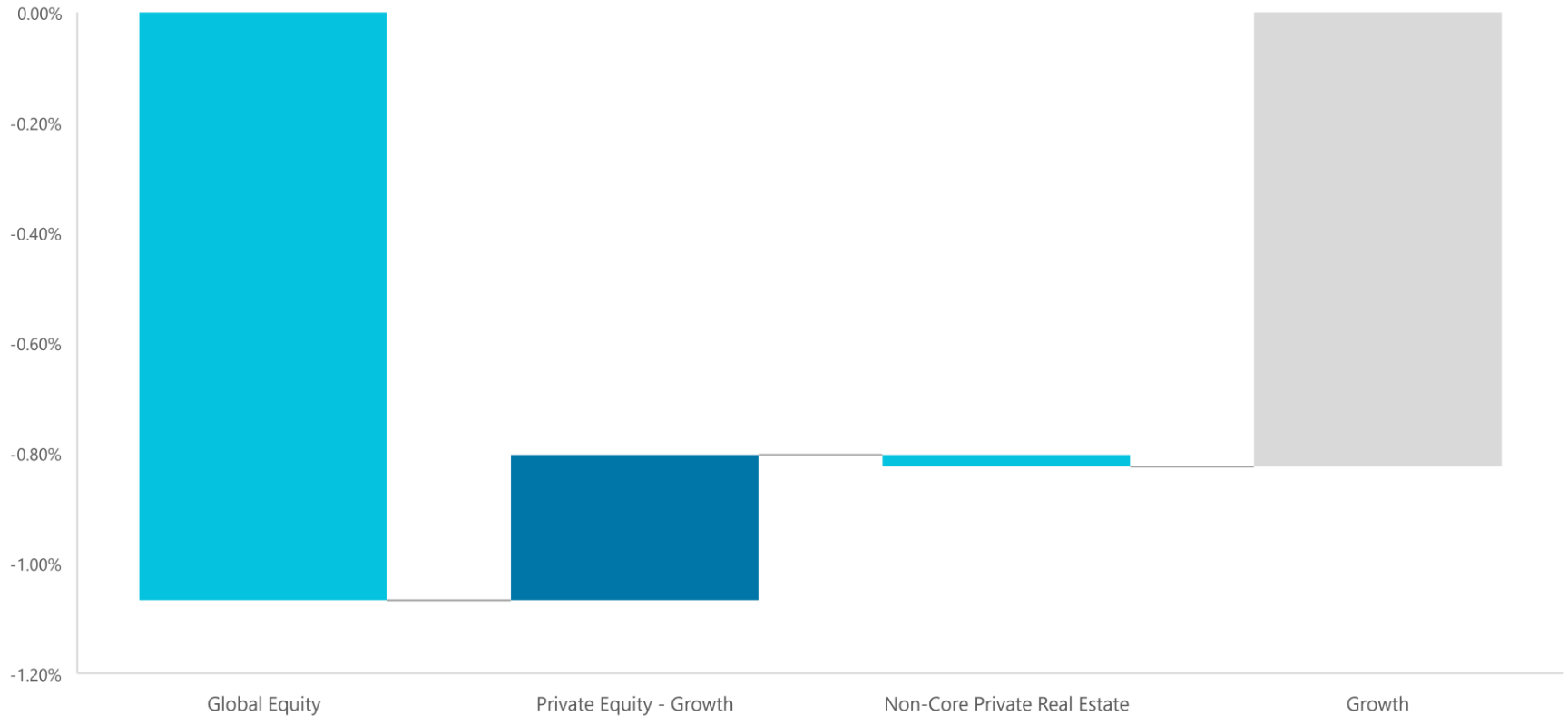


	Ending Market Value (mm)	% of Composite	Policy Allocation	Over / Under (%)	Over / Under (mm)
Growth	38,154	100.0%	100.0%		
Global Equity	23,352	61.2%	60.4%	0.6%	236
Private Equity - Growth	13,625	35.7%	32.1%	3.5%	1,339
Non-Core Private Real Estate	1,177	3.1%	7.5%	-4.5%	-1,704

Contribution to Return

for the quarter ended September 30, 2023

QTD Contribution to Return



Functional Category	Contributors	Detractors
Global Equity	-1.07%	Private Equity - Growth 0.27%
Private Equity - Growth	0.26%	Cevian Capital II - Activist 0.01%
Non-Core Private Real Estate	-0.02%	
Growth	-0.83%	SSGA MSCI ACWI IMI -0.71%
		JPMAM Strategic Beta US -0.19%

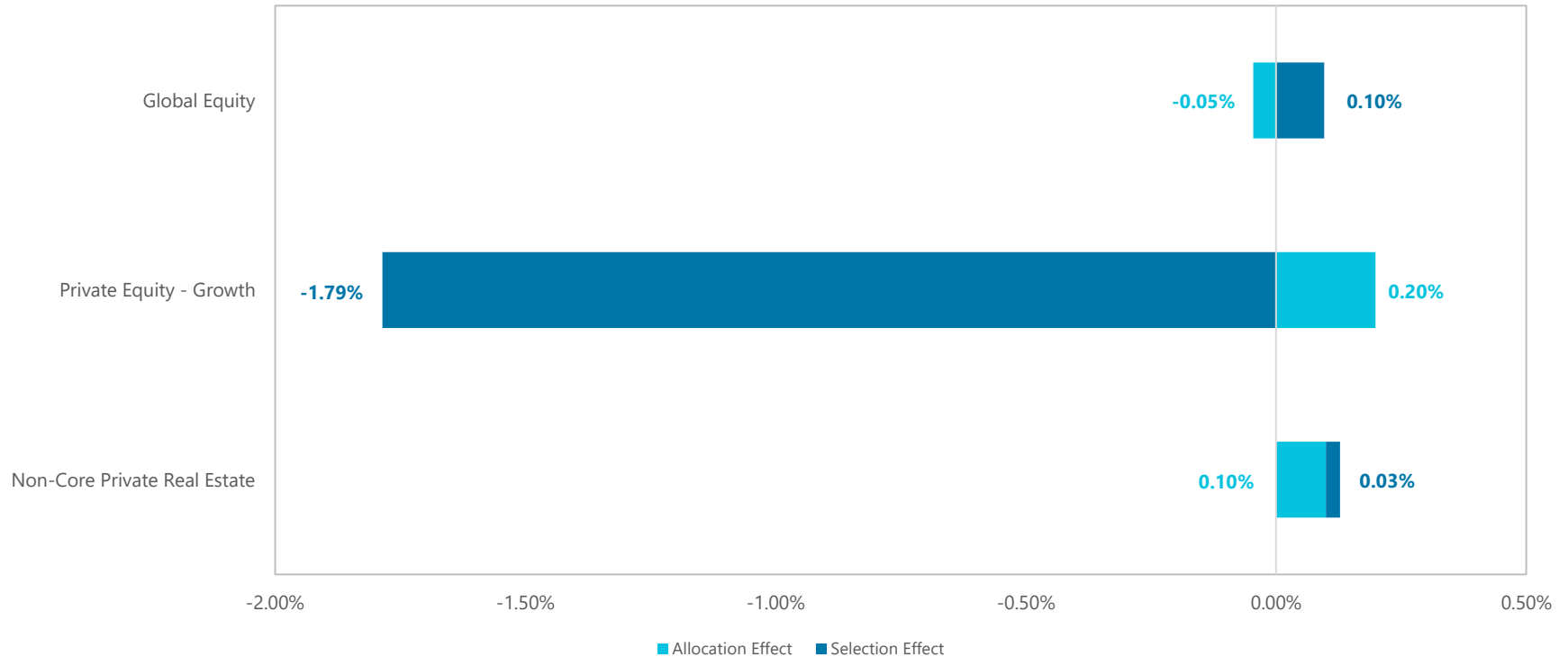
Return Attribution

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

QTD Performance Attribution¹



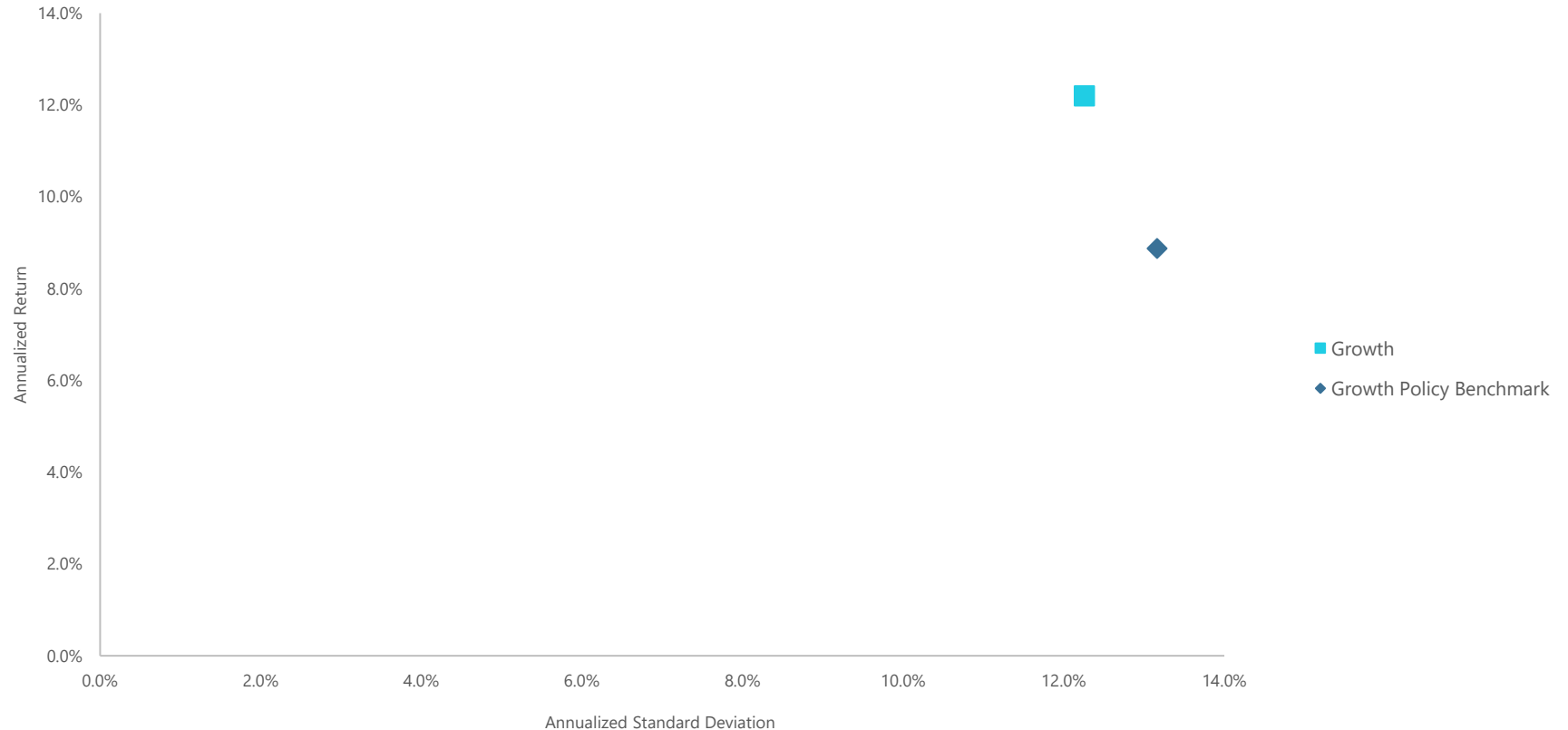
	Ending Market Value (mm)	% of Composite	Policy Allocation	Portfolio Return	Benchmark Return	Allocation Effect	Selection Effect	Total Value Add
Growth	38,154	100.0%	100.0%	-1.6%	-0.2%	0.25%	-1.66%	-1.41%
Global Equity	23,352	61.2%	60.4%	-3.2%	-3.4%	-0.05%	0.10%	0.05%
Private Equity - Growth	13,625	35.7%	32.1%	1.4%	6.4%	0.20%	-1.79%	-1.59%
Non-Core Private Real Estate	1,177	3.1%	7.5%	-1.4%	-2.3%	0.10%	0.03%	0.13%

¹ Total Value Add column includes Interaction Effect.

Risk vs. Return

for the quarter ended September 30, 2023

3 Year (Annualized)



	Annualized Return	Standard Deviation	Sharpe Ratio	Information Ratio	Beta	Tracking Error
Growth	12.2%	12.3%				
Growth Policy Benchmark	8.9%	13.2%	0.87	0.56	0.86	5.2%

Performance Detail

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Annualized Net Returns¹

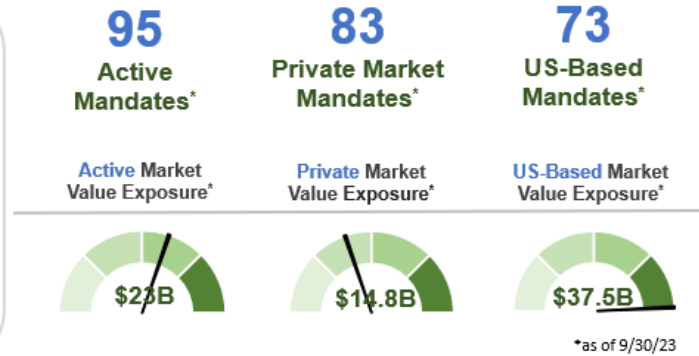
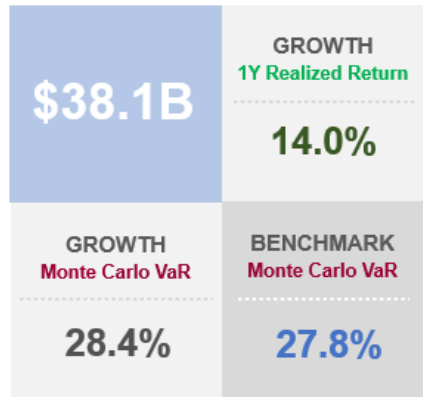
	% of Composite	Ending Market Value (mm)	Prior Quarter Ending MV (mm)	QTD	FYTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date
Growth	100.0%	38,154	39,155	-1.6%	-1.6%	7.5%	14.0%	12.2%	--	--	11.1%	Apr-2019
Growth Policy Benchmark				-0.2%	-0.2%	13.3%	17.8%	8.9%	--	--	9.3%	
Global Equity	61.2%	23,352	24,583	-3.2%	-3.2%	9.6%	20.6%	7.8%	--	--	8.0%	Apr-2019
Global Equity Policy Benchmark				-3.4%	-3.4%	9.4%	20.2%	6.9%	--	--	7.4%	
Passive												
SSGA MSCI ACWI IMI	39.2%	14,947	15,868	-3.4%	-3.4%	9.5%	20.6%	7.5%	--	--	6.1%	Jan-2020
Factor Based												
JPMAM Strategic Beta Non-US	1.5%	582	600	-3.0%	-3.0%	5.8%	20.7%	5.0%	--	--	5.2%	Aug-2020
JPMAM Strategic Beta US	11.8%	4,519	4,656	-3.0%	-3.0%	13.0%	21.6%	10.3%	--	--	12.6%	Jul-2020
Active												
Acadian Developed Markets	1.5%	573	586	-2.2%	-2.2%	2.2%	17.3%	5.5%	3.5%	6.2%	4.3%	Apr-2006
BTC Euro Tilts	1.5%	580	608	-4.6%	-4.6%	9.8%	30.5%	10.2%	5.6%	5.6%	3.7%	Jan-2007
Cevian Capital II - Activist	1.2%	457	452	1.1%	1.1%	14.8%	25.7%	16.6%	8.0%	--	9.0%	Oct-2016
CGT International Equity	1.0%	382	414	-7.7%	-7.7%	4.8%	23.1%	-0.4%	3.9%	4.8%	5.2%	Nov-1994
Cornercap US Small Cap - EMP	0.2%	81	82	-1.8%	-1.8%	-0.1%	10.9%	16.5%	6.1%	--	6.1%	Oct-2018
Frontier US SMID Growth	0.7%	282	303	-6.9%	-6.9%	10.3%	22.5%	11.4%	5.5%	8.5%	9.8%	Jun-2002
Global Alpha	0.4%	167	176	-5.3%	-5.3%	0.7%	15.9%	2.6%	--	--	3.7%	Nov-2018
Lazard Emerging Markets	1.0%	367	381	-3.9%	-3.9%	-0.4%	14.0%	-1.1%	2.4%	3.0%	1.9%	Feb-2013
Parametric GE Market Cap	0.5%	184	173	3.1%	3.1%	35.3%	26.4%	--	--	--	17.3%	Oct-2021
Parametric GE Region	0.0%	16	56	-15.2%	-15.2%	-39.0%	-48.0%	--	--	--	-33.0%	Dec-2021
Systematic US Small Cap Value	0.5%	196	199	-1.2%	-1.2%	5.4%	17.8%	16.6%	5.6%	--	5.6%	Jul-2018
Private Equity - Growth	35.7%	13,625	13,428	1.4%	1.4%	4.6%	4.7%	22.8%	--	--	17.6%	Jan-2019
PE - Growth Policy Benchmark				6.4%	6.4%	26.2%	18.4%	13.2%	--	--	9.3%	
Non-Core Private Real Estate	3.1%	1,177	1,145	-1.4%	-1.4%	-3.9%	-2.1%	11.5%	10.2%	10.3%	4.5%	Jan-1996
Non-Core Private RE Policy Benchmark				-2.3%	-2.3%	-9.5%	-8.7%	9.7%	8.4%	10.8%	10.9%	

¹ Excludes Parametric GE offset accounts.

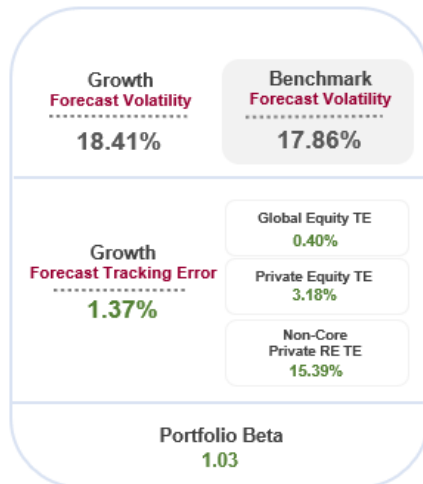
Growth Risk Summary

for the quarter ended September 30, 2023

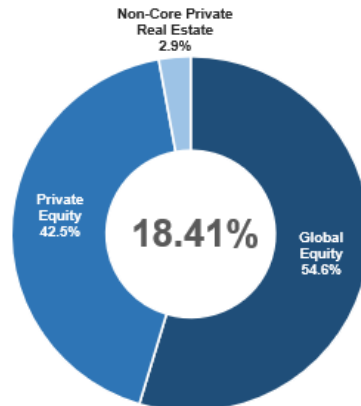
Realized (Ex-Post) Risks



Projected (Ex-Ante) Risks

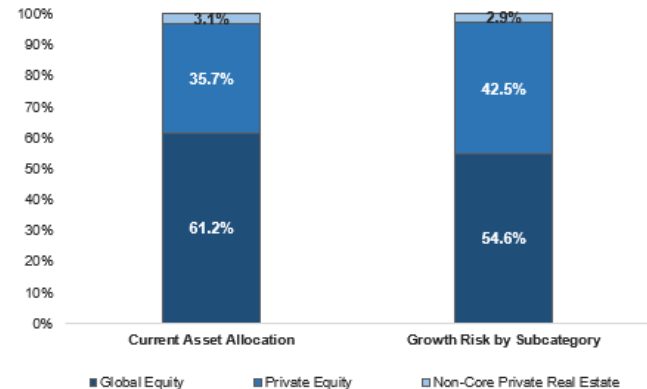


Subcategory Contributions to Growth Risk



Growth Asset Allocation

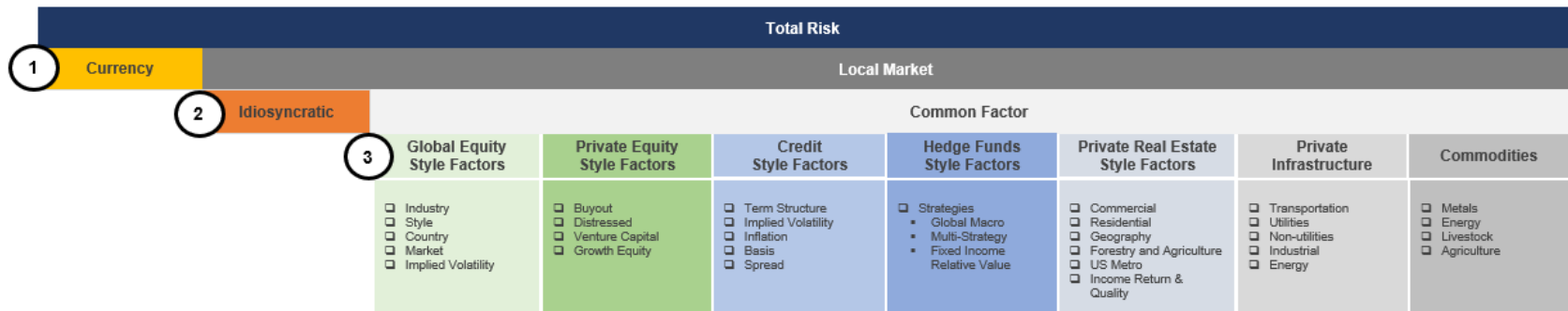
Capital-based versus Risk-based



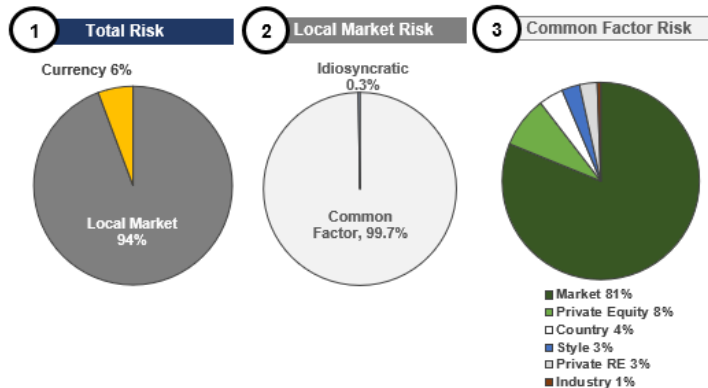
Growth Risk Summary

for the quarter ended September 30, 2023

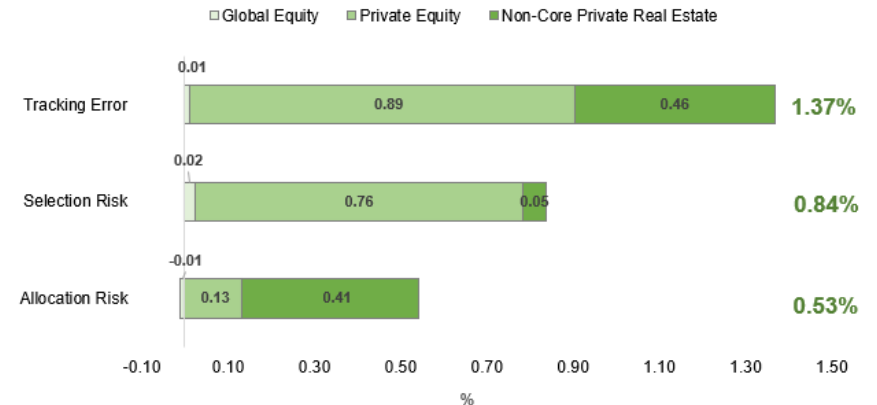
Decomposition of MSCI Risk Factors



Growth Risk Decomposition



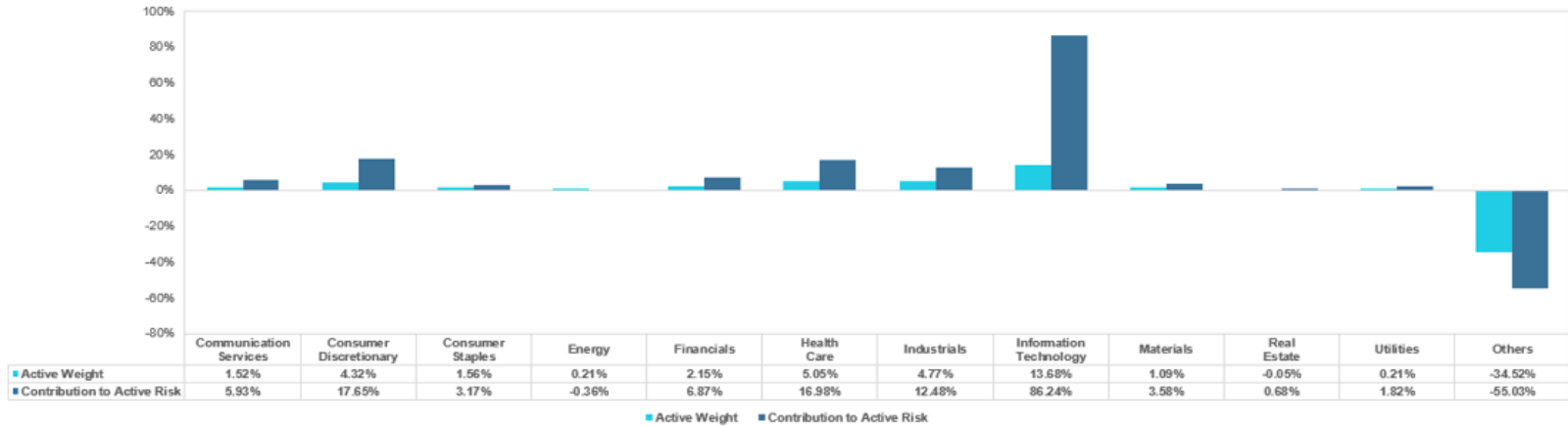
Subcategory Contributions to Tracking Error



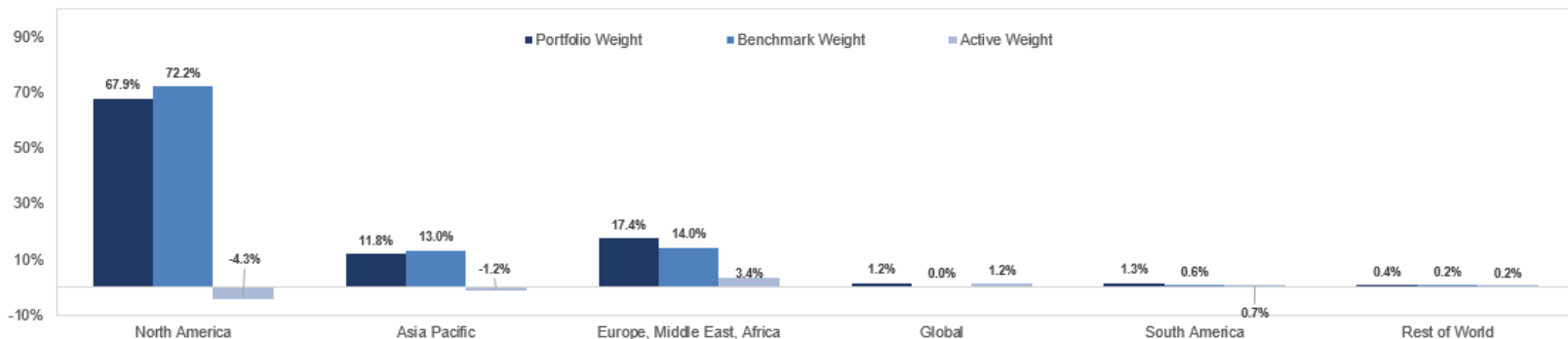
Growth Risk Summary

for the quarter ended September 30, 2023

Portfolio Allocation by GICS Sector



Portfolio Allocation by Region^{1,2}



¹ Global represents investments made in regions where specific country allocations are not available.

² Rest of World is sum of countries with weights below 0.5%.

Growth – Global Equity Acadian Developed Markets

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Strategy

Seeks to capture mispriced opportunities through systematic stock, sector, and country valuation models that are customized to each market. The strategy may be suited to investors looking to gain exposure in non-U.S. developed markets and diversify portfolio through active quantitative investment approach.

Inception Date: April 2006

Portfolio Characteristics

	Portfolio	Benchmark
Market Cap Wtd Average (mm)	61,185.8	76,954.7
No. Of Issues	673.0	0.0
Dividend Yield	4.0	3.2
Return on Equity	22.3	18.3
Price to Sales	0.8	1.3
Price to Book	1.6	1.7
PE Ratio	10.3	14.5

Top Holdings (% of assets)

NOVO NORDISK A/S B	3.5%
INDUSTRIA DE DISENO TEXTIL	2.4%
BP PLC SPONS ADR	2.4%
WOLTERS KLUWER	2.1%
STELLANTIS NV	1.9%
Top 5 Holdings	12.4%

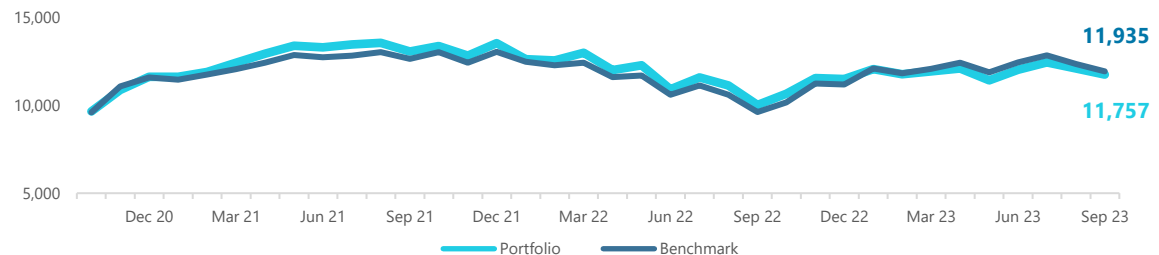
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Acadian Developed Markets	572.6	-2.2%	17.3%	5.5%	3.5%
MSCI EAFE + Canada Net Index		-4.1%	24.0%	6.1%	3.4%
Growth Policy Benchmark		-0.2%	17.8%	8.9%	--

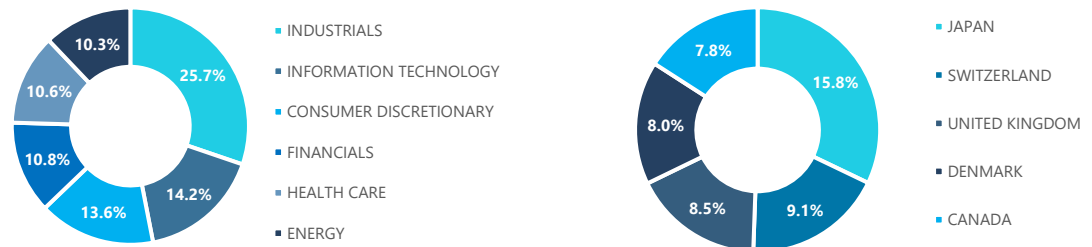
Universe data: Intl/Global Equity Funds - Core	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Acadian Developed Markets	-2.1%	21	17.7%	68	5.9%	56	3.9%	57
Median	-3.3%		20.9%		7.1%		4.4%	

No. of Observations 52

Growth of \$10,000



Top Exposures (% of assets)²



¹ Universe data is gross-of-fees.

² Charts display top exposures and may not add up to 100%.

Growth Risk Analysis – Global Equity

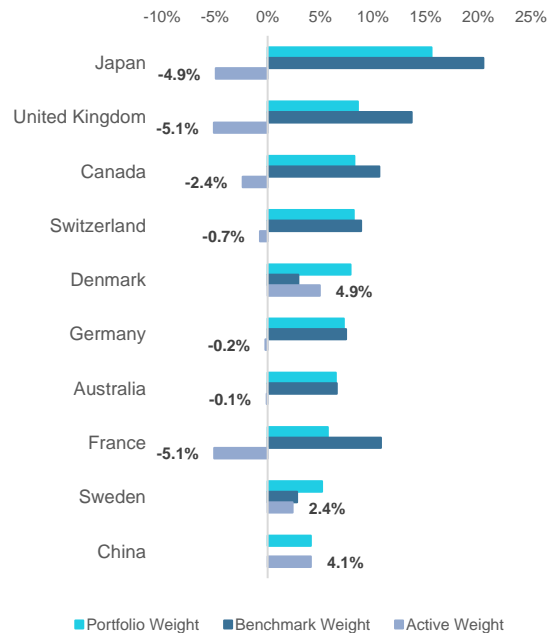
Acadian Developed Markets

for the quarter ended September 30, 2023

Portfolio Risk Summary

PORTFOLIO Forecast Volatility	BENCHMARK Forecast Volatility
17.2%	16.7%
PORTFOLIO Forecast Tracking Error	PORTFOLIO Beta
3.5%	1.01

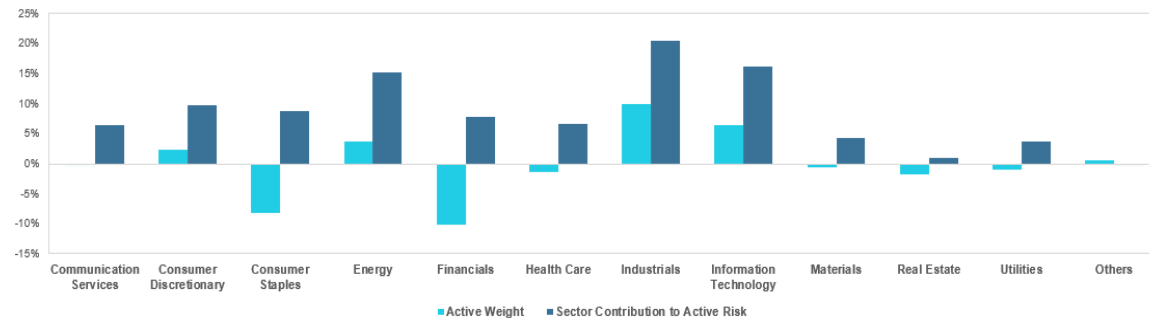
Top 10 Countries by Weight



Top 10 Assets by Contribution to Portfolio Active Risk

Asset	Portfolio Weight	Benchmark Weight	Active Weight	Contribution to Portfolio Active Risk
MEG ENERGY CORP	0.98%	0.00%	0.98%	0.17%
BP PLC	2.43%	0.00%	2.43%	0.13%
AP MOLLER MAERSK	1.44%	0.00%	1.44%	0.10%
NESTLE SA	0.00%	1.83%	-1.83%	0.09%
SPOTIFY TECHNOLOGY SA	1.17%	0.00%	1.17%	0.09%
ATLISSIAN CORP	0.86%	0.00%	0.86%	0.09%
NOVO NORDISK A/S	3.54%	1.81%	1.74%	0.08%
WIX.COM LTD	0.78%	0.03%	0.75%	0.08%
BLUESCOPE STEEL LTD	1.07%	0.03%	1.03%	0.08%
MONDAY.COM LTD	0.65%	0.02%	0.63%	0.08%

Portfolio Allocation by GICS Sector



Growth – Global Equity BTC Europe Alpha Tilts

for the quarter ended September 30, 2023

Strategy

Seeks to generate risk-controlled and consistent active returns by using a unique blend of bottom-up stock selection insights and broader top-down thematic insights. The strategy may be suited to investors looking to capture active return opportunities in European region.

Inception Date: January 2007

Portfolio Characteristics

	Portfolio	Benchmark
Market Cap Wtd Average (mm)	102.7	97.6
No. Of Issues	156.0	0.0
Dividend Yield	3.9	3.4
Return on Equity	19.7	21.9
Price to Sales	2.9	3.3
Price to Book	4.2	4.8
PE Ratio	12.8	14.2

Top Holdings (% of assets)

NESTLE SA REG	4.5%
NOVARTIS AG REG	3.6%
ASTRAZENECA PLC	3.4%
NOVO NORDISK A/S B	2.8%
SAP SE	2.7%
Top 5 Holdings	17.0%

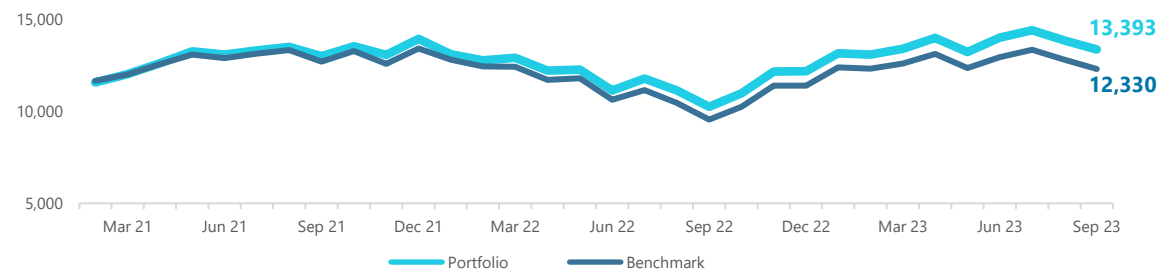
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
BTC Euro Tilts	579.8	-4.6%	30.5%	10.2%	5.6%
MSCI EUROPE		-5.0%	28.8%	7.2%	4.0%
Growth Policy Benchmark		-0.2%	17.8%	8.9%	--

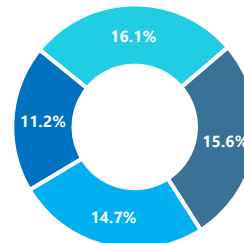
Universe data: Intl Equity Developed Mkt Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
BTC Euro Tilts	-4.5%	63	30.5%	17	10.5%	17	5.9%	16
Median	-3.6%		22.8%		5.6%		3.7%	

No. of Observations: 176

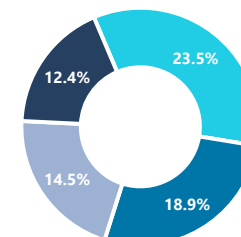
Growth of \$10,000



Top Exposures (% of assets)²



- INDUSTRIALS
- HEALTH CARE
- FINANCIALS
- CONSUMER STAPLES



- UNITED KINGDOM
- FRANCE
- SWITZERLAND
- GERMANY

¹ Universe data is gross-of-fees.

² Charts display top exposures and may not add up to 100%.

Growth Risk Analysis – Global Equity

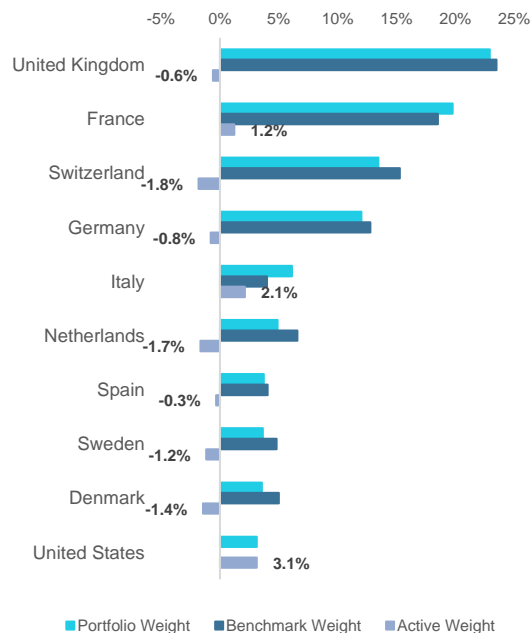
BTC Europe Alpha Tilts

for the quarter ended September 30, 2023

Portfolio Risk Summary

PORTFOLIO Forecast Volatility	BENCHMARK Forecast Volatility
18.1%	18.6%
PORTFOLIO Forecast Tracking Error	PORTFOLIO Beta
1.7%	0.97

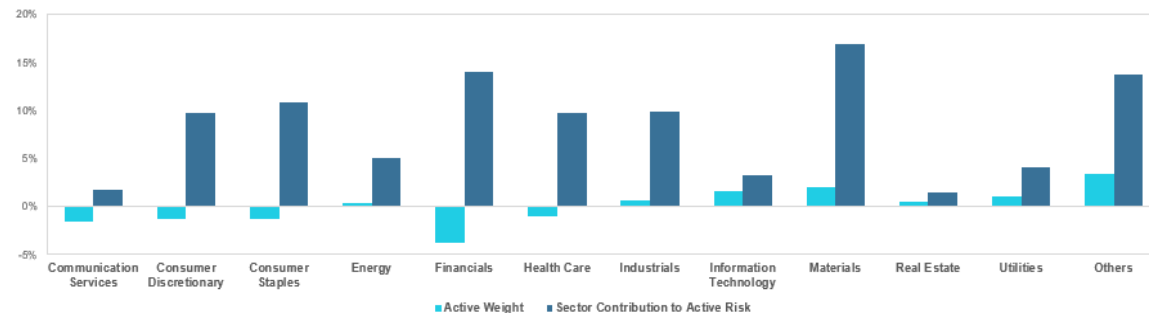
Top 10 Countries by Weight



Top 10 Assets by Contribution to Portfolio Active Risk

Asset	Portfolio Weight	Benchmark Weight	Active Weight	Contribution to Portfolio Active Risk
ASML HOLDING NV	0.00%	2.48%	-2.48%	0.18%
EQUINOR ASA	1.75%	0.31%	1.44%	0.14%
ARCELORMITTAL SA	1.37%	0.13%	1.23%	0.08%
CARREFOUR SA	1.36%	0.11%	1.26%	0.07%
BRITISH AMERICAN TOBACCO PLC	2.07%	0.70%	1.37%	0.06%
ENGIE	1.75%	0.29%	1.45%	0.06%
NOVARTIS AG	3.64%	2.19%	1.45%	0.05%
RIO TINTO PLC	1.62%	0.74%	0.88%	0.05%
HOLCIM AG	1.79%	0.35%	1.44%	0.04%
TESCO PLC	1.64%	0.24%	1.40%	0.04%

Portfolio Allocation by GICS Sector



Growth – Global Equity Capital Group Developed Markets

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Strategy

Seeks to generate long-term capital appreciation through fundamental research and proprietary models for earnings estimates and valuations. The strategy may be suited to investors looking to gain exposures in non-U.S. developed markets with emphasis on bottom-up, fundamental investment analysis.

Inception Date: October 1987

Portfolio Characteristics

	Portfolio	Benchmark
Market Cap Wtd Average (mm)	112,789.9	76,954.7
No. Of Issues	156.0	0.0
Dividend Yield	2.2	3.2
Return on Equity	22.5	18.3
Price to Sales	4.8	3.3
Price to Book	5.9	4.3
PE Ratio	20.8	14.7

Top Holdings (% of assets)

ASML HOLDING NV	3.7%
SAFRAN SA	3.3%
ASTRAZENECA PLC	2.4%
LONDON STOCK EXCHANGE GROUP	2.0%
TOTALENERGIES SE	2.0%
Top 5 Holdings	13.3%

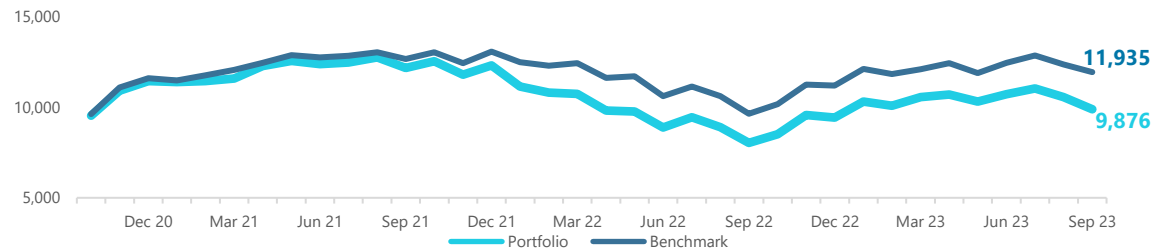
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Capital Group Developed Markets	381.6	-7.7%	23.1%	-0.4%	3.9%
EAFE Custom Benchmark		-4.1%	24.0%	6.1%	3.4%
Growth Policy Benchmark		-0.2%	17.8%	8.9%	--

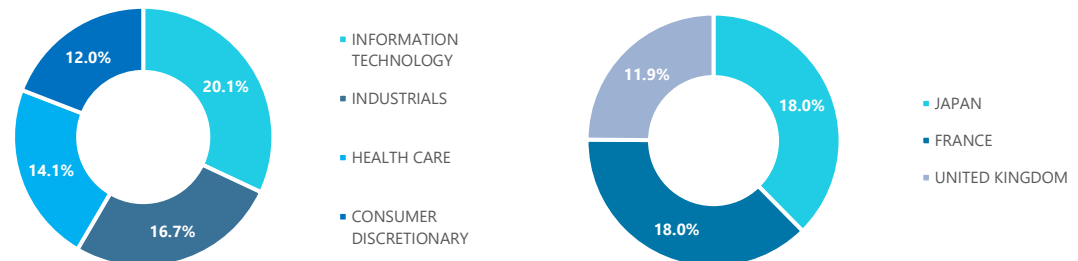
Universe data: Intl/Global Equity Funds - Core	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Capital Group Developed Markets	-7.7%	89	23.5%	30	-0.1%	77	4.3%	52
Median	-3.3%		20.9%		7.1%		4.4%	

No. of Observations: 52

Growth of \$10,000



Top Exposures (% of assets)²



¹ Universe data is gross-of-fees.

² Charts display top exposures and may not add up to 100%.

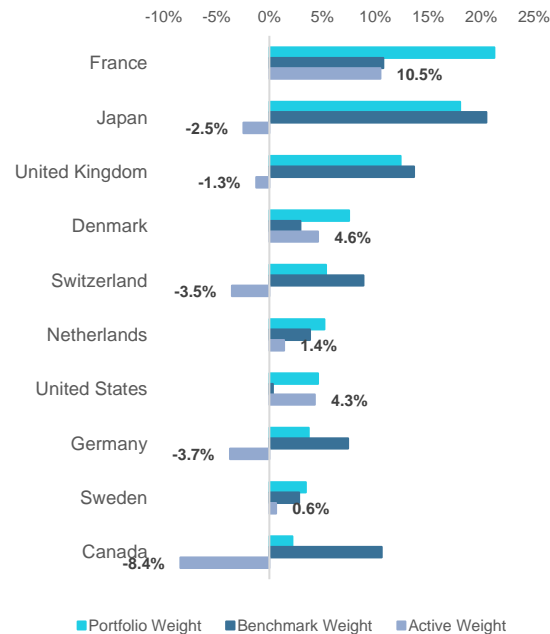
Growth Risk Analysis – Global Equity Capital Group Developed Markets

for the quarter ended September 30, 2023

Portfolio Risk Summary

PORTFOLIO Forecast Volatility	BENCHMARK Forecast Volatility
16.8%	16.7%
PORTFOLIO Forecast Tracking Error	PORTFOLIO Beta
3.6%	0.98

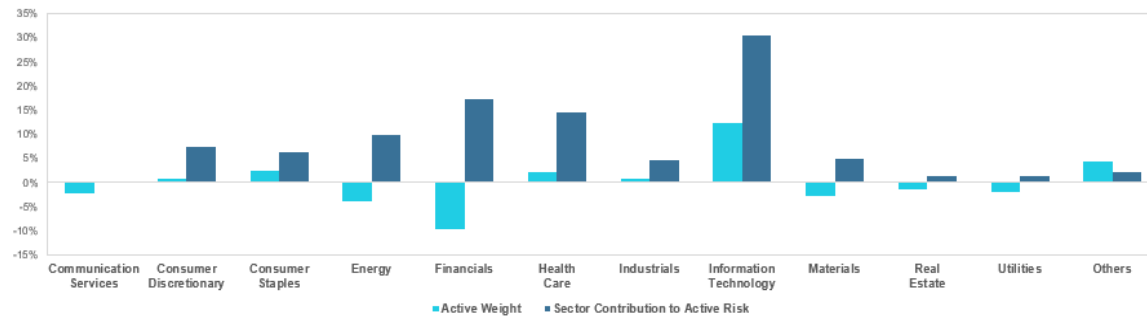
Top 10 Countries by Weight



Top 10 Assets by Contribution to Portfolio Active Risk

Asset	Portfolio Weight	Benchmark Weight	Active Weight	Contribution to Portfolio Active Risk
ASML HOLDING NV	3.69%	0.00%	3.69%	0.48%
NOVO NORDISK A/S	4.13%	1.81%	2.33%	0.19%
OCADO GROUP PLC	1.37%	0.03%	1.34%	0.17%
TOKYO ELECTRON LTD	1.56%	0.39%	1.16%	0.15%
SHELL PLC	0.00%	1.29%	-1.29%	0.12%
EVOLUTION AB	1.98%	0.11%	1.87%	0.14%
GENMAB A/S	1.71%	0.14%	1.57%	0.13%
KEYENCE CORP	1.72%	0.44%	1.28%	0.12%
HAMAMATSU PHOTONICS KK	1.81%	0.04%	1.77%	0.12%
CAPGEMINI SE	1.69%	0.18%	1.51%	0.10%

Portfolio Allocation by GICS Sector



Growth – Global Equity

Cevian Capital II

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Strategy

Seeks to generate long-term returns by researching and investing in European companies that have profitable businesses and significant improvement potential. The strategy may be suited to investors looking to increase portfolio diversification through differentiated investment approach and take advantage of return opportunities in Europe.

Inception Date: October 2016

Risk Statistics (since inception)

Standard Deviation	16.3%
Benchmark Standard Deviation	17.3%
Sharpe Ratio	0.52
Information Ratio	0.32
Beta	0.77
Tracking Error	10.1%

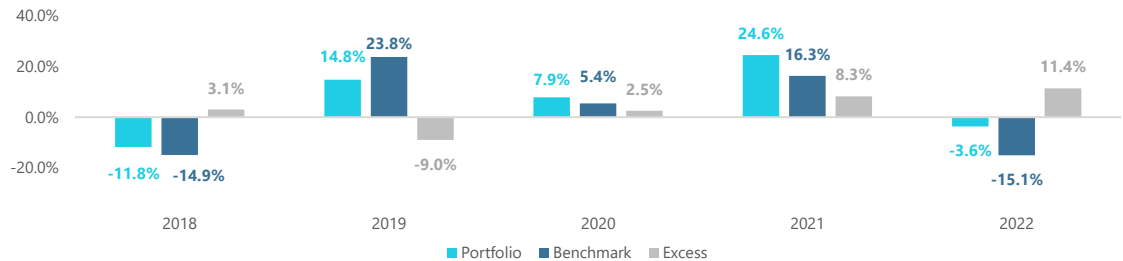
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Cevian Capital II - Activist	457.3	1.1%	25.7%	16.6%	8.0%
MSCI EUROPE		-5.0%	28.8%	7.2%	4.0%
Growth Policy Benchmark		-0.2%	17.8%	8.9%	--

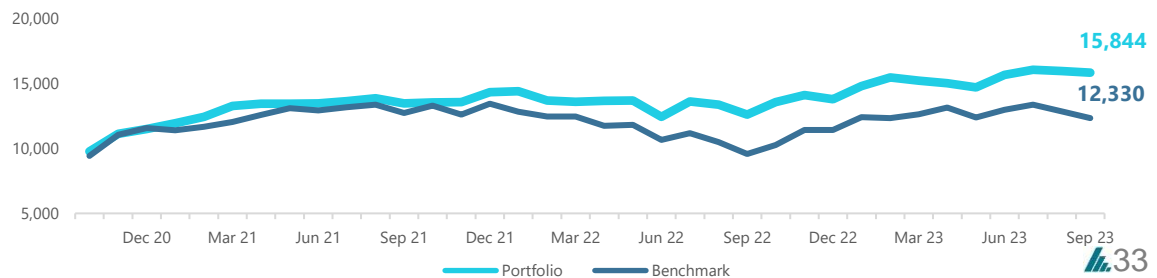
Universe data: Intl Equity Developed Mkt Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Cevian Capital II - Activist	1.4%	24	27.1%	69	17.9%	58	9.2%	--
Median	-3.6%		22.8%		5.6%		3.7%	

No. of Observations: 176

Calendar Year Returns



Growth of \$10,000



Note: Commingled fund account with no position-level transparency.
¹ Universe data is gross-of-fees.

Growth Risk Analysis – Global Equity

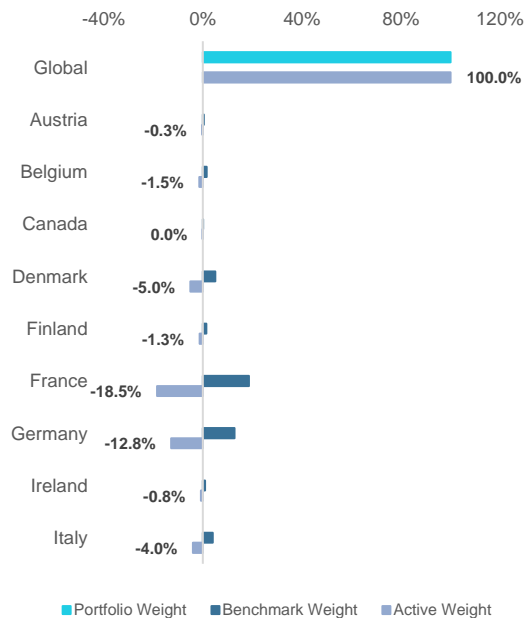
Cevian Capital II

for the quarter ended September 30, 2023

Portfolio Risk Summary

PORTFOLIO Forecast Volatility	BENCHMARK Forecast Volatility
19.4%	18.6%
PORTFOLIO Forecast Tracking Error	PORTFOLIO Beta
9.2%	0.92

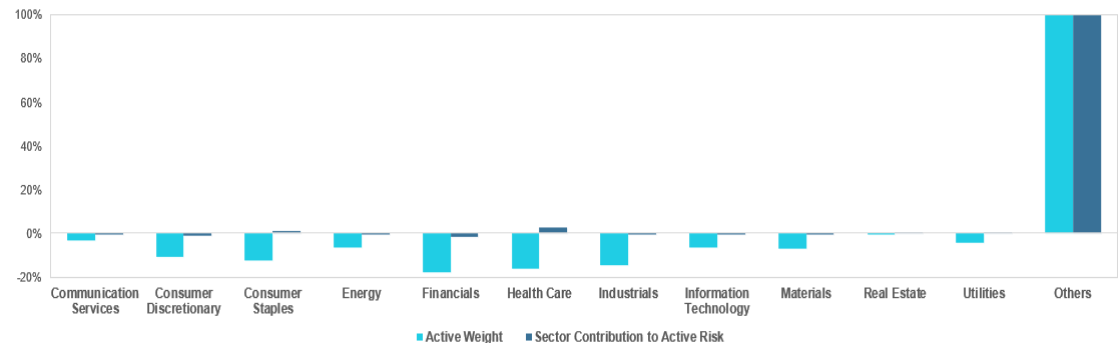
Top 10 Countries by Weight



Top 10 Assets by Contribution to Portfolio Active Risk

Asset	Portfolio Weight	Benchmark Weight	Active Weight	Contribution to Portfolio Active Risk
CEVIAN CAPITAL II	100.00%	0.00%	100.00%	9.16%
NOVO NORDISK A/S	0.00%	3.11%	-3.11%	0.07%
ASTRAZENECA PLC	0.00%	2.19%	-2.19%	0.06%
NESTLE SA	0.00%	3.15%	-3.15%	0.04%
ROCHE HOLDING AG	0.00%	2.00%	-2.00%	0.04%
NOVARTIS AG	0.00%	2.19%	-2.19%	0.03%
ASML HOLDING NV	0.00%	2.48%	-2.48%	0.00%
SHELL PLC	0.00%	2.22%	-2.22%	0.01%
UNILEVER PLC	0.00%	1.30%	-1.30%	0.02%
HSBC HOLDINGS PLC	0.00%	1.62%	-1.62%	0.01%

Portfolio Allocation by GICS Sector



Growth – Global Equity CornerCap US Small Cap

for the quarter ended September 30, 2023

Strategy

Seeks to exploit small cap market inefficiencies by using proprietary fundamental factors. The strategy may be suited to investors looking to increase U.S. small cap exposure and diversify portfolio through an active quantitative investment approach.

Inception Date: October 2018

Portfolio Characteristics

	Portfolio	Benchmark
Market Cap Wtd Average (mm)	2,530.1	2,824.8
No. Of Issues	353.0	0.0
Dividend Yield	1.6	1.4
Return on Equity	10.7	11.0
Price to Sales	4.0	10.0
Price to Book	1.5	1.9
PE Ratio	15.5	27.0

Top Holdings (% of assets)

HELIX ENERGY SOLUTIONS GROUP	0.6%
AMERICAN WOODMARK CORP	0.6%
PERDOCEO EDUCATION CORP	0.5%
CARPENTER TECHNOLOGY	0.5%
COCA COLA CONSOLIDATED INC	0.5%
Top 5 Holdings	2.8%

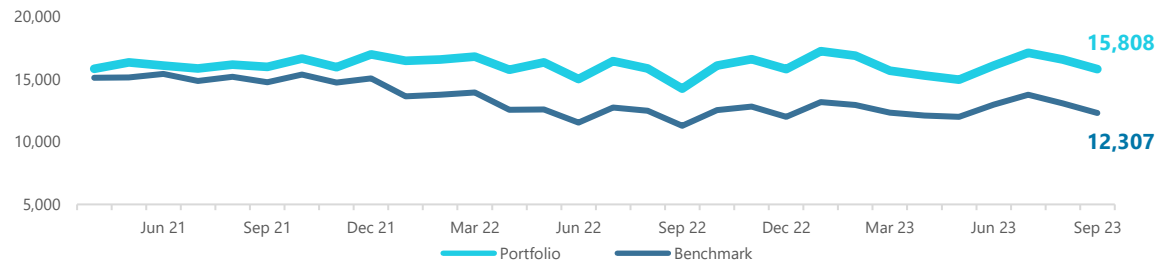
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Cornercap US Small Cap - EMP	80.6	-1.8%	10.9%	16.5%	6.1%
RUSSELL 2000		-5.1%	8.9%	7.2%	2.4%
Growth Policy Benchmark		-0.2%	17.8%	8.9%	--

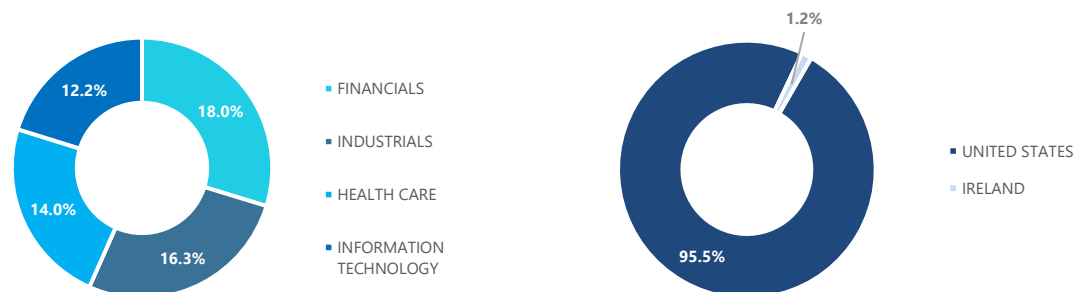
Universe data: US Equity Funds - Small Cap	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Cornercap US Small Cap - EMP	-1.7%	24	11.5%	11	17.1%	28	6.7%	20
Median	-4.1%		14.4%		12.2%		5.3%	

No. of Observations: 55

Growth of \$10,000



Top Exposures (% of assets)²



¹ Universe data is gross-of-fees.

² Charts display top exposures and may not add up to 100%.

Growth Risk Analysis – Global Equity

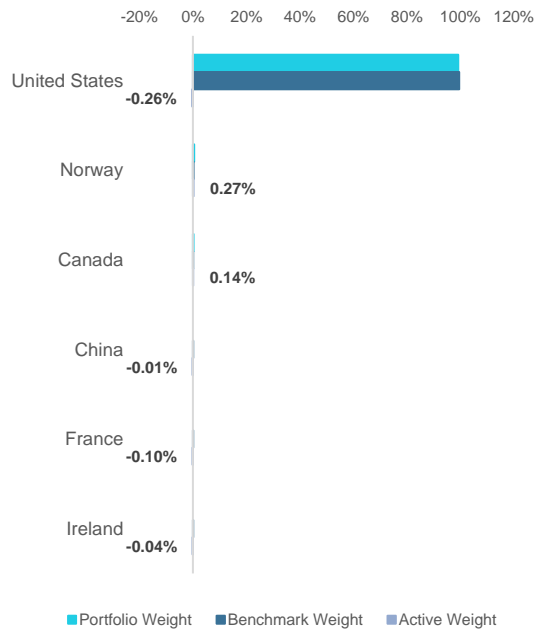
CornerCap US Small Cap

for the quarter ended September 30, 2023

Portfolio Risk Summary

PORTFOLIO Forecast Volatility	BENCHMARK Forecast Volatility
22.7%	24.0%
PORTFOLIO Forecast Tracking Error	PORTFOLIO Beta
3.1%	0.94

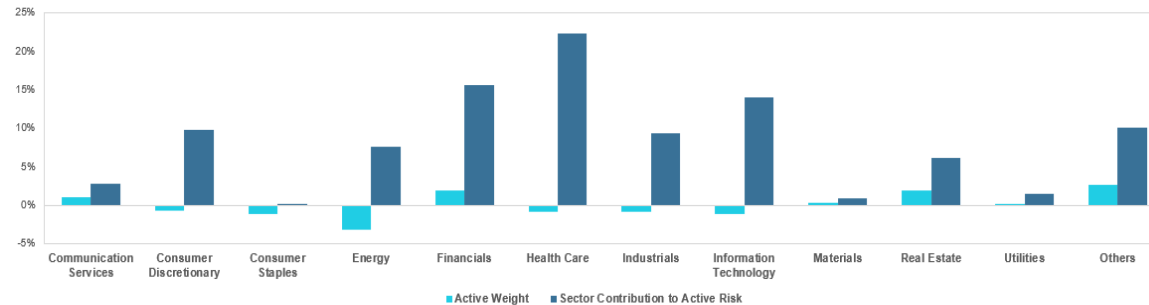
Top Countries by Weight



Top 10 Assets by Contribution to Portfolio Active Risk

Asset	Portfolio Weight	Benchmark Weight	Active Weight	Contribution to Portfolio Active Risk
SUPER MICRO COMPUTER INC	0.00%	0.57%	-0.57%	0.08%
CHART INDUSTRIES INC	0.00%	0.32%	-0.32%	0.03%
ONTO INNOVATION INC	0.00%	0.28%	-0.28%	0.03%
AXCELIS TECHNOLOGIES INC	0.00%	0.24%	-0.24%	0.03%
MATADOR RESOURCES CO	0.00%	0.30%	-0.30%	0.02%
RAMBUS INC	0.00%	0.27%	-0.27%	0.02%
WEATHERFORD INTERNATIONAL PLC	0.00%	0.29%	-0.29%	0.01%
CHARVANA CO	0.00%	0.18%	-0.18%	0.03%
CHAMPIONX CORP	0.00%	0.32%	-0.32%	0.01%
FABRINET	0.00%	0.27%	-0.27%	0.01%

Portfolio Allocation by GICS Sector



Growth – Global Equity

Frontier US SMID Growth

for the quarter ended September 30, 2023

Strategy

Seeks to invest in high quality companies at attractive valuations and sustainable secular growth through fundamental analysis. The strategy may be suited to investors looking to increase U.S. mid and small cap exposures and generate returns through stock selection and low turnover.

Inception Date: June 2002

Portfolio Characteristics

	Portfolio	Benchmark
Market Cap Wtd Average (mm)	7,310.5	6,141.6
No. Of Issues	142.0	0.0
Dividend Yield	0.6	1.5
Return on Equity	12.2	13.8
Price to Sales	2.7	2.8
Price to Book	3.3	3.2
PE Ratio	18.4	16.5

Top Holdings (% of assets)

ARRAY TECHNOLOGIES INC	1.9%
ATI INC	1.8%
MRC GLOBAL INC	1.8%
XPO INC	1.7%
BANCORP INC/THE	1.7%
Top 5 Holdings	8.8%

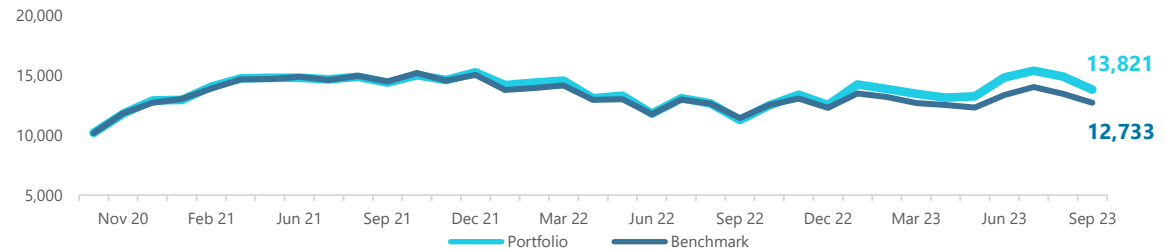
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Frontier US SMID Growth	282.5	-6.9%	22.5%	11.4%	5.5%
RUSSELL 2500		-4.8%	11.3%	8.4%	4.5%
Growth Policy Benchmark		-0.2%	17.8%	8.9%	--

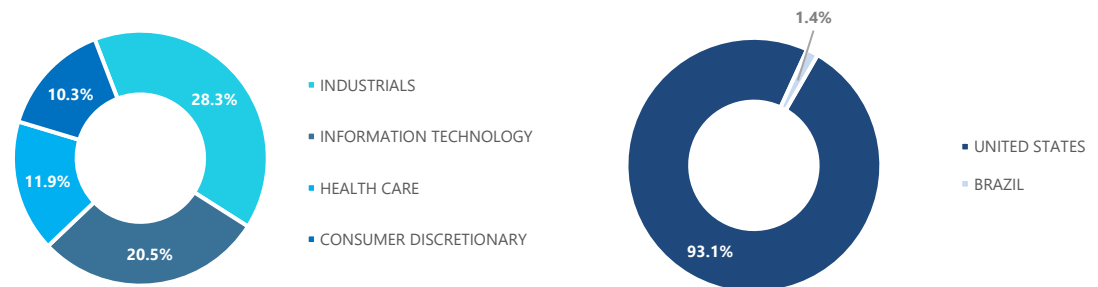
Universe data: US Equity Funds - Small Cap	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Frontier US SMID Growth	-6.7%	85	23.4%	11	12.2%	50	6.3%	29
Median	-4.1%		14.4%		12.2%		5.3%	

No. of Observations: 55

Growth of \$10,000



Top Exposures (% of assets)²



¹ Universe data is gross-of-fees.

² Charts display top exposures and may not add up to 100%.

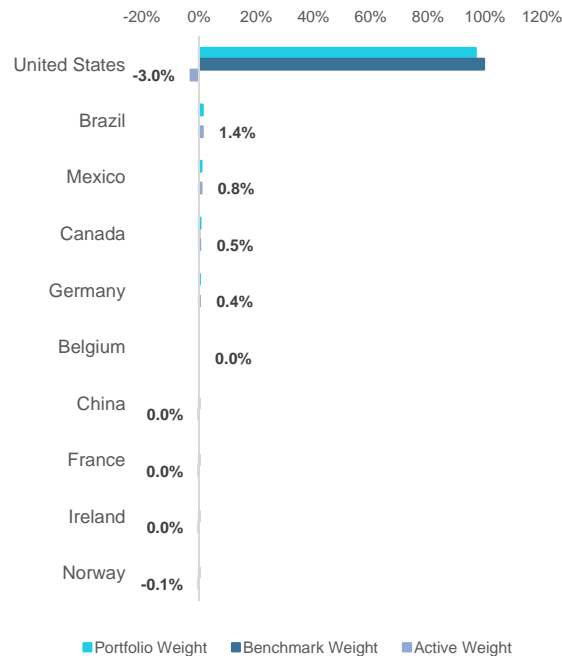
Growth Risk Analysis – Global Equity Frontier US SMID Growth

for the quarter ended September 30, 2023

Portfolio Risk Summary

PORTFOLIO Forecast Volatility	BENCHMARK Forecast Volatility
25.5%	22.8%
PORTFOLIO Forecast Tracking Error	PORTFOLIO Beta
4.8%	1.10

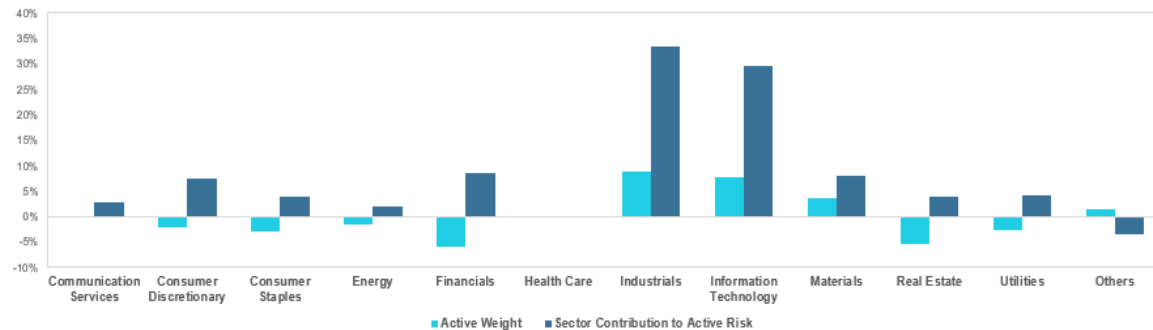
Top 10 Countries by Weight



Top 10 Assets by Contribution to Portfolio Active Risk

Asset	Portfolio Weight	Benchmark Weight	Active Weight	Contribution to Portfolio Active Risk
ARRAY TECHNOLOGIES INC	1.88%	0.06%	1.81%	0.41%
AZUL SA	1.39%	0.00%	1.39%	0.31%
JABIL INC	2.51%	0.31%	2.21%	0.16%
WOLFSPEED INC	1.29%	0.09%	1.20%	0.27%
MRC GLOBAL INC	1.76%	0.02%	1.75%	0.17%
CAESARS ENTERTAINMENT INC	1.45%	0.00%	1.45%	0.13%
ALBEMARLE CORP	1.32%	0.00%	1.32%	0.13%
SITIME CORPORATION	0.94%	0.04%	0.90%	0.18%
PAYMENTUS HOLDINGS INC	1.19%	0.00%	1.19%	0.15%
XPO INC	1.70%	0.16%	1.53%	0.11%

Portfolio Allocation by GICS Sector



Growth – Global Equity Global Alpha

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Strategy

Seeks to identify mispriced companies with high rates of growth, strong balance sheets, and high insider ownership using a bottom-up, research-based approach coupled with investment themes. The strategy may be suited to investors looking to increase exposure to international small cap stocks.

Inception Date: November 2018

Portfolio Characteristics

	Portfolio	Benchmark
Market Cap Wtd Average (mm)	2,718.7	2,574.3
No. Of Issues	61.0	0.0
Dividend Yield	2.7	3.7
Return on Equity	12.5	11.6
Price to Sales	8.7	5.8
Price to Book	2.3	4.1
PE Ratio	12.6	14.4

Top Holdings (% of assets)

SOPRA STERIA GROUP	3.8%
MELIA HOTELS INTERNATIONAL	3.7%
L OCCITANE INTERNATIONAL SA	3.6%
SAMSONITE INTERNATIONAL SA	3.1%
RAFFLES MEDICAL GROUP LTD	3.1%
Top 5 Holdings	17.4%

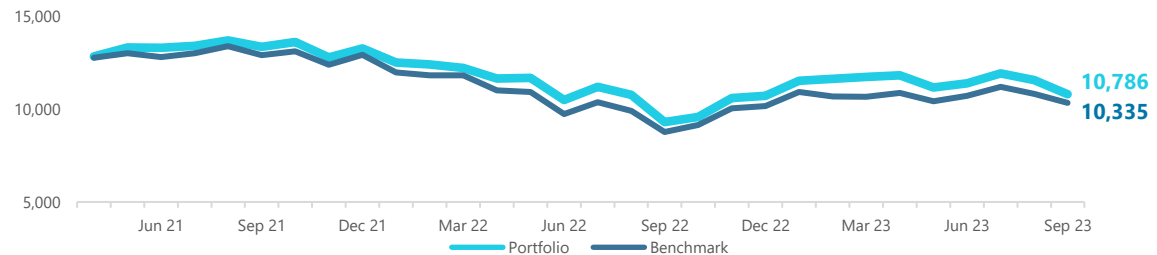
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Global Alpha	166.7	-5.3%	15.9%	2.6%	--
MSCI EAFE SMALL CAP NET		-3.5%	17.9%	1.1%	--
Growth Policy Benchmark		-0.2%	17.8%	8.9%	--

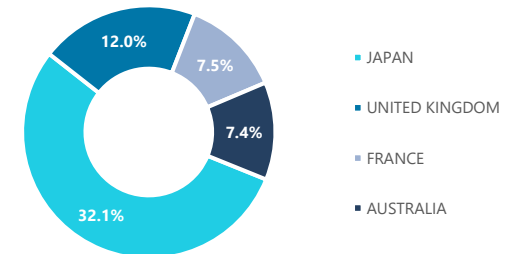
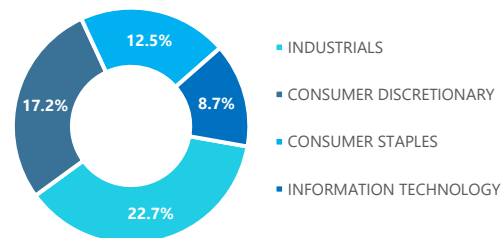
Universe data: International Equity Funds - Core	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Global Alpha	-5.1%	83	16.7%	71	3.3%	72	--	--
Median	-3.3%		20.9%		7.1%		--	--

No. of Observations 52

Growth of \$10,000



Top Exposures (% of assets)²



¹ Universe data is gross-of-fees.

² Charts display top exposures and may not add up to 100%.

Growth Risk Analysis – Global Equity

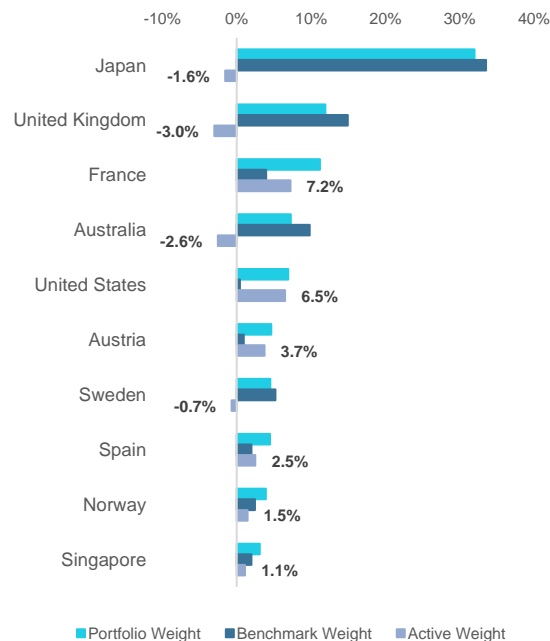
Global Alpha

for the quarter ended September 30, 2023

Portfolio Risk Summary

PORTFOLIO Forecast Volatility	BENCHMARK Forecast Volatility
17.4%	18.0%
PORTFOLIO Forecast Tracking Error	PORTFOLIO Beta
4.0%	0.94

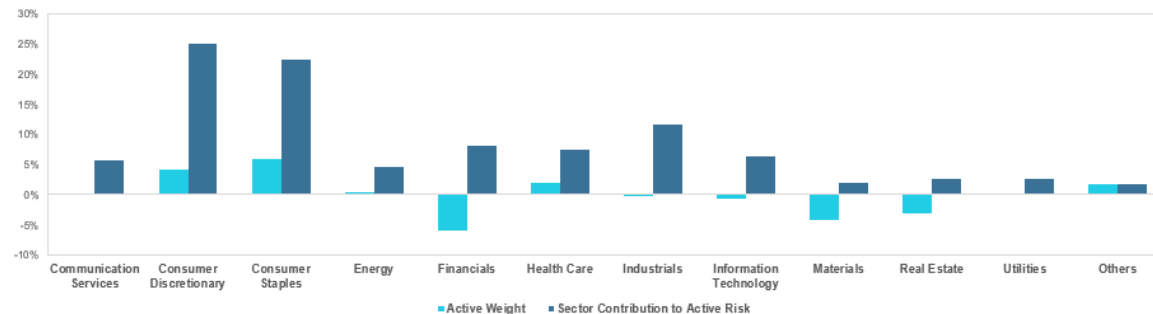
Top 10 Countries by Weight



Top 10 Assets by Contribution to Portfolio Active Risk

Asset	Portfolio Weight	Benchmark Weight	Active Weight	Contribution to Portfolio Active Risk
L'OCCITANE INTERNATIONAL SA	3.66%	0.00%	3.66%	0.56%
SAMSONITE INTERNATIONAL SA	3.14%	0.00%	3.14%	0.31%
ASICS CORP	3.06%	0.24%	2.82%	0.22%
SEGA SAMMY HOLDINGS INC	2.92%	0.12%	2.80%	0.19%
SALMAR ASA	2.91%	0.00%	2.91%	0.19%
VITASOY INTERNATIONAL HOLDINGS LTD	1.40%	0.04%	1.36%	0.11%
INTERNET INITIATIVE JAPAN INC	2.61%	0.08%	2.53%	0.16%
ARIAKE JAPAN	1.96%	0.03%	1.94%	0.13%
CVS GROUP PLC	2.28%	0.06%	2.22%	0.14%
BANCO BPM SPA	0.00%	0.29%	-0.29%	0.01%

Portfolio Allocation by GICS Sector



Growth – Global Equity

JPMorgan Strategic Beta Non-US

for the quarter ended September 30, 2023

Strategy

Seeks to capture incremental alpha through investing in equity factors that are rule-based, transparent, and academically proven. This strategy may be suited to investors looking to gain equity factor exposures in non-U.S. markets at lower volatility and cost than active strategies.

Inception Date: August 2020

Portfolio Characteristics

	Portfolio	Benchmark
Market Cap Wtd Average (mm)	70,892.7	70,251.1
No. Of Issues	1,799.0	0.0
Dividend Yield	3.5	3.3
Return on Equity	18.7	17.2
Price to Sales	3.4	3.9
Price to Book	4.1	4.1
PE Ratio	12.1	14.4

Top Holdings (% of assets)

ISHARES MSCI INDIA ETF	4.3%
TAIWAN SEMICONDUCTOR MANUFAC	1.5%
NOVO NORDISK A/S B	1.1%
NESTLE SA REG	1.1%
TENCENT HOLDINGS LTD	1.0%
Top 5 Holdings	9.0%

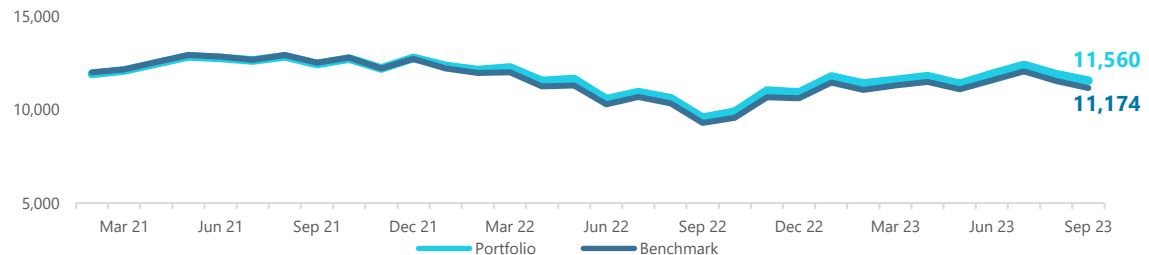
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
JPMAM Strategic Beta Non-US	582.4	-3.0%	20.7%	5.0%	--
MSCI ACWI ex USA IMI Net		-3.5%	20.2%	3.8%	--
Growth Policy Benchmark		-0.2%	17.8%	8.9%	--

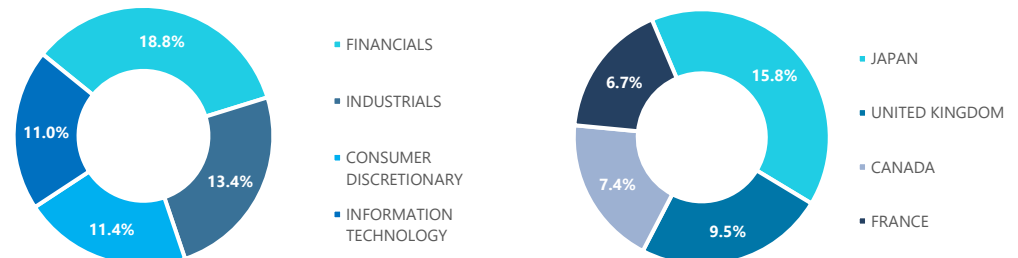
Universe data: Intl Equity Developed Mkt Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
JPMAM Strategic Beta Non-US	-3.0%	39	20.8%	58	4.9%	52	--	--
Median	-3.6%		22.8%		5.6%		--	

No. of Observations 176

Growth of \$10,000



Top Exposures (% of assets)²



¹ Universe data is gross-of-fees.

² Charts display top exposures and may not add up to 100%.

Growth Risk Analysis – Global Equity

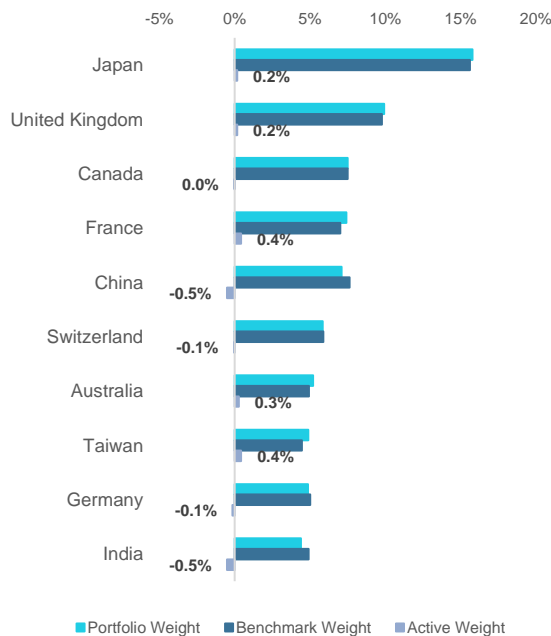
JPMorgan Strategic Beta Non-US

for the quarter ended September 30, 2023

Portfolio Risk Summary

PORTFOLIO Forecast Volatility	BENCHMARK Forecast Volatility
16.1%	16.3%
PORTFOLIO Forecast Tracking Error	PORTFOLIO Beta
0.7%	0.99

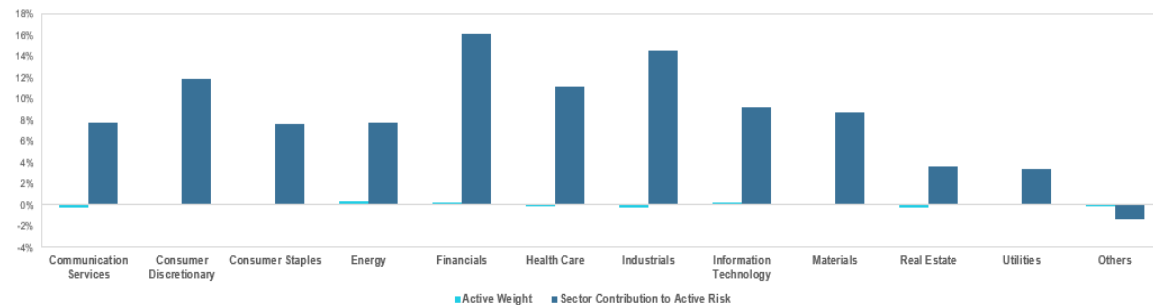
Top 10 Countries by Weight



Top 10 Assets by Contribution to Portfolio Active Risk

Asset	Portfolio Weight	Benchmark Weight	Active Weight	Contribution to Portfolio Active Risk
ASML HOLDING NV	0.00%	0.89%	-0.89%	0.07%
ARGENX SE	0.00%	0.10%	-0.10%	0.01%
MITSUBISHI UFJ FINANCIAL GROUP INC	0.00%	0.36%	-0.36%	-0.01%
UNILEVER PLC	0.03%	0.47%	-0.44%	-0.01%
ADVANTEST CORP	0.00%	0.08%	-0.08%	0.00%
XPENG INC	0.01%	0.03%	-0.02%	0.01%
NIO INC	0.02%	0.05%	-0.02%	0.01%
SHOPIFY INC	0.21%	0.24%	-0.03%	0.01%
WUXI BIOLOGICS CAYMAN INC	0.05%	0.08%	-0.03%	0.01%
SEA LIMITED	0.04%	0.06%	-0.02%	0.01%

Portfolio Allocation by GICS Sector



Growth – Global Equity

JPMorgan Strategic Beta US

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Strategy

Seeks to capture incremental alpha through investing in equity factors that are rule-based, transparent, and academically proven. This strategy may be suited to investors looking to gain equity factor exposures in the U.S. at lower volatility and cost than active strategies.

Inception Date: July 2020

Portfolio Characteristics

	Portfolio	Benchmark
Market Cap Wtd Average (mm)	546,914.0	547,445.0
No. Of Issues	920.0	0.0
Dividend Yield	1.6	1.6
Return on Equity	24.4	22.5
Price to Sales	2.2	2.2
Price to Book	3.6	3.6
PE Ratio	19.6	20.6

Top Holdings (% of assets)

APPLE INC	6.4%
MICROSOFT CORP	5.3%
AMAZON.COM INC	2.8%
NVIDIA CORP	2.6%
ALPHABET INC CL A	1.9%
Top 5 Holdings	18.9%

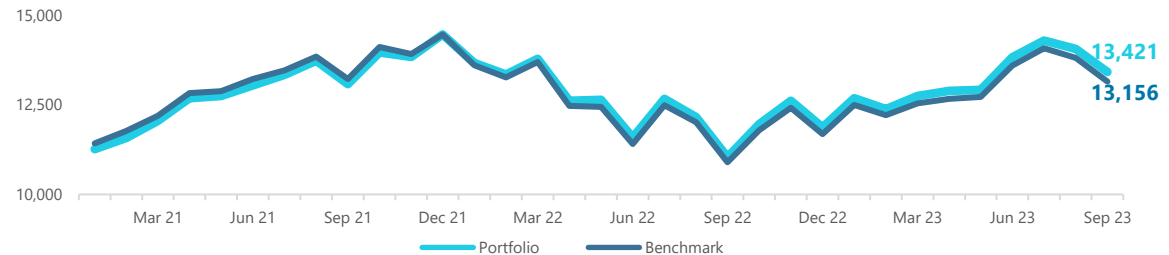
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
JPMAM Strategic Beta US	4,518.6	-3.0%	21.6%	10.3%	--
MSCI USA IMI Gross		-3.2%	20.7%	9.6%	--
Growth Policy Benchmark		-0.2%	17.8%	8.9%	--

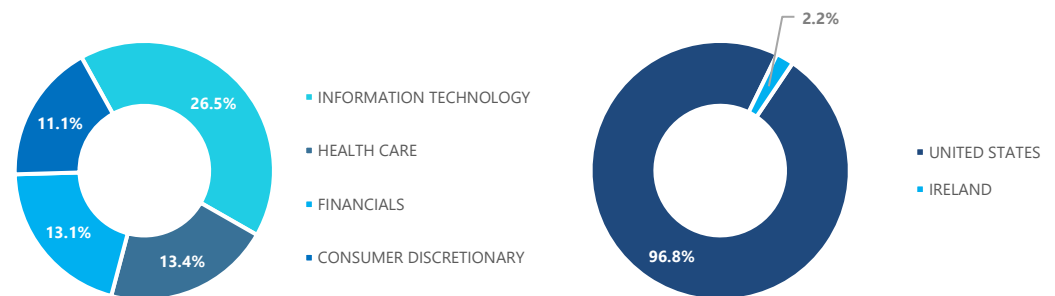
Universe data: US Equities Total Large Cap	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
JPMAM Strategic Beta US	-3.0%	50	21.6%	53	10.3%	45	--	--
Median	-3.0%		21.6%		10.2%		--	--

No. of Observations: 78

Growth of \$10,000



Top Exposures (% of assets)²



¹ Universe data is gross-of-fees.

² Charts display top exposures and may not add up to 100%.

Growth Risk Analysis – Global Equity

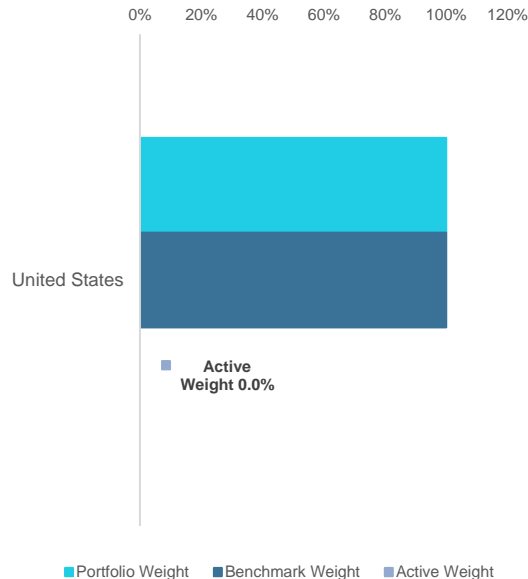
JPMorgan Strategic Beta US

for the quarter ended September 30, 2023

Portfolio Risk Summary

PORTFOLIO Forecast Volatility <hr/> 18.5%	BENCHMARK Forecast Volatility <hr/> 18.7%
PORTFOLIO Forecast Tracking Error <hr/> 0.6%	PORTFOLIO Beta <hr/> 0.99

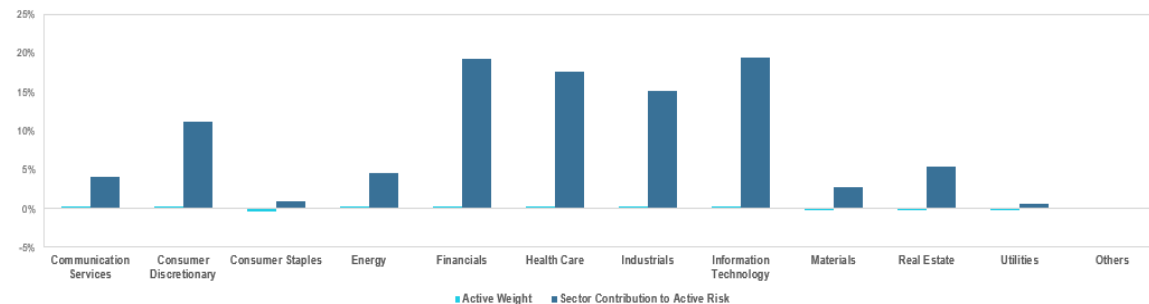
Top Country by Weight



Top 10 Assets by Contribution to Portfolio Active Risk

Asset	Portfolio Weight	Benchmark Weight	Active Weight	Contribution to Portfolio Active Risk
JPMORGAN CHASE & CO	0.00%	1.01%	-1.01%	0.05%
RIVIAN AUTOMOTIVE INC	0.00%	0.04%	-0.04%	0.01%
SNOWFLAKE INC	0.05%	0.10%	-0.04%	0.01%
SPLUNK INC	0.00%	0.05%	-0.05%	0.01%
TESLA INC	1.66%	1.71%	-0.05%	0.01%
MODERNA INC	0.04%	0.08%	-0.04%	0.01%
MONGODB INC	0.02%	0.06%	-0.04%	0.01%
COINBASE GLOBAL INC	0.00%	0.03%	-0.03%	0.01%
DATADOG INC	0.01%	0.05%	-0.04%	0.01%
CROWDSTRIKE HOLDINGS INC	0.04%	0.09%	-0.05%	0.00%

Portfolio Allocation by GICS Sector



Growth – Global Equity Lazard Emerging Markets

for the quarter ended September 30, 2023

Strategy

Seeks to provide long-term capital appreciation by investing in funds trading at a discount to their estimated net asset value, sum of the parts valuation, and/or underlying investments/businesses. The strategy may be suited to investors looking to capture growth opportunities in emerging markets and increase portfolio diversification.

Inception Date: February 2013

Portfolio Characteristics

	Portfolio	Benchmark
Market Cap Wtd Average (mm)	26,687.7	91,736.2
No. Of Issues	48.0	0.0
Dividend Yield	2.4	3.0
Return on Equity	12.2	12.0
Price to Sales	1.4	1.2
Price to Book	1.5	1.6
PE Ratio	12.6	13.1

Top Holdings (% of assets)

PROSUS NV	8.3%
CITIC SECURITIES CO LTD H	6.5%
JPMORGAN EMERGING MARKETS INVE	6.4%
TEMPLETON EMERGING MARKETS INV	6.4%
FIDELITY CHINA SPECIAL SITUATI	5.2%
Top 5 Holdings	32.7%

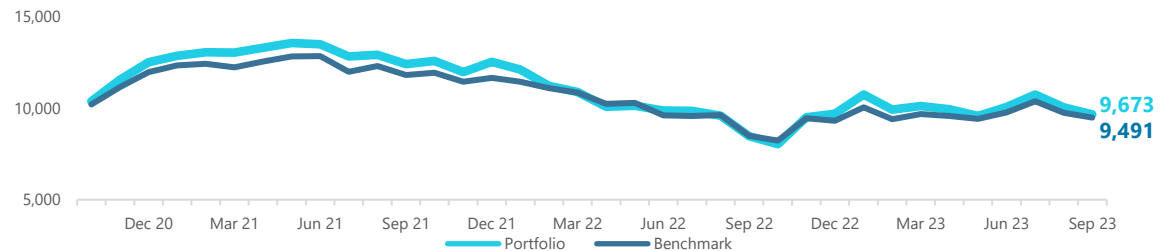
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Lazard Emerging Markets	366.7	-3.9%	14.0%	-1.1%	2.4%
MSCI EMERGING MARKETS		-2.9%	11.7%	-1.7%	0.6%
Growth Policy Benchmark		-0.2%	17.8%	8.9%	--

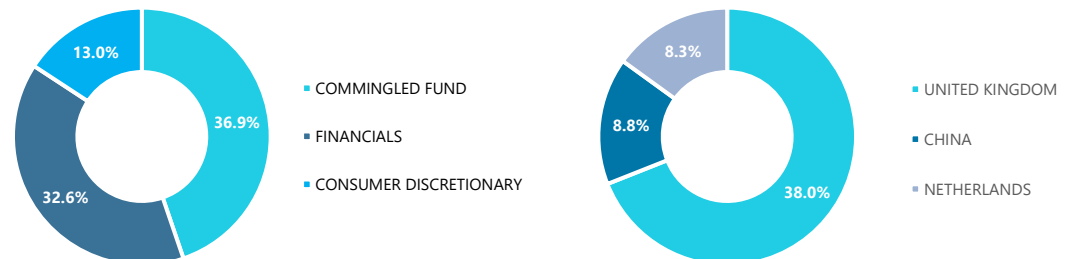
Universe data: Intl Equity Emerging Mkt Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Lazard Emerging Markets	-3.7%	64	14.8%	52	-0.5%	58	3.1%	53
Median	-3.1%		15.1%		1.7%		3.3%	

No. of Observations: 92

Growth of \$10,000



Top Exposures (% of assets)²



¹ Universe data is gross-of-fees.

² Charts display top exposures and may not add up to 100%.

Growth Risk Analysis – Global Equity

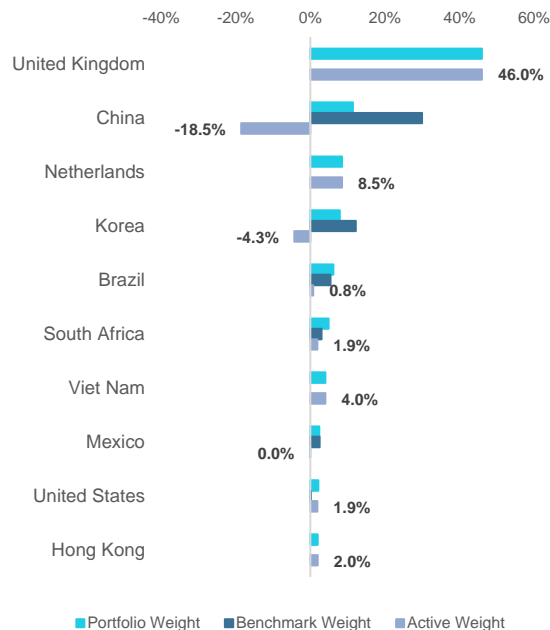
Lazard Emerging Markets

for the quarter ended September 30, 2023

Portfolio Risk Summary

PORTFOLIO Forecast Volatility	BENCHMARK Forecast Volatility
19.1%	17.0%
PORTFOLIO Forecast Tracking Error	PORTFOLIO Beta
9.9%	0.96

Top 10 Countries by Weight

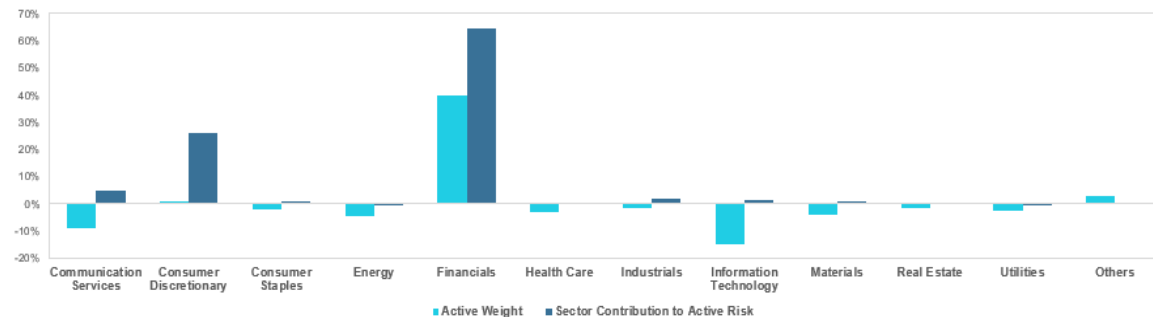


Top 10 Assets¹ by Contribution to Portfolio Active Risk

Asset	Portfolio Weight	Benchmark Weight	Active Weight	Contribution to Portfolio Active Risk
PROSUS NV	8.48%	0.00%	8.48%	1.49%
JPM EMERGING MARKETS INVT TRUST PLC	6.54%	0.00%	6.54%	0.98%
FIDELITY CHINA SPECIAL SITUATIONS PLC	5.29%	0.00%	5.29%	0.94%
TEMPLETON EMERGING MKTS INVT TRUST PLC	6.52%	0.00%	6.52%	0.92%
NASPERS	4.86%	0.48%	4.38%	0.57%
SCHRODER ASIAPACIFIC FUND PLC	2.79%	0.00%	2.79%	0.37%
UTILICO EMERGING MARKETS TRUST PLC	3.05%	0.00%	3.05%	0.37%
ASIA DRAGON TRUST PLC	2.44%	0.00%	2.44%	0.35%
FIDELITY EMERGING MARKETS LTD	2.39%	0.00%	2.39%	0.34%
ABRDN NEW INDIA INVESTMENT TRUST PLC	2.30%	0.00%	2.30%	0.33%

Note: Weights represent country of domicile of closed-end fund and not country of underlying fund holdings.

Portfolio Allocation by GICS Sector



Growth – Global Equity SSGA MSCI ACWI IMI

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Strategy

Seeks to provide global equity market exposure and passive index returns. This strategy may be suited to investors looking to gain passive, global equity exposures with low tracking error.

Inception Date: January 2020

Portfolio Characteristics

	Portfolio	Benchmark
Market Cap Wtd Average (mm)	363,170.0	361,911.2
No. Of Issues	6,413.0	0.0
Dividend Yield	2.0	2.0
Return on Equity	24.1	24.0
Price to Sales	5.4	5.3
Price to Book	11.0	11.2
PE Ratio	19.1	19.2

Top Holdings (% of assets)

APPLE INC	3.9%
MICROSOFT CORP	3.2%
AMAZON.COM INC	1.7%
ALPHABET INC CL A	1.1%
TESLA INC	1.0%
Top 5 Holdings	10.9%

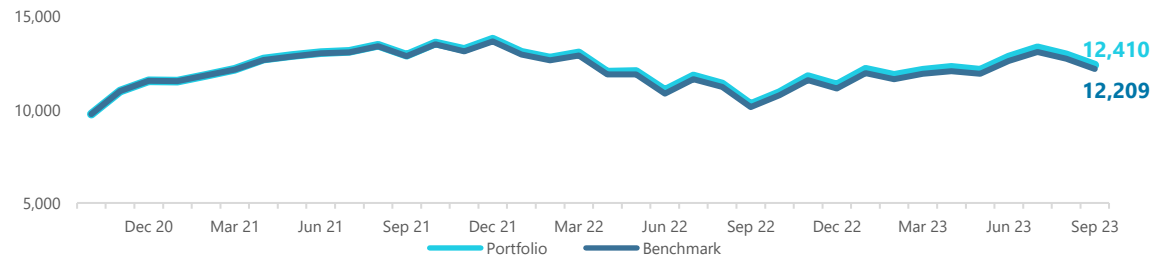
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
SSGA MSCI ACWI IMI	14,947.5	-3.4%	20.6%	7.5%	--
MSCI ACWI IMI Net		-3.4%	20.2%	6.9%	--
Growth Policy Benchmark		-0.2%	17.8%	8.9%	--

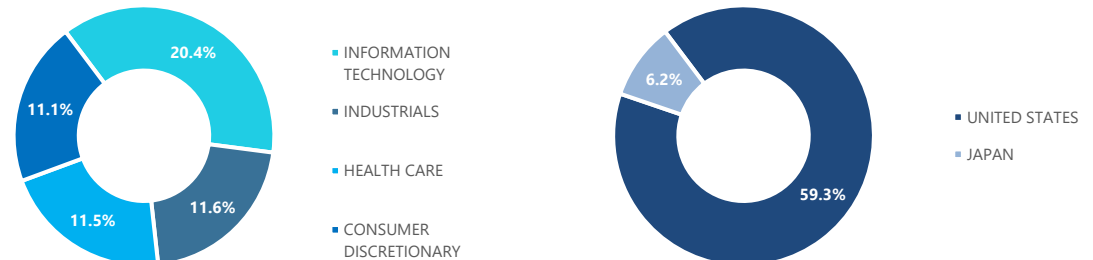
Universe data: Global Equity Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
SSGA MSCI ACWI IMI	-3.4%	59	20.6%	47	7.5%	48	--	--
Median	-2.9%		20.3%		7.2%		--	

No. of Observations: 110

Growth of \$10,000



Top Exposures (% of assets)²



¹ Universe data is gross-of-fees.

² Charts display top exposures and may not add up to 100%.

Growth Risk Analysis – Global Equity

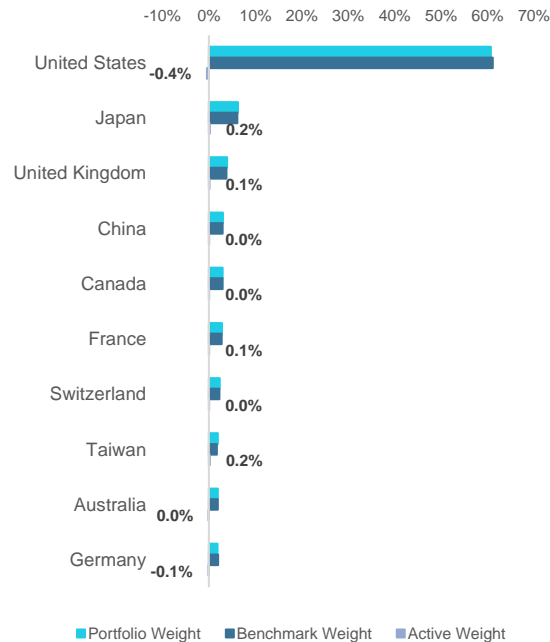
SSGA MSCI ACWI IMI

for the quarter ended September 30, 2023

Portfolio Risk Summary

PORTFOLIO Forecast Volatility	BENCHMARK Forecast Volatility
17.2%	17.1%
PORTFOLIO Forecast Tracking Error	PORTFOLIO Beta
0.2%	1.00

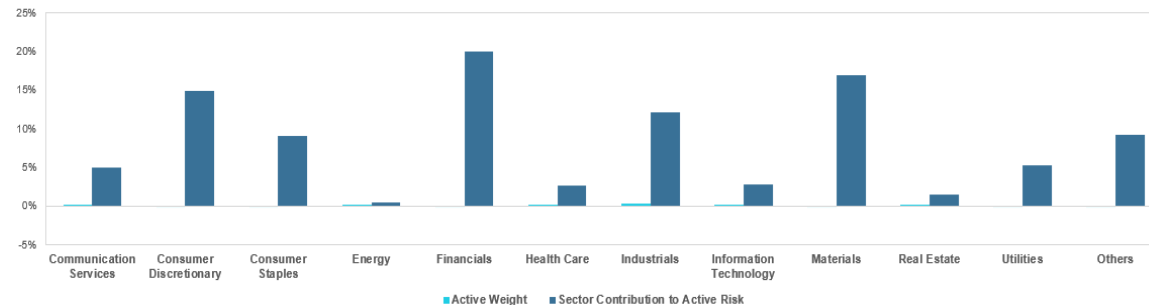
Top 10 Countries by Weight



Top 10 Assets by Contribution to Portfolio Active Risk

Asset	Portfolio Weight	Benchmark Weight	Active Weight	Contribution to Portfolio Active Risk
ASML HOLDING NV	0.34%	0.00%	0.34%	0.02%
RELIANCE INDUSTRIES LTD	0.00%	0.13%	-0.12%	0.01%
DAIMLER AG	0.08%	0.00%	0.08%	0.00%
VALE SA	0.07%	0.00%	0.07%	0.00%
ATLAS COPCO AB	0.08%	0.03%	0.05%	0.00%
FERGUSON PLC	0.05%	0.00%	0.05%	0.00%
HDFC BANK LTD	0.00%	0.07%	-0.07%	0.01%
BAJAJ FINANCE LTD	0.00%	0.04%	-0.04%	0.01%
AXIS BANK LTD	0.00%	0.04%	-0.04%	0.01%
MITSUBISHI UFJ FINANCIAL GROUP C/S	0.14%	0.00%	0.14%	0.00%

Portfolio Allocation by GICS Sector



Growth – Global Equity Systematic US Small Cap Value

for the quarter ended September 30, 2023

Strategy

Seeks to identify high quality small cap companies capable of generating high rates of return with attractive valuations. The strategy may be suited for investors looking to increase U.S. small cap exposure with defensive characteristics.

Inception Date: July 2018

Portfolio Characteristics

	Portfolio	Benchmark
Market Cap Wtd Average (mm)	4,593.4	2,824.8
No. Of Issues	154.0	0.0
Dividend Yield	1.4	1.4
Return on Equity	11.6	4.9
Price to Sales	1.8	1.8
Price to Book	1.9	1.9
PE Ratio	11.9	12.0

Top Holdings (% of assets)

FIRST CITIZENS BCSHS CL A	3.4%
EMCOR GROUP INC	1.8%
KBR INC	1.6%
CROSS COUNTRY HEALTHCARE INC	1.5%
COMFORT SYSTEMS USA INC	1.5%
Top 5 Holdings	9.8%

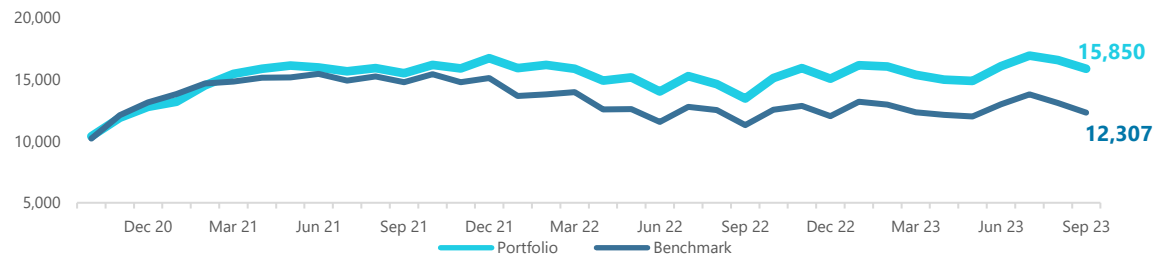
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Systematic US Small Cap Value	196.4	-1.2%	17.8%	16.6%	5.6%
RUSSELL 2000		-5.1%	8.9%	7.2%	2.4%
Growth Policy Benchmark		-0.2%	17.8%	8.9%	--

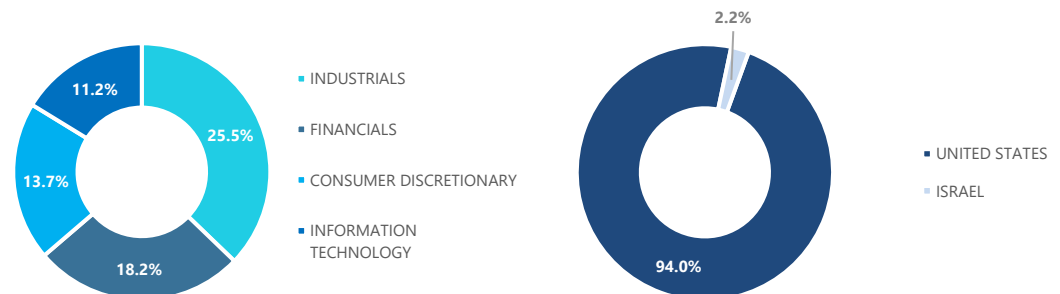
Universe data: US Equity Funds - Small Cap	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Systematic US Small Cap Value	-1.1%	18	18.5%	17	17.2%	20	6.2%	31
Median	-4.1%		14.4%		12.2%		5.3%	

No. of Observations: 55

Growth of \$10,000



Top Exposures (% of assets)²



¹ Universe data is gross-of-fees.

² Charts display top exposures and may not add up to 100%.

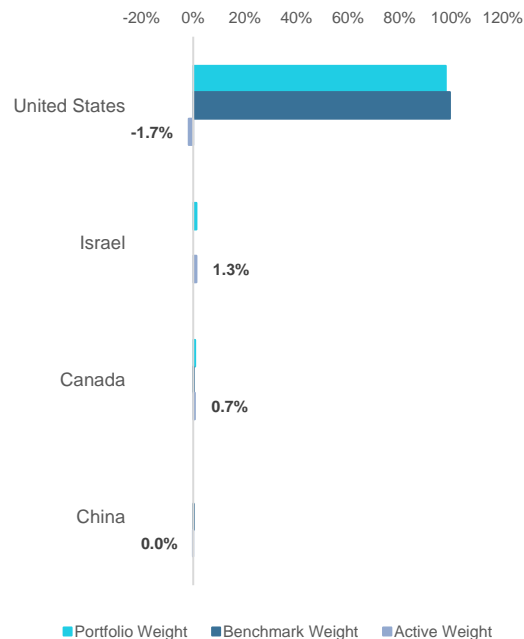
Growth Risk Analysis – Global Equity Systematic US Small Cap Value

for the quarter ended September 30, 2023

Portfolio Risk Summary

PORTFOLIO Forecast Volatility	BENCHMARK Forecast Volatility
21.2%	24.0%
PORTFOLIO Forecast Tracking Error	PORTFOLIO Beta
4.9%	0.87

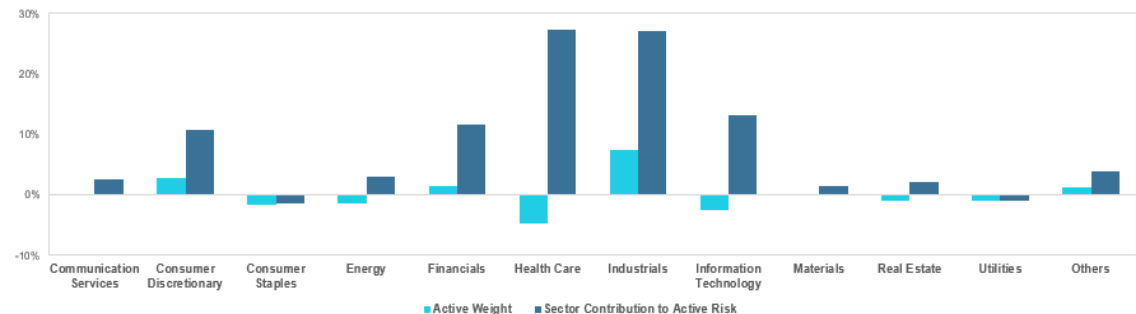
Top Countries by Weight



Top 10 Assets by Contribution to Portfolio Active Risk

Asset	Portfolio Weight	Benchmark Weight	Active Weight	Contribution to Portfolio Active Risk
SUPER MICRO COMPUTER INC	0.00%	0.57%	-0.57%	0.05%
CHART INDUSTRIES INC	0.00%	0.32%	-0.32%	0.02%
CARVANA CO	0.00%	0.18%	-0.18%	0.03%
MATADOR RESOURCES CO	0.00%	0.30%	-0.30%	0.01%
TENABLE HOLDINGS INC	0.00%	0.23%	-0.23%	0.02%
AXCELIS TECHNOLOGIES INC	0.00%	0.24%	-0.24%	0.01%
LIGHT & WONDER INC	0.00%	0.29%	-0.29%	0.00%
DUOLINGO INC	0.00%	0.21%	-0.21%	0.01%
CHAMPIONX CORP	0.00%	0.32%	-0.32%	0.00%
MICROSTRATEGY INC	0.00%	0.16%	-0.16%	0.02%

Portfolio Allocation by GICS Sector

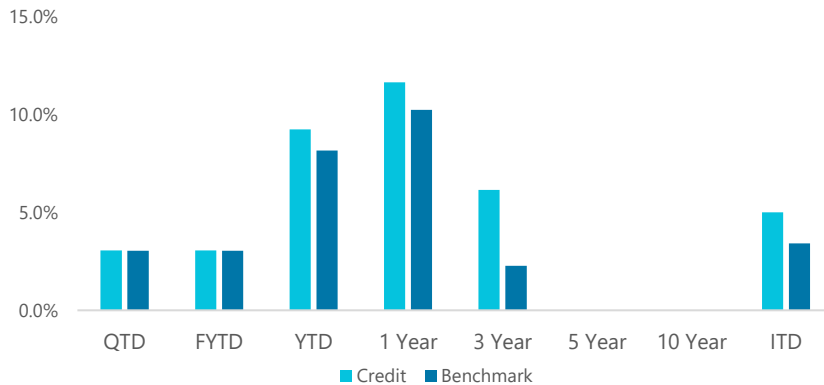


credit

Summary

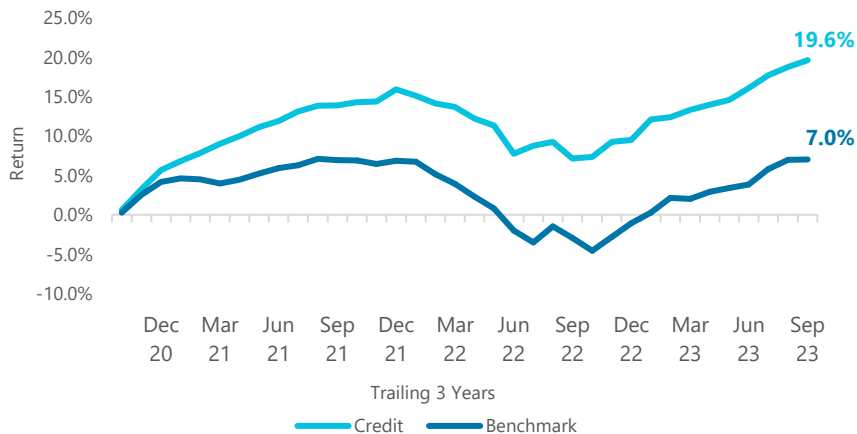
for the quarter ended September 30, 2023

Performance (net)



	QTD	FYTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD
Credit	3.1%	3.1%	9.2%	11.6%	6.1%	--	--	5.0%
Benchmark	3.0%	3.0%	8.2%	10.2%	2.3%	--	--	3.4%
Excess	0.0%	0.0%	1.1%	1.4%	3.9%	--	--	1.6%

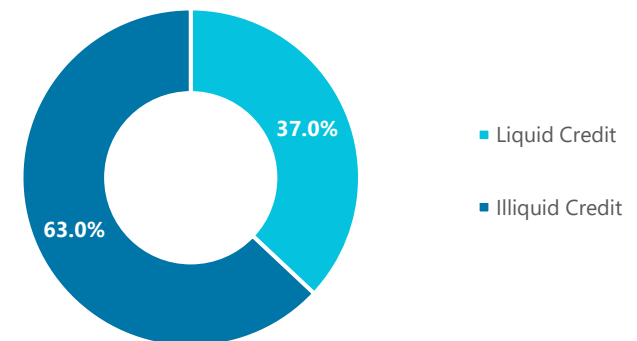
Cumulative Return



Functional Category

	QTD	FYTD	YTD	1 Year	3 Year
Liquid Credit	1.8%	1.8%	8.0%	12.2%	--
Liquid Credit Policy Benchmark	1.1%	1.1%	6.9%	11.2%	--
Excess	0.7%	0.7%	1.2%	1.0%	--
Illiquid Credit	3.8%	3.8%	9.7%	9.6%	12.7%
Illiquid Credit Policy Benchmark	4.1%	4.1%	8.8%	9.5%	1.5%
Excess	-0.4%	-0.4%	0.9%	0.1%	11.2%

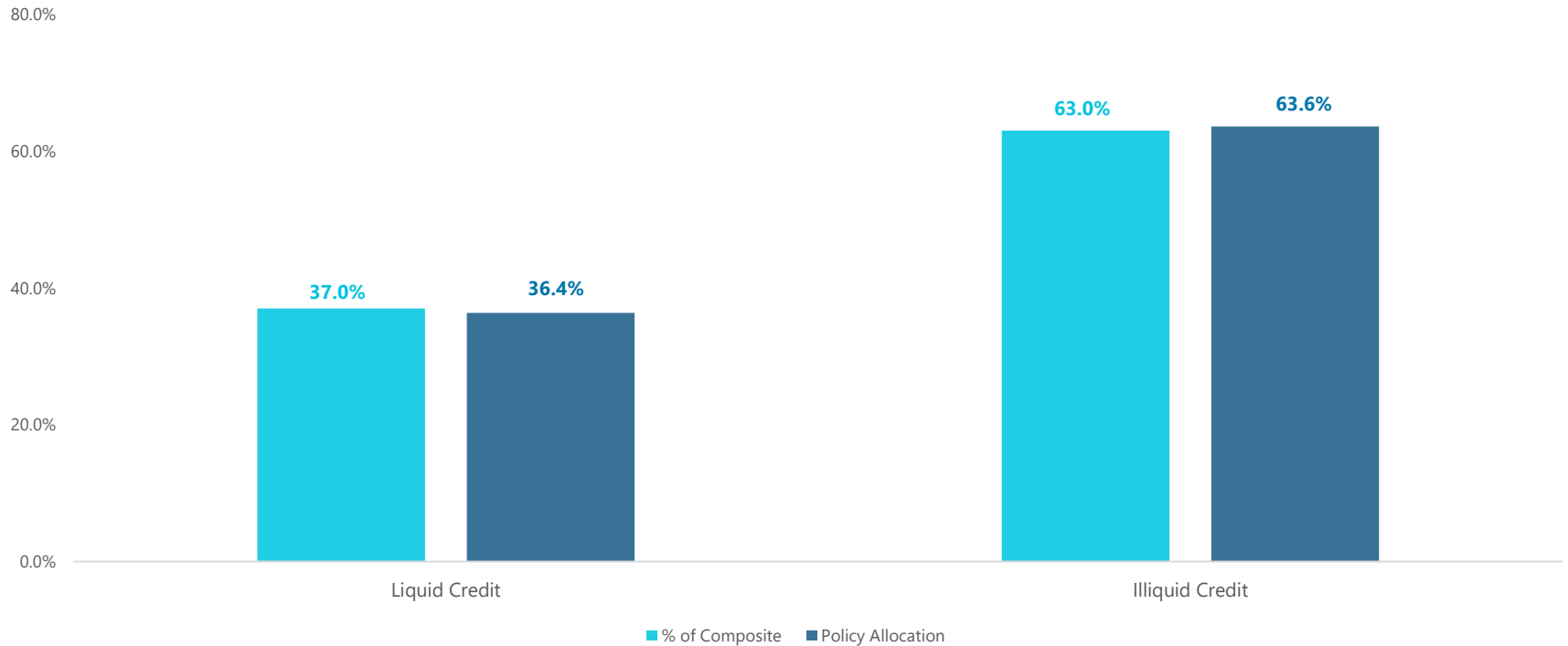
Exposure



Asset Allocation

for the quarter ended September 30, 2023

Actual vs. Policy

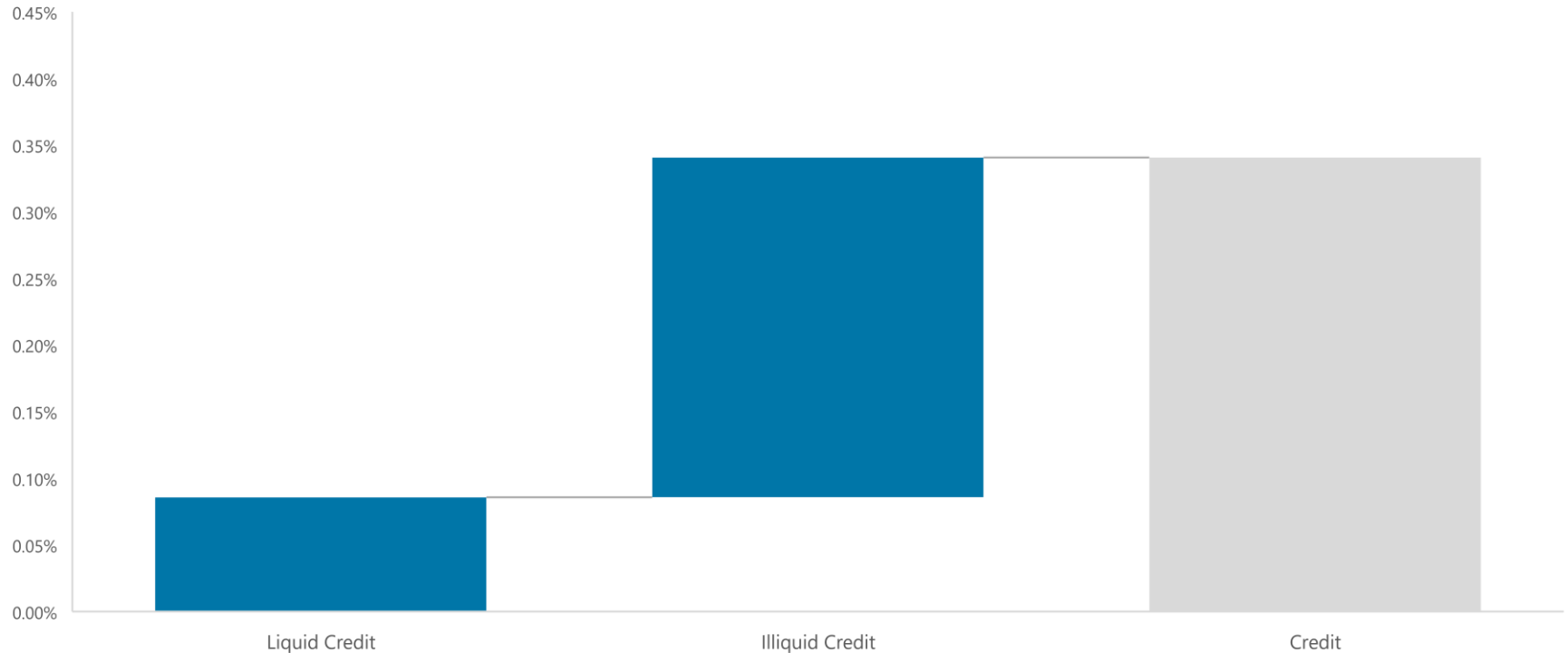


	Ending Market Value (mm)	% of Composite	Policy Allocation	Over / Under (%)	Over / Under (mm)
Credit	8,351	100.0%	100.0%		
Liquid Credit	3,089	37.0%	36.4%	0.6%	53
Illiquid Credit	5,262	63.0%	63.6%	-0.6%	-53

Contribution to Return

for the quarter ended September 30, 2023

QTD Contribution to Return



Functional Category	Contributors	Detractors
Liquid Credit	0.09% Napier Park	0.08% Ashmore Investment Management -0.01%
Illiquid Credit	0.26% Magnetar	0.06%
Credit	0.34% Lake Cascade	0.03%
	Credit Suisse Bank Loans	0.03%
	BlackRock/Tennenbaum	0.03%

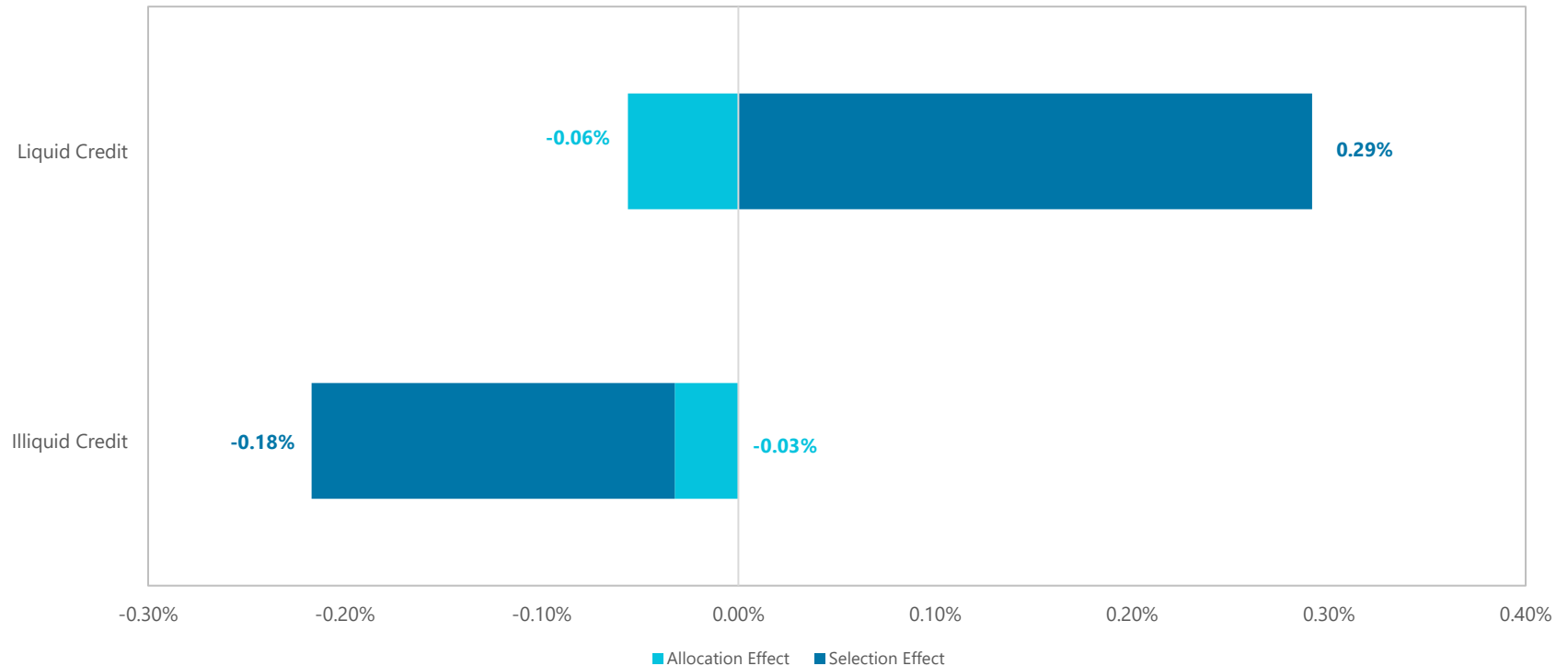
Return Attribution

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

QTD Performance Attribution¹



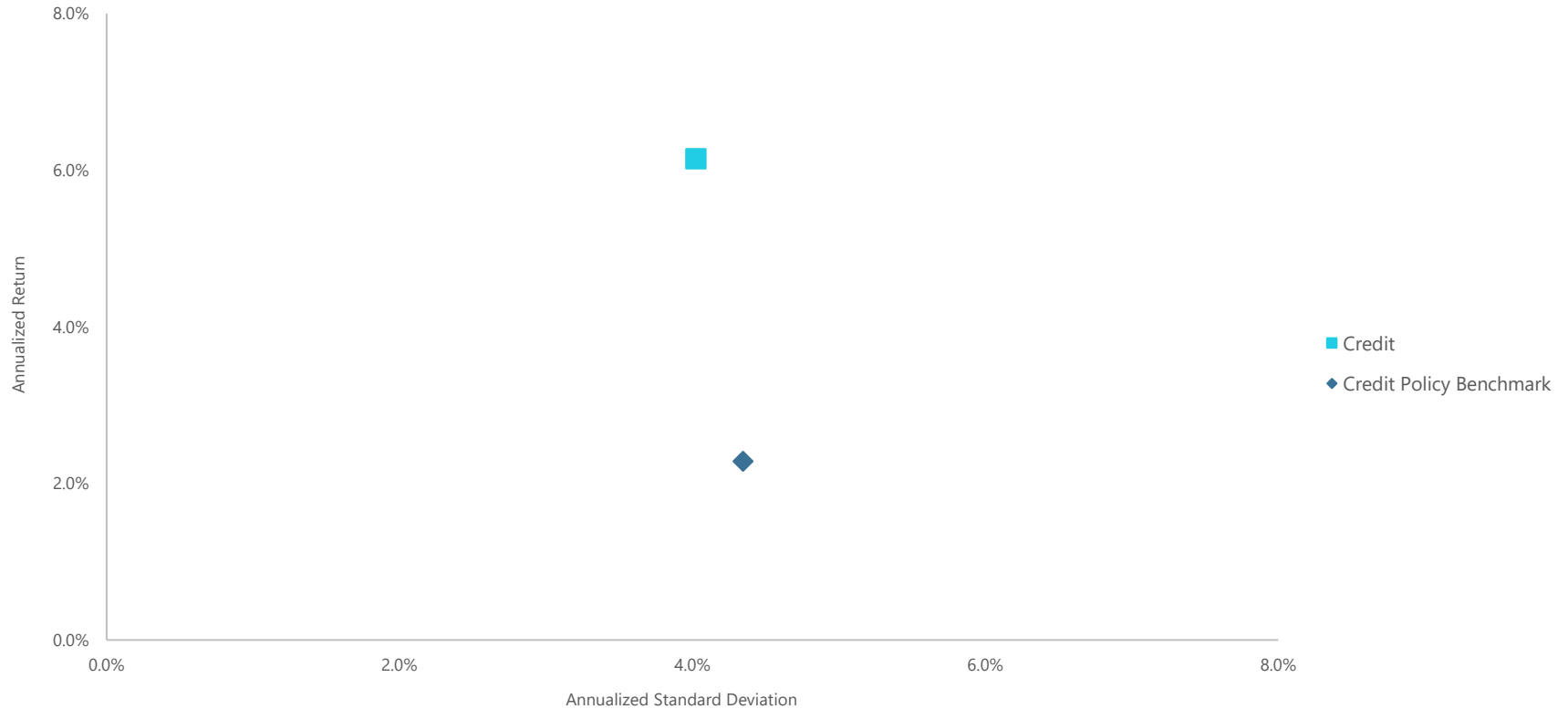
	Ending Market Value (mm)	% of Composite	Policy Allocation	Portfolio Return	Benchmark Return	Allocation Effect	Selection Effect	Total Value Add
Credit	8,351	100.0%	100.0%	3.1%	3.0%	-0.09%	0.11%	0.02%
Liquid Credit	3,089	37.0%	36.4%	1.8%	1.1%	-0.06%	0.29%	0.24%
Illiquid Credit	5,262	63.0%	63.6%	3.8%	4.1%	-0.03%	-0.18%	-0.22%

¹ Total Value Add column includes Interaction Effect.

Risk vs. Return

for the quarter ended September 30, 2023

3 Year (Annualized)



	Annualized Return	Standard Deviation	Sharpe Ratio	Information Ratio	Beta	Tracking Error
Credit	6.1%	4.0%				
Credit Policy Benchmark	2.3%	4.3%	1.09	1.21	0.68	3.1%

Performance Detail

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Annualized Net Returns

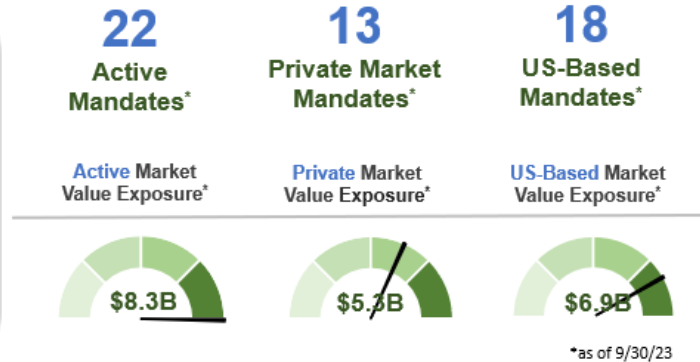
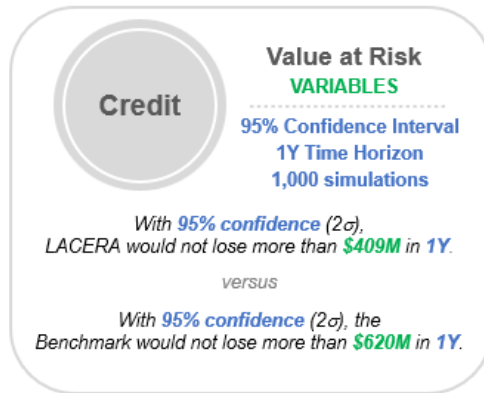
	% of Composite	Ending Market Value (mm)	Prior Quarter Ending MV (mm)	QTD	FYTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date
Credit	100.0%	8,351	8,297	3.1%	3.1%	9.2%	11.6%	6.1%	--	--	5.0%	Apr-2019
Credit Policy Benchmark				3.0%	3.0%	8.2%	10.2%	2.3%	--	--	3.4%	
Liquid Credit	37.0%	3,089	3,458	1.8%	1.8%	8.0%	12.2%	--	--	--	-0.4%	Oct-2021
Liquid Credit Policy Benchmark				1.1%	1.1%	6.9%	11.2%	--	--	--	-0.7%	
abrdn	2.9%	240	367	-1.9%	-1.9%	4.7%	14.7%	-2.8%	0.3%	--	-0.1%	Jul-2017
Ashmore Investment Management	3.0%	251	256	-1.8%	-1.8%	2.6%	12.5%	-4.0%	-2.1%	--	-1.7%	Jun-2017
Bain Capital	5.5%	461	446	3.4%	3.4%	10.8%	13.0%	7.1%	5.1%	--	4.3%	Jun-2014
Beach Point	3.6%	302	299	1.0%	1.0%	7.8%	12.5%	1.7%	3.1%	--	4.4%	Mar-2014
Brigade Cap Mgmt	5.6%	469	519	1.9%	1.9%	6.9%	8.3%	4.3%	2.6%	4.0%	5.8%	Jul-2010
Credit Suisse Bank Loans	5.2%	434	660	3.6%	3.6%	10.8%	14.6%	6.1%	--	--	8.0%	Apr-2020
Crescent Capital	5.7%	477	460	3.6%	3.6%	10.7%	11.2%	5.5%	4.8%	--	3.9%	May-2014
Pinebridge Investments	5.4%	454	450	1.0%	1.0%	6.6%	11.1%	--	--	--	-2.3%	Sep-2021
Illiquid Credit	63.0%	5,262	4,839	3.8%	3.8%	9.7%	9.6%	12.7%	--	--	9.9%	Apr-2019
Illiquid Credit Policy Benchmark				4.1%	4.1%	8.8%	9.5%	1.5%	--	--	5.0%	
Beach Point - Fund II	0.1%	11	12	--	--	--	--	--	--	--	--	Jun-2014
Beach Point - Fund III	1.3%	108	113	4.1%	4.1%	1.3%	-3.1%	11.7%	8.8%	--	9.0%	Jun-2017
BlackRock/Tennenbaum	7.2%	602	631	3.2%	3.2%	7.6%	8.9%	8.7%	7.4%	--	7.4%	Nov-2014
Grosvenor OPCRD 2 HFOF	0.2%	21	21	--	--	--	--	--	--	--	--	Mar-2016
Lake Cascade	8.4%	702	506	3.5%	3.5%	--	--	--	--	--	4.6%	Jan-2023
Lake Cottage	8.2%	688	522	1.5%	1.5%	6.7%	--	--	--	--	6.7%	Nov-2022
Lake Vineyard	6.7%	560	543	3.2%	3.2%	9.0%	9.6%	--	--	--	5.1%	Aug-2022
Magnetar	12.0%	1,000	958	4.4%	4.4%	10.6%	10.4%	18.3%	--	--	17.2%	Aug-2020
Napier Park	11.7%	981	907	6.8%	6.8%	15.6%	14.8%	11.4%	--	--	16.3%	Apr-2020
PIMCO Tac Opps	2.8%	234	284	3.0%	3.0%	7.3%	6.3%	7.4%	--	--	6.0%	Nov-2018
Private Equity - Credit	2.7%	227	229	-0.4%	-0.4%	11.9%	16.5%	27.5%	--	--	14.1%	Jan-2019
Real Estate - Credit	0.7%	62	59	4.7%	4.7%	12.0%	15.6%	11.7%	10.8%	9.3%	9.5%	Oct-2011
Stable Asset Management – IC	0.8%	65	55	2.1%	2.1%	2.0%	--	--	--	--	2.0%	Nov-2022

Credit Risk Summary

for the quarter ended September 30, 2023

Realized (Ex-Post) Risks

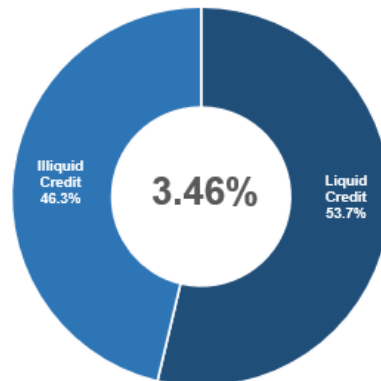
\$8.3B	CREDIT 1Y Realized Return	11.6%
	CREDIT Monte Carlo VaR	BENCHMARK Monte Carlo VaR
5.0%	7.6%	



Projected (Ex-Ante) Risks

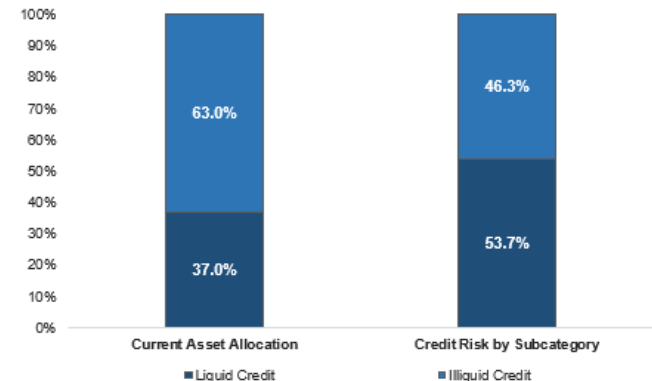
Credit Forecast Volatility	Benchmark Forecast Volatility
3.46%	5.18%
Credit Forecast Tracking Error	Portfolio Beta
2.52%	0.61
Liquid Credit TE	Effective Duration
0.87%	1.77
Illiquid Credit TE	Yield to Worst
4.18%	9.71%
	OAS to Swap
	470

Subcategory Contributions to Credit Risk



Credit Asset Allocation

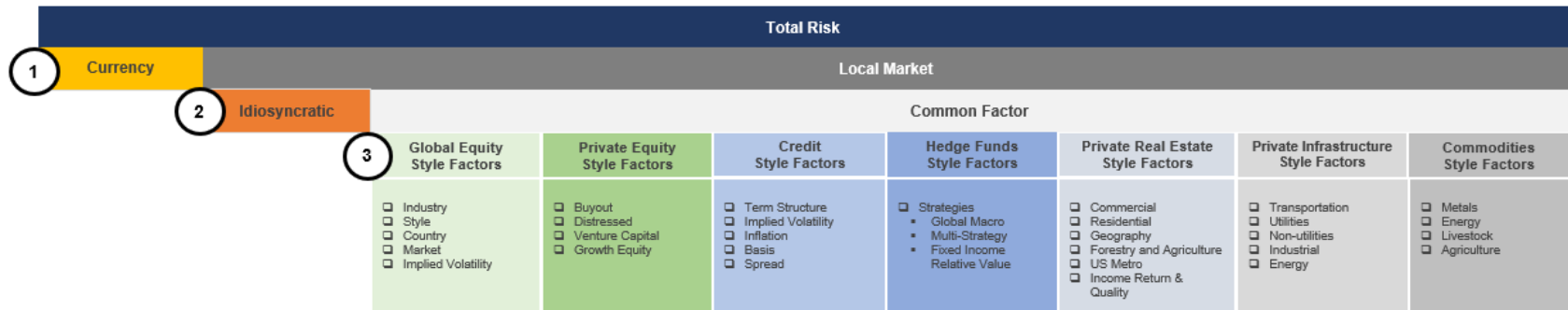
Capital-based versus Risk-based



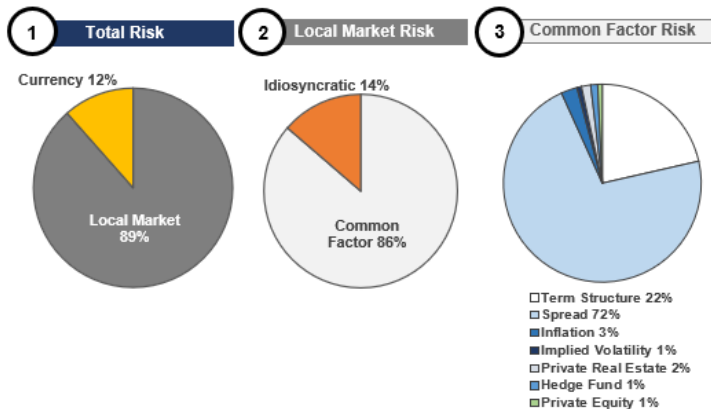
Credit Risk Summary

for the quarter ended September 30, 2023

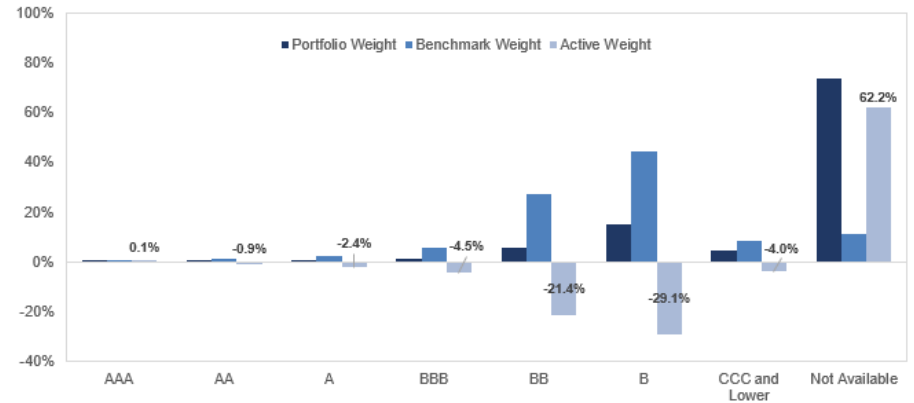
Decomposition of MSCI Risk Factors



Credit Risk Decomposition



Portfolio Allocation by Moody's Rating



Credit Risk Summary

for the quarter ended September 30, 2023

Portfolio Allocation by Bond Sector

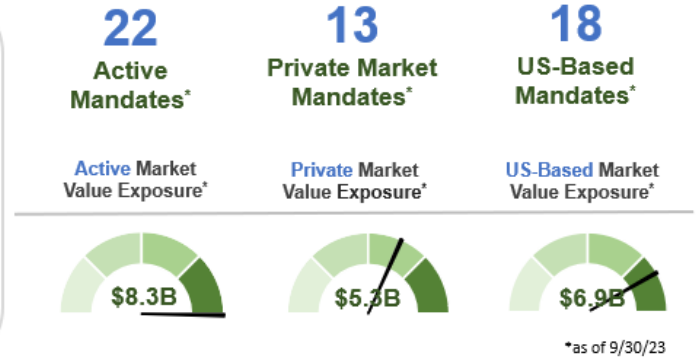


Liquid Credit Risk Summary

for the quarter ended September 30, 2023

Realized (Ex-Post) Risks

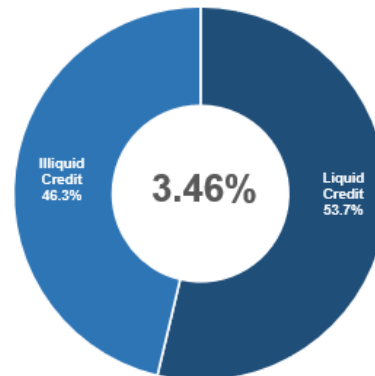
\$8.3B	CREDIT 1Y Realized Return
	11.6%
CREDIT Monte Carlo VaR	BENCHMARK Monte Carlo VaR
5.0%	7.6%



Projected (Ex-Ante) Risks

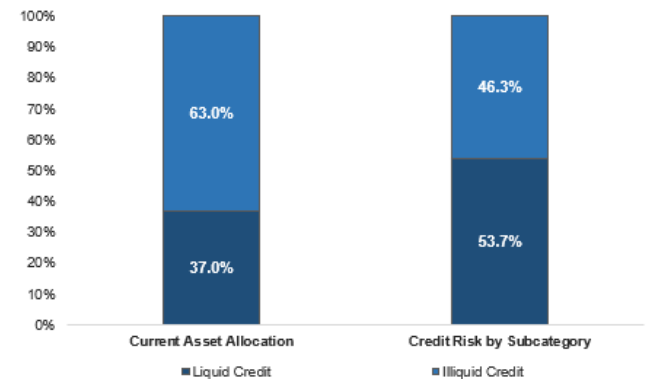
Credit Forecast Volatility 3.46%	Benchmark Forecast Volatility 5.18%
Credit Forecast Tracking Error 2.52%	Portfolio Beta 0.61
Liquid Credit TE 0.87%	Effective Duration 1.77
Illiquid Credit TE 4.18%	Yield to Worst 9.71%
	OAS to Swap 470

Subcategory Contributions to Credit Risk



Credit Asset Allocation

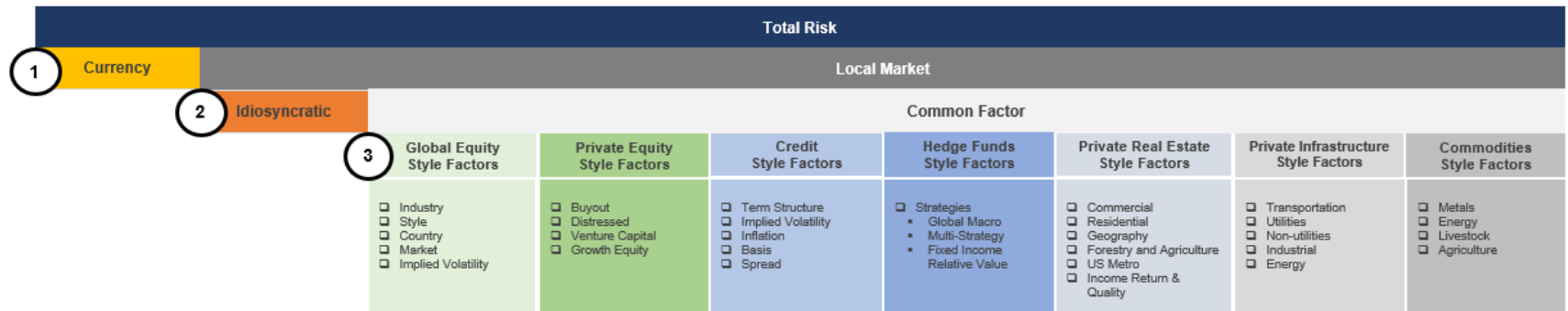
Capital-based versus Risk-based



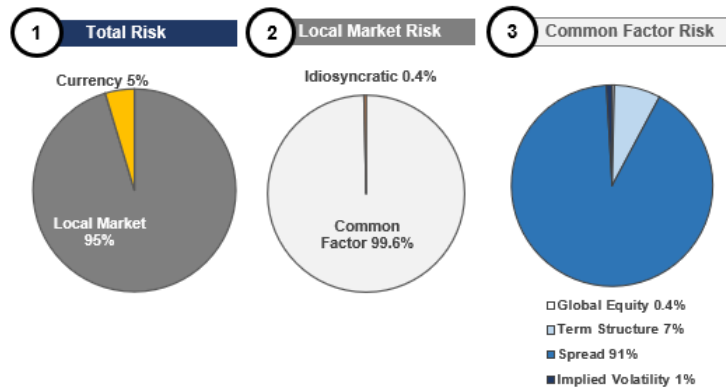
Liquid Credit Risk Summary

for the quarter ended September 30, 2023

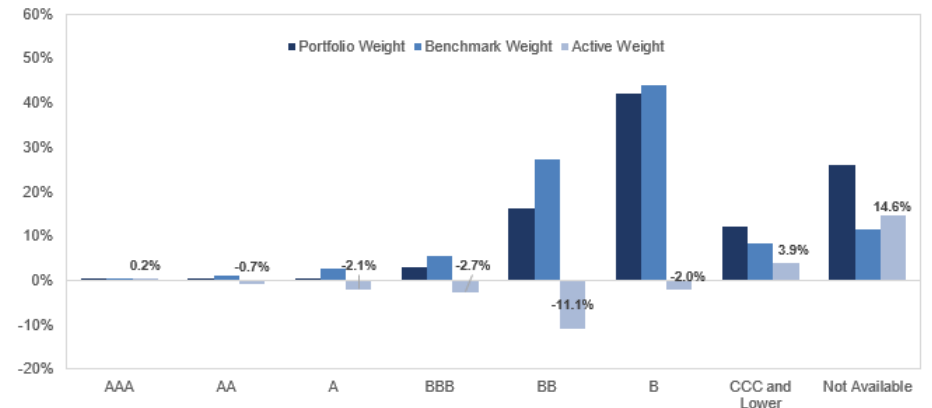
Decomposition of MSCI Risk Factors



Liquid Credit Risk Decomposition



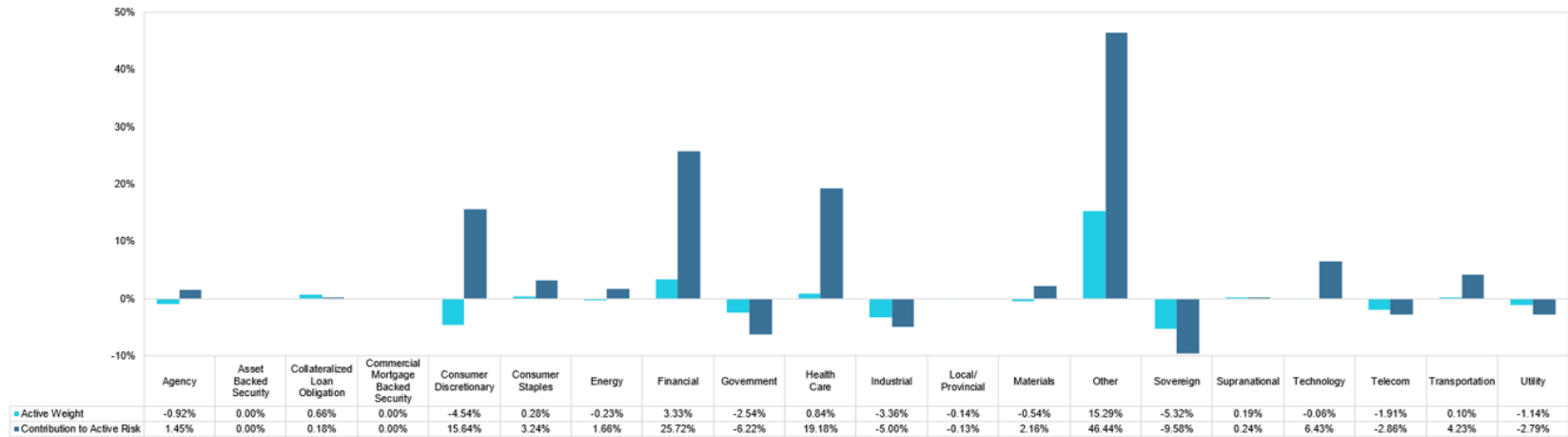
Portfolio Allocation by Moody's Rating



Liquid Credit Risk Summary

for the quarter ended September 30, 2023

Portfolio Allocation by Bond Sector



Credit – Liquid Credit abrdn

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Strategy

An emerging market debt strategy that invests in sovereigns, quasi-sovereigns, and corporate bonds denominated in US Dollar or local currencies.

Inception Date: July 2017

Risk Statistics (since inception)

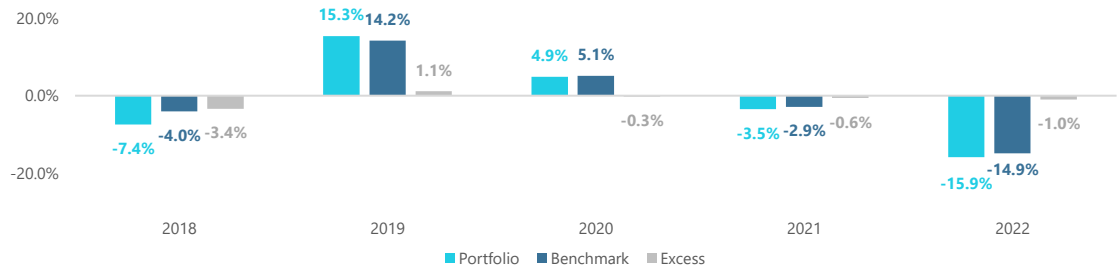
Standard Deviation	11.0%
Benchmark Standard Deviation	9.3%
Sharpe Ratio	-0.11
Information Ratio	-0.15
Beta	1.16
Tracking Error	2.7%

Performance (net)¹

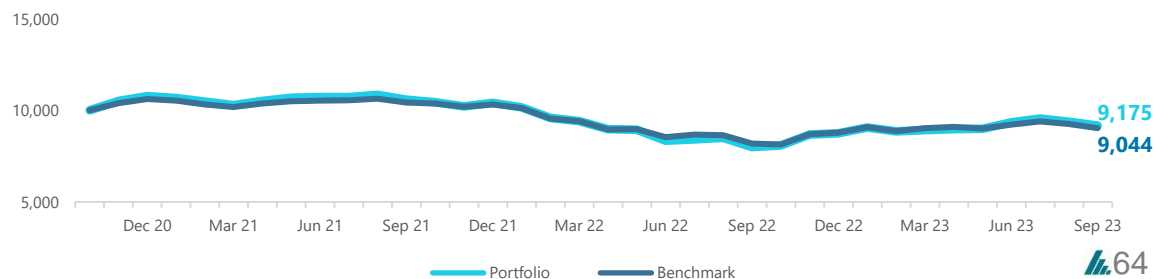
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
abrdn	240.4	-1.9%	14.7%	-2.8%	0.3%
EMD Custom Benchmark		-2.0%	10.4%	-3.3%	0.4%
Credit Policy Benchmark		3.0%	10.2%	2.3%	--

Universe data: US Fixed Income Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
abrdn	-1.8%	59	15.1%	8	-2.5%	58	0.6%	68
Median	-0.9%		2.7%		-1.5%		1.2%	
No. of Observations	758							

Calendar Year Returns



Growth of \$10,000

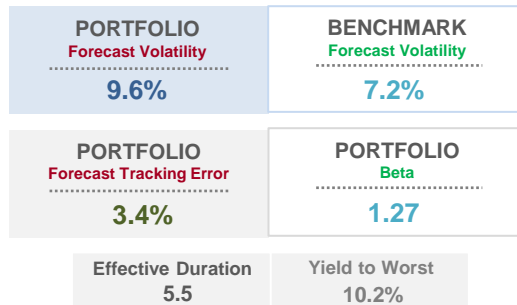


Note: Commingled fund account with no position-level transparency.
¹ Universe data is gross-of-fees.

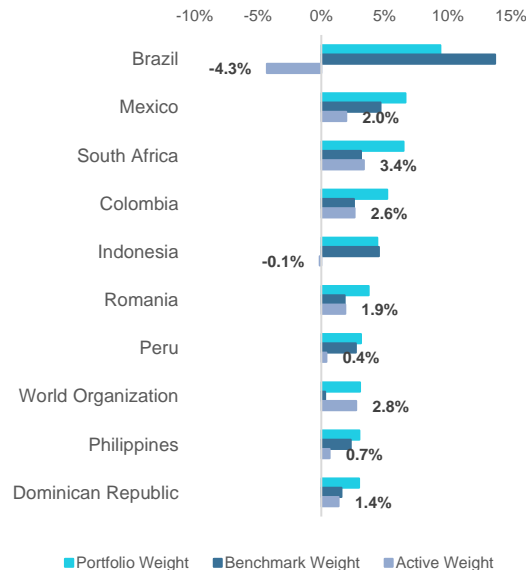
Credit Risk Analysis – Liquid Credit abrdn

for the quarter ended September 30, 2023

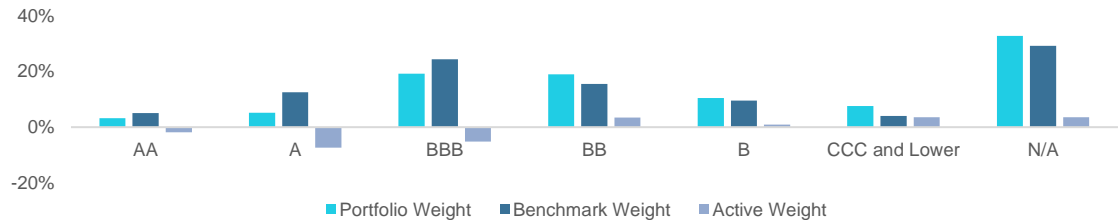
Portfolio Risk Summary



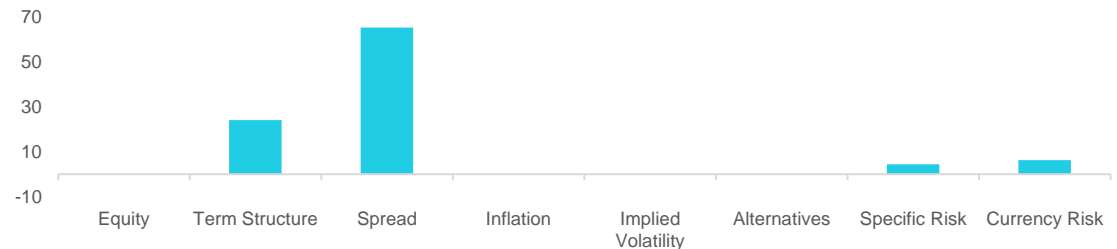
Top 10 Countries by Weight



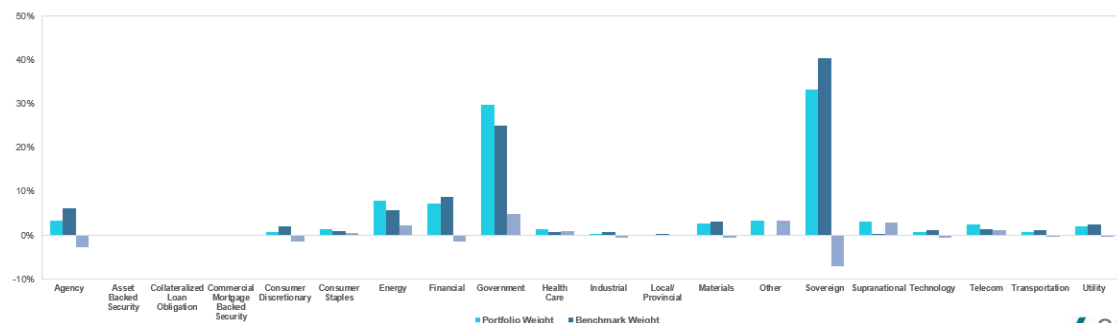
Allocation by Moody's Rating



Active Risk from Common Factors



Portfolio Allocation by Bond Sector



Credit – Liquid Credit

Ashmore

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Strategy

A value-driven emerging market debt strategy that applies a macro, top-down approach to build a well-diversified portfolio that adds value through asset rotation, security selection, and currency positioning utilizing a committee driven, systematic risk mitigating process.

Inception Date: June 2017

Risk Statistics (since inception)

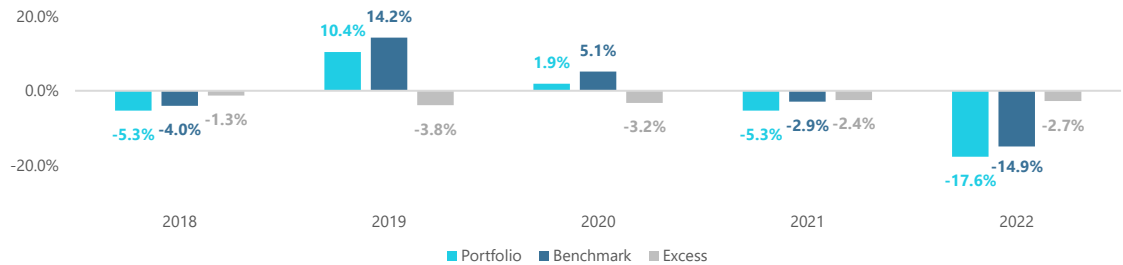
Standard Deviation	12.9%
Benchmark Standard Deviation	9.3%
Sharpe Ratio	-0.19
Information Ratio	-0.44
Beta	1.36
Tracking Error	4.3%

Performance (net)¹

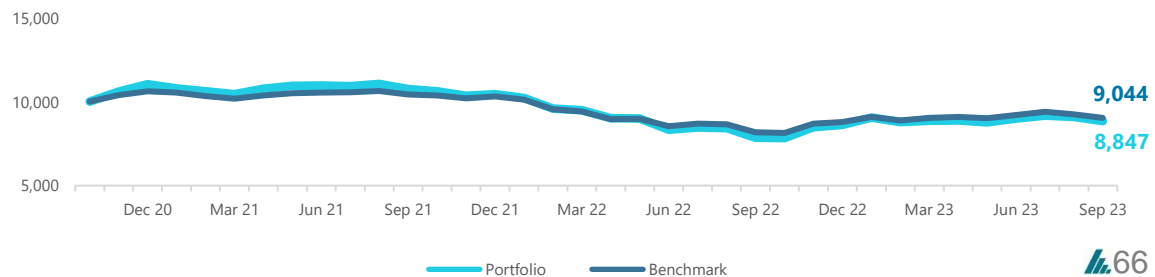
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Ashmore Investment Management	251.3	-1.8%	12.5%	-4.0%	-2.1%
EMD Custom Benchmark		-2.0%	10.4%	-3.3%	0.4%
Credit Policy Benchmark		3.0%	10.2%	2.3%	--

Universe data: US Fixed Income Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Ashmore Investment Management	-1.7%	58	13.0%	11	-3.5%	66	-1.6%	94
Median	-0.9%		2.7%		-1.5%		1.2%	
No. of Observations	758							

Calendar Year Returns



Growth of \$10,000

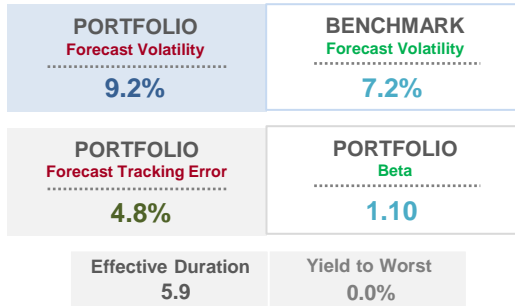


Note: Commingled fund account with no position-level transparency.
¹ Universe data is gross-of-fees.

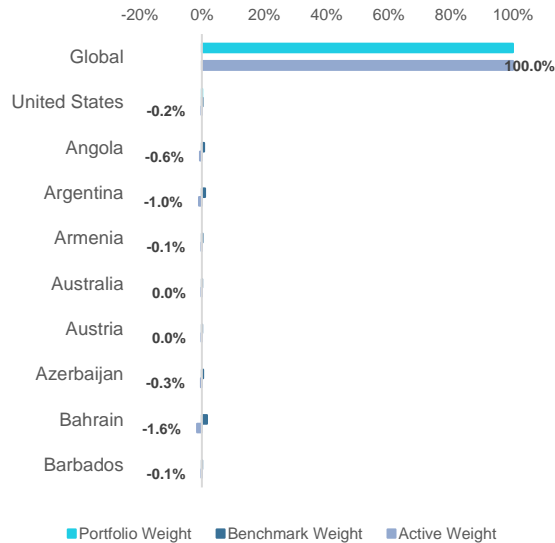
Credit Risk Analysis – Liquid Credit Ashmore

for the quarter ended September 30, 2023

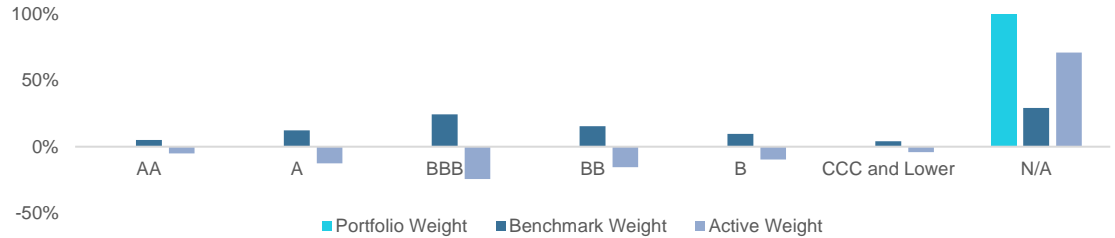
Portfolio Risk Summary



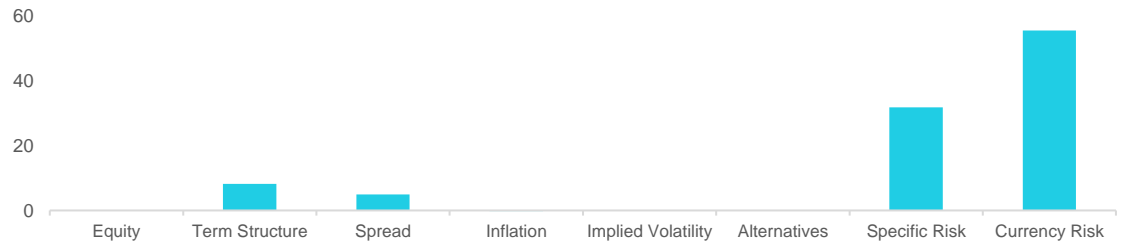
Top 10 Countries by Weight



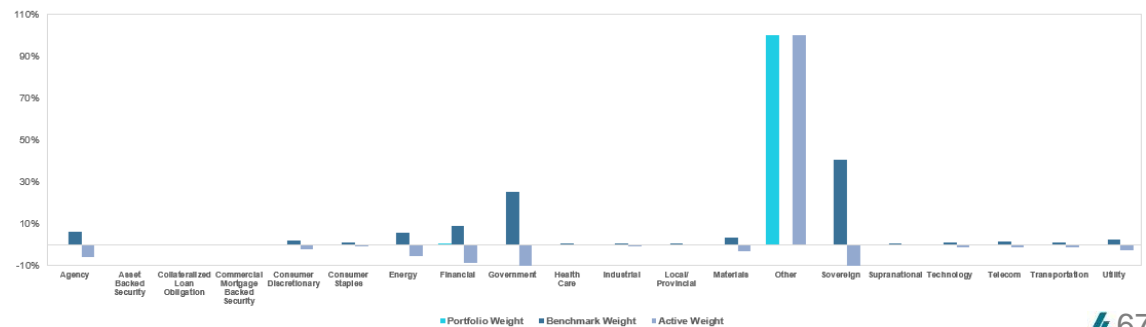
Allocation by Moody's Rating



Active Risk from Common Factors



Portfolio Allocation by Bond Sector



Credit – Liquid Credit Bain Capital

for the quarter ended September 30, 2023

Strategy

A long-only strategy designed to provide exposure to senior secured, floating-rate bank loans. The strategy takes a fundamental, active, and global approach to investing, capitalizing on opportunities in an inefficient asset class. The return objective is to outperform the Index through strong credit selection and active portfolio management.

Inception Date: June 2014

Portfolio Characteristics

	Portfolio	Benchmark
No. of Issues	550.0	0.0
Effective Duration	0.2	3.6
Convexity	0.0	0.0
Coupon Rate	8.6	6.0
Yield to Maturity	7.9	8.7
Current Yield	8.8	6.7
Rating – Moody's	B-2	B-1
Rating – S & P	B	B+

Top Holdings (% of assets)

CPS GROUP HOLDINGS INC	0.8%
AQGEN ISLAND HOLDINGS, INC.	0.6%
SPRINT INTERMEDIATE HOLDING I	0.6%
PMHC II INC	0.6%
BALLINASMALLA HOLDINGS LIMITED	0.6%
Top 5 Holdings	3.1%

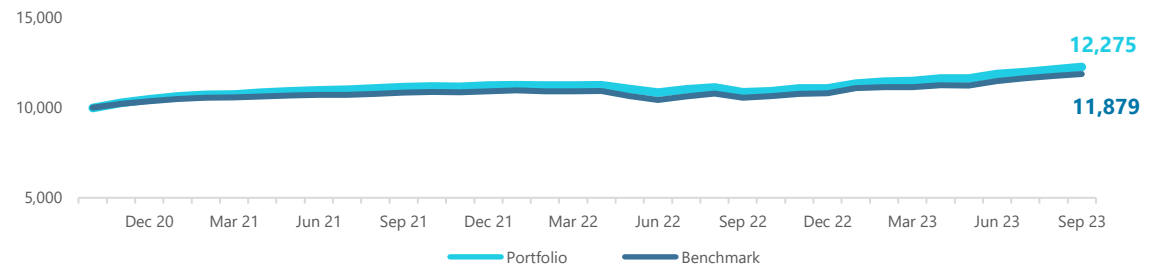
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Bain Capital	461.0	3.4%	13.0%	7.1%	5.1%
Bank Loans Custom Benchmark		3.4%	12.5%	5.9%	4.8%
Credit Policy Benchmark		3.0%	10.2%	2.3%	--

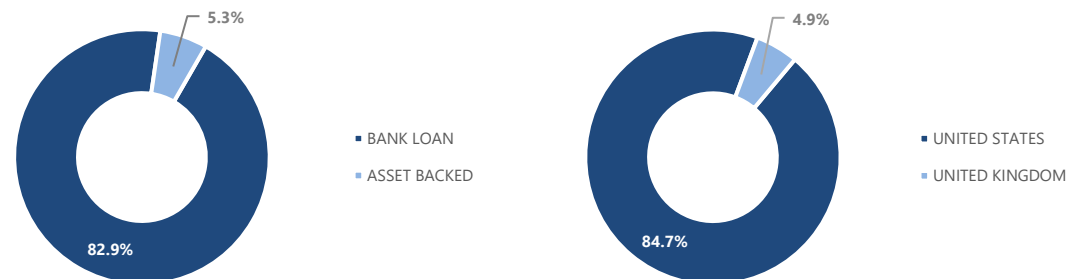
Universe data: U.S. Fixed Income Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Bain Capital	3.6%	10	13.6%	11	7.7%	18	5.7%	15
Median	-0.9%		2.7%		-1.5%		1.2%	

No. of Observations: 758

Growth of \$10,000



Top Exposures (% of assets)²



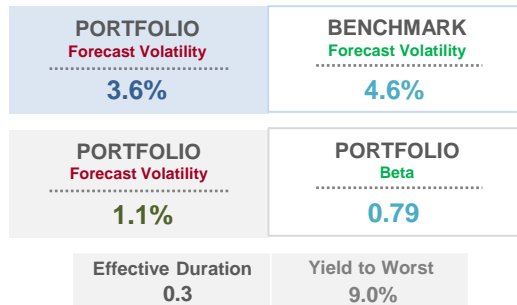
¹ Universe data is gross-of-fees.

² Charts display top exposures and may not add up to 100%.

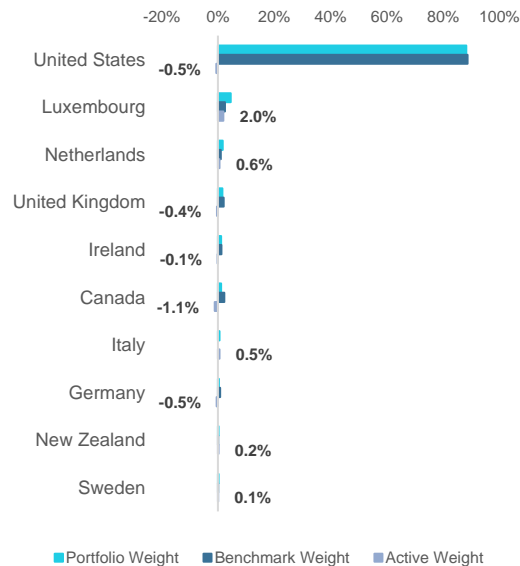
Credit Risk Analysis – Liquid Credit Bain Capital

for the quarter ended September 30, 2023

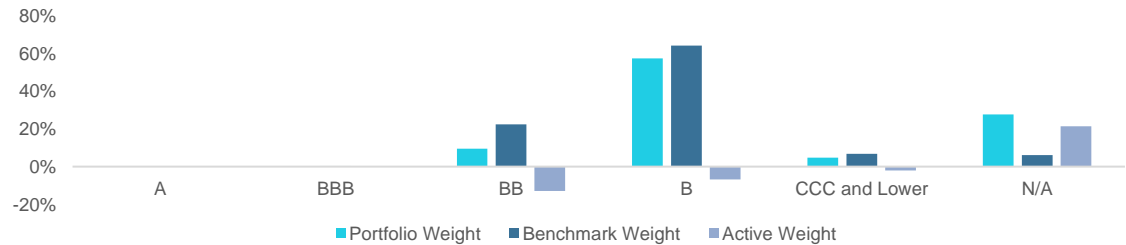
Portfolio Risk Summary



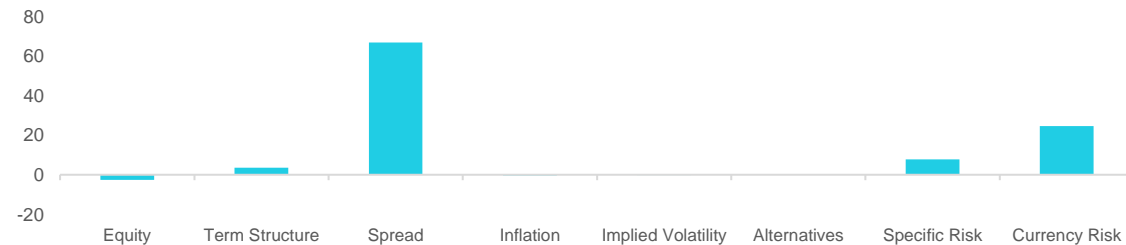
Top 10 Countries by Weight



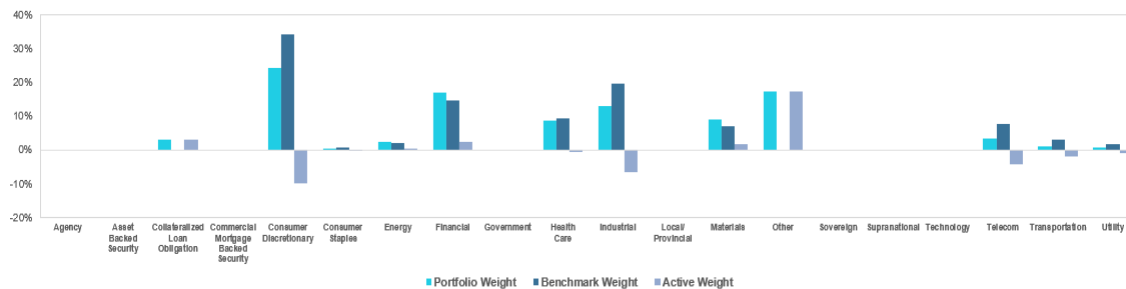
Allocation by Moody's Rating



Active Risk from Common Factors



Portfolio Allocation by Bond Sector



Credit – Liquid Credit Beach Point

for the quarter ended September 30, 2023

Strategy

A fundamental, value oriented high yield bond strategy that utilizes legal skills to identify market anomalies in bond covenants and indentures. The primary investment goal is to generate superior returns while controlling risk to minimize the possibility of capital impairment.

Inception Date: June 2014

Portfolio Characteristics

	Portfolio	Benchmark
No. of Issues	271.0	0.0
Effective Duration	3.3	3.6
Convexity	0.0	0.0
Coupon Rate	6.2	6.0
Yield to Maturity	8.8	8.7
Current Yield	7.0	6.7
Rating – Moody's	B-1	B-1
Rating – S & P	B	B+

Top Holdings (% of assets)

MPH ACQUISITION HOLDINGS	1.6%
DEALER TIRE LLC/DT ISSR	1.5%
COMPASS GROUP DIVERSIFIE	1.3%
FORTRESS TRANS + INFRAST	1.1%
AMWINS GROUP INC	1.1%
Top 5 Holdings	6.5%

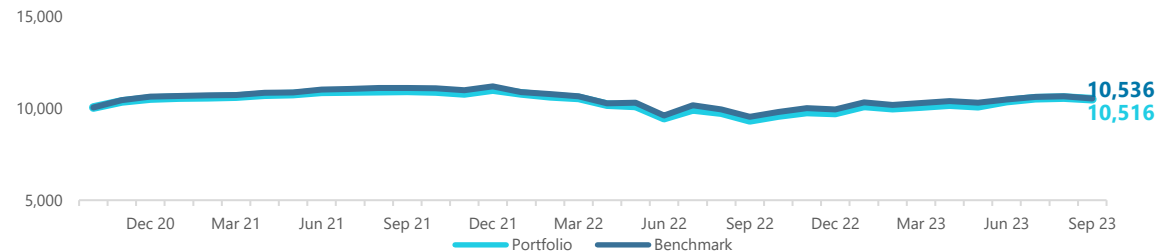
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Beach Point	302.5	1.0%	12.5%	1.7%	3.1%
Beachpoint Custom Benchmark		0.5%	10.3%	1.8%	2.5%
Credit Policy Benchmark		3.0%	10.2%	2.3%	--

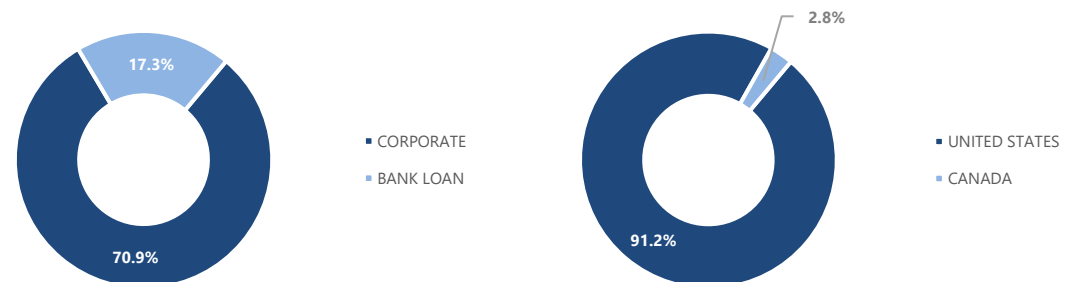
Universe data: US Fixed Income Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Beach Point	1.1%	24	13.0%	11	2.2%	28	3.6%	20
Median	-0.9%		2.7%		-1.5%		1.2%	

No. of Observations: 758

Growth of \$10,000



Top Exposures (% of assets)²



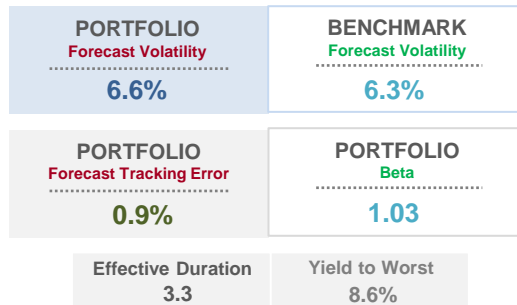
¹ Universe data is gross-of-fees.

² Charts display top exposures and may not add up to 100%.

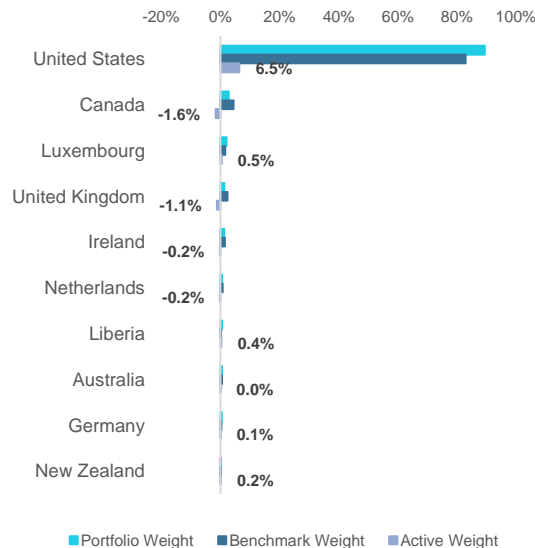
Credit Risk Analysis – Liquid Credit Beach Point

for the quarter ended September 30, 2023

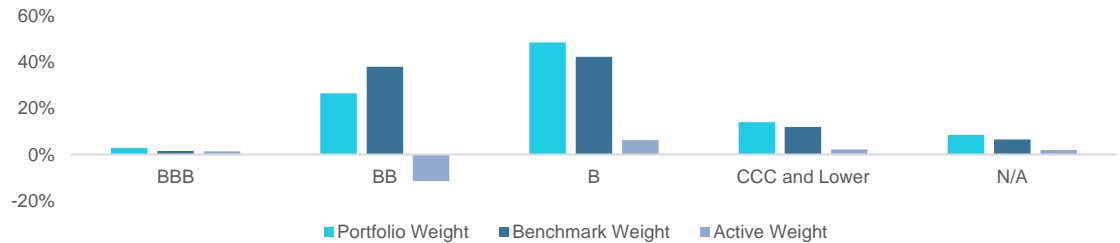
Portfolio Risk Summary



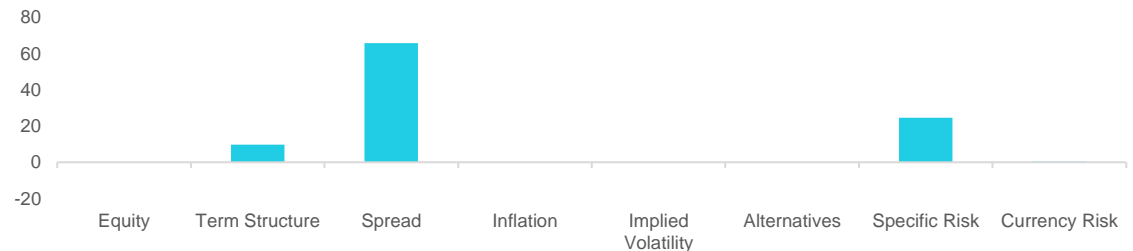
Top 10 Countries by Weight



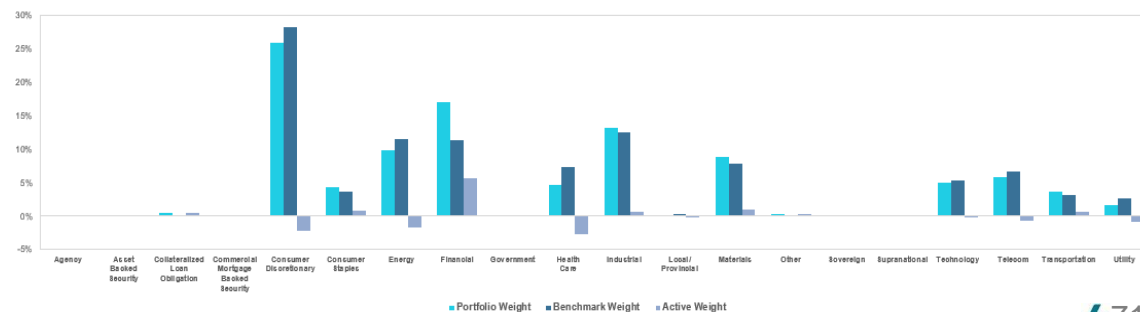
Allocation by Moody's Rating



Active Risk from Common Factors



Portfolio Allocation by Bond Sector



Credit – Liquid Credit Brigade Capital

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Strategy

A strategy that focuses on identifying attractive companies within the high yield bond marketplace. The strategy invests in companies that have a lower likelihood of default or are better able to recover from economic downturns because of their substantial asset value relative to debt.

Inception Date: July 2010

Portfolio Characteristics

	Portfolio	Benchmark
No. of Issues	243.0	0.0
Effective Duration	2.8	3.6
Convexity	0.1	0.0
Coupon Rate	7.3	6.0
Yield to Maturity	13.2	8.7
Current Yield	9.2	6.7
Rating – Moody's	B-3	B-1
Rating – S & P	B-	B+

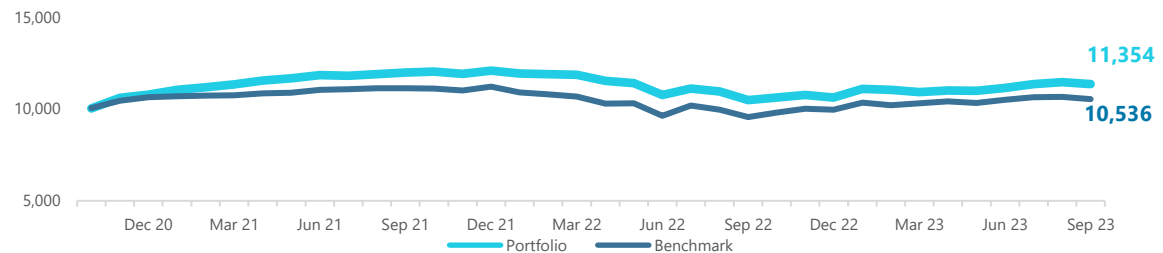
Top Holdings (% of assets)

CORNERSTONE CHEMICAL CO	3.0%
RP ESCROW ISSUER LLC	1.9%
GLOBAL MEDICAL RESPONSE	1.8%
LIFESCAN GLOBAL CORPORATION	1.8%
CMG MEDIA CORPORATION	1.4%
Top 5 Holdings	10.0%

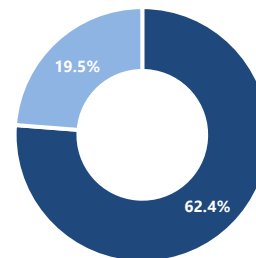
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year			
Brigade Cap Mgmt	469.0	1.9%	8.3%	4.3%	2.6%			
Brigade Custom Benchmark		0.5%	10.3%	1.8%	2.8%			
Credit Policy Benchmark		3.0%	10.2%	2.3%	--			
Universe data: US Fixed Income Funds								
	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Brigade Cap Mgmt	2.0%	15	8.7%	19	4.7%	22	3.2%	23
Median	-0.9%		2.7%		-1.5%		1.2%	
No. of Observations	758							

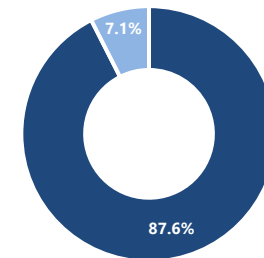
Growth of \$10,000



Top Exposures (% of assets)²



■ CORPORATE
■ BANK LOAN



■ UNITED STATES
■ CANADA

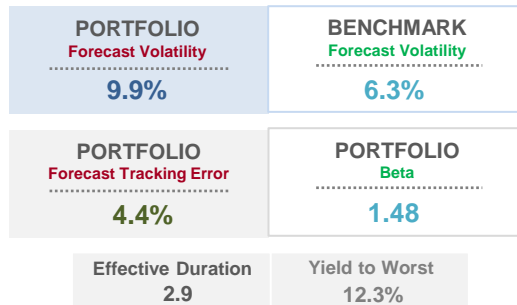
¹ Universe data is gross-of-fees.

² Charts display top exposures and may not add up to 100%.

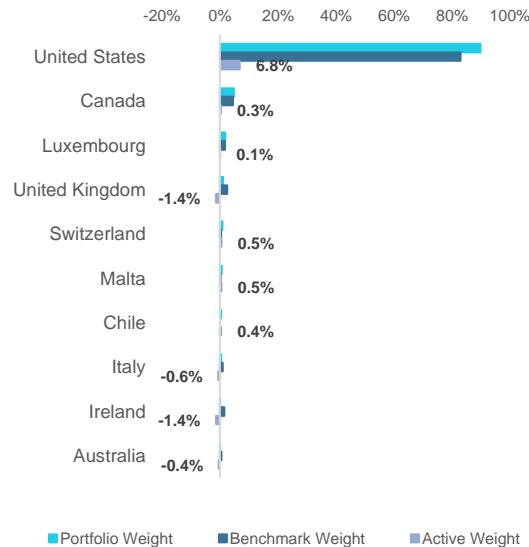
Credit Risk Analysis – Liquid Credit Brigade Capital

for the quarter ended September 30, 2023

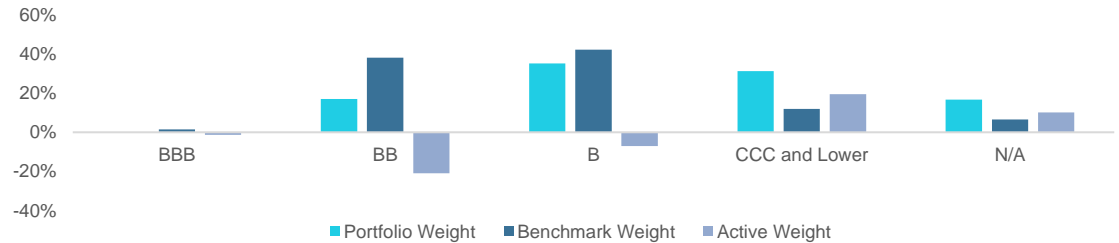
Portfolio Risk Summary



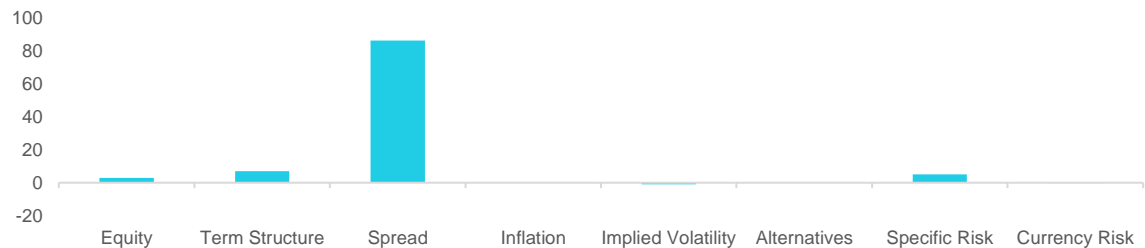
Top 10 Countries by Weight



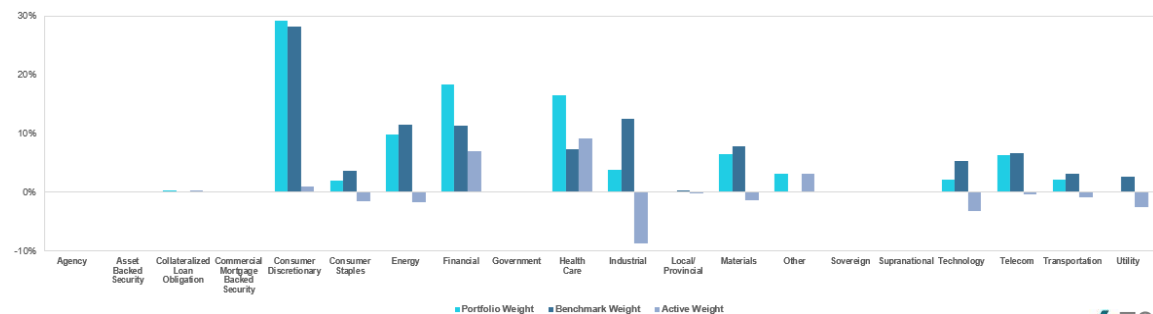
Allocation by Moody's Rating



Active Risk from Common Factors



Portfolio Allocation by Bond Sector



Credit – Liquid Credit

Credit Suisse

for the quarter ended September 30, 2023

Strategy

A bank loan strategy that invests in senior floating rate loans whose primary performance objective is to generate alpha while mitigating loss, utilizing bottom-up, fundamental credit analysis emphasizing a relative value approach.

Inception Date: April 2020

Portfolio Characteristics

	Portfolio	Benchmark
No. of Issues	371.0	0.0
Effective Duration	0.2	3.6
Convexity	0.0	0.0
Coupon Rate	9.2	6.0
Yield to Maturity	10.2	8.7
Current Yield	9.6	6.7
Rating – Moody's	B-2	B-1
Rating – S & P	B	B+

Top Holdings (% of assets)

CERIDIAN HCM HLDG INC	1.7%
DYNACAST INTERNATIONAL LLC	1.1%
WILLIAM MORRIS ENDEAVOR ENTMT	1.0%
GLASS CONTAINER ACQUISITION L	0.9%
WRENCH GROUP LLC	0.8%
Top 5 Holdings	5.5%

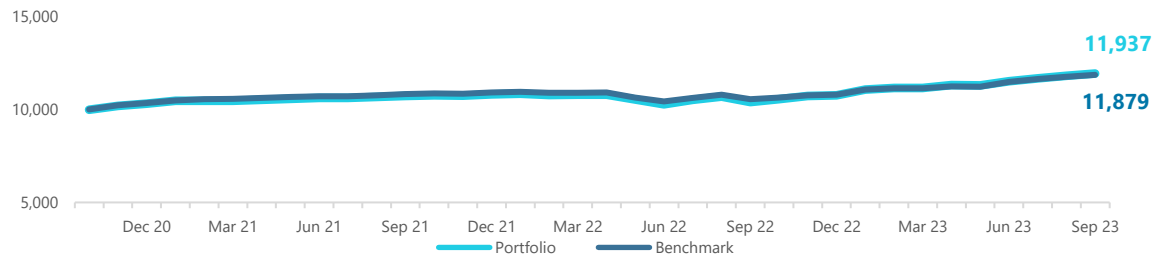
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Credit Suisse Bank Loans	434.1	3.6%	14.6%	6.1%	--
CS Leveraged Loan Index		3.4%	12.5%	5.9%	--
Credit Policy Benchmark		3.0%	10.2%	2.3%	--

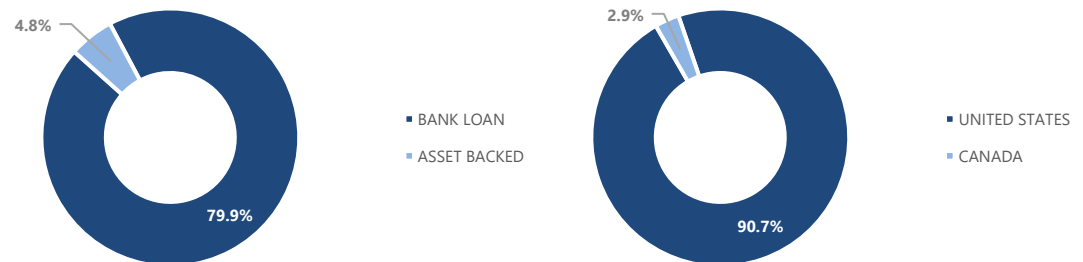
Universe data: US Fixed Income Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Credit Suisse Bank Loans	3.6%	10	14.9%	9	6.3%	20	--	--
Median	-0.9%		2.7%		-1.5%		--	

No. of Observations: 758

Growth of \$10,000



Top Exposures (% of assets)²



¹ Universe data is gross-of-fees.

² Charts display top exposures and may not add up to 100%.

Credit Risk Analysis – Liquid Credit

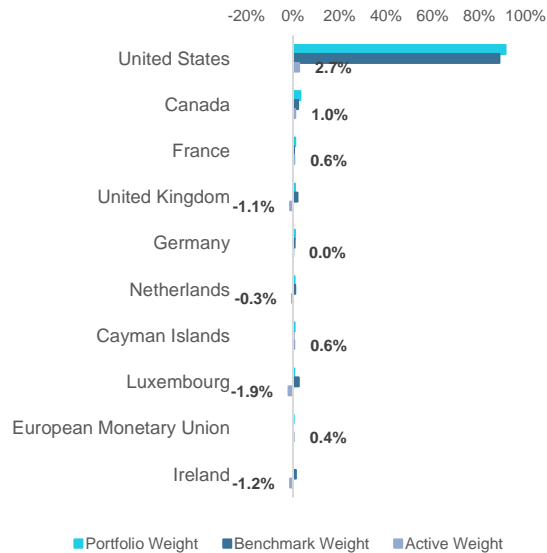
Credit Suisse

for the quarter ended September 30, 2023

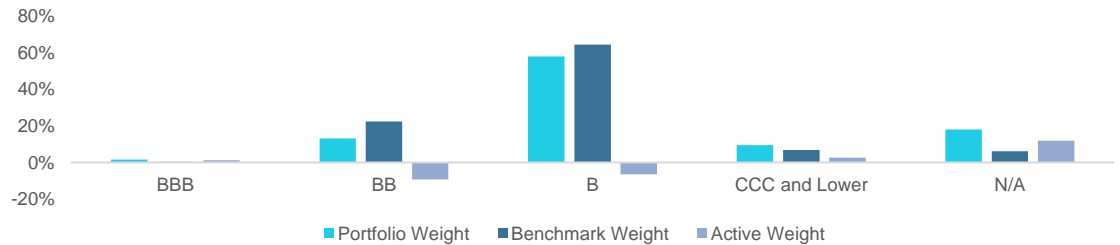
Portfolio Risk Summary

PORTFOLIO Forecast Volatility	BENCHMARK Forecast Volatility
3.7%	4.6%
PORTFOLIO Forecast Tracking Error	PORTFOLIO Beta
1.0%	0.81
Effective Duration	Yield to Worst
0.3	7.9%

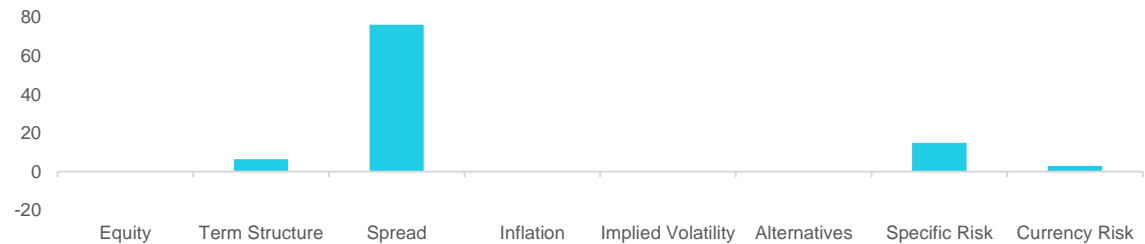
Top 10 Countries by Weight



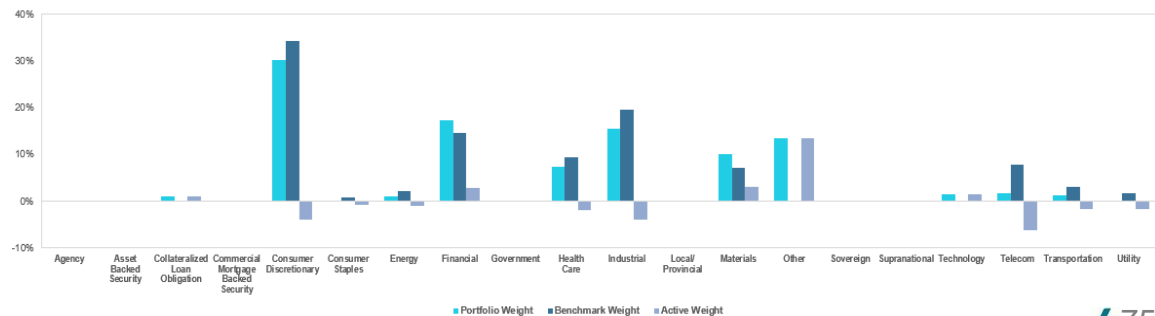
Allocation by Moody's Rating



Active Risk from Common Factors



Portfolio Allocation by Bond Sector



Credit – Liquid Credit Crescent Capital

for the quarter ended September 30, 2023

Strategy

A bank loan strategy that invests in privately negotiated, below investment grade, secured corporate debt. The primary target is U.S. based middle market companies whose EBITDA falls between \$30M to \$100M. The strategy's bottom-up credit research process emphasizes high current income and principal preservation.

Inception Date: May 2014

Portfolio Characteristics

	Portfolio	Benchmark
No. of Issues	144.0	0.0
Effective Duration	0.2	3.6
Convexity	0.0	0.0
Coupon Rate	10.1	6.0
Yield to Maturity	11.2	8.7
Current Yield	10.8	6.7
Rating – Moody's	B-3	B-1
Rating – S & P	B-	B+

Top Holdings (% of assets)

MAGNATE WORLDWIDE LLC	1.9%
ARCLINE FM HOLDINGS, LLC	1.9%
CTC HOLDINGS LP	1.8%
AIT WORLDWIDE LOGISTICS INC	1.8%
LASERAWAY INTERM HOLD II LLC	1.8%
Top 5 Holdings	9.3%

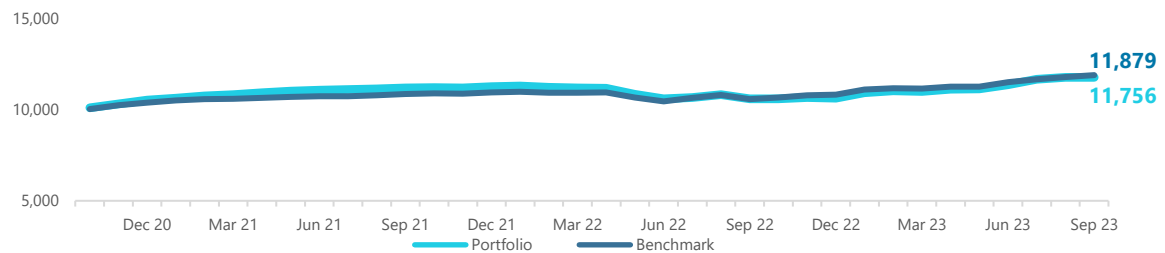
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Crescent Capital	476.7	3.6%	11.2%	5.5%	4.8%
Bank Loans Custom Benchmark		3.4%	12.5%	5.9%	4.8%
Credit Policy Benchmark		3.0%	10.2%	2.3%	--

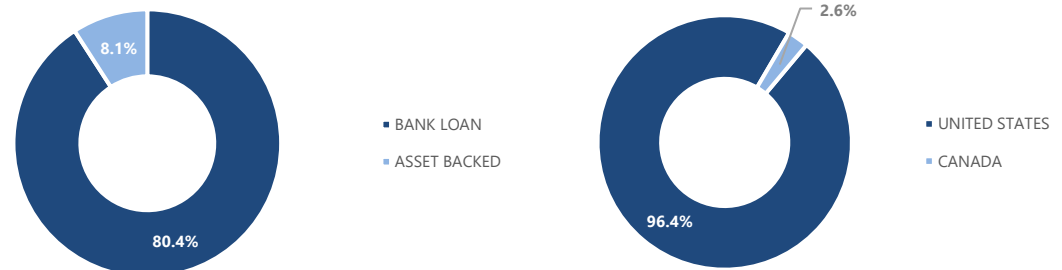
Universe data: U.S. Fixed Income Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Crescent Capital	3.7%	9	11.7%	13	6.0%	20	5.3%	15
Median	-0.9%		2.7%		-1.5%		1.2%	

No. of Observations: 758

Growth of \$10,000



Top Exposures (% of assets)²



¹ Universe data is gross-of-fees.

² Charts display top exposures and may not add up to 100%.

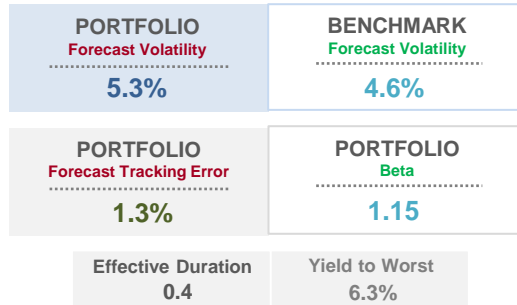
Credit Risk Analysis – Liquid Credit Crescent Capital

for the quarter ended September 30, 2023

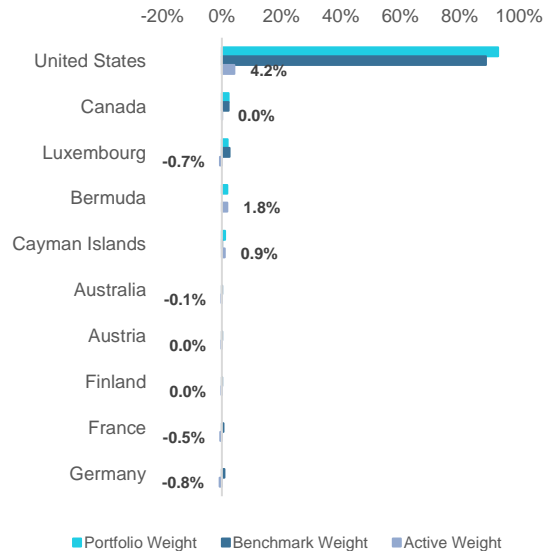


Los Angeles County Employees Retirement Association

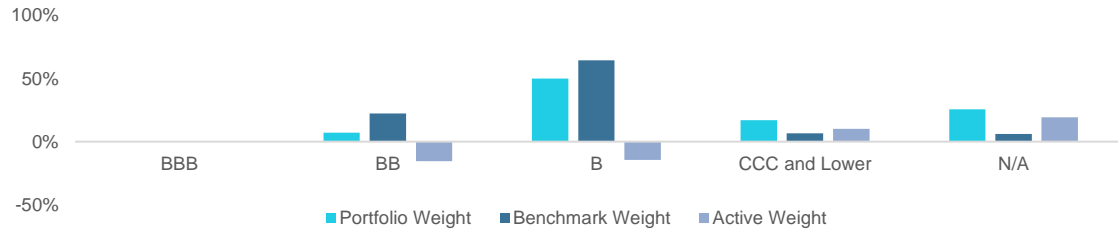
Portfolio Risk Summary



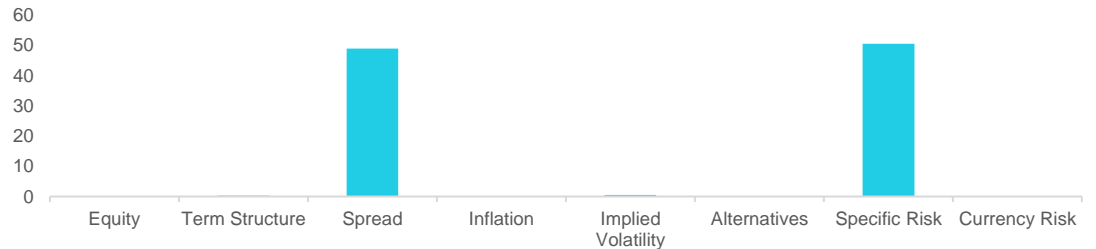
Top 10 Countries by Weight



Allocation by Moody's Rating



Active Risk from Common Factors



Portfolio Allocation by Bond Sector



Credit – Liquid Credit Pinebridge

for the quarter ended September 30, 2023

Strategy

Active manager of a broadly diversified portfolio primarily of U.S. dollar denominated high yield securities.

Inception Date: August 2021

Portfolio Characteristics

	Portfolio	Benchmark
No. of Issues	237.0	0.0
Effective Duration	3.7	3.6
Convexity	0.0	0.0
Coupon Rate	5.9	6.0
Yield to Maturity	8.6	8.7
Current Yield	6.6	6.7
Rating – Moody's	B-1	B-1
Rating – S & P	B+	B+

Top Holdings (% of assets)

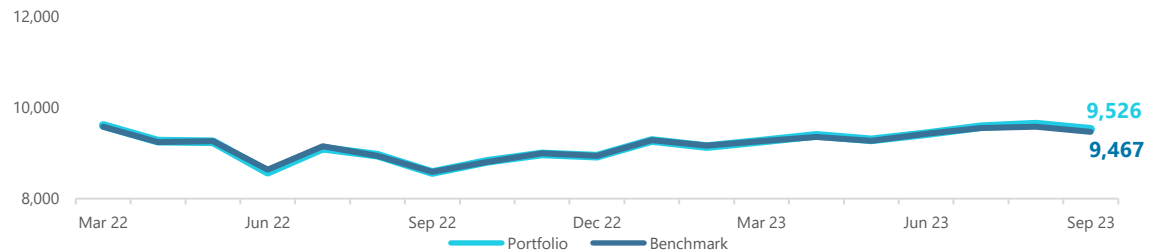
CARNIVAL CORP	1.2%
AMERICAN AIRLINES INC	1.1%
CCO HLDGS LLC/CAP CORP	0.8%
SIRIUS XM RADIO INC	0.8%
ENACT HOLDINGS INC	0.8%
Top 5 Holdings	4.8%

Performance (net)¹

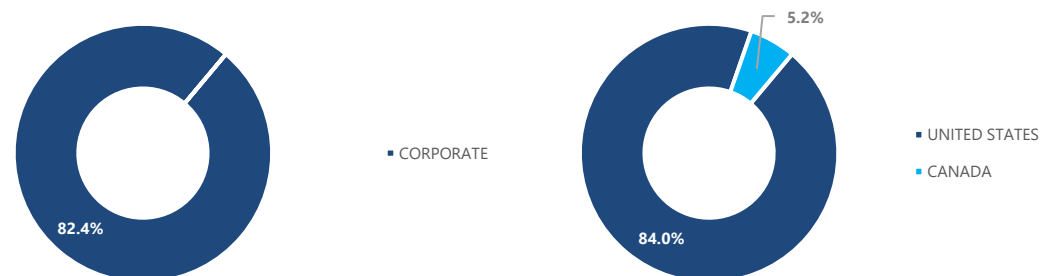
	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Pinebridge Investments	454.2	1.0%	11.1%	--	--
BBG BARC US Corp HY Idx		0.5%	10.3%	--	--
Credit Policy Benchmark		3.0%	10.2%	2.3%	--

Universe data: US Fixed Income Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Pinebridge Investments	1.1%	24	11.5%	14	--	--	--	--
Median	-0.9%		2.7%		--		--	
No. of Observations	758							

Growth of \$10,000



Top Exposures (% of assets)



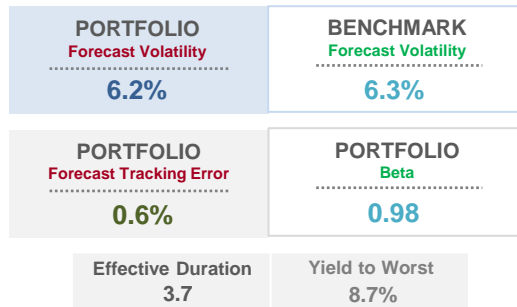
¹ Universe data is gross-of-fees.

² Charts display top exposures and may not add up to 100%.

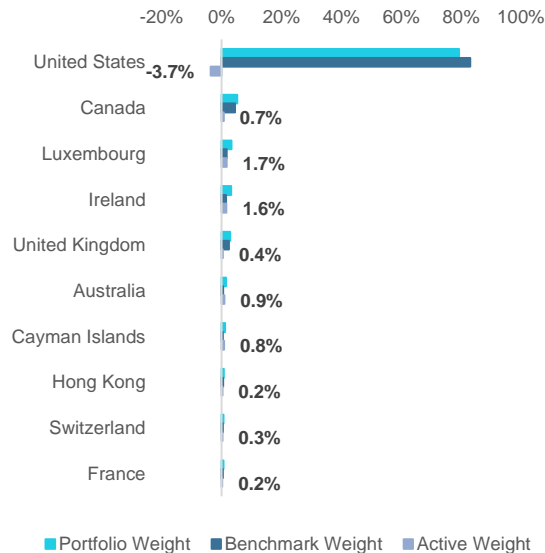
Credit Risk Analysis – Liquid Credit Pinebridge

for the quarter ended September 30, 2023

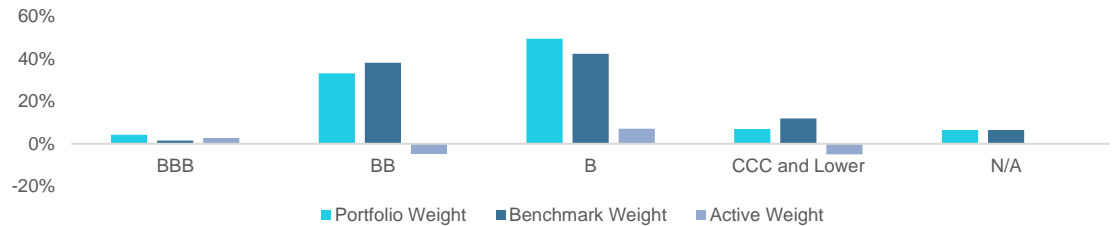
Portfolio Risk Summary



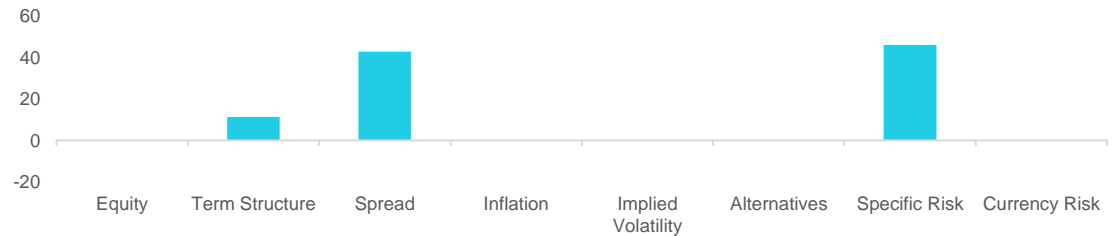
Top 10 Countries by Weight



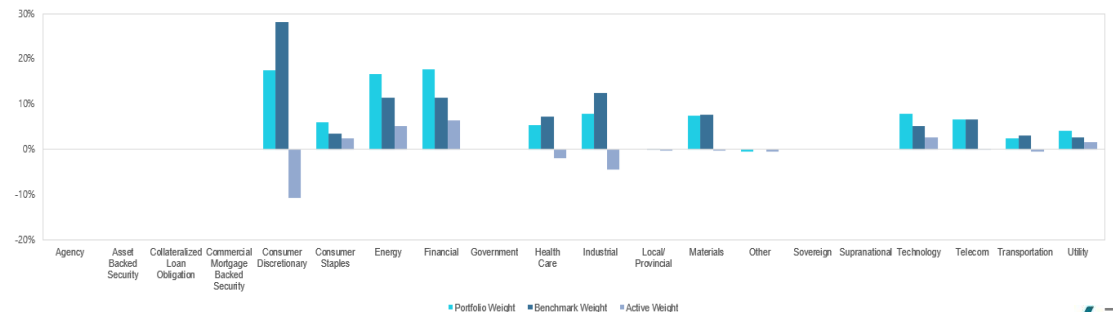
Allocation by Moody's Rating



Active Risk from Common Factors



Portfolio Allocation by Bond Sector

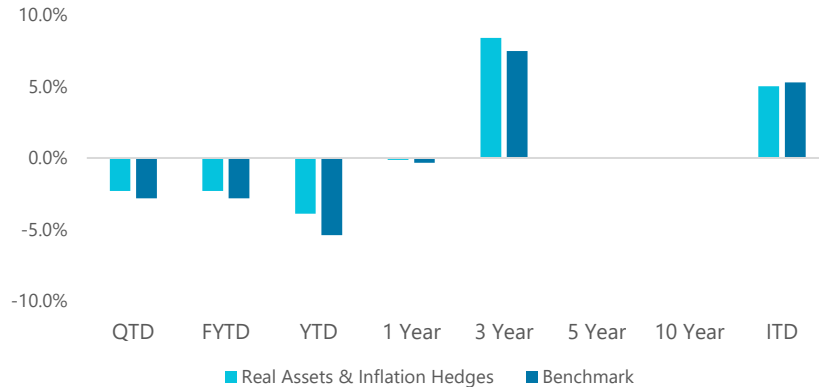


real assets & inflation hedges

Summary

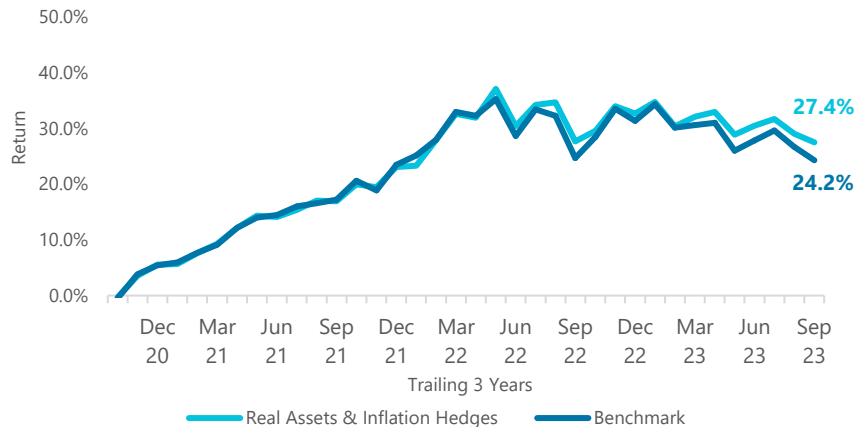
for the quarter ended September 30, 2023

Performance (net)



	QTD	FYTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD
Real Assets & Inflation Hedges	-2.3%	-2.3%	-3.9%	-0.1%	8.4%	--	--	5.0%
Benchmark	-2.8%	-2.8%	-5.4%	-0.3%	7.5%	--	--	5.3%
Excess	0.5%	0.5%	1.5%	0.2%	0.9%	--	--	-0.3%

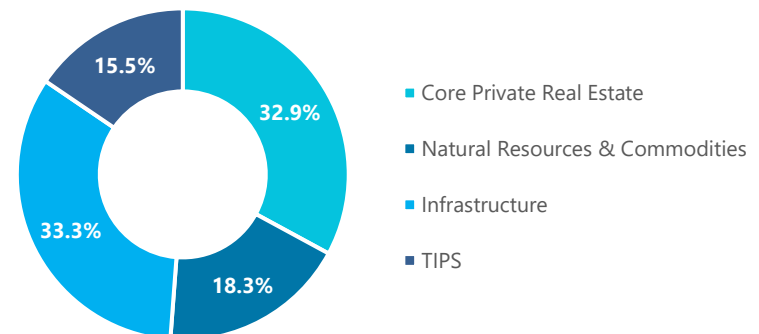
Cumulative Return



Functional Category

	QTD	FYTD	YTD	1 Year	3 Year
Core Private Real Estate	-4.0%	-4.0%	-11.7%	-10.2%	7.4%
Core Private RE Policy Benchmark	-2.9%	-2.9%	-11.0%	-10.7%	7.2%
Excess	-1.2%	-1.2%	-0.7%	0.5%	0.2%
Natural Resources & Commodities	3.4%	3.4%	3.8%	8.4%	19.7%
Nat Res & Comm Policy Benchmark	3.9%	3.9%	-1.1%	10.8%	18.1%
Excess	-0.5%	-0.5%	4.9%	-2.4%	1.6%
Infrastructure	-3.5%	-3.5%	-1.0%	6.1%	7.3%
DJ Brookfield Global Infra Comp	-6.9%	-6.9%	-4.5%	4.5%	5.8%
Excess	3.4%	3.4%	3.5%	1.6%	1.5%
TIPS	-2.6%	-2.6%	-0.8%	1.3%	-2.0%
Bloomberg U.S. Treasury: U.S. TIPS	-2.6%	-2.6%	-0.8%	1.2%	-2.0%
Excess	0.0%	0.0%	0.0%	0.1%	-0.1%

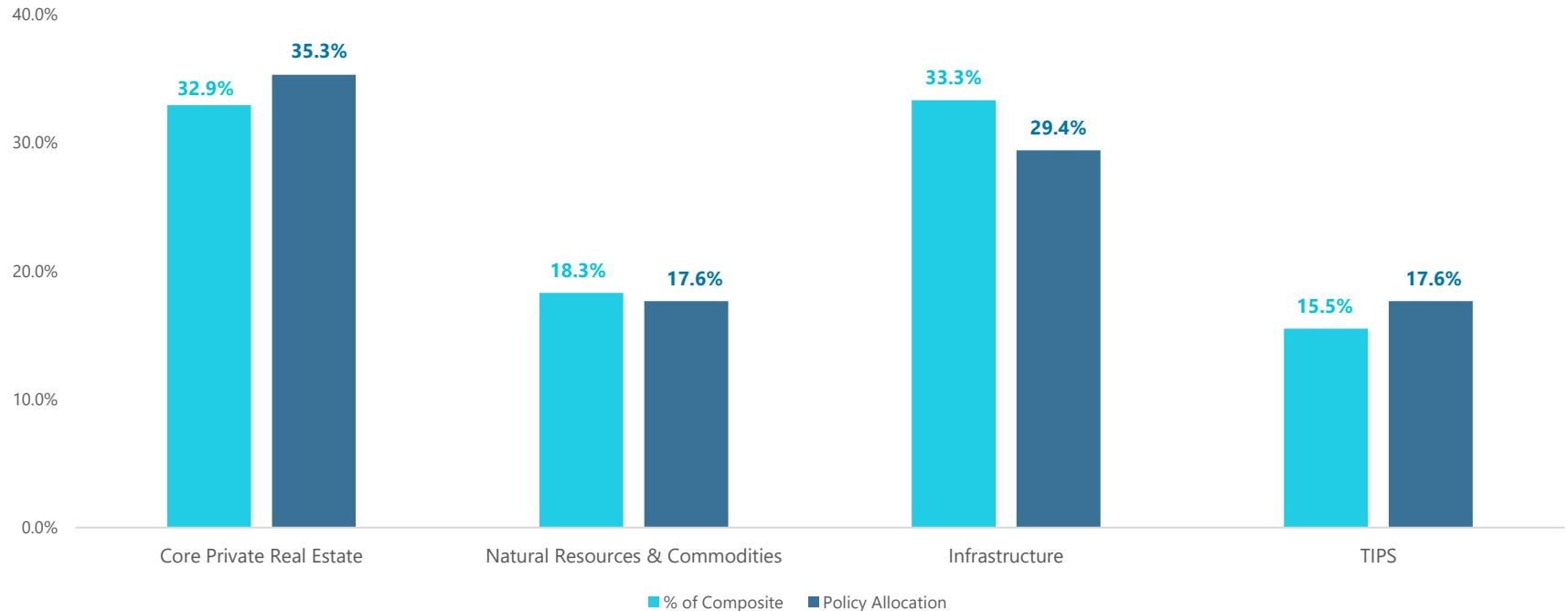
Exposure



Asset Allocation

for the quarter ended September 30, 2023

Actual vs. Policy

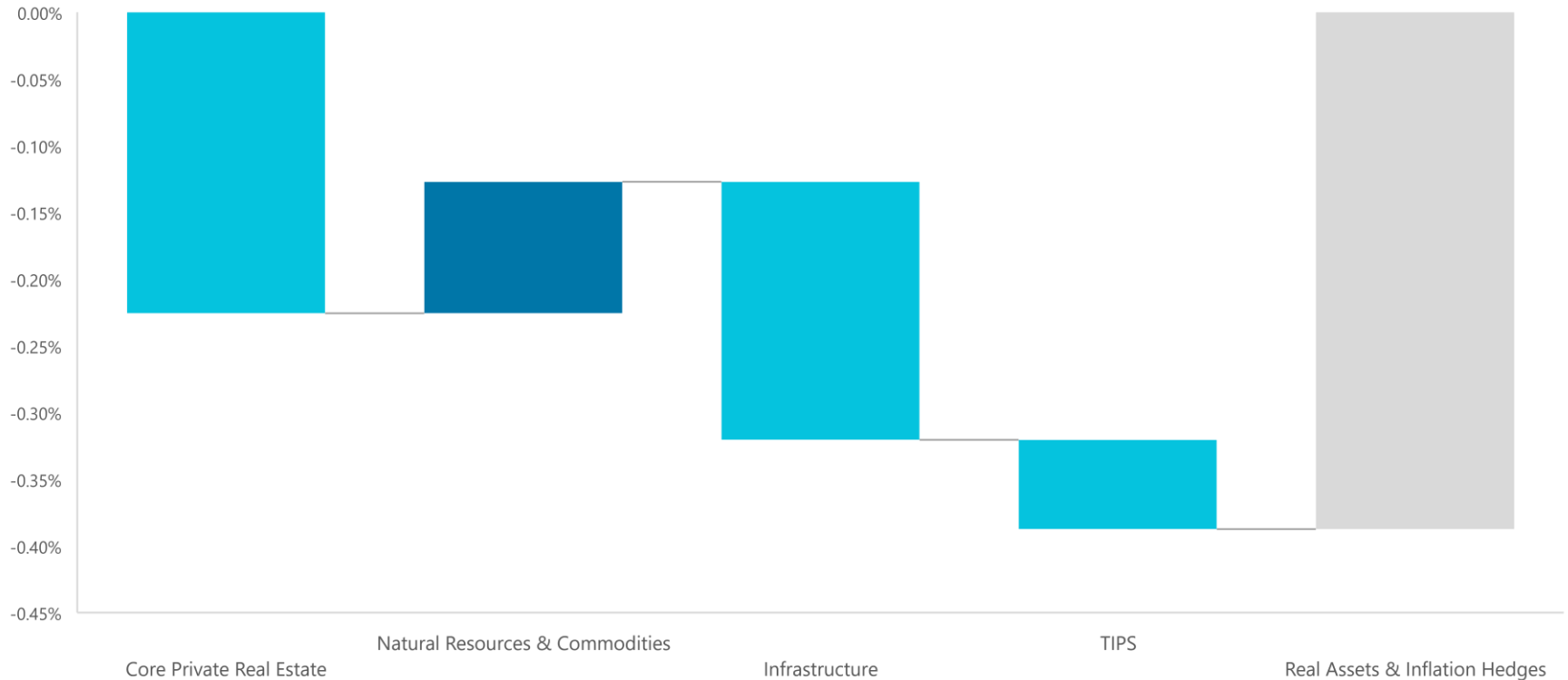


	Ending Market Value (mm)	% of Composite	Policy Allocation	Over / Under (%)	Over / Under (mm)
Real Assets & Inflation Hedges	11,912	100.0%	100.0%		
Core Private Real Estate	3,920	32.9%	35.3%	-2.4%	-284
Natural Resources & Commodities	2,179	18.3%	17.6%	0.6%	77
Infrastructure	3,966	33.3%	29.4%	3.9%	463
TIPS	1,847	15.5%	17.6%	-2.1%	-255

Contribution to Return

for the quarter ended September 30, 2023

QTD Contribution to Return



Functional Category	Contributors	Detractors
Core Private Real Estate	-0.23% DWS Natural Resources	0.02% Real Estate - Real Assets
Natural Resources & Commodities	0.10% Orion Mine Finance Fund III	0.02% DWS Infrastructure
Infrastructure	-0.19% Credit Suisse Commodity	0.02% BlackRock TIPS
TIPS	-0.07% KKR DCIF	0.01%
Real Assets & Inflation Hedges	-0.39% TIAA-CREF Global Agriculture I	0.01%

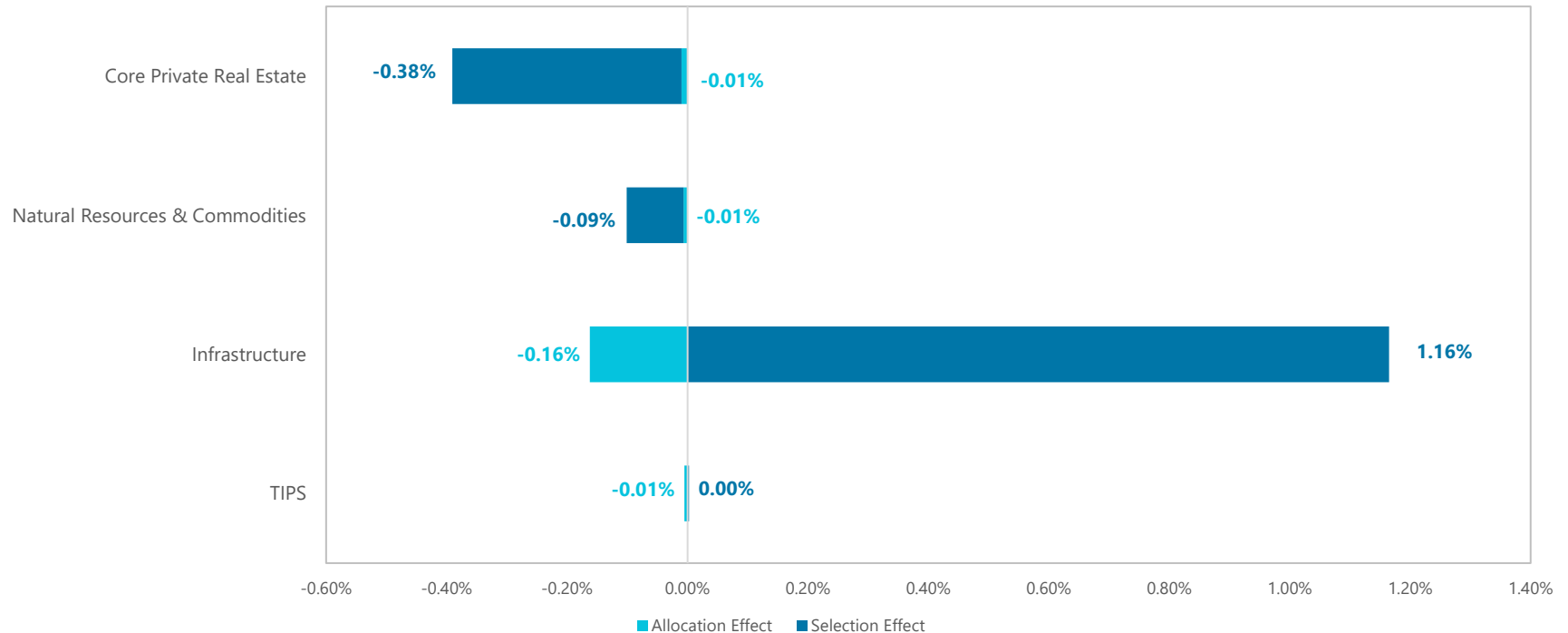
Return Attribution

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

QTD Performance Attribution¹



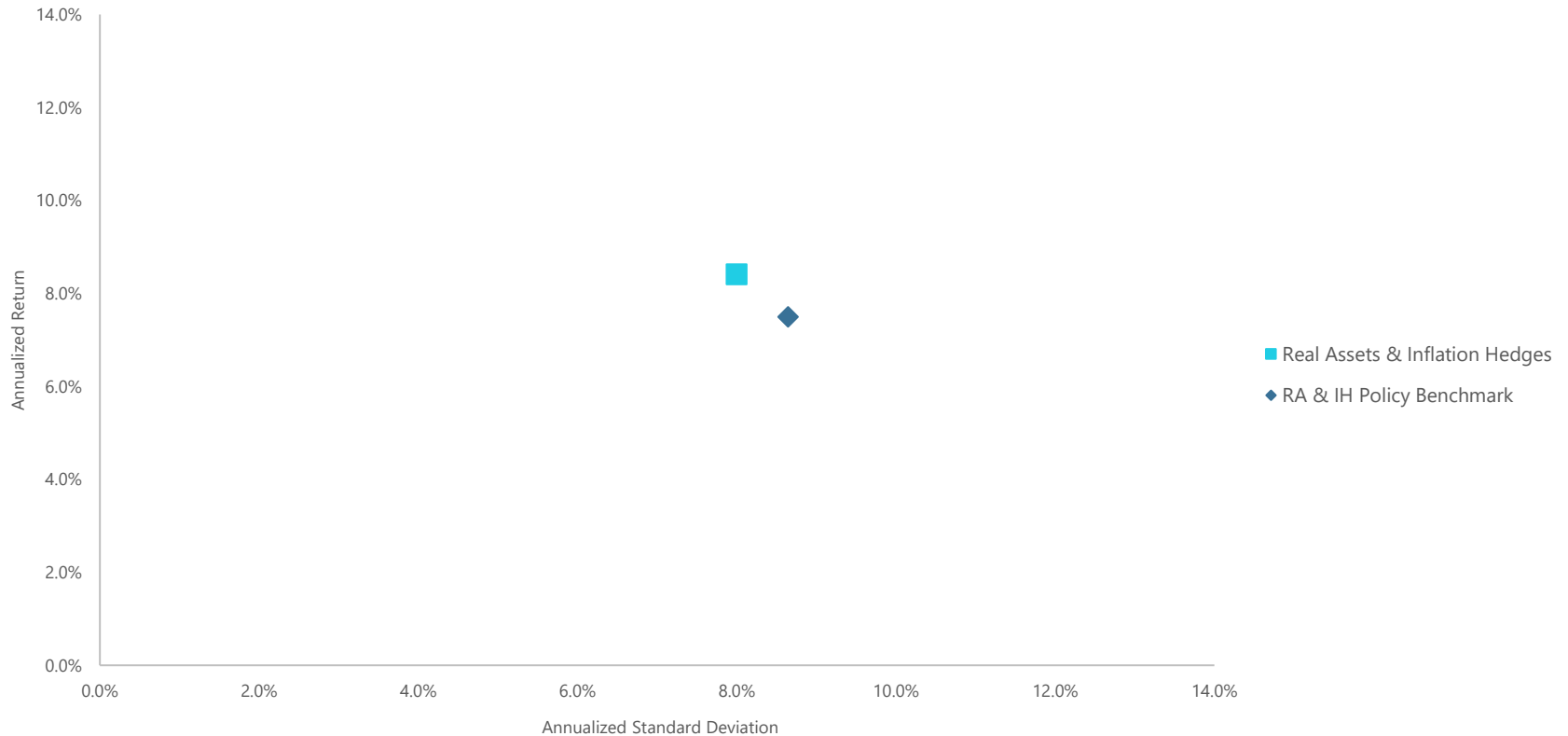
	Ending Market Value (mm)	% of Composite	Policy Allocation	Portfolio Return	Benchmark Return	Allocation Effect	Selection Effect	Total Value Add
Real Assets & Inflation Hedges	11,912	100.0%	100.0%	-2.3%	-2.8%	-0.18%	0.69%	0.51%
Core Private Real Estate	3,920	32.9%	35.3%	-4.0%	-2.9%	-0.01%	-0.38%	-0.39%
Natural Resources & Commodities	2,179	18.3%	17.6%	3.4%	3.9%	-0.01%	-0.09%	-0.10%
Infrastructure	3,966	33.3%	29.4%	-3.5%	-6.9%	-0.16%	1.16%	1.00%
TIPS	1,847	15.5%	17.6%	-2.6%	-2.6%	-0.01%	0.00%	0.00%

¹ Total Value Add column includes Interaction Effect.

Risk vs. Return

for the quarter ended September 30, 2023

3 Year (Annualized)



	Annualized Return	Standard Deviation	Sharpe Ratio	Information Ratio	Beta	Tracking Error
Real Assets & Inflation Hedges	8.4%	8.0%				
RA & IH Policy Benchmark	7.5%	8.6%	0.84	0.32	0.89	2.5%

Performance Detail

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Annualized Net Returns¹

	% of Composite	Ending Market Value (mm)	Prior Quarter Ending MV (mm)	QTD	FYTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date
Real Assets & Inflation Hedges	100.0%	11,912	12,050	-2.3%	-2.3%	-3.9%	-0.1%	8.4%	--	--	5.0%	Apr-2019
RA & IH Policy Benchmark				-2.8%	-2.8%	-5.4%	-0.3%	7.5%	--	--	5.3%	
Core Private Real Estate	32.9%	3,920	4,071	-4.0%	-4.0%	-11.7%	-10.2%	7.4%	4.9%	7.0%	6.9%	Oct-1985
Core Private RE Policy Benchmark				-2.9%	-2.9%	-11.0%	-10.7%	7.2%	5.9%	8.2%	6.7%	
Natural Resources & Commodities	18.3%	2,179	2,110	3.4%	3.4%	3.8%	8.4%	19.7%	7.2%	0.5%	-0.6%	Jul-2007
Nat Res & Comm Policy Benchmark				3.9%	3.9%	-1.1%	10.8%	18.1%	7.1%	-0.3%	-1.7%	
Appian Fund III	0.0%	2	4	-40.9%	-40.9%	--	--	--	--	--	-40.6%	Jun-2023
Cibus Enterprise II	0.0%	4	5	-0.9%	-0.9%	2.2%	-2.8%	--	--	--	-7.3%	Jun-2022
Cibus Fund II	0.2%	29	29	-0.9%	-0.9%	-5.1%	-10.9%	--	--	--	-12.9%	Jun-2022
Co-Investments - Natural Resources	0.2%	24	24	-0.4%	-0.4%	-0.5%	--	--	--	--	-0.5%	Oct-2022
Credit Suisse Commodity	2.5%	298	286	4.0%	4.0%	-4.7%	-3.3%	16.2%	6.5%	-0.3%	-2.3%	Mar-2011
DWS Natural Resources	4.1%	485	478	3.0%	3.0%	-3.3%	9.4%	17.9%	--	--	10.1%	Jun-2019
HiTecVision New Energy	0.8%	99	95	3.6%	3.6%	26.1%	43.3%	--	--	--	34.8%	Sep-2022
Neuberger Berman/Gresham	3.0%	356	338	5.3%	5.3%	-2.8%	-1.6%	16.8%	5.6%	-0.3%	-0.8%	Jul-2007
Orion Mine Finance Fund III	1.3%	150	133	10.6%	10.6%	27.0%	29.9%	--	--	--	17.1%	Sep-2021
Orion Mining Royalty Fund I	0.2%	28	23	5.8%	5.8%	2.9%	-5.0%	--	--	--	0.7%	Sep-2021
Private Equity - Real Assets	0.7%	81	82	-0.7%	-0.7%	0.9%	2.7%	6.9%	--	--	-7.2%	Jan-2019
Sprott	0.4%	44	45	1.0%	1.0%	--	--	--	--	--	-0.6%	Mar-2023
TIAA-CREF Global Agriculture I	2.5%	302	295	2.4%	2.4%	18.7%	17.6%	--	--	--	18.0%	Dec-2021
TIAA-CREF Global Agriculture II	2.3%	277	272	1.8%	1.8%	11.6%	11.9%	--	--	--	12.4%	Dec-2021
Infrastructure	33.3%	3,966	3,974	-3.5%	-3.5%	-1.0%	6.1%	7.3%	--	--	5.7%	Jun-2019
DJ Brookfield Global Infra Comp				-6.9%	-6.9%	-4.5%	4.5%	5.8%	--	--	1.8%	
Antin Mid Cap	0.4%	49	50	-2.2%	-2.2%	3.2%	16.2%	--	--	--	-4.3%	Dec-2021
Axiom Infrastructure	2.2%	268	263	1.8%	1.8%	5.8%	7.8%	--	--	--	4.5%	Dec-2021
Axiom Infrastructure Canada	1.3%	150	150	0.6%	0.6%	5.2%	6.7%	--	--	--	-100.0%	Nov-2021
Co-Investments - Infrastructure	0.3%	35	35	1.4%	1.4%	--	--	--	--	--	2.4%	Mar-2023
DIF CIF III	0.4%	46	44	1.2%	1.2%	-2.4%	-0.2%	--	--	--	1.4%	Jun-2022
DIF Infrastructure VI	1.0%	123	119	0.0%	0.0%	-0.1%	14.2%	--	--	--	15.8%	Mar-2021
DWS Infrastructure	17.4%	2,076	2,525	-6.9%	-6.9%	-5.5%	2.4%	5.3%	--	--	4.4%	Jun-2019
Grain Communications Opportunity III	0.3%	41	44	-7.6%	-7.6%	-3.5%	-2.2%	--	--	--	-100.0%	Feb-2021
Grain Spectrum Holdings III	0.6%	71	66	-0.1%	-0.1%	38.3%	38.2%	--	--	--	11.0%	Nov-2020
KKR DCIF	4.3%	515	509	2.1%	2.1%	4.7%	5.9%	--	--	--	4.4%	Apr-2022
MGIF	3.5%	414	0	--	--	--	--	--	--	--	0.0%	Aug-2023
Pan-European Infrastructure Fund III	0.6%	75	76	-0.5%	-0.5%	6.1%	15.4%	--	--	--	4.4%	Nov-2020
Partners Grp Direct Infra 2020	0.9%	104	92	2.9%	2.9%	13.5%	19.4%	--	--	--	11.0%	Jan-2022
TIPS	15.5%	1,847	1,896	-2.6%	-2.6%	-0.8%	1.3%	-2.0%	--	--	1.6%	May-2019
Bloomberg U.S. Treasury: U.S. TIPS				-2.6%	-2.6%	-0.8%	1.2%	-2.0%	--	--	1.7%	
Blackrock TIPS	15.5%	1,847	1,896	-2.6%	-2.6%	-0.8%	1.3%	-2.0%	--	--	1.6%	May-2019

¹ Private natural resources and infrastructure funds reflect early-stage life cycle performance.

Real Assets & Inflation Hedges Risk Summary

for the quarter ended September 30, 2023

Realized (Ex-Post) Risks

\$11.9B	REAL ASSETS 1Y Realized Return	-0.1%
	REAL ASSETS Monte Carlo VaR	22.2%
	BENCHMARK Monte Carlo VaR	21.4%

Real Assets & Inflation Hedges

Value at Risk VARIABLES

95% Confidence Interval
1Y Time Horizon
1,000 Simulations

With 95% confidence (2σ), LACERA would not lose more than **\$2.4B** in 1Y.

versus

With 95% confidence (2σ), the Benchmark would not lose more than **\$2.3B** in 1Y.

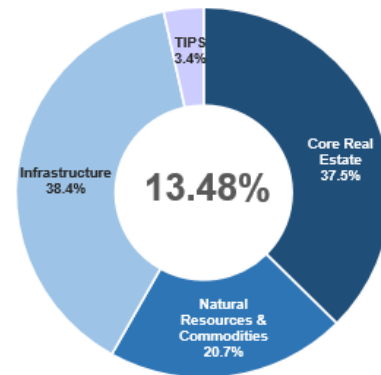


*as of 9/30/23

Projected (Ex-Ante) Risks

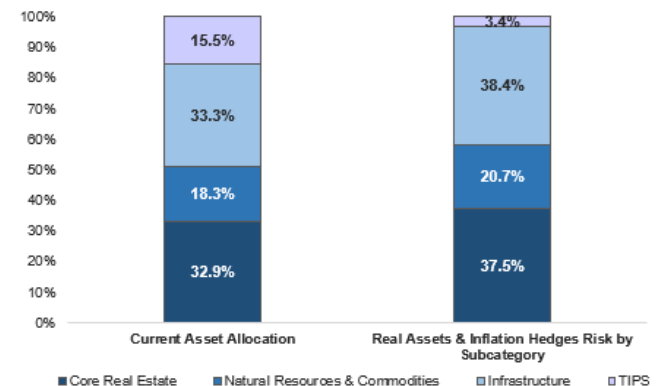
Real Assets Forecast Volatility	Benchmark Forecast Volatility
13.48%	13.16%
Real Assets Forecast Tracking Error	Core Private Real Estate TE
3.57%	4.30%
Portfolio Beta	Natural Resources & Commodities TE
0.99	4.84%
	Infrastructure TE
	8.25%
	TIPS TE
	0.06%

Subcategory Contributions to Real Assets and Inflation Hedges Risk



Real Assets and Inflation Hedges Asset Allocation

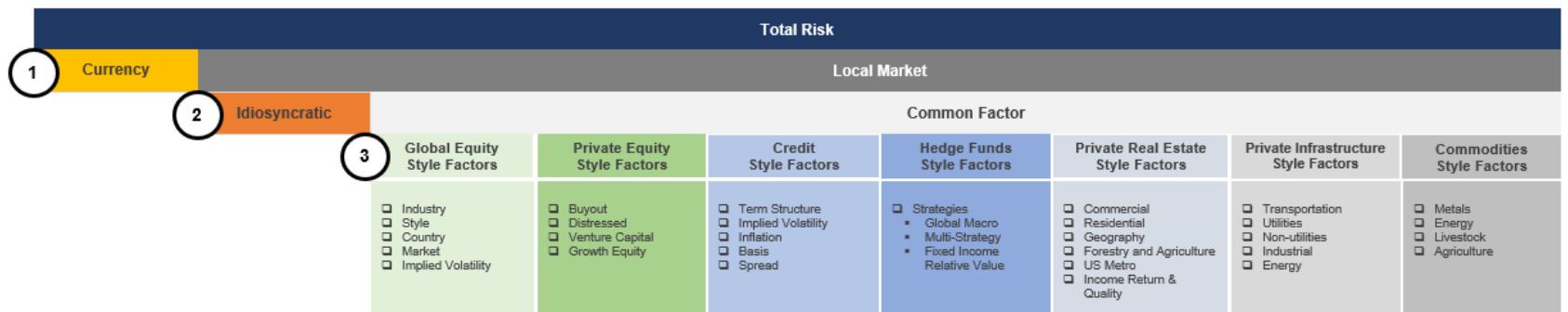
Capital-based versus Risk-based



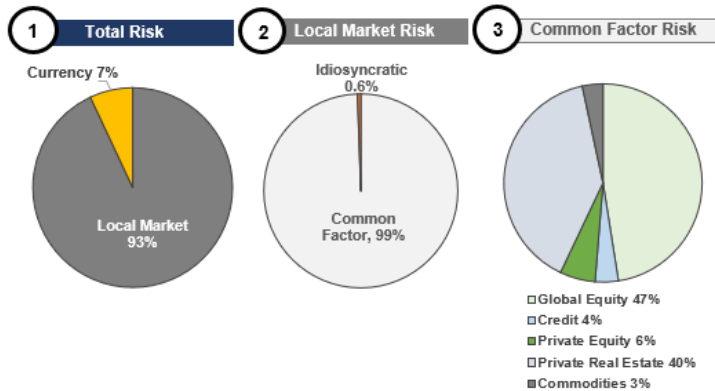
Real Assets & Inflation Hedges Risk Summary

for the quarter ended September 30, 2023

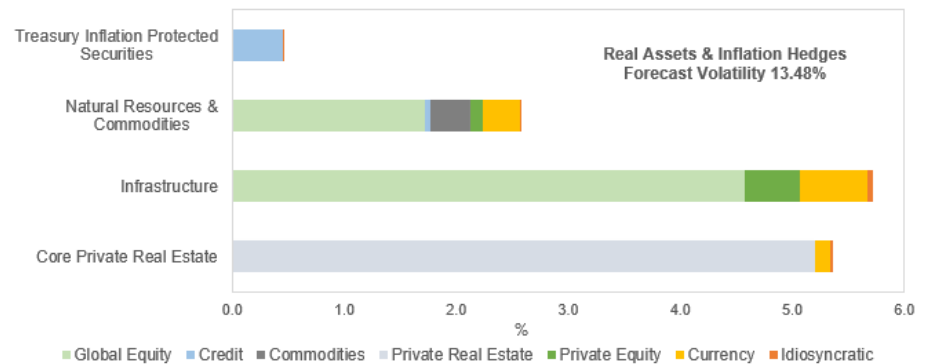
Decomposition of MSCI Risk Factors



Real Assets & Inflation Hedges Risk Decomposition



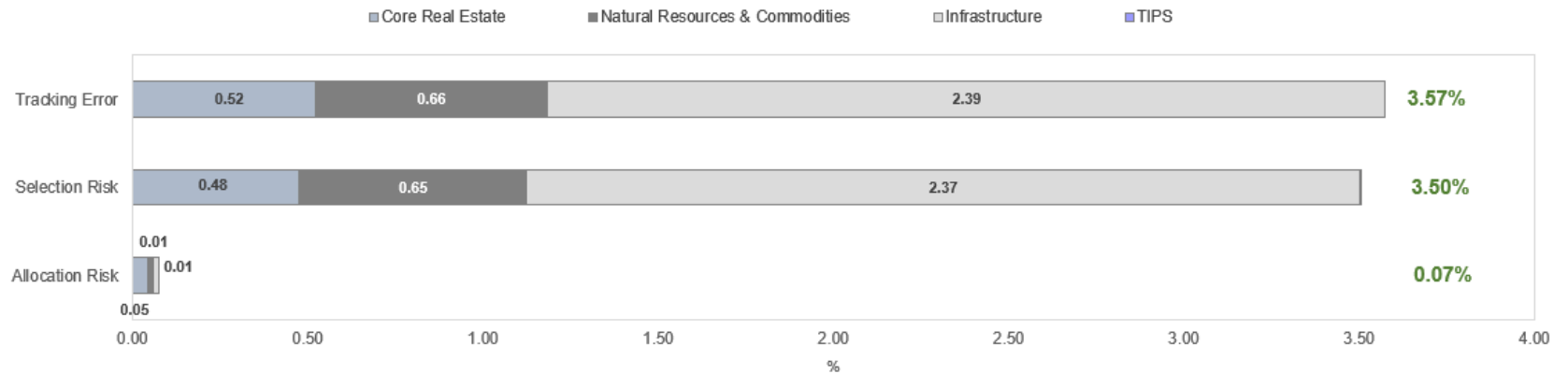
Subcategory Contributions by Risk Factor



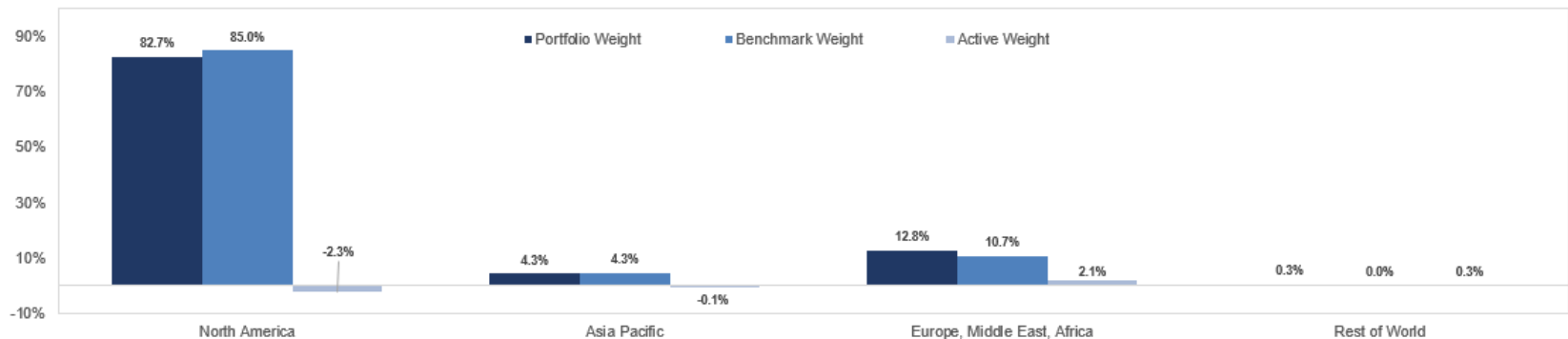
Real Assets & Inflation Hedges Risk Summary

for the quarter ended September 30, 2023

Subcategory Contributions to Tracking Error



Portfolio Allocation by Region^{1,2}



² Rest of World is sum of countries with weights below 0.5%.

Real Assets & Inflation Hedges

Natural Resources & Commodities

Credit Suisse

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Strategy

Seeks to provide a hedge against inflation and exposure to commodities markets such as energy, agriculture and timber, and metals and mining.

Inception Date: March 2011

Risk Statistics (since inception)

Standard Deviation	15.4%
Benchmark Standard Deviation	15.8%
Sharpe Ratio	0.29
Information Ratio	0.36
Beta	0.98
Tracking Error	1.0%

Top Holdings (% of assets)

US TREASURY FRN	17.0%
US TREASURY FRN	13.9%
GOLD 100 OZ FUTR FEB24	12.3%
US TREASURY FRN	10.9%
BRENT CRUDE FUTR JAN24	8.5%
Top 5 Holdings	62.5%

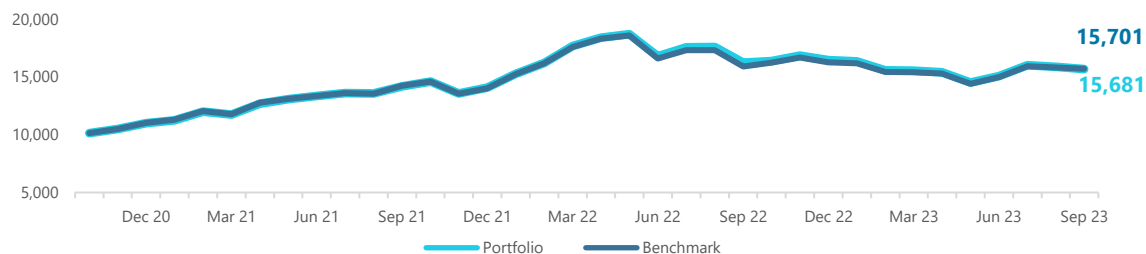
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Credit Suisse Commodity	297.7	4.0%	-3.3%	16.2%	6.5%
Bloomberg Commodity Index Total Return		4.7%	-1.3%	16.2%	6.1%
Real Assets & Inflation Hedges Policy BM		-2.8%	-0.3%	7.5%	--

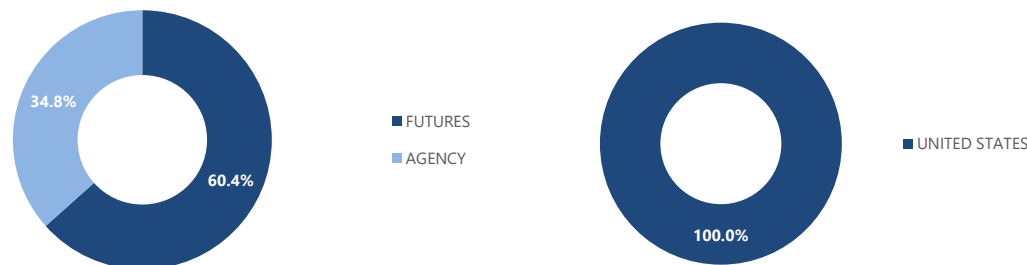
Universe data: Commodity Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Credit Suisse Commodity	4.1%	38	-3.1%	86	16.5%	36	6.8%	64
Median	0.8%		2.7%		14.3%		7.7%	

No. of Observations 11

Growth of \$10,000



Top Exposures (% of assets)²



¹ Universe data is gross-of-fees.

² Charts display top exposures and may not add up to 100%.

Real Assets & Inflation Hedges Risk Analysis

Natural Resources & Commodities

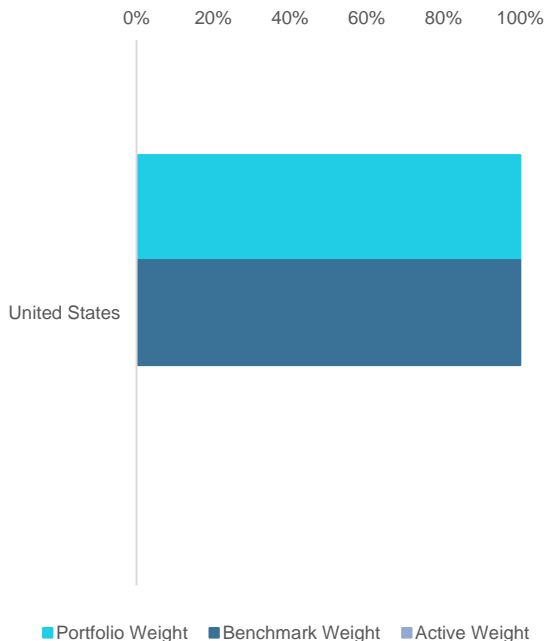
Credit Suisse

for the quarter ended September 30, 2023

Portfolio Risk Summary

PORTFOLIO Forecast Volatility	BENCHMARK Forecast Volatility
13.5%	17.6%
PORTFOLIO Forecast Tracking Error	PORTFOLIO Beta
5.8%	0.74

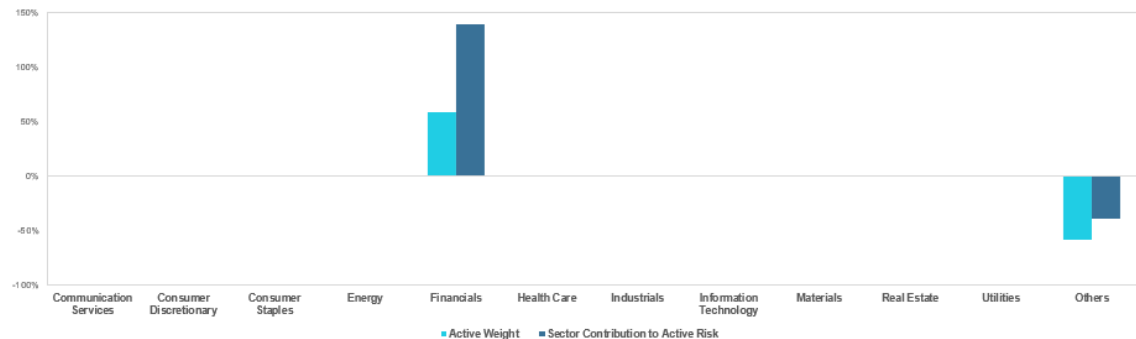
Top Country by Weight



Top 10 Assets by Contribution to Portfolio Active Risk

Asset	Portfolio Weight	Benchmark Weight	Active Weight	Contribution to Portfolio Active Risk
NYMEX CRUDE OIL NOV23	0.00%	0.00%	0.00%	4.74%
ICE BRENT CRUDE DEC23	0.00%	0.00%	0.00%	3.05%
PROXY ISSUER 0.3651441% 20240131	16.68%	0.00%	16.68%	2.31%
PROXY ISSUER 1.66624463% 20240430	13.67%	0.00%	13.67%	1.89%
PROXY ISSUER 4.99353962% 20240731	10.68%	0.00%	10.68%	1.47%
UNITED STATES TREASURY 5.52779 07/31/2025	8.10%	0.00%	8.10%	1.12%
UNITED STATES TREASURY 5.60279 01/31/2025	6.69%	0.00%	6.69%	0.92%
UNITED STATES TREASURY 5.57179 04/30/2025	6.04%	0.00%	6.04%	0.83%
PROXY ISSUER 8.02810857% 20241031	5.68%	0.00%	5.68%	0.78%
NYMEX HEATING OIL NOV23	0.00%	0.00%	0.00%	0.75%

Portfolio Allocation by GICS Sector



Real Assets & Inflation Hedges

Natural Resources & Commodities

DWS

for the quarter ended September 30, 2023

Strategy

Seeks to provide capital appreciation and a hedge to inflation. A diversified approach within infrastructure to gain exposure to infrastructure related to telecommunication, transportation, utilities, waste and energy.

Inception Date: June 2019

Risk Statistics (since inception)

Standard Deviation	24.0%
Benchmark Standard Deviation	24.0%
Sharpe Ratio	0.45
Information Ratio	-0.23
Beta	0.98
Tracking Error	4.2%

Top Holdings (% of assets)

CHEVRON CORP	7.8%
BP PLC	7.0%
TOTALENERGIES SE	6.8%
RIO TINTO LTD	6.0%
AGNICO EAGLE MINES LTD	5.1%
Top 5 Holdings	32.8%

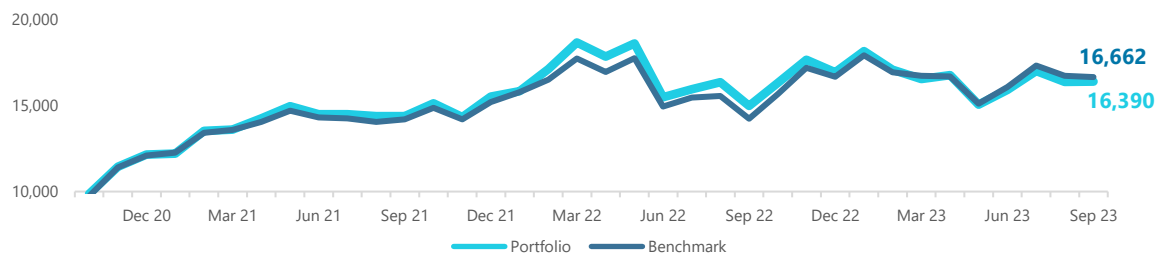
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
DWS Natural Resources	484.7	3.0%	9.4%	17.9%	--
DWS NR Custom Benchmark		3.6%	17.0%	18.6%	--
Real Assets & Inflation Hedges Policy BM		-2.8%	-0.3%	7.5%	--

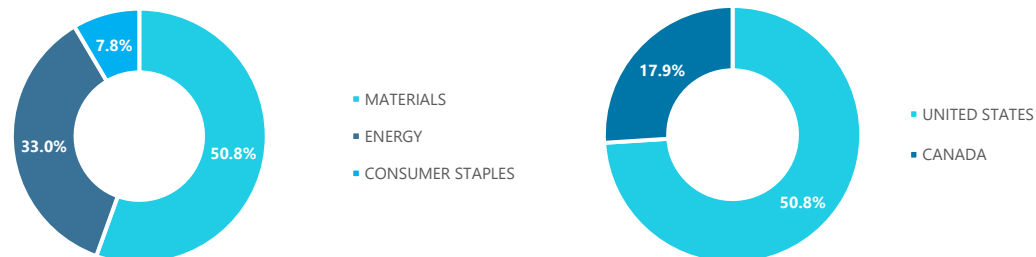
Universe data: Commodity Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
DWS Natural Resources	3.1%	41	9.6%	32	18.1%	29	--	--
Median	0.8%		2.7%		14.3%		--	

No. of Observations: 11

Growth of \$10,000



Top Exposures (% of assets)²



¹ Universe data is gross-of-fees.

² Charts display top exposures and may not add up to 100%.

Real Assets & Inflation Hedges Risk Analysis

Natural Resources & Commodities

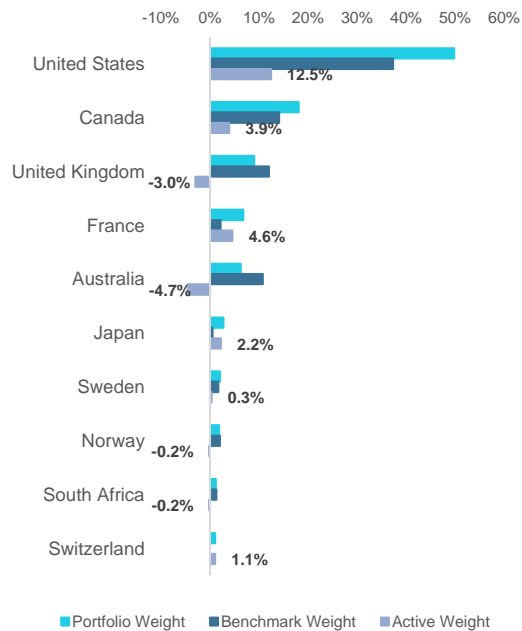
DWS

for the quarter ended September 30, 2023

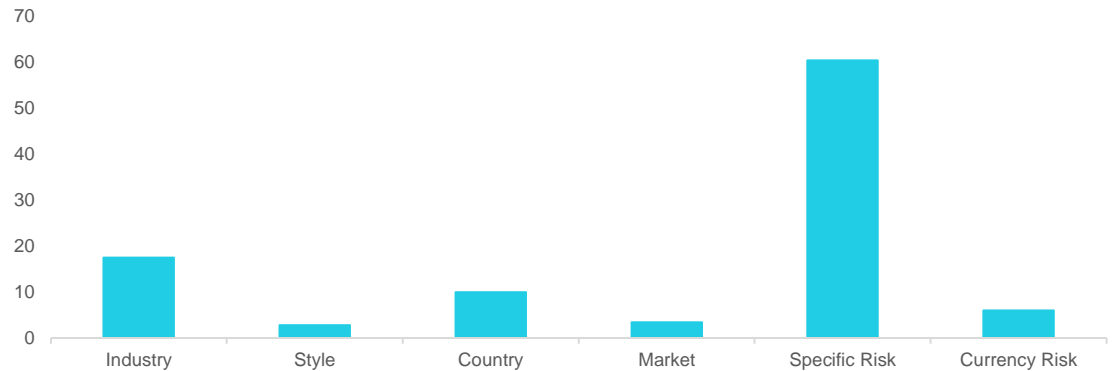
Portfolio Risk Summary

PORTFOLIO Forecast Volatility	BENCHMARK Forecast Volatility
21.1%	21.6%
PORTFOLIO Forecast Tracking Error	PORTFOLIO Beta
3.7%	0.96

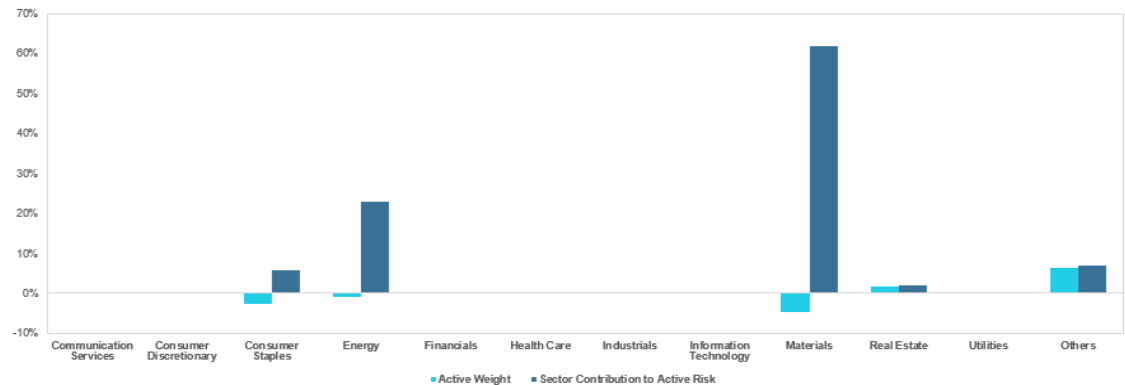
Top 10 Countries by Weight



Portfolio Active Risk from Common Factors



Portfolio Allocation by GICS Sector



Real Assets & Inflation Hedges

Natural Resources & Commodities

Neuberger Berman / Gresham

for the quarter ended September 30, 2023

Strategy

Seeks to provide a hedge against inflation and exposure to commodities markets such as energy, agriculture and timber, and metals and mining. The collateral portfolio provides income with conservative fixed income exposure.

Inception Date: July 2007

Risk Statistics (since inception)

Standard Deviation	18.2%
Benchmark Standard Deviation	16.8%
Sharpe Ratio	0.13
Information Ratio	0.48
Beta	1.04
Tracking Error	4.8%

Top Holdings (% of assets)

GOLD 100 OZ FUTR DEC23	12.4%
TREASURY BILL	8.3%
NATURAL GAS FUTR NOV23	7.0%
BRENT CRUDE FUTR JAN24	6.5%
WTI CRUDE FUTURE NOV23	5.2%
Top 5 Holdings	39.3%

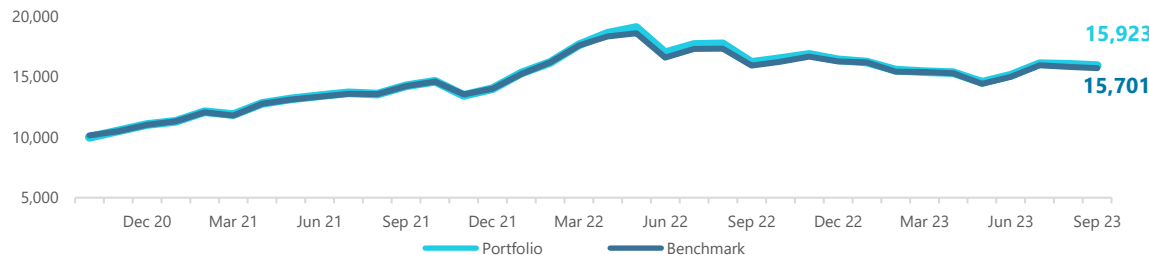
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Neuberger Berman/Gresham	355.9	5.3%	-1.6%	16.8%	5.6%
Bloomberg Commodity Index Total Return		4.7%	-1.3%	16.2%	6.1%
Real Assets & Inflation Hedges Policy BM		-2.8%	-0.3%	7.5%	--

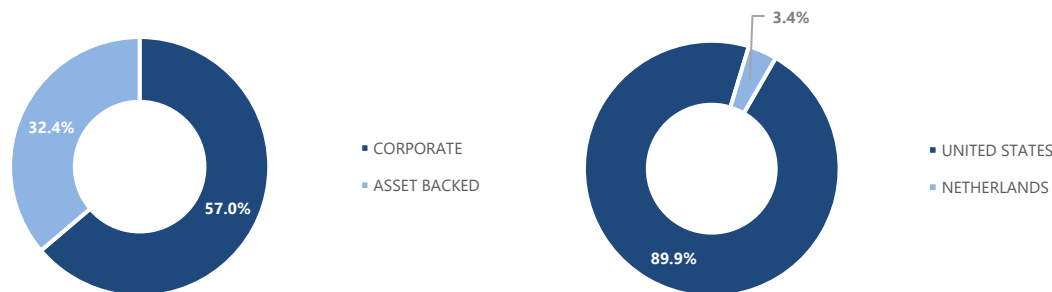
Universe data: Commodity Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Neuberger Berman/Gresham	5.4%	29	-1.3%	80	17.2%	33	6.0%	71
Median	0.8%		2.7%		14.3%		7.7%	

No. of Observations: 11

Growth of \$10,000



Top Exposures (% of assets)²



¹ Universe data is gross-of-fees.

² Charts display top exposures and may not add up to 100%.

Real Assets & Inflation Hedges Risk Analysis

Natural Resources & Commodities

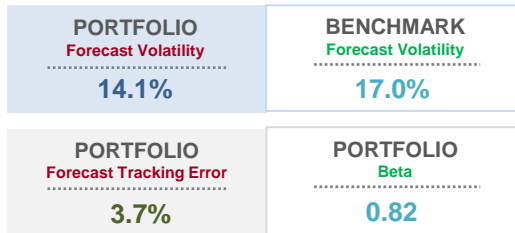
Neuberger Berman / Gresham

for the quarter ended September 30, 2023

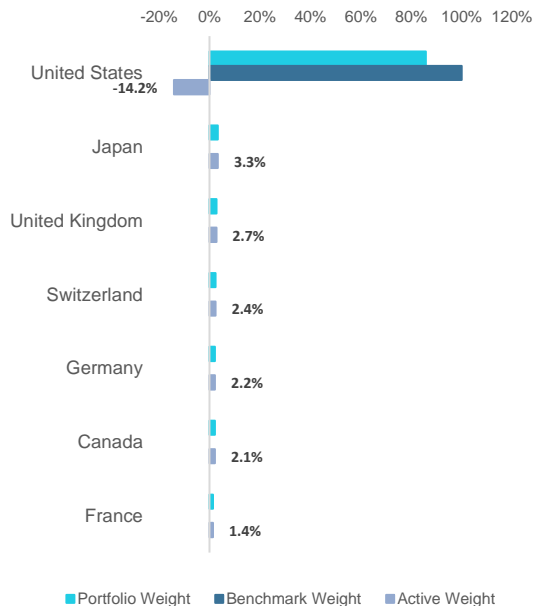


Los Angeles County Employees Retirement Association

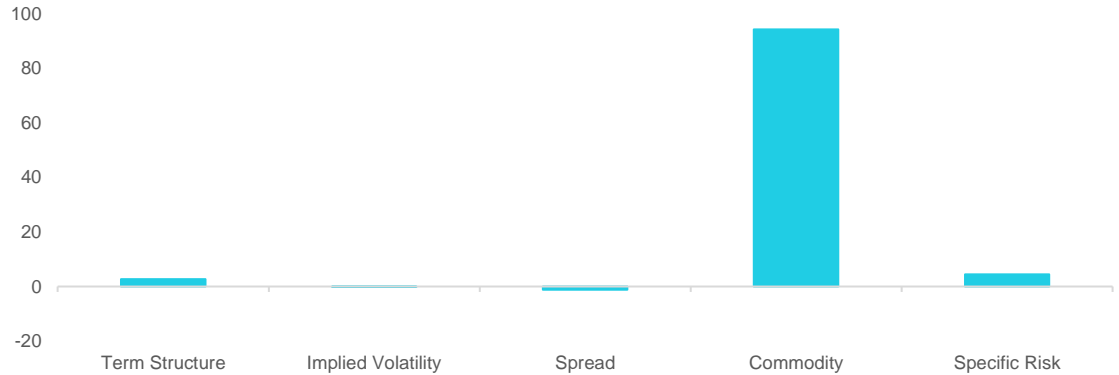
Portfolio Risk Summary



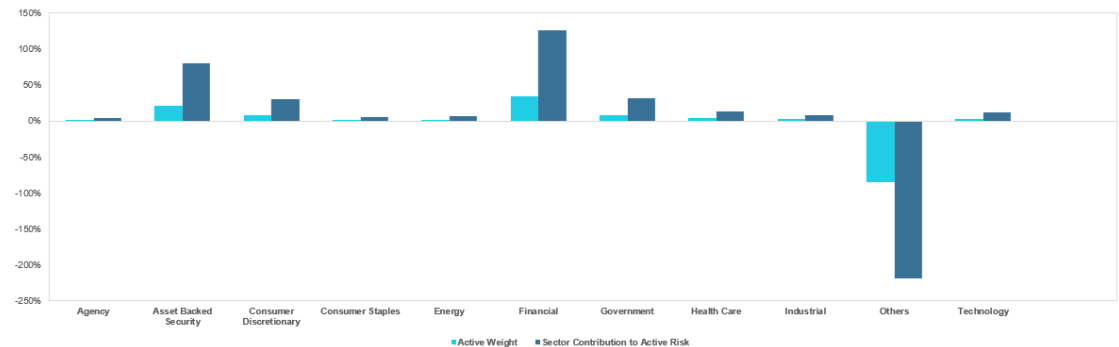
Top Countries by Weight



Portfolio Active Risk from Common Factors



Portfolio Allocation by GICS Sector



Real Assets & Inflation Hedges

Infrastructure

DWS

for the quarter ended September 30, 2023

Strategy

Seeks to provide capital appreciation and income with global infrastructure securities. The strategy takes a diversified approach within infrastructure to gain exposure to infrastructure related to telecommunication, transportation, utilities, waste and energy.

Inception Date: June 2019

Portfolio Characteristics

	Portfolio	Benchmark
Market Cap Wtd Average (mm)	35,380.0	33,719.7
No. Of Issues	47.0	0.0
Dividend Yield	3.3	3.8
Return on Equity	12.3	11.2
Price to Sales	3.1	3.4
Price to Book	3.3	3.4
PE Ratio	18.3	17.4

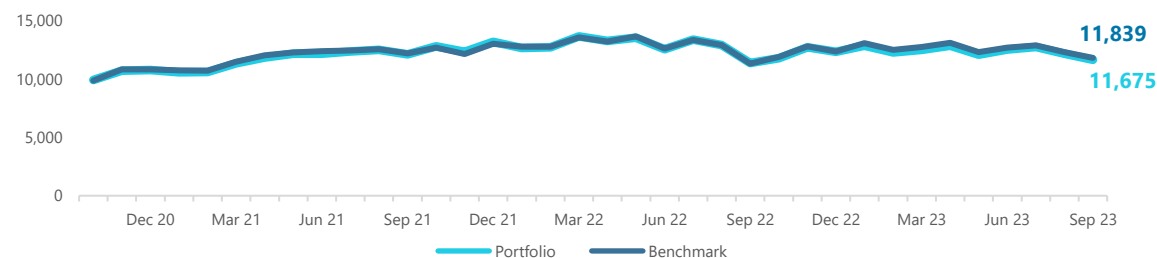
Top Holdings (% of assets)

ENBRIDGE INC	5.0%
NATIONAL GRID PLC	4.8%
AMERICAN TOWER CORP	4.6%
VINCI SA	4.3%
ONEOK INC	4.0%
Top 5 Holdings	22.7%

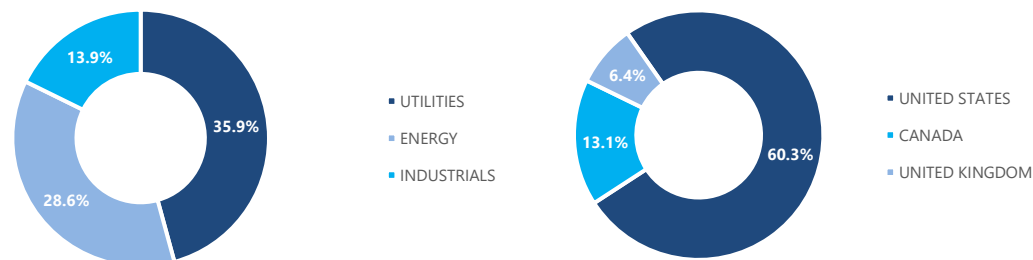
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
DWS Infrastructure	2,076.2	-6.9%	2.4%	5.3%	--
DJ Brookfield Global Infra Comp		-6.9%	4.5%	5.8%	--
Real Assets & Inflation Hedges Policy BM		-2.8%	-0.3%	7.5%	--

Growth of \$10,000



Top Exposures (% of assets)²



¹ Peer rankings not shown; comparable public market infrastructure universe not available.

² Charts display top exposures and may not add up to 100%.

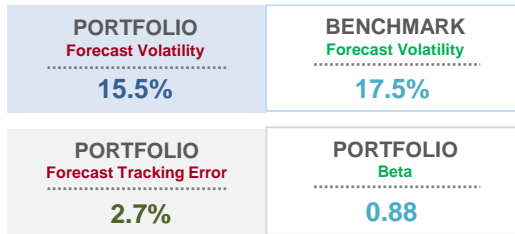
Real Assets & Inflation Hedges Risk Analysis

Infrastructure

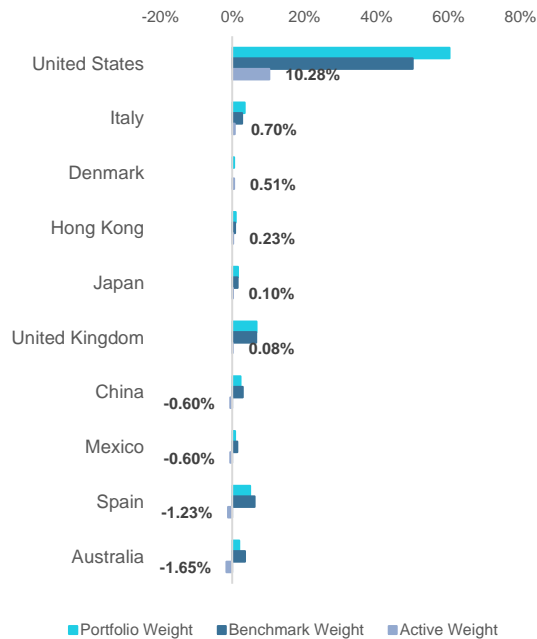
DWS

for the quarter ended September 30, 2023

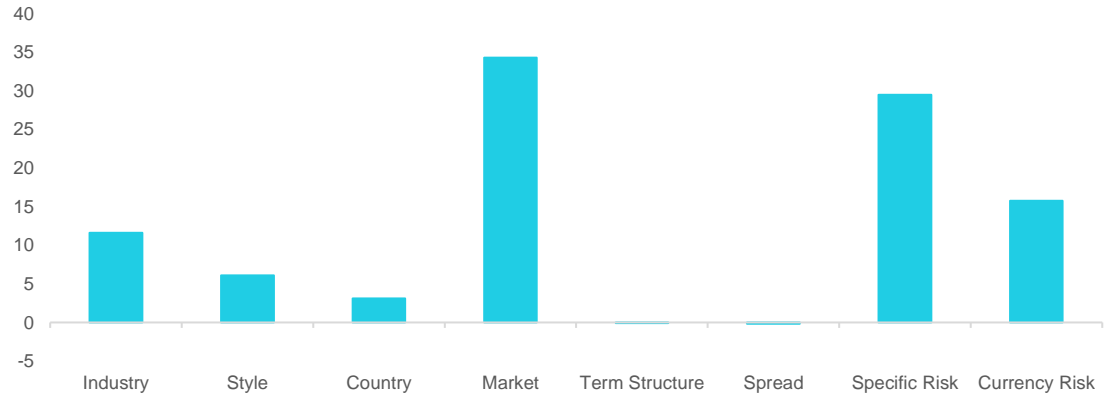
Portfolio Risk Summary



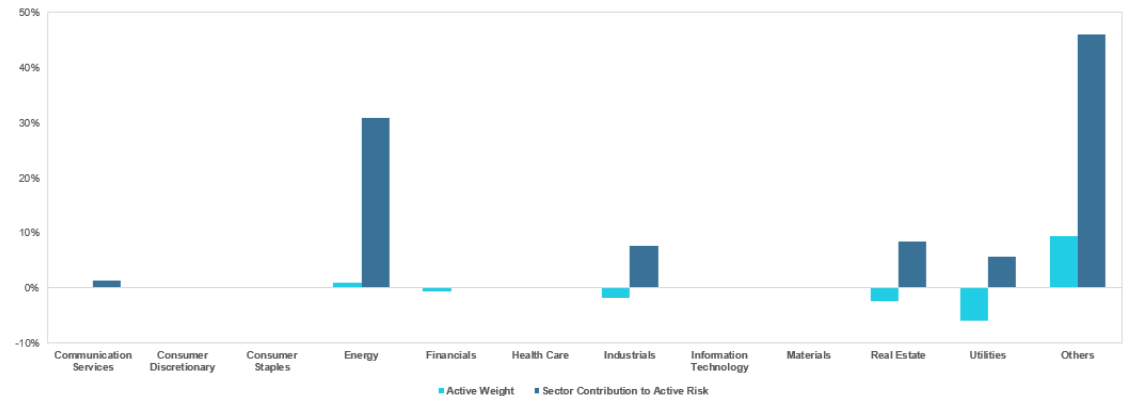
Top 10 Countries by Weight



Portfolio Active Risk from Common Factors



Portfolio Allocation by GICS Sector



Real Assets & Inflation Hedges

TIPS

BlackRock

for the quarter ended September 30, 2023

Strategy

Seeks to provide income and a hedge against inflation with passive TIPS exposure.

Inception Date: May 2019

Risk Statistics (since inception)

Standard Deviation	6.3%
Benchmark Standard Deviation	6.3%
Sharpe Ratio	0.03
Information Ratio	-0.07
Beta	0.99
Tracking Error	0.8%

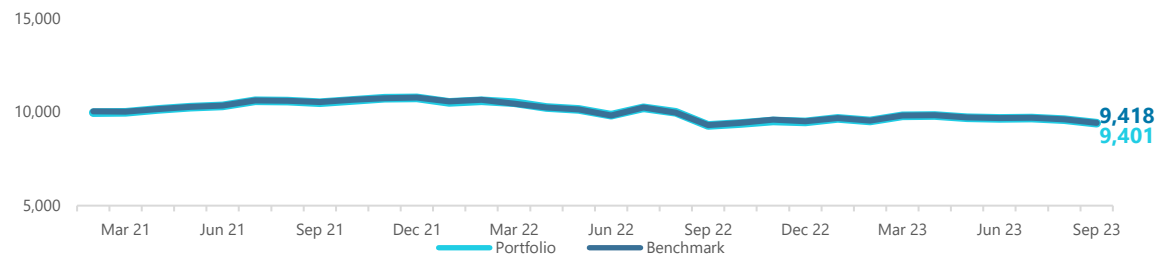
Top Holdings (% of assets)

TSY INFL IX N/B	4.5%
TSY INFL IX N/B	4.0%
TSY INFL IX N/B	3.7%
TSY INFL IX N/B	3.5%
TSY INFL IX N/B	3.5%
Top 5 Holdings	19.1%

Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
BlackRock TIPS	1,846.9	-2.6%	1.3%	-2.0%	--
Bloomberg U.S. Treasury: U.S. TIPS		-2.6%	1.2%	-2.0%	--
Real Assets & Inflation Hedges Policy BM		-2.8%	-0.3%	7.5%	--

Growth of \$10,000



Top Exposures (% of assets)²



¹ Peer rankings not shown; comparable TIPS universe not available.

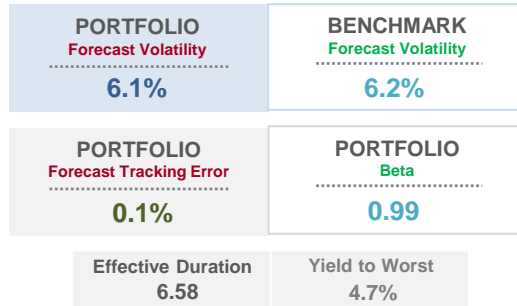
² Charts display top exposures and may not add up to 100%.

Real Assets & Inflation Hedges Risk Analysis

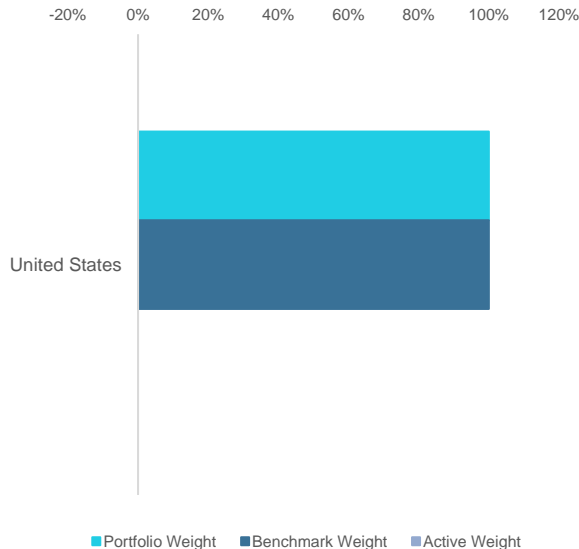
TIPS
BlackRock

for the quarter ended September 30, 2023

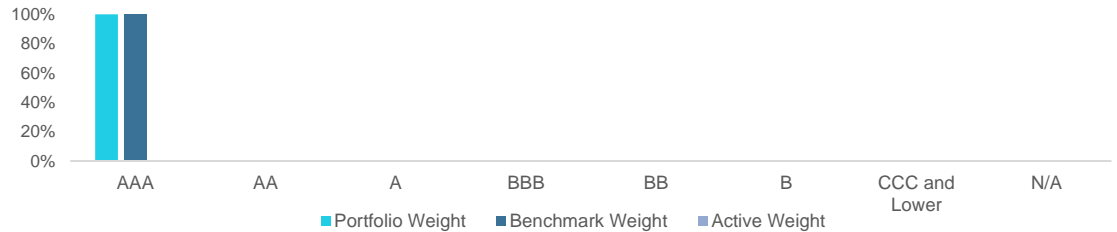
Portfolio Risk Summary



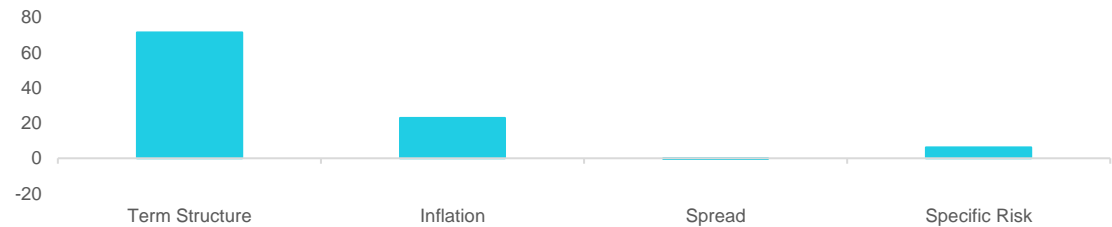
Top Country by Weight



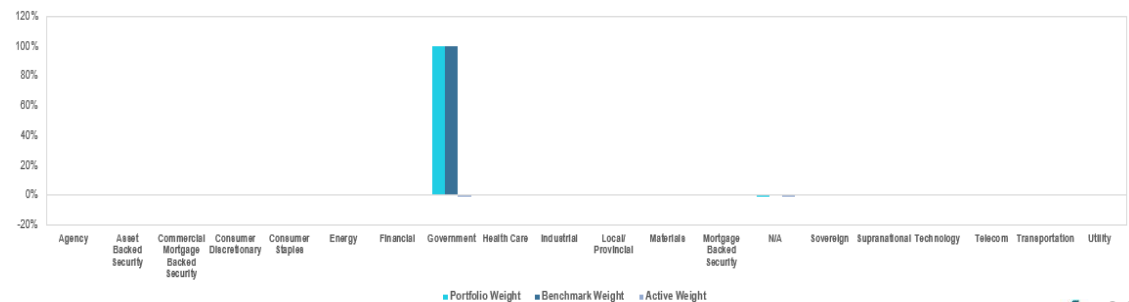
Allocation by Moody's Rating



Active Risk from Common Factors



Portfolio Allocation by Bond Sector



risk reduction & mitigation

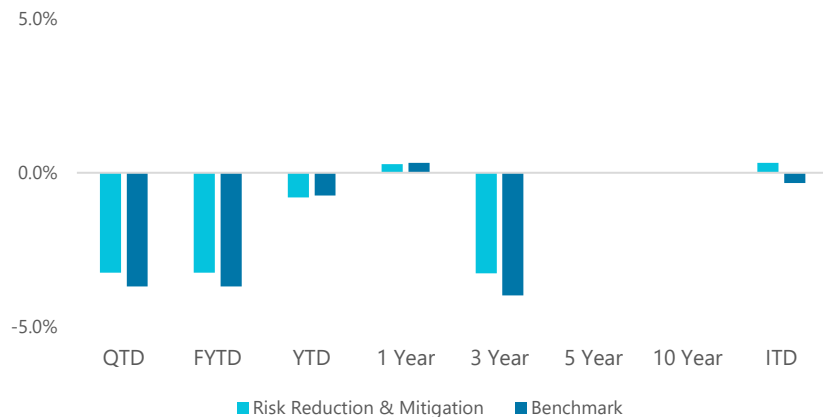
Summary

for the quarter ended September 30, 2023



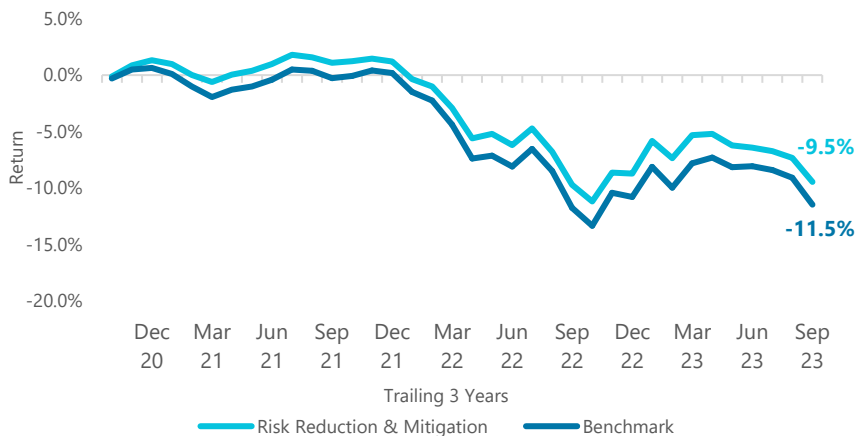
Los Angeles County Employees Retirement Association

Performance (net)



	QTD	FYTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD
Risk Reduction & Mitigation	-3.2%	-3.2%	-0.8%	0.3%	-3.3%	--	--	0.3%
Benchmark	-3.7%	-3.7%	-0.7%	0.3%	-4.0%	--	--	-0.3%
Excess	0.4%	0.4%	-0.1%	0.0%	0.7%	--	--	0.7%

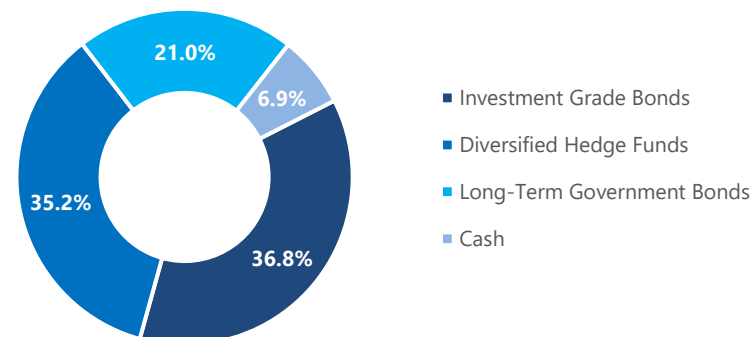
Cumulative Return



Functional Category

	QTD	FYTD	YTD	1 Year	3 Year
Investment Grade Bonds	-3.2%	-3.2%	-0.9%	0.9%	-5.1%
BBG BC Aggregate Bond Index	-3.2%	-3.2%	-1.2%	0.6%	-5.2%
Excess	0.0%	0.0%	0.3%	0.3%	0.1%
Diversified Hedge Funds	1.5%	1.5%	3.4%	4.9%	7.0%
Diversified Hedge Funds Policy Benchmark	2.0%	2.0%	5.6%	7.0%	4.2%
Excess	-0.4%	-0.4%	-2.2%	-2.2%	2.8%
Long-Term Government Bonds	-11.9%	-11.9%	-8.7%	-9.2%	--
Bloomberg U.S. Treasury: Long	-11.8%	-11.8%	-8.6%	-9.1%	--
Excess	-0.1%	-0.1%	-0.1%	-0.2%	--
Cash	0.6%	0.6%	3.8%	5.1%	2.7%
Cash Policy Benchmark	1.4%	1.4%	3.8%	4.7%	1.8%
Excess	-0.8%	-0.8%	0.0%	0.4%	0.9%

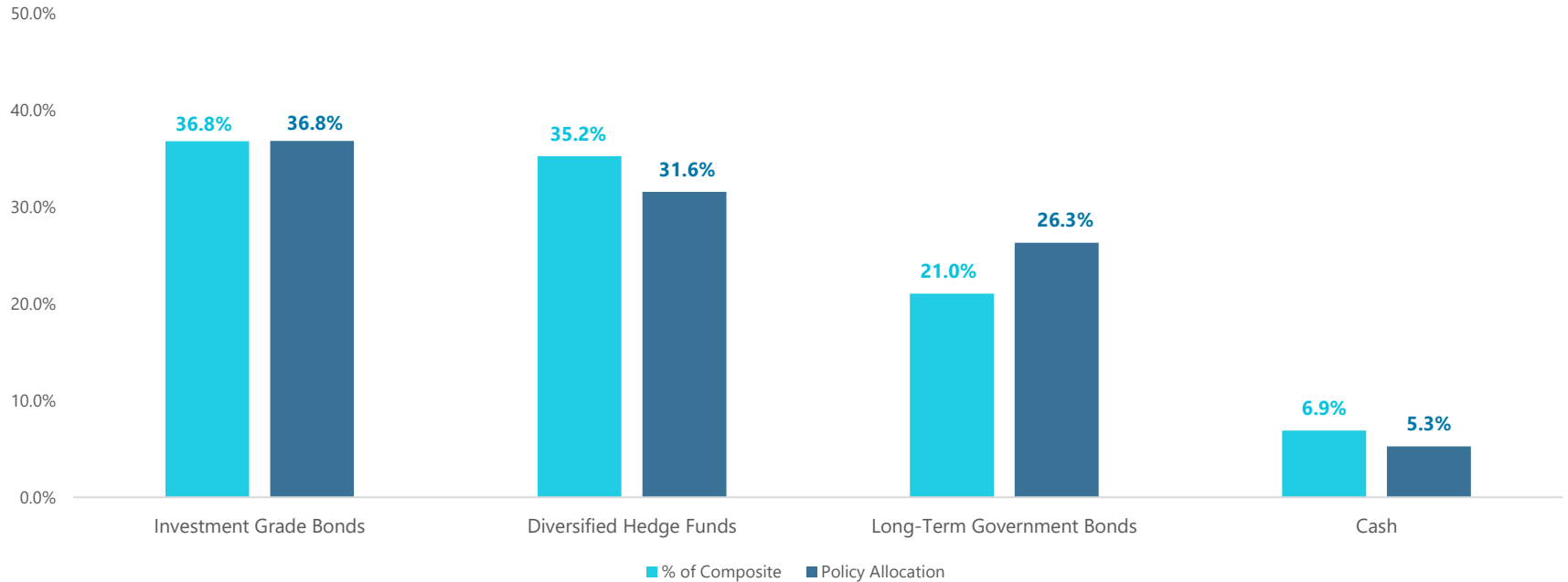
Exposure



Asset Allocation

for the quarter ended September 30, 2023

Actual vs. Policy

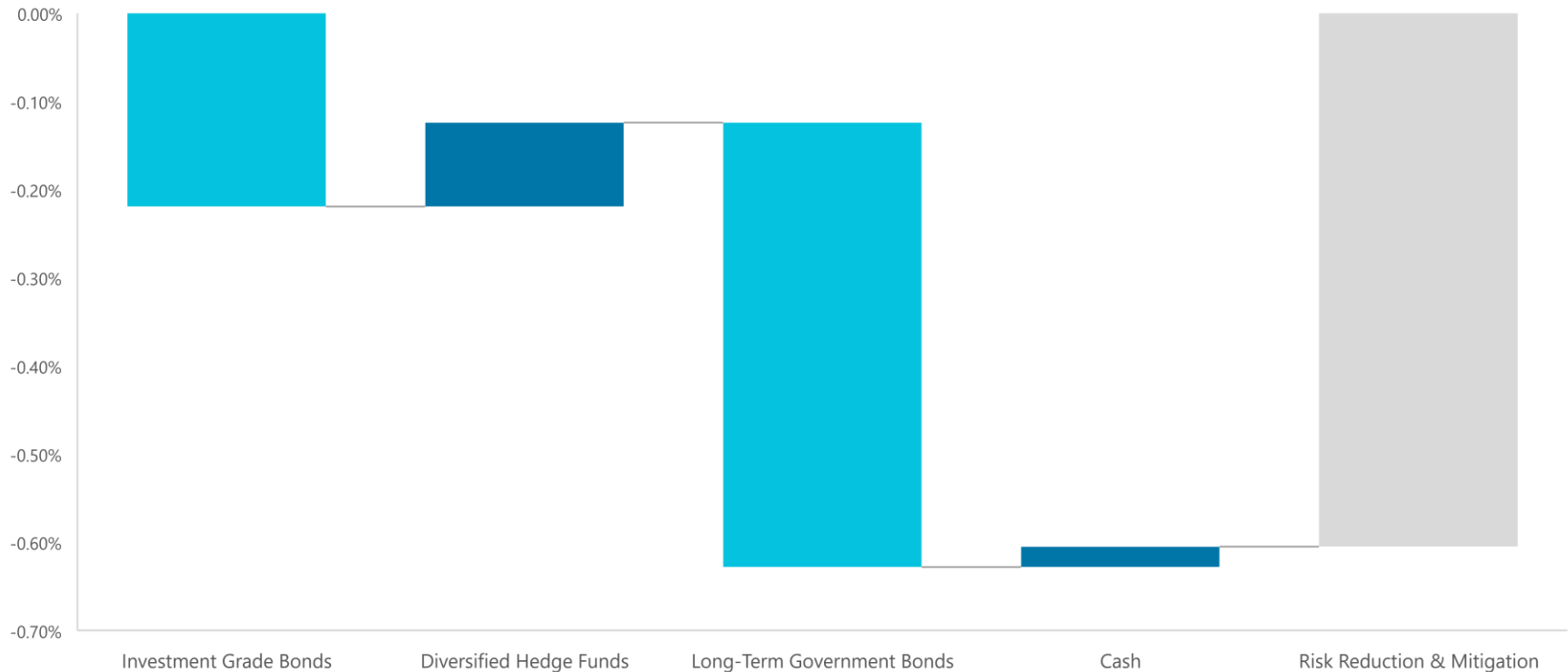


	Ending Market Value (mm)	% of Composite	Policy Allocation	Over / Under (%)	Over / Under (mm)
Risk Reduction & Mitigation	13,268	100.0%	100.0%		
Investment Grade Bonds	4,883	36.8%	36.8%	-0.7%	-90
Diversified Hedge Funds	4,677	35.2%	31.6%	3.1%	406
Long-Term Government Bonds	2,792	21.0%	26.3%	-5.6%	-749
Cash	916	6.9%	5.3%	1.5%	203

Contribution to Return

for the quarter ended September 30, 2023

QTD Contribution to Return



Functional Category		Contributors		Detractors	
Investment Grade Bonds	-0.22%	Capula GRV	0.03%	BlackRock Long Treasury Bonds	-0.50%
Diversified Hedge Funds	0.10%	HBK Multi-strategy	0.02%	BTC US Debt Index Fund	-0.13%
Long-Term Government Bonds	-0.50%			Allspring/Wells	-0.06%
Cash	0.02%			Pugh Capital Mgmt	-0.04%
Risk Reduction & Mitigation	-0.61%			AM Asia Strategies	-0.02%

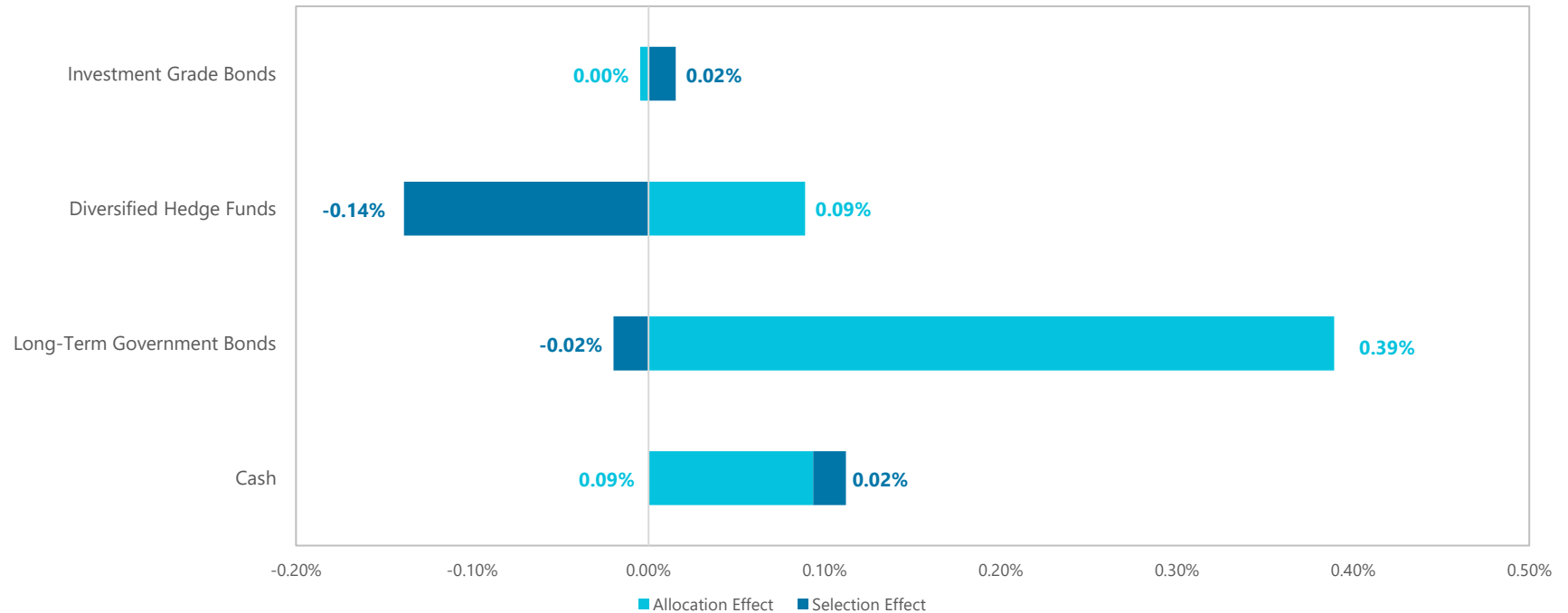
Return Attribution

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

QTD Performance Attribution¹



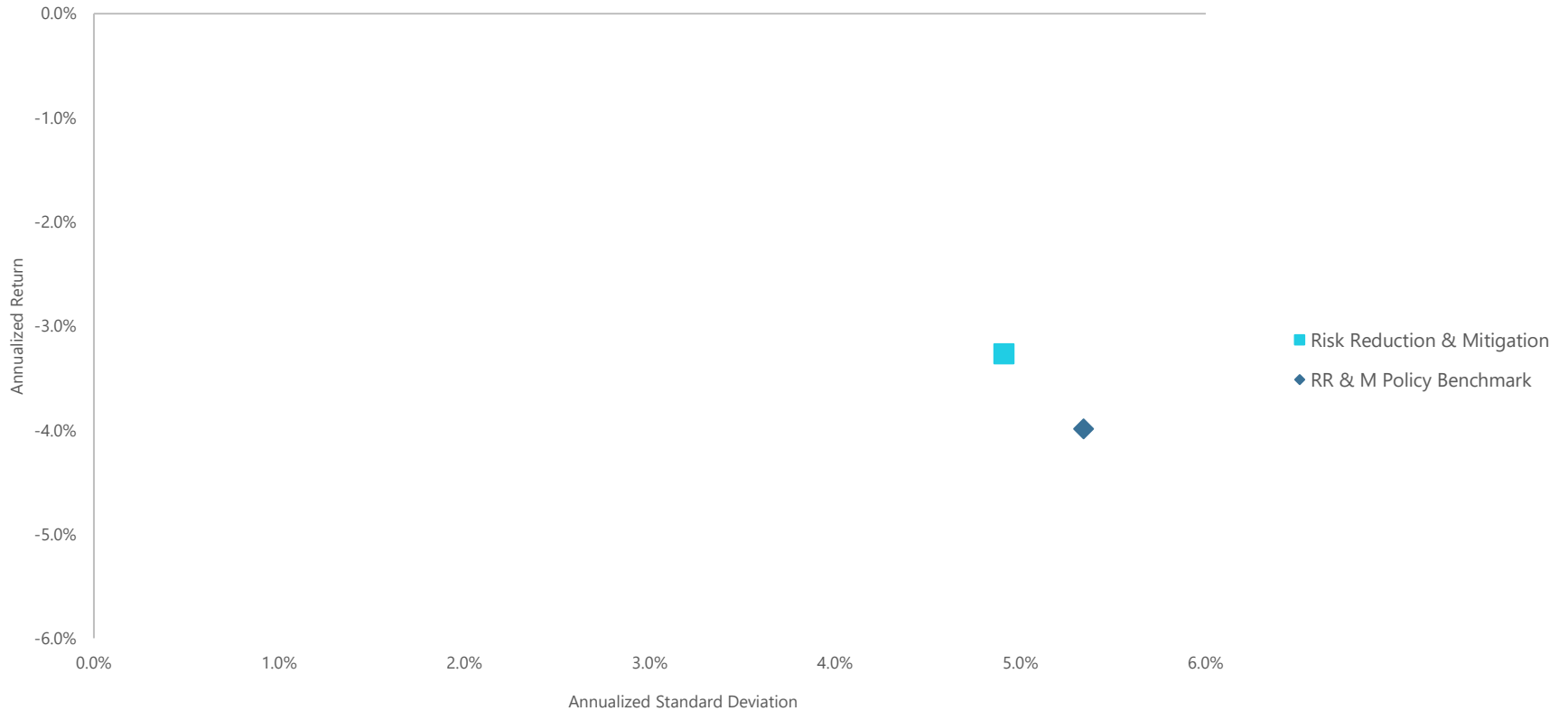
	Ending Market Value (mm)	% of Composite	Policy Allocation	Portfolio Return	Benchmark Return	Allocation Effect	Selection Effect	Total Value Add
Risk Reduction & Mitigation	13,268	100.0%	100.0%	-3.2%	-3.7%	0.57%	-0.12%	0.44%
Investment Grade Bonds	4,883	36.8%	36.8%	-3.2%	-3.2%	0.00%	0.02%	0.01%
Diversified Hedge Funds	4,677	35.2%	31.6%	1.5%	2.0%	0.09%	-0.14%	-0.05%
Long-Term Government Bonds	2,792	21.0%	26.3%	-11.9%	-11.8%	0.39%	-0.02%	0.37%
Cash	916	6.9%	5.3%	0.6%	1.4%	0.09%	0.02%	0.11%

¹ Total Value Add column includes Interaction Effect.

Risk vs. Return

for the quarter ended September 30, 2023

3 Year (Annualized)



	Annualized Return	Standard Deviation	Sharpe Ratio	Information Ratio	Beta	Tracking Error
Risk Reduction & Mitigation	-3.3%	4.9%				
RR & M Policy Benchmark	-4.0%	5.3%	(1.00)	0.93	0.91	0.8%

Performance Detail

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

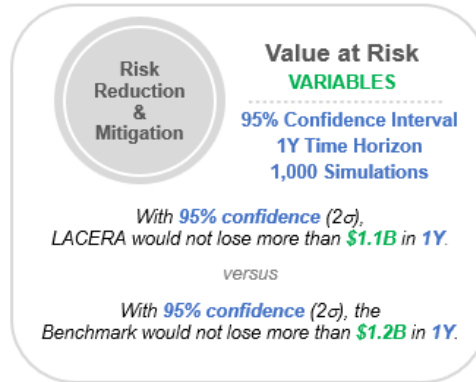
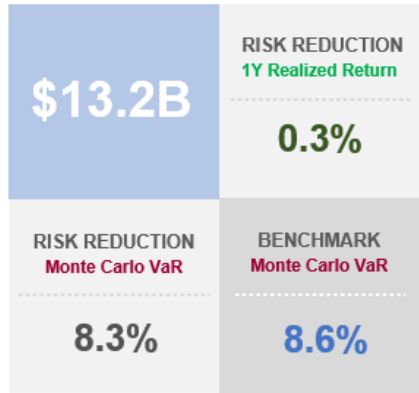
Annualized Net Returns

	% of Composite	Ending Market Value (mm)	Prior Quarter Ending MV (mm)	QTD	FYTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date
Risk Reduction & Mitigation	100.0%	13,268	13,659	-3.2%	-3.2%	-0.8%	0.3%	-3.3%	--	--	0.3%	Apr-2019
RR & M Policy Benchmark				-3.7%	-3.7%	-0.7%	0.3%	-4.0%	--	--	-0.3%	
Investment Grade Bonds	36.8%	4,883	5,044	-3.2%	-3.2%	-0.9%	0.9%	-5.1%	0.2%	1.5%	5.0%	Nov-1994
BBG BC Aggregate Bond Index				-3.2%	-3.2%	-1.2%	0.6%	-5.2%	0.1%	1.1%	4.5%	
Allspring/Wells	9.4%	1,243	1,283	-3.1%	-3.1%	-0.7%	1.3%	-4.9%	0.6%	1.5%	3.6%	Mar-2004
BTC US Debt Index Fund	21.1%	2,804	2,897	-3.2%	-3.2%	-1.0%	0.7%	-5.2%	0.2%	1.2%	3.6%	Nov-1999
MHLP	0.1%	9	10	1.2%	1.2%	3.8%	5.0%	5.1%	5.2%	5.6%	5.4%	Apr-2005
Pugh Capital Mgmt	6.2%	827	855	-3.3%	-3.3%	-1.0%	0.9%	-5.1%	0.3%	1.2%	3.0%	Jul-2005
Diversified Hedge Funds	35.2%	4,677	4,570	1.5%	1.5%	3.4%	4.9%	7.0%	--	--	6.3%	Apr-2019
Diversified Hedge Funds Policy Benchmark				2.0%	2.0%	5.6%	7.0%	4.2%	--	--	4.2%	
AM Asia Strategies	1.7%	230	245	-6.3%	-6.3%	6.0%	3.9%	--	--	--	0.8%	Jun-2021
Brevan Howard Master Fund	4.8%	631	625	1.0%	1.0%	-3.0%	-2.6%	--	--	--	5.2%	Apr-2021
Capula GRV	5.2%	694	676	2.8%	2.8%	8.1%	10.9%	7.3%	--	--	7.2%	Dec-2018
Caxton Global Investments	2.1%	283	282	0.5%	0.5%	-4.5%	-3.0%	--	--	--	5.2%	Feb-2021
DK Institutional Partners	3.8%	506	497	1.9%	1.9%	4.1%	4.0%	5.1%	4.9%	--	4.8%	May-2018
Grosvenor HFOF	0.1%	20	24	-1.3%	-1.3%	-5.5%	-6.1%	1.7%	1.3%	2.1%	2.8%	Nov-2011
HBK Multi-strategy	4.6%	604	586	3.1%	3.1%	4.5%	8.8%	7.1%	6.1%	--	5.6%	Jun-2018
Hudson Bay	5.2%	684	672	1.9%	1.9%	5.3%	6.8%	9.6%	--	--	9.8%	Jul-2020
Polar	3.7%	491	484	1.5%	1.5%	5.2%	6.4%	6.6%	--	--	9.6%	May-2020
Stable Asset Management	4.0%	532	480	2.4%	2.4%	3.2%	5.0%	--	--	--	1.3%	Aug-2021
Long-Term Government Bonds	21.0%	2,792	2,962	-11.9%	-11.9%	-8.7%	-9.2%	--	--	--	-20.3%	Nov-2021
Bloomberg U.S. Treasury: Long				-11.8%	-11.8%	-8.6%	-9.1%	--	--	--	-21.0%	Nov-2021
BlackRock Long Treasury Bonds	21.0%	2,792	2,962	-11.9%	-11.9%	-8.7%	-9.2%	--	--	--	-20.3%	Nov-2021
Cash	6.9%	916	1,083	0.6%	0.6%	3.8%	5.1%	2.7%	2.4%	1.6%	1.9%	Jun-2001
Cash Policy Benchmark				1.4%	1.4%	3.8%	4.7%	1.8%	1.7%	1.2%	1.5%	

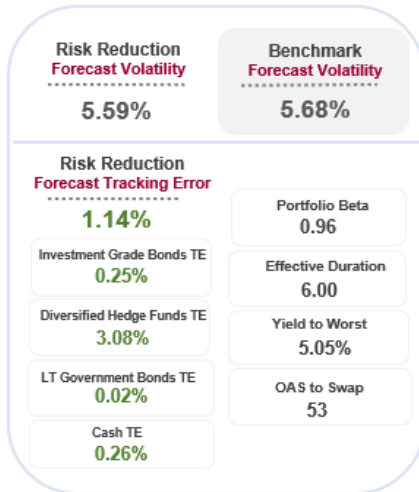
Risk Reduction & Mitigation Risk Summary

for the quarter ended September 30, 2023

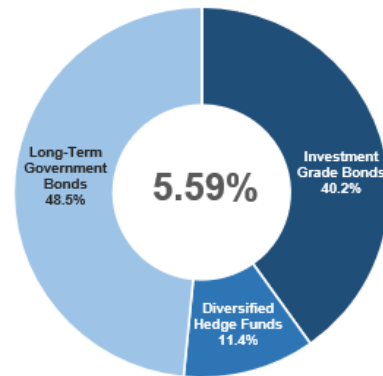
Realized (Ex-Post) Risks



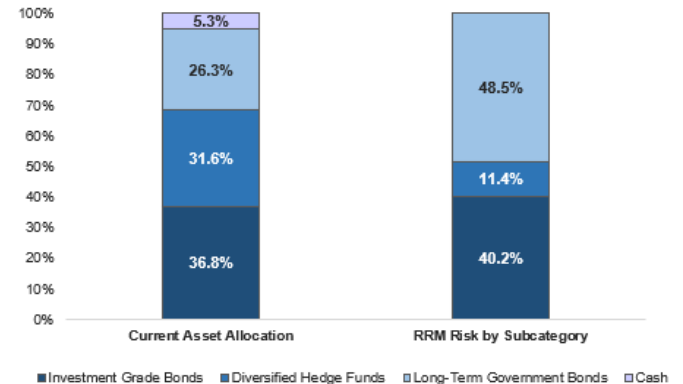
Projected (Ex-Ante) Risks



Subcategory Contributions to Risk Reduction & Mitigation (RRM) Risk



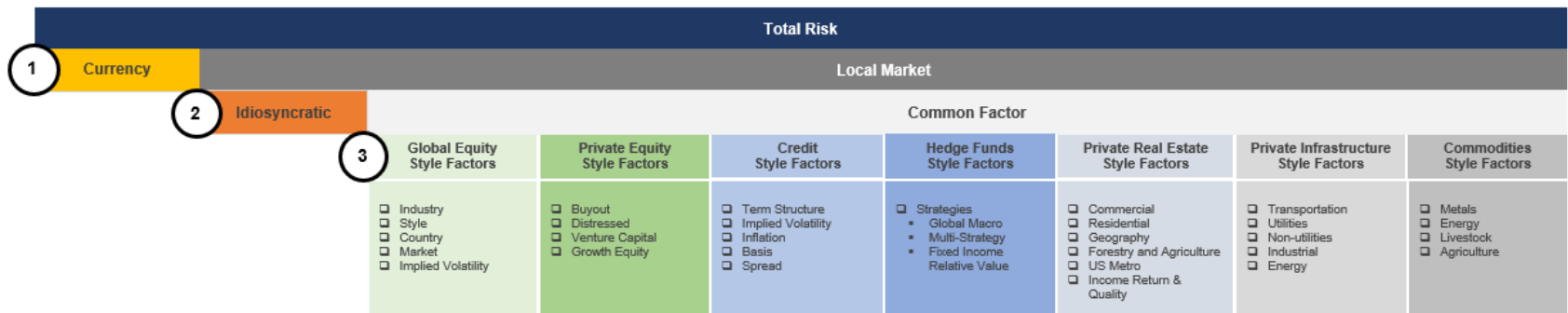
Risk Reduction & Mitigation Asset Allocation Capital-based versus Risk-based



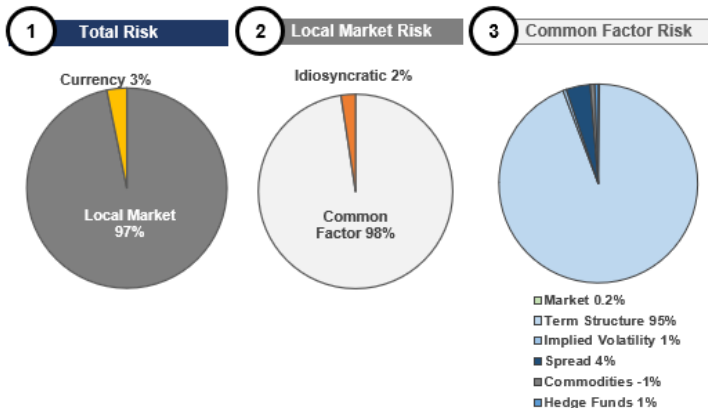
Risk Reduction & Mitigation Risk Summary

for the quarter ended September 30, 2023

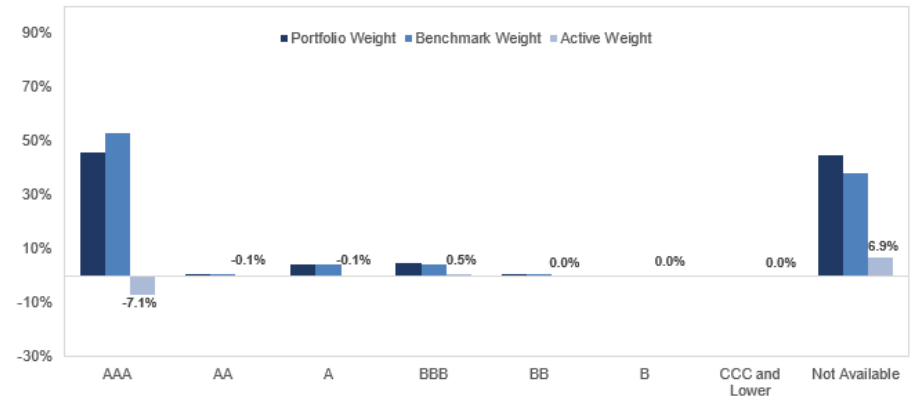
Decomposition of MSCI Risk Factors



Risk Reduction & Mitigation Risk Decomposition



Portfolio Allocation by Moody's Rating

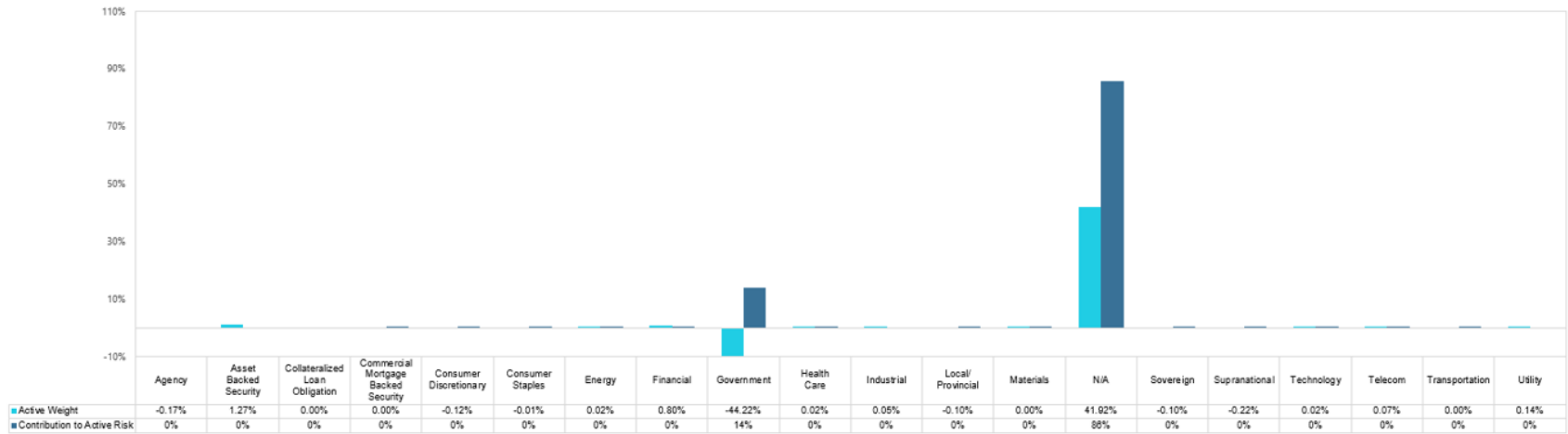


Risk Reduction & Mitigation

Risk Summary

for the quarter ended September 30, 2023

Portfolio Allocation by Bond Sector



Risk Reduction & Mitigation

Investment Grade Bonds

Allspring/Wells

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Strategy

A core fixed income strategy focusing on bottom-up quantitative and qualitative security selection and comprehensive risk management. Value is added primarily through security selection and sector rotation.

Inception Date: June 2004

Portfolio Characteristics

	Portfolio	Benchmark
No. of Issues	945.0	0.0
Effective Duration	6.1	5.9
Convexity	0.6	0.6
Coupon Rate	3.7	3.0
Yield to Maturity	5.4	5.1
Current Yield	4.1	3.4
Rating – Moody's	AA-2	AA-2
Rating – S & P	AA	AA-

Top Holdings (% of assets)

FNMA TBA 30 YR 6	3.1%
US TREASURY N/B	3.0%
FNMA TBA 30 YR 6	2.0%
US TREASURY N/B	1.5%
US TREASURY N/B	1.4%
Top 5 Holdings	11.1%

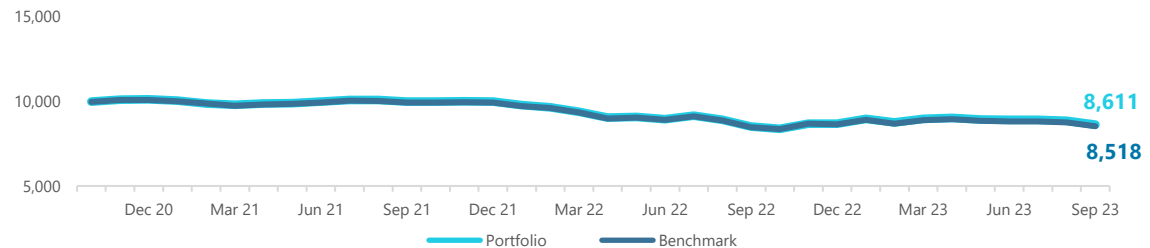
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Allspring/Wells	1,242.6	-3.1%	1.3%	-4.9%	0.6%
BBG BC Aggregate Bond Index		-3.2%	0.6%	-5.2%	0.1%
Risk Reduction & Mitigation Policy BM		-3.7%	0.3%	-4.0%	--

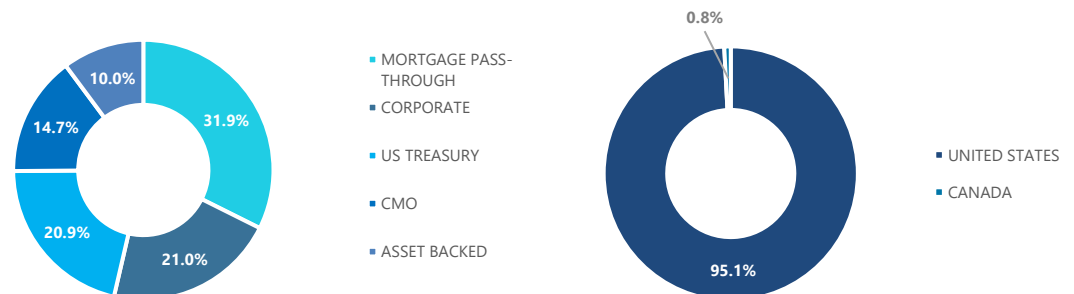
Universe data: US Fixed Income Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Allspring/Wells	-3.1%	76	1.4%	65	-4.8%	77	0.7%	67
Median	-0.9%		2.7%		-1.5%		1.2%	

No. of Observations: 758

Growth of \$10,000



Top Exposures (% of assets)²



¹ Universe data is gross-of-fees.

² Charts display top exposures and may not add up to 100%.

Risk Reduction & Mitigation Risk Analysis

Investment Grade Bonds

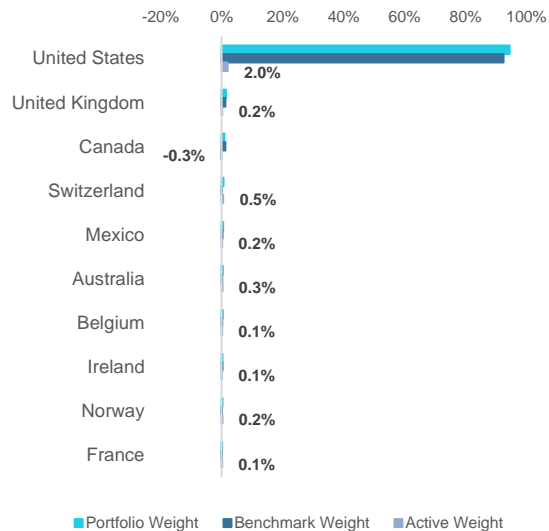
Allspring/Wells

for the quarter ended September 30, 2023

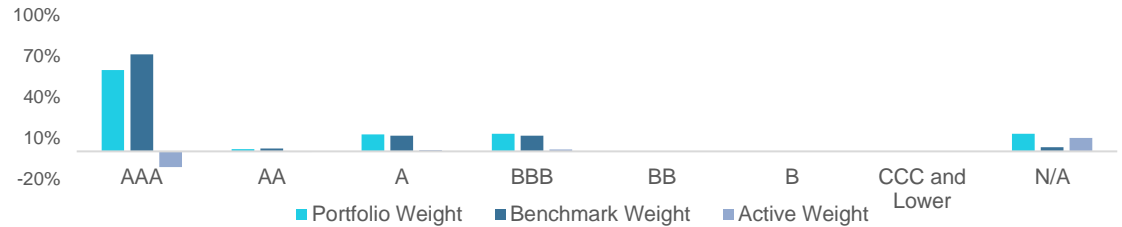
Portfolio Risk Summary

PORTFOLIO Forecast Volatility	BENCHMARK Forecast Volatility
6.9%	6.3%
PORTFOLIO Forecast Tracking Error	PORTFOLIO Beta
0.8%	1.10
Effective Duration 7.0	Yield to Worst 5.3%

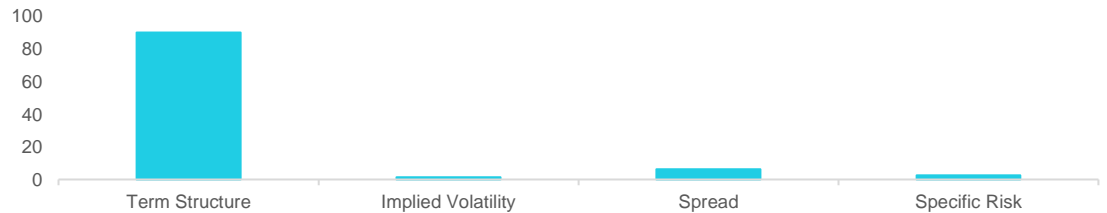
Top 10 Countries by Weight



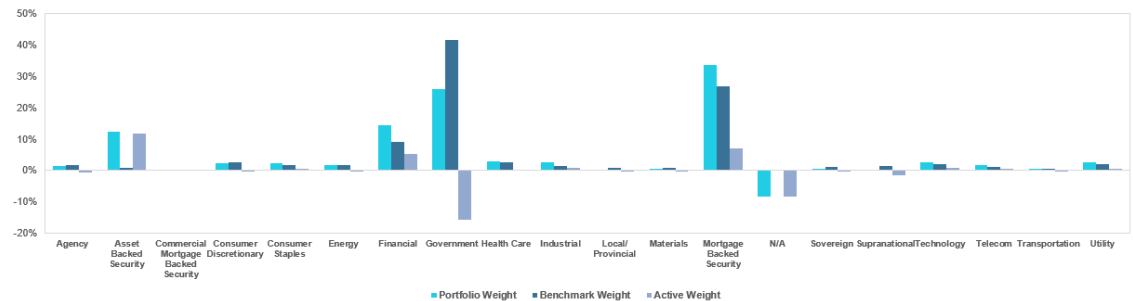
Allocation by Moody's Rating



Active Risk from Common Factors



Portfolio Allocation by Bond Sector



Risk Reduction & Mitigation

Investment Grade Bonds

Pugh Capital

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Strategy

A core fixed income strategy that invests in investment-grade securities, with an emphasis on higher credit quality and mortgage-backed securities. The strategy seeks to add value relative to the Index by minimizing downside risk across the portfolio while adding incremental return through issue selection.

Inception Date: July 2005

Portfolio Characteristics

	Portfolio	Benchmark
No. of Issues	303.0	0.0
Effective Duration	6.0	5.9
Convexity	0.6	0.6
Coupon Rate	3.7	3.0
Yield to Maturity	5.3	5.1
Current Yield	4.1	3.4
Rating – Moody's	AA-2	AA-2
Rating – S & P	AA-	AA-

Top Holdings (% of assets)

US TREASURY N/B	2.9%
US TREASURY N/B	2.3%
US TREASURY N/B	1.7%
GNMA II POOL MA8151	1.5%
US TREASURY N/B	1.3%
Top 5 Holdings	9.7%

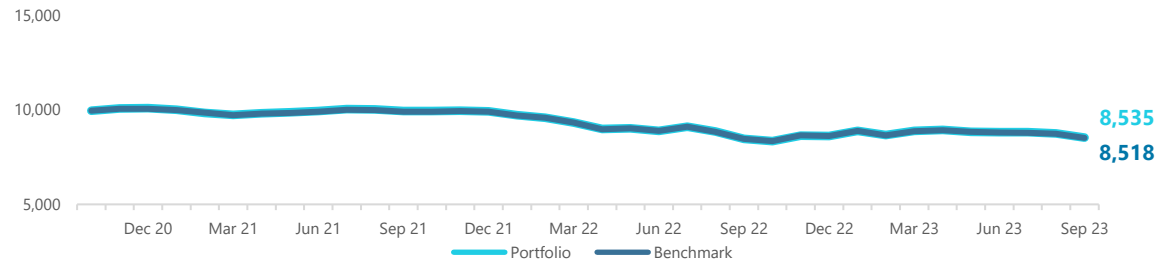
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
Pugh Capital Mgmt	826.7	-3.3%	0.9%	-5.1%	0.3%
BBG BC Aggregate Bond Index		-3.2%	0.6%	-5.2%	0.1%
Risk Reduction & Mitigation Policy BM		-3.7%	0.3%	-4.0%	--

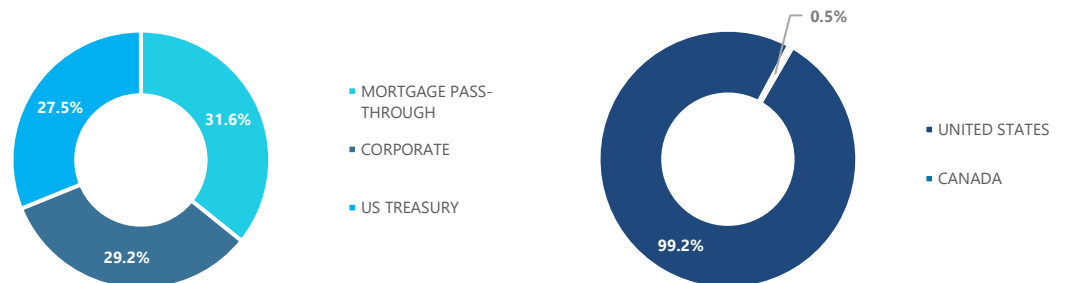
Universe data: US Fixed Income Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
Pugh Capital Mgmt	-3.2%	79	1.0%	71	-5.0%	81	0.4%	78
Median	-0.9%		2.7%		-1.5%		1.2%	

No. of Observations: 758

Growth of \$10,000



Top Exposures (% of assets)²



¹ Universe data is gross-of-fees.

² Charts display top exposures and may not add up to 100%.

Risk Reduction & Mitigation Risk Analysis

Investment Grade Bonds

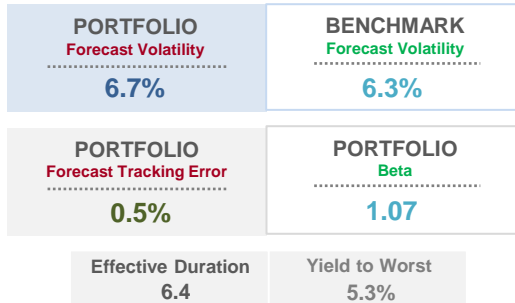
Pugh Capital

for the quarter ended September 30, 2023

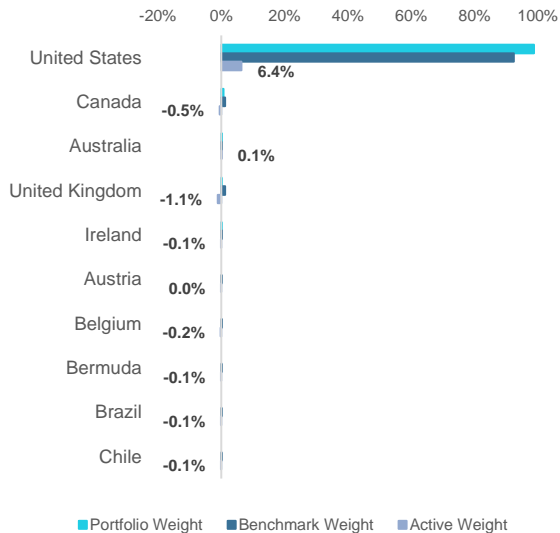


Los Angeles County Employees Retirement Association

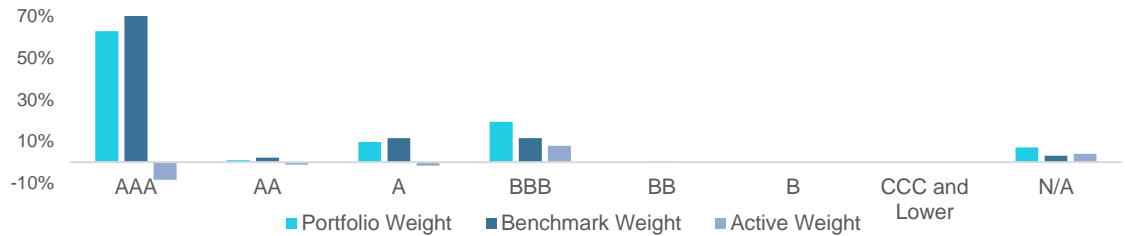
Portfolio Risk Summary



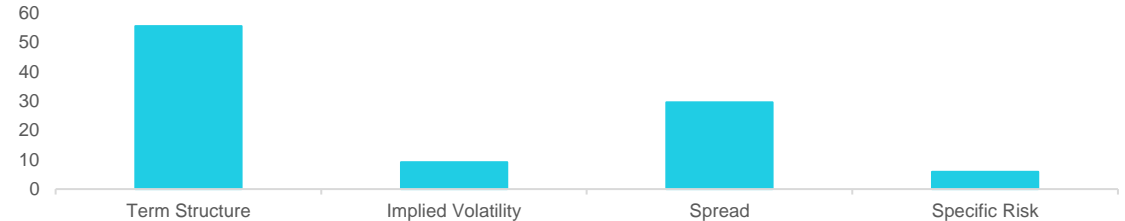
Top 10 Countries by Weight



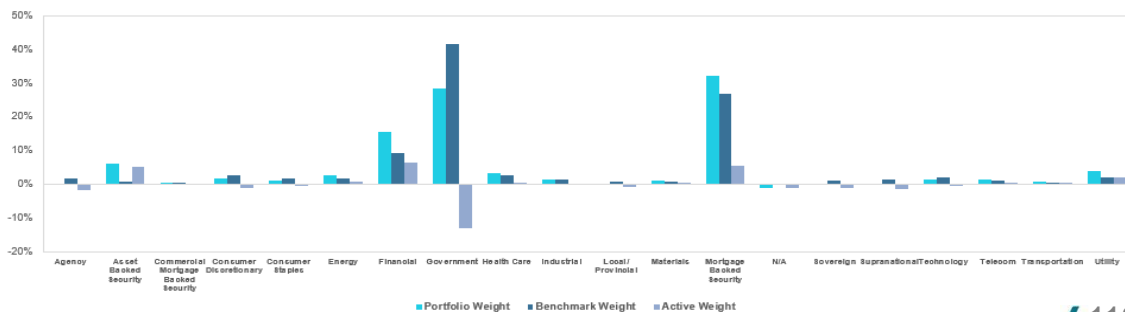
Allocation by Moody's Rating



Active Risk from Common Factors



Portfolio Allocation by Bond Sector



Risk Reduction & Mitigation

Long-term Government Bonds

BlackRock

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Strategy

Seeks investment results that correspond generally to the price and yield performance of long duration U.S. government bonds.

Inception Date: Nov 2021

Portfolio Characteristics

Standard Deviation	14.9%
Benchmark Standard Deviation	14.9%
Sharpe Ratio	-1.59
Information Ratio	-0.22
Beta	1.00
Tracking Error	1.1%

Top Holdings (% of assets)

US TREASURY N/B	2.6%
US TREASURY N/B	2.5%
US TREASURY N/B	2.4%
US TREASURY N/B	2.4%
US TREASURY N/B	2.4%
Top 5 Holdings	12.2%

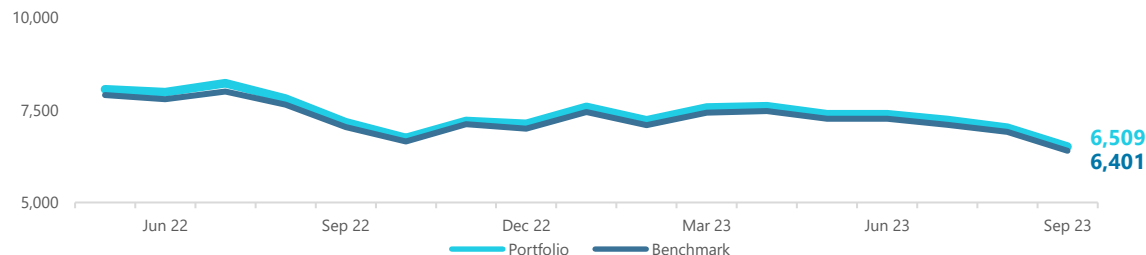
Performance (net)¹

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year
BlackRock Long Treasury Bonds	2,791.6	-11.9%	-9.2%	--	--
Bloomberg U.S. Treasury: Long		-11.8%	-9.1%	--	--
Risk Reduction & Mitigation Policy BM		-3.7%	0.3%	-4.0%	--

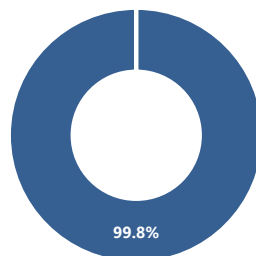
Universe data: US Fixed Income Funds	QTD	Rank	1 Year	Rank	3 Year	Rank	5 Year	Rank
BlackRock Long Treasury Bonds	-11.9%	98	-9.2%	95	--	--	--	--
Median	-0.9%		2.7%		--	--	--	--

No. of Observations: 758

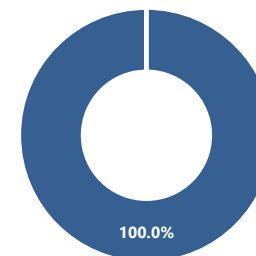
Growth of \$10,000



Top Exposures (% of assets)²



■ US TREASURY



■ UNITED STATES

¹ Universe data is gross-of-fees.

² Charts display top exposures and may not add up to 100%.

Risk Reduction & Mitigation Risk Analysis

Long-term Government Bonds

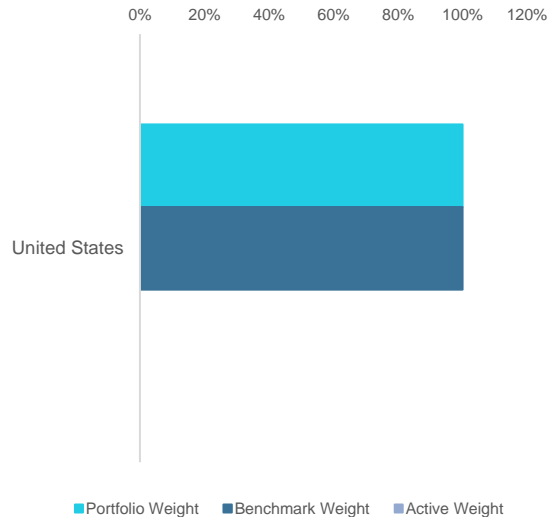
BlackRock

for the quarter ended September 30, 2023

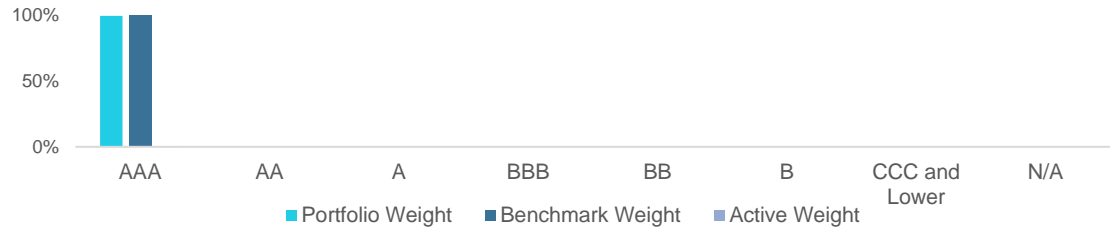
Portfolio Risk Summary

PORTFOLIO Forecast Volatility	BENCHMARK Forecast Volatility
13.1%	13.1%
PORTFOLIO Forecast Tracking Error	PORTFOLIO Beta
0.02%	1.00
Effective Duration 15.2	Yield to Worst 4.9%

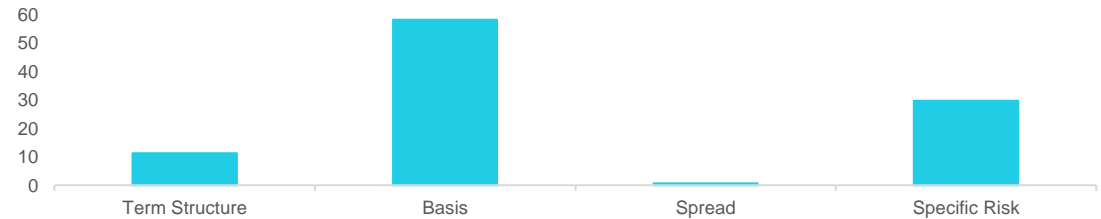
Top Country by Weight



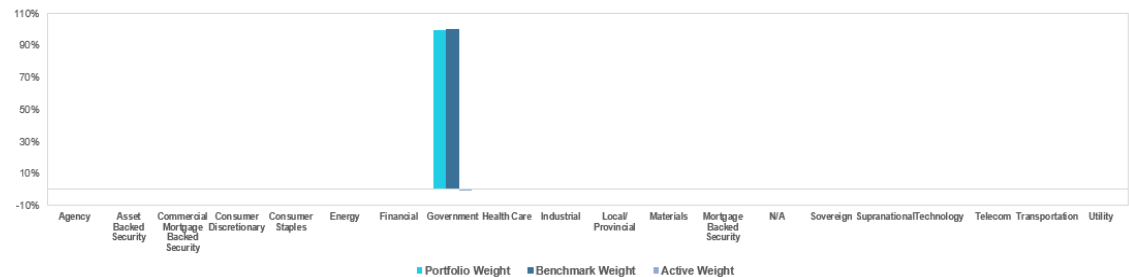
Allocation by Moody's Rating



Active Risk from Common Factors



Portfolio Allocation by Bond Sector



private markets

Summary

Private Equity

for the quarter ended September 30, 2023



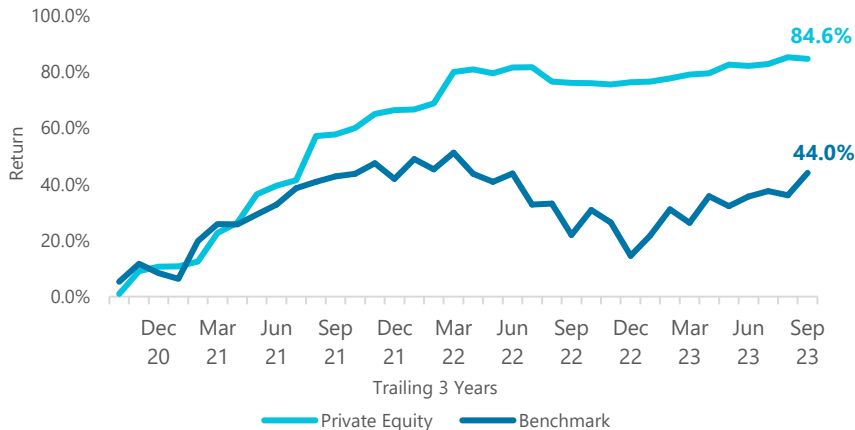
Los Angeles County Employees Retirement Association

Performance (net)



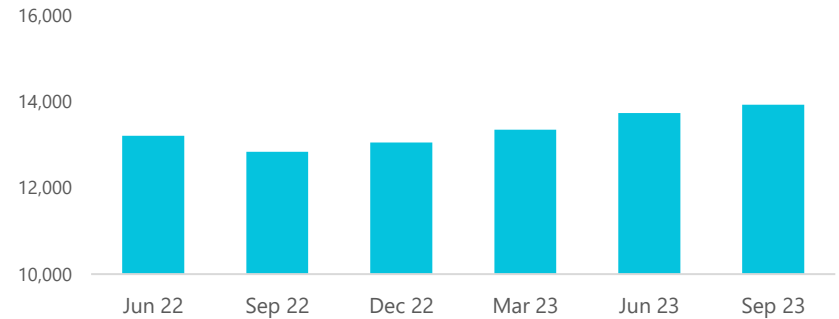
	QTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD
Private Equity	1.4%	4.7%	4.9%	22.7%	17.2%	16.2%	15.1%
Benchmark	6.2%	25.7%	18.1%	12.9%	13.6%	13.5%	--
Excess	-4.8%	-21.0%	-13.2%	9.7%	3.6%	2.7%	--

Cumulative Return

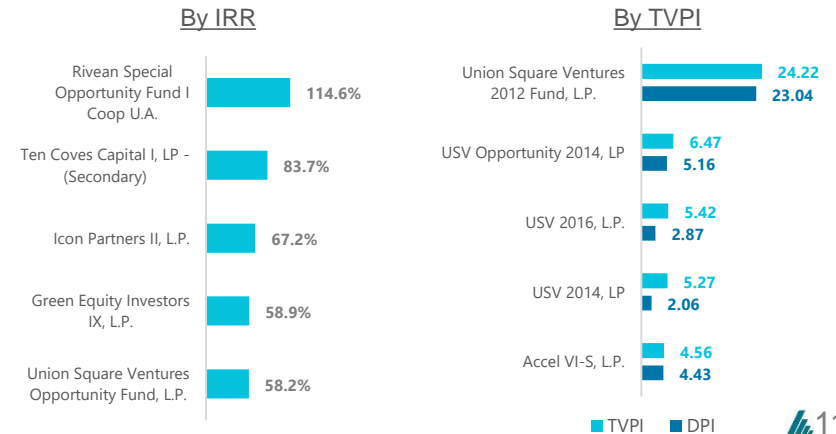


Asset Growth (mm)

	QTD	1 Year	3 Year
Beginning Market Value	13,739	12,838	7,209
Net Cash Flow	2	447	582
Gain/Loss	192	647	6,141
Ending Market Value	13,933	13,933	13,933



Top Performing Investments (since inception)

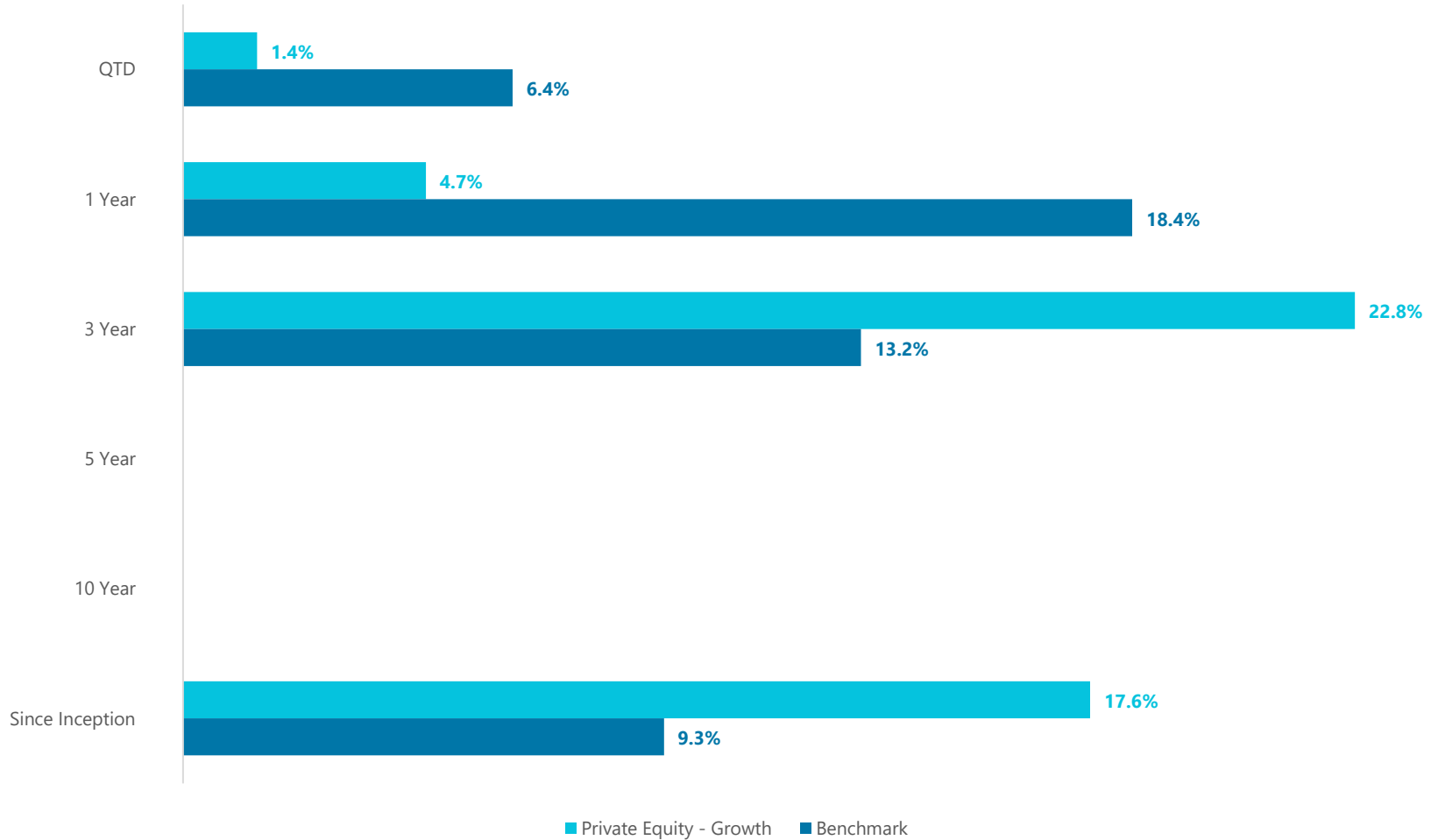


Historical Returns

Private Equity – Growth

for the quarter ended September 30, 2023

Time-Weighted Returns (net)

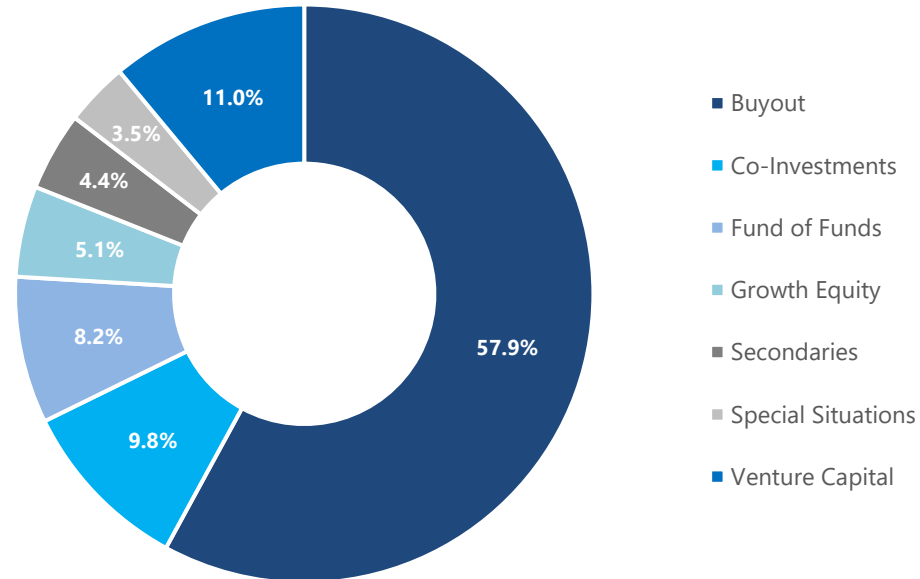


Performance by Strategy

Private Equity – Growth

for the quarter ended September 30, 2023

By Strategy^{1,2}



	Number of Investments	Commitments (mm)	Cumulative Contributions (mm)	Cumulative Distributions (mm)	Market Value (mm)	Total Value (mm)	Total Gain / Loss (mm)	Distributed to Paid-In	Total Value to Paid-In	Since Inception Net IRR	Since Inception PME
Buyout	208	15,097.1	13,674.9	14,973.3	7,884.5	22,857.8	9,182.8	1.09x	1.67x	14.0%	1.56
Co-Investments	10	1,587.9	1,556.6	1,032.0	1,334.6	2,366.6	810.0	0.66x	1.52x	17.9%	1.42
Fund of Funds	15	1,808.3	1,382.5	1,640.1	1,116.6	2,756.6	1,374.1	1.19x	1.99x	13.6%	1.45
Growth Equity	23	1,346.1	1,205.8	1,532.8	690.7	2,223.5	1,017.7	1.27x	1.84x	86.9%	1.68
Secondaries	20	832.4	712.4	414.8	598.0	1,012.9	300.4	0.58x	1.42x	17.6%	1.34
Special Situations	22	1,121.7	1,064.3	1,057.9	482.8	1,540.7	476.3	0.99x	1.45x	9.7%	1.18
Venture Capital	107	2,365.2	1,992.5	2,676.5	1,501.8	4,178.3	2,185.8	1.34x	2.10x	21.7%	1.96
Total Private Equity - Growth	405	24,158.8	21,589.1	23,327.4	13,609.0	36,936.3	15,347.2	1.08x	1.71x	16.3%	1.68

¹ Based on best available cash flow adjusted market values.

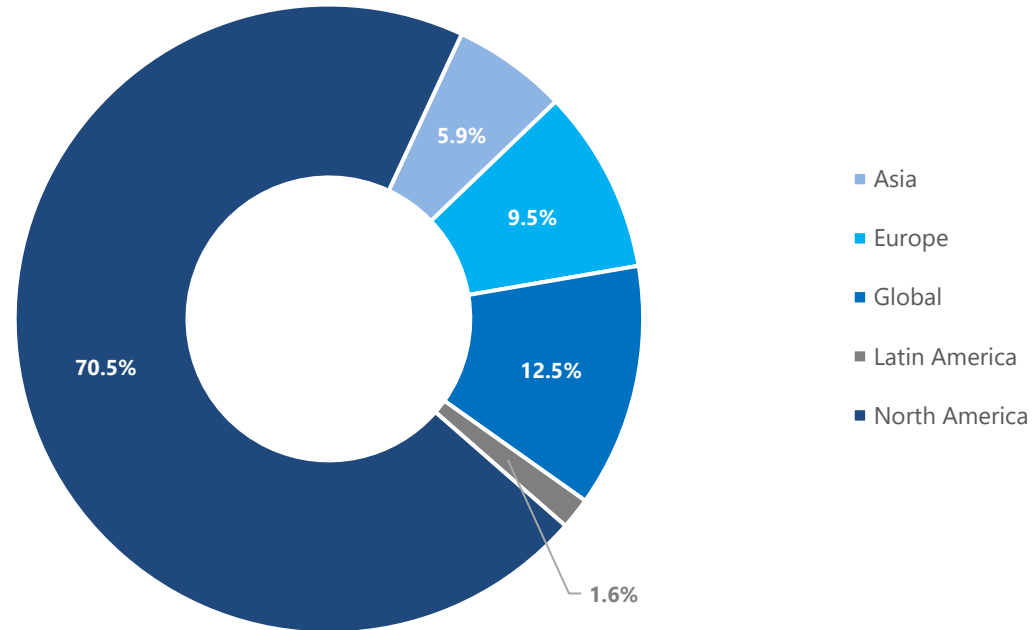
² Investment counts for Co-Investments and Fund of Funds do not include underlying funds.

Performance by Geography

Private Equity – Growth

for the quarter ended September 30, 2023

By Geography^{1,2}



	Number of Investments	Commitments (mm)	Cumulative Contributions (mm)	Cumulative Distributions (mm)	Market Value (mm)	Total Value (mm)	Total Gain / Loss (mm)	Distributed to Paid-In	Total Value to Paid-In	Since Inception Net IRR	Since Inception PME
Asia	14	826.0	753.0	495.7	802.3	1,298.0	545.0	0.66x	1.72x	14.3%	1.30
Europe	37	2,518.0	2,341.7	2,415.3	1,286.7	3,702.0	1,360.4	1.03x	1.58x	15.7%	1.36
Global	28	2,693.3	1,850.3	896.6	1,703.8	2,600.4	750.0	0.48x	1.41x	15.2%	1.27
Latin America	2	200.0	201.1	57.8	220.5	278.4	77.2	0.29x	1.38x	10.6%	1.12
North America	324	17,921.5	16,443.0	19,461.9	9,595.6	29,057.6	12,614.6	1.18x	1.77x	16.3%	1.71
Total Private Equity - Growth	405	24,158.8	21,589.1	23,327.4	13,609.0	36,936.3	15,347.2	1.08x	1.71x	16.3%	1.68

¹ Based on best available cash flow adjusted market values.

² Investment counts for Co-Investments and Fund of Funds do not include underlying funds.

Performance by Vintage Year

Private Equity – Growth

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

By Vintage Year^{1,2,3}

	Number of Investments	Commitments (mm)	Cumulative Contributions (mm)	Cumulative Distributions (mm)	Market Value (mm)	Total Value (mm)	Total Gain / Loss (mm)	Distributed to Paid-In	Total Value to Paid-In	Since Inception Net IRR	Since Inception PME	Quartile Ranking
1986	3	80.0	80.0	267.5	0.0	267.5	187.5	3.34x	3.34x	15.7%	--	1st
1987	1	25.0	25.0	40.3	0.0	40.3	15.3	1.61x	1.61x	7.3%	--	3rd
1988	2	200.0	216.6	466.9	0.0	466.9	250.3	2.16x	2.16x	15.5%	89.91	2nd
1989	0	--	--	--	--	--	--	--	--	--	--	N/A
1990	1	7.5	7.5	16.7	0.0	16.7	9.2	2.22x	2.22x	13.0%	9.13	3rd
1991	0	--	--	--	--	--	--	--	--	--	--	N/A
1992	10	116.0	111.0	242.5	0.0	242.5	131.6	2.19x	2.19x	29.1%	3.78	2nd
1993	8	68.0	64.8	239.5	0.0	239.5	174.7	3.70x	3.70x	39.7%	3.22	1st
1994	5	56.9	58.8	237.6	0.0	237.6	178.8	4.04x	4.04x	54.1%	2.82	1st
1995	7	100.5	102.3	362.6	0.0	362.6	260.2	3.54x	3.54x	43.2%	2.58	1st
1996	12	222.9	225.2	608.8	0.0	608.8	383.6	2.70x	2.70x	37.5%	2.15	1st
1997	11	397.5	410.4	606.4	0.0	606.4	196.0	1.48x	1.48x	7.7%	1.20	3rd
1998	22	644.4	655.2	945.3	0.5	945.8	290.6	1.44x	1.44x	7.3%	1.19	2nd
1999	21	362.5	369.7	436.6	0.0	436.6	66.9	1.18x	1.18x	3.4%	0.96	2nd
2000	25	375.3	387.3	575.0	0.1	575.1	187.8	1.48x	1.49x	8.7%	1.07	2nd
2001	15	409.5	442.6	835.5	2.5	838.1	395.5	1.89x	1.89x	21.7%	1.38	1st
2002	8	220.4	230.3	537.4	0.0	537.4	307.1	2.33x	2.33x	19.0%	1.64	2nd
2003	8	308.7	339.2	701.6	0.3	701.8	362.6	2.07x	2.07x	21.3%	1.60	1st
2004	7	345.5	392.2	746.8	0.7	747.5	355.3	1.90x	1.91x	19.5%	1.58	1st
2005	15	503.2	506.2	1,040.4	3.1	1,043.6	537.4	2.06x	2.06x	13.4%	1.64	1st
2006	28	1,513.1	1,608.0	2,563.4	9.0	2,572.4	964.4	1.59x	1.60x	8.8%	1.25	2nd
2007	11	516.4	462.1	785.6	30.8	816.4	354.3	1.70x	1.77x	11.5%	1.20	2nd
2008	10	636.8	701.3	1,238.4	23.4	1,261.8	560.5	1.77x	1.80x	13.2%	1.21	2nd
2009	0	--	--	--	--	--	--	--	--	--	--	N/A
2010	2	450.0	475.1	739.9	234.3	974.2	499.1	1.56x	2.05x	15.5%	1.42	2nd
2011	7	390.3	423.5	822.4	146.2	968.6	545.1	1.94x	2.29x	18.3%	1.48	2nd
2012	7	435.0	582.0	1,071.5	93.8	1,165.4	583.4	1.84x	2.00x	21.5%	1.66	2nd
2013	10	894.4	987.9	1,289.6	500.9	1,790.5	802.6	1.31x	1.81x	14.9%	1.32	2nd
2014	11	1,244.2	1,404.7	1,552.9	1,193.0	2,745.9	1,341.2	1.11x	1.95x	16.8%	1.43	2nd
2015	10	1,087.0	1,273.8	1,440.8	1,281.1	2,721.9	1,448.0	1.13x	2.14x	20.9%	1.62	2nd
2016	12	1,127.2	1,314.5	1,238.8	1,171.4	2,410.1	1,095.7	0.94x	1.83x	17.5%	1.37	3rd
2017	8	594.0	597.8	436.0	671.4	1,107.4	509.6	0.73x	1.85x	19.2%	1.43	3rd
2018	9	1,254.2	1,196.5	422.0	1,483.6	1,905.6	709.1	0.35x	1.59x	18.8%	1.40	3rd
2019	30	2,114.2	1,943.5	430.5	2,385.4	2,816.0	872.5	0.22x	1.45x	16.3%	1.28	2nd
2020	10	1,157.5	958.2	197.8	1,140.4	1,338.3	380.0	0.21x	1.40x	20.0%	1.39	2nd
2021	30	3,009.8	1,944.3	117.1	2,146.3	2,263.4	319.1	0.06x	1.16x	11.3%	1.18	2nd
2022	16	1,535.6	884.9	73.4	880.8	954.1	69.3	0.08x	1.08x	7.9%	1.03	1st
2023	13	1,755.1	206.9	--	209.8	--	--	0.00x	1.01x	2.8%	1.00	1st

Total Private Equity - Growth

405

24,158.8

21,589.1

23,327.4

13,609.0

36,936.3

15,347.2

1.08x

1.71x

16.3%

1.68

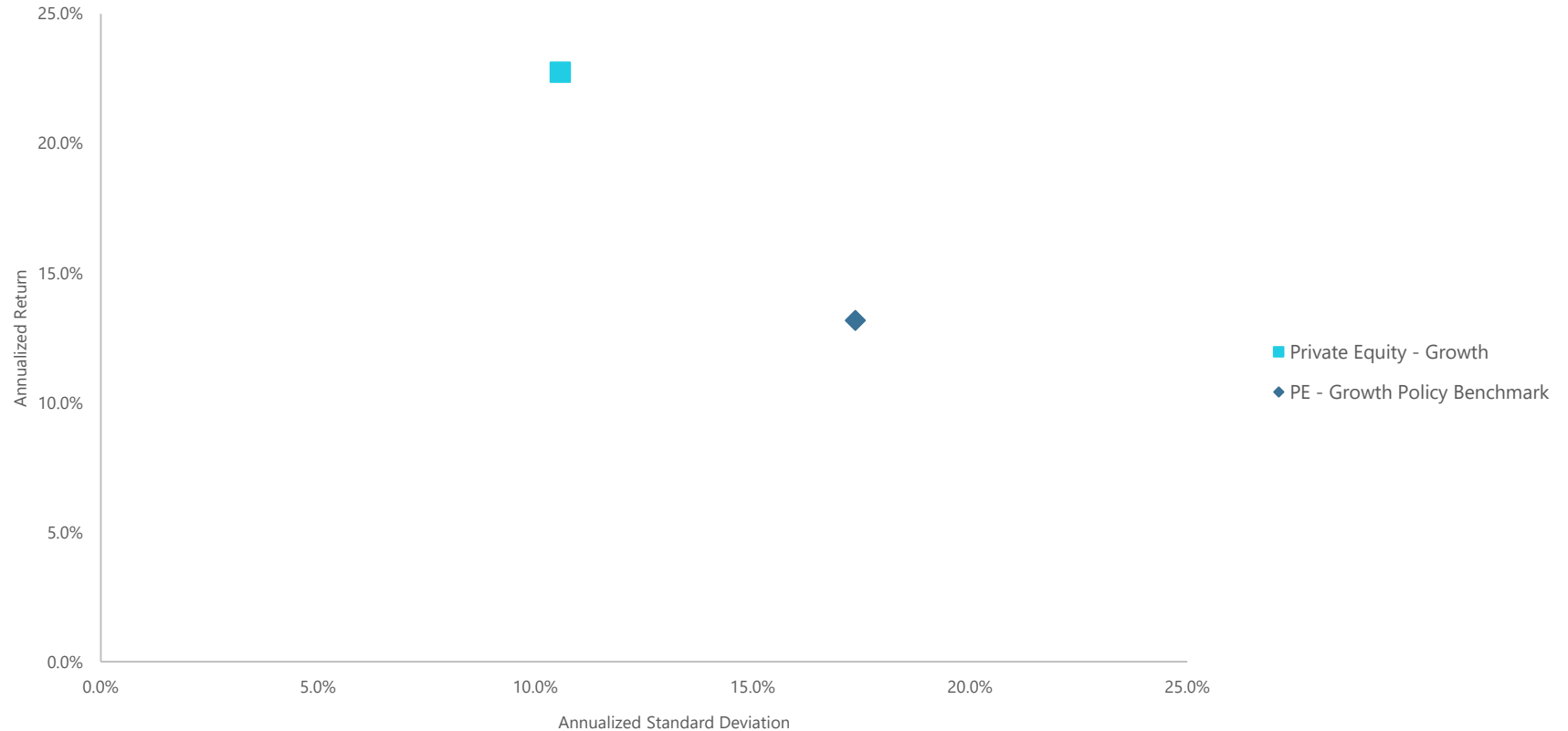
1. Based on best available cash flow adjusted market values.
2. Investment counts for Co-Investments and Fund of Funds do not include underlying funds.
3. Benchmark data used is latest available by Burgiss Private IQ. IRR quartile rankings are reported as not applicable (N/A) if no commitments were made for the respective vintage year.

Risk vs. Return

Private Equity – Growth

for the quarter ended September 30, 2023

3 Year (Annualized)



	Annualized Return	Standard Deviation	Sharpe Ratio	Information Ratio	Beta	Tracking Error
Private Equity - Growth	22.8%	10.6%				
PE - Growth Policy Benchmark	13.2%	17.4%	1.85	0.40	0.16	18.1%

Annual Cash Flow Activity

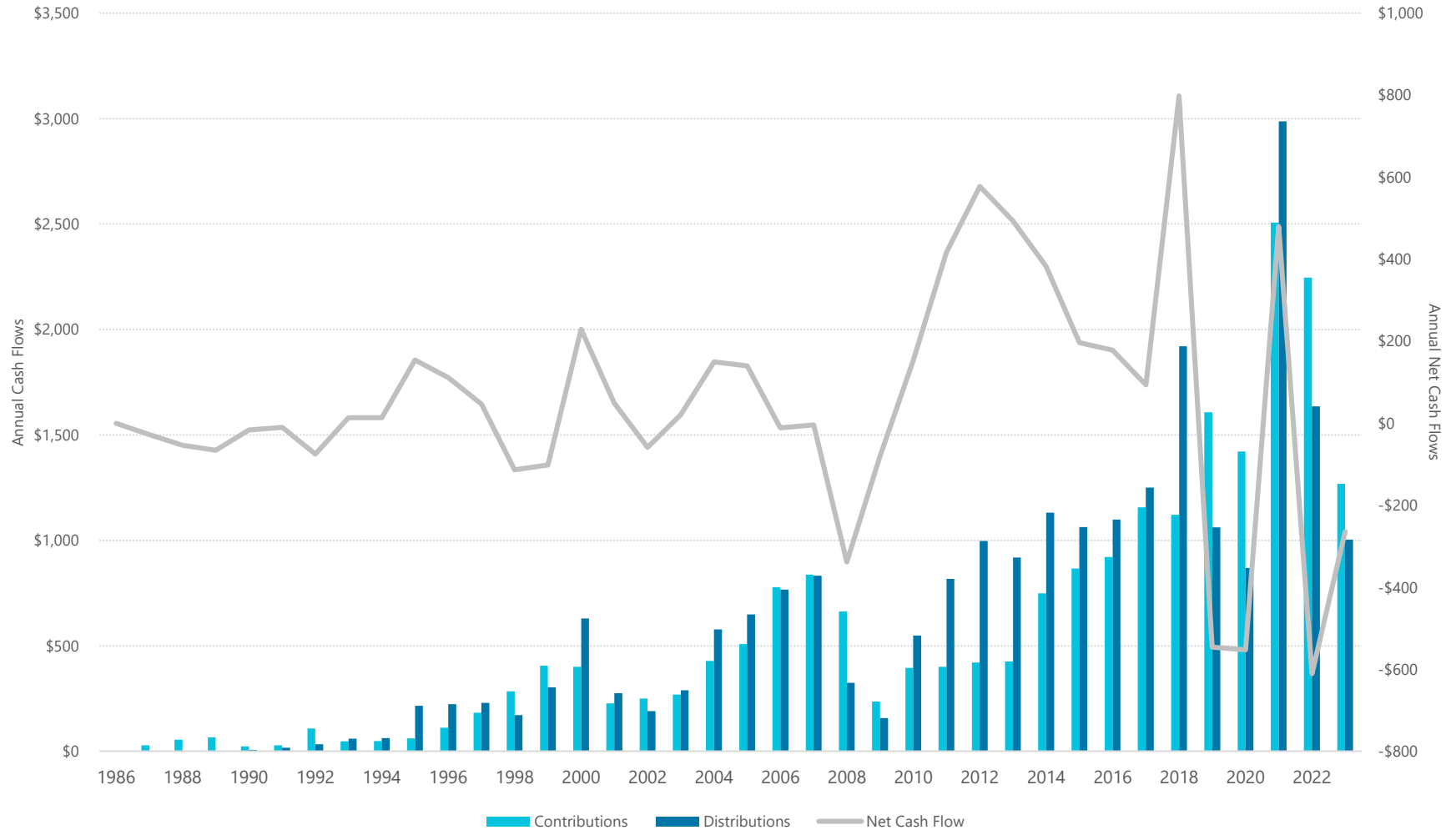
Private Equity

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

By Year (mm)



Summary

Real Estate

for the quarter ended September 30, 2023



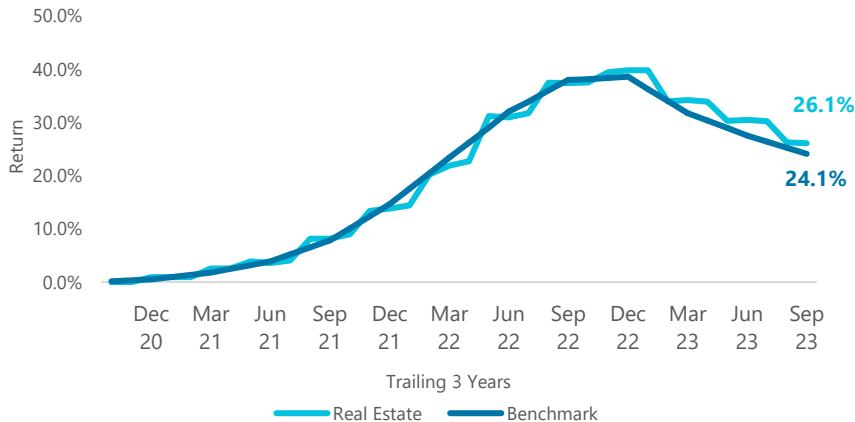
Los Angeles County Employees Retirement Association

Performance (net)



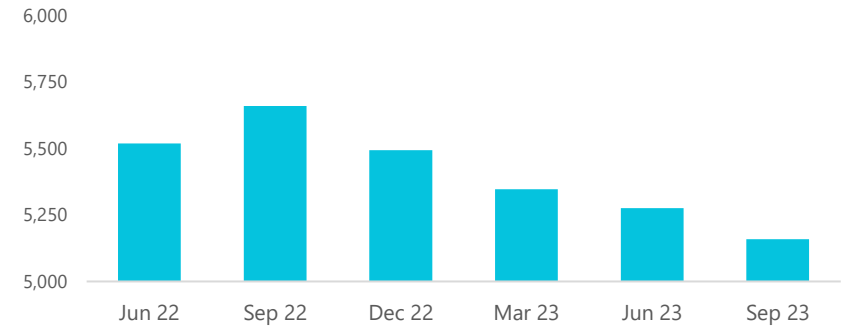
	QTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD
Real Estate	-3.4%	-9.8%	-8.2%	8.0%	5.8%	7.6%	7.6%
Benchmark	-2.7%	-10.4%	-10.1%	7.5%	6.1%	--	--
Excess	-0.7%	0.7%	1.8%	0.6%	-0.4%	--	--

Cumulative Return

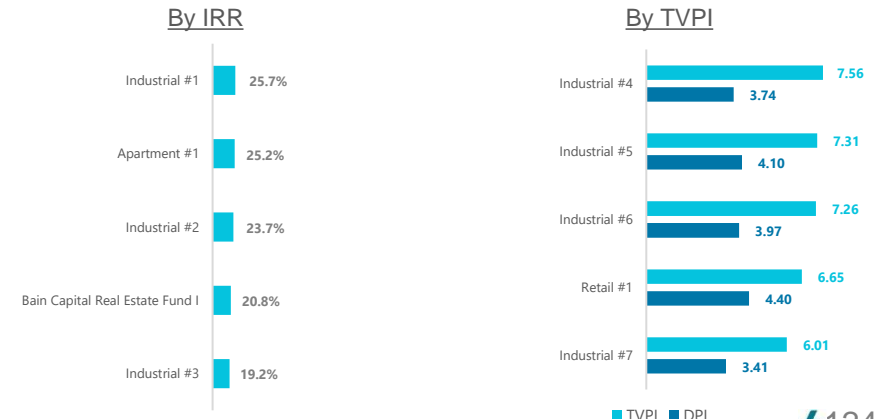


Asset Growth (mm)

	QTD	1 Year	3 Year
Beginning Market Value	5,275	5,660	5,299
Net Cash Flow	63	-51	-1,387
Gain/Loss	-179	-450	1,247
Ending Market Value	5,159	5,159	5,159



Top Performing Investments (since inception)¹



¹ Property names removed due to confidentiality reasons.

■ TVPI ■ DPI

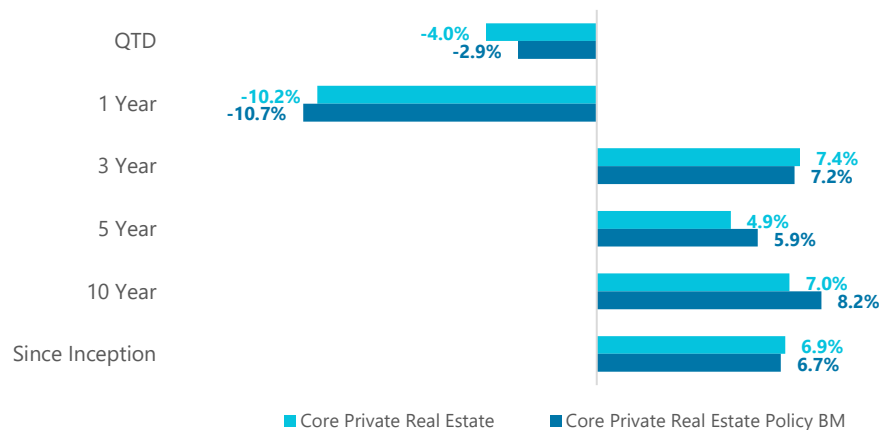
Historical Returns

Real Estate

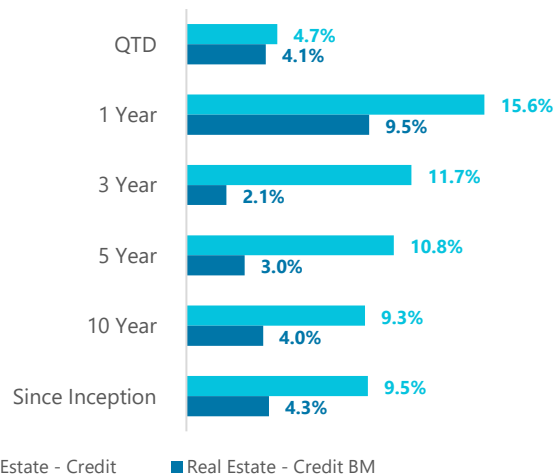
for the quarter ended September 30, 2023

Time-Weighted Returns (net)

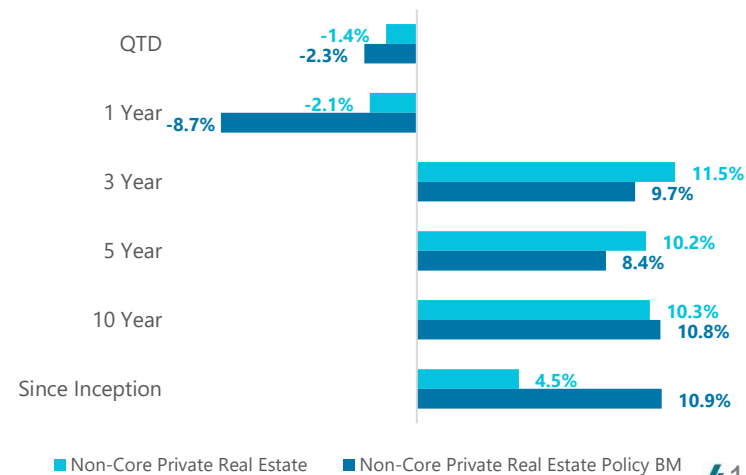
Core



Debt



Non-Core

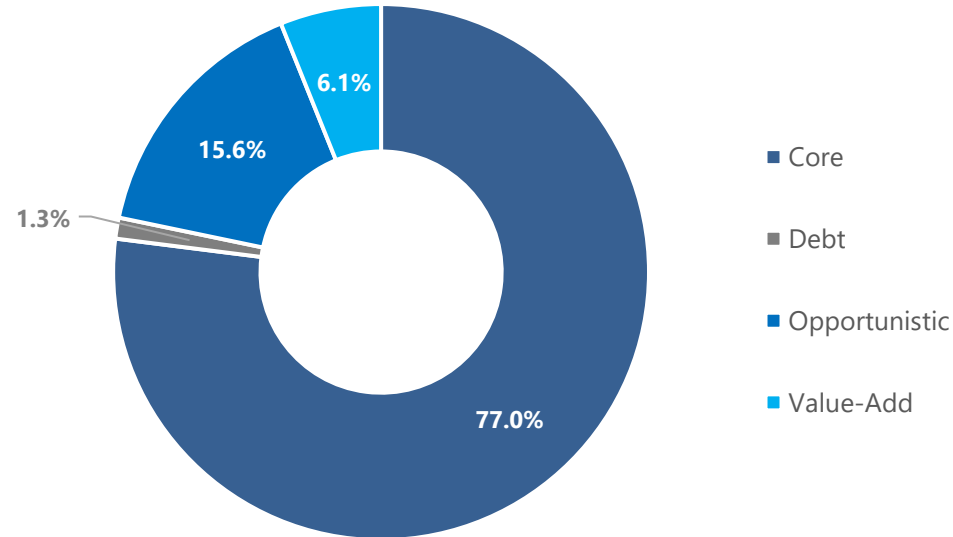


Performance by Strategy

Real Estate

for the quarter ended September 30, 2023

By Strategy^{1,2}



	Number of Investments	Commitments (mm)	Cumulative Contributions (mm)	Cumulative Distributions (mm)	Market Value (mm)	Total Value (mm)	Total Gain / (Loss) (mm)	Distributed to Paid-In	Total Value to Paid-In	Since Inception Net IRR	Since Inception PME
Core	82	1,630.9	7,687.7	6,988.5	3,823.6	10,812.2	3,124.5	0.91x	1.41x	7.9%	1.13
Debt	7	0.0	158.6	140.3	62.8	203.1	44.5	0.88x	1.28x	8.7%	1.21
Opportunistic	18	1,845.8	1,289.1	803.5	776.5	1,580.1	291.0	0.62x	1.23x	5.2%	0.97
Value-Add	12	467.2	640.4	240.5	302.9	543.4	(97.0)	0.38x	0.85x	-3.7%	0.63
Total Real Estate	119	3,943.9	9,775.7	8,172.8	4,965.8	13,138.6	3,363.0	0.84x	1.34x	7.1%	1.08

¹ Based on best available cash flow adjusted market values and includes only active investments and sold assets with balance sheet residuals.

² Commitment amounts reflect only commingled fund investments.

Performance by Property Type

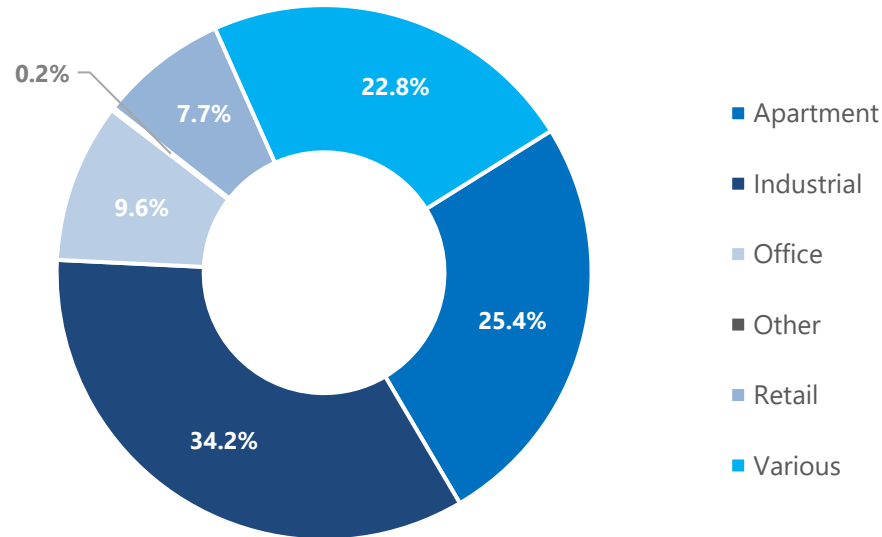
Real Estate

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

By Property Type^{1,2,3}



	Number of Investments	Commitments (mm)	Cumulative Contributions (mm)	Cumulative Distributions (mm)	Market Value (mm)	Total Value (mm)	Total Gain / (Loss) (mm)	Distributed to Paid-In	Total Value to Paid-In	Since Inception Net IRR	Since Inception PME
Apartment	36	384.1	3,102.9	2,666.8	1,261.9	3,928.7	825.8	0.86x	1.27x	6.3%	1.07
Industrial	21	230.9	1,697.8	1,592.1	1,700.4	3,292.5	1,594.7	0.94x	1.94x	12.7%	1.69
Office	19	0.0	2,019.6	1,943.6	478.4	2,422.0	402.3	0.96x	1.20x	4.9%	1.02
Other	4	100.0	170.6	199.0	9.3	208.3	37.7	1.17x	1.22x	4.3%	0.77
Retail	15	0.0	1,281.1	1,285.8	384.1	1,669.9	388.8	1.00x	1.30x	6.1%	0.83
Various	24	3,228.9	1,503.7	485.6	1,131.8	1,617.4	113.7	0.32x	1.08x	2.0%	0.87
Total Real Estate	119	3,943.9	9,775.7	8,172.8	4,965.8	13,138.6	3,363.0	0.84x	1.34x	7.1%	1.08

¹ Based on best available cash flow adjusted market values and includes only active investments and sold assets with balance sheet residuals.

² Commitment amounts reflect only commingled fund investments.

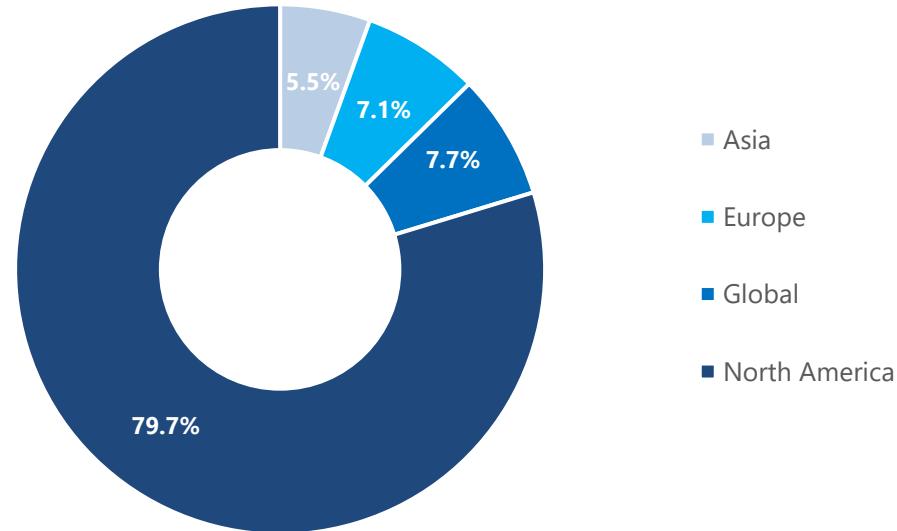
³ Various refers to commingled fund investments with more than one property type; Other refers to hotel and fund level market values for the debt program.

Performance by Geography

Real Estate

for the quarter ended September 30, 2023

By Geography (non-US)^{1,2}



	Number of Investments	Commitments (mm)	Cumulative Contributions (mm)	Cumulative Distributions (mm)	Market Value (mm)	Total Value (mm)	Total Gain / (Loss) (mm)	Distributed to Paid-In	Total Value to Paid-In	Since Inception Net IRR	Since Inception PME
Asia	4	300.0	310.7	126.0	273.7	399.7	89.0	0.41x	1.29x	5.3%	1.09
Europe	10	466.0	635.9	383.7	354.5	738.2	102.3	0.60x	1.16x	3.5%	0.87
Global	7	1,068.8	486.0	229.3	380.0	609.3	123.4	0.47x	1.25x	10.7%	1.11
North America	98	2,109.1	8,343.1	7,433.8	3,957.6	11,391.4	3,048.3	0.89x	1.37x	7.3%	1.09
Total Real Estate	119	3,943.9	9,775.7	8,172.8	4,965.8	13,138.6	3,363.0	0.84x	1.34x	7.1%	1.08

¹ Based on best available cash flow adjusted market values and includes only active investments and sold assets with balance sheet residuals.

² Commitment amounts reflect only commingled fund investments.

Performance by Geography

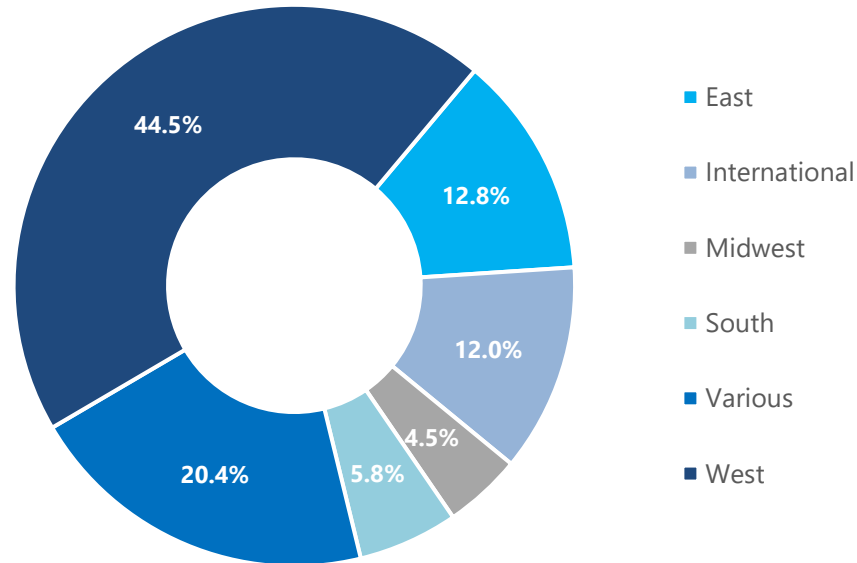
Real Estate

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

By Geography (US NCREIF)^{1,2}



	Number of Investments	Commitments (mm)	Cumulative Contributions (mm)	Cumulative Distributions (mm)	Market Value (mm)	Total Value (mm)	Total Gain / (Loss) (mm)	Distributed to Paid-In	Total Value to Paid-In	Since Inception Net IRR	Since Inception PME
East	26	0.0	2,476.7	2,310.5	637.9	2,948.5	471.7	0.93x	1.19x	5.0%	0.87
International	13	713.1	904.0	509.7	595.2	1,104.9	200.9	0.56x	1.22x	4.4%	0.95
Midwest	10	0.0	593.2	502.3	222.9	725.2	132.0	0.85x	1.22x	4.5%	0.83
South	11	0.0	1,199.1	1,318.8	286.1	1,604.9	405.8	1.10x	1.34x	7.7%	0.98
Various	16	2,846.7	1,108.2	370.8	1,011.4	1,382.2	274.0	0.33x	1.25x	6.0%	1.04
West	43	384.1	3,494.5	3,160.7	2,212.3	5,373.0	1,878.5	0.90x	1.54x	8.7%	1.37
Total Real Estate	119	3,943.9	9,775.7	8,172.8	4,965.8	13,138.6	3,363.0	0.84x	1.34x	7.1%	1.08

¹ Based on best available cash flow adjusted market values and includes only active investments and sold assets with balance sheet residuals.

² Commitment amounts reflect only commingled fund investments.

Performance by Vintage Year

Real Estate

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

By Vintage Year^{1,2,3}

	Number of Investments	Commitments (mm)	Cumulative Contributions (mm)	Cumulative Distributions (mm)	Market Value (mm)	Total Value (mm)	Total Gain / (Loss) (mm)	Distributed to Paid-In	Total Value to Paid-In	Since Inception Net IRR	Since Inception PME	Quartile Ranking
1990	1	0.0	249.9	305.4	94.0	399.4	149.5	1.22x	1.60x	6.0%	4.49	N/A
1991	3	0.0	33.2	127.7	100.6	228.3	195.1	3.85x	6.88x	12.4%	14.12	N/A
1992	0	0.0	--	--	--	--	--	--	--	--	--	N/A
1993	0	0.0	--	--	--	--	--	--	--	--	--	N/A
1994	1	0.0	15.5	68.4	35.7	104.0	88.5	4.40x	6.70x	12.8%	1.46	N/A
1995	1	0.0	67.3	114.3	90.0	204.3	137.0	1.70x	3.04x	11.4%	1.22	N/A
1996	1	0.0	24.1	38.9	26.3	65.2	41.1	1.61x	2.70x	7.2%	0.78	N/A
1997	1	0.0	18.5	69.1	72.7	141.8	123.3	3.74x	7.66x	15.8%	2.16	N/A
1998	1	0.0	48.9	103.8	8.4	112.2	63.2	2.12x	2.29x	6.2%	0.69	N/A
1999	0	0.0	--	--	--	--	--	--	--	--	--	N/A
2000	0	0.0	--	--	--	--	--	--	--	--	--	N/A
2001	1	0.0	143.7	80.2	85.4	165.6	21.9	0.56x	1.15x	3.6%	0.73	N/A
2002	0	0.0	--	--	--	--	--	--	--	--	--	N/A
2003	1	0.0	142.9	133.8	53.9	187.7	44.7	0.94x	1.31x	3.7%	0.69	N/A
2004	0	0.0	--	--	--	--	--	--	--	--	--	N/A
2005	0	0.0	--	--	--	--	--	--	--	--	--	N/A
2006	0	0.0	--	--	--	--	--	--	--	--	--	N/A
2007	3	36.7	454.6	401.9	0.5	402.4	(52.2)	0.88x	0.89x	-5.5%	0.54	4th
2008	1	150.0	150.0	96.0	0.0	96.0	(53.9)	0.64x	0.64x	-5.7%	0.34	4th
2009	1	18.3	22.5	28.8	0.2	29.0	6.4	1.28x	1.29x	8.1%	0.84	3rd
2010	1	100.0	97.1	152.0	6.3	158.3	61.2	1.57x	1.63x	9.6%	0.92	3rd
2011	4	16.9	222.3	117.5	8.9	126.4	(96.0)	0.53x	0.57x	-22.9%	0.23	4th
2012	3	134.1	441.5	189.4	92.1	281.5	(159.9)	0.43x	0.64x	-11.8%	0.51	4th
2013	7	100.0	476.9	582.9	72.3	655.2	178.3	1.22x	1.37x	7.5%	0.96	3rd
2014	15	258.8	998.2	828.4	599.0	1,427.4	429.2	0.83x	1.43x	7.4%	1.14	3rd
2015	9	0.0	955.6	767.4	645.9	1,413.3	457.6	0.80x	1.48x	10.6%	1.38	2nd
2016	7	150.0	498.8	232.7	510.0	742.7	243.8	0.47x	1.49x	10.3%	1.36	2nd
2017	12	177.9	1,343.1	938.5	801.4	1,740.0	396.8	0.70x	1.30x	8.5%	1.19	3rd
2018	10	150.0	379.0	218.7	241.1	459.8	80.8	0.58x	1.21x	6.6%	1.14	4th
2019	25	411.7	2,425.6	2,484.0	929.1	3,413.1	987.5	1.02x	1.41x	8.4%	1.02	3rd
2020	2	0.0	71.8	82.7	(1.6)	81.2	9.4	1.15x	1.13x	5.2%	1.12	3rd
2021	2	179.4	93.9	4.4	94.3	98.7	4.8	0.05x	1.05x	3.9%	1.18	3rd
2022	3	710.0	200.7	6.0	201.0	206.9	6.2	0.03x	1.03x	5.2%	1.12	1st
2023	3	1,350.0	200.0	0.0	198.4	198.4	(1.6)	0.00x	0.99x	-0.8%	1.06	1st
Total Real Estate	119	3,943.9	9,775.7	8,172.8	4,965.8	13,138.6	3,363.0	0.84x	1.34x	7.1%	1.08	

1. Based on best available cash flow adjusted market values.
2. Commitment amounts reflect only commingled fund investments.
3. Benchmark data used is latest available by Burgiss Private IQ. IRR quartile rankings exclude IMAs and Core Funds.

Leverage Exposure

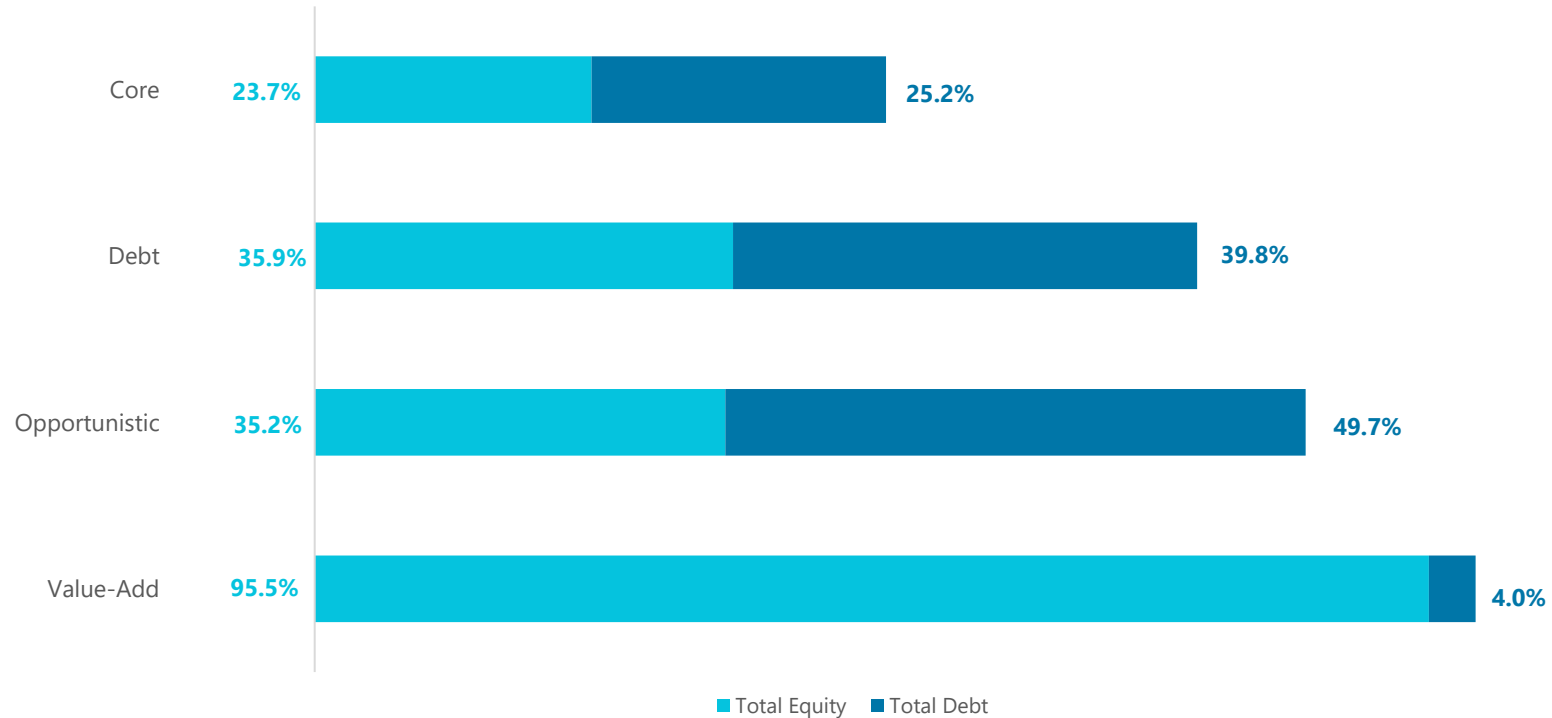
Real Estate

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Leverage Exposure^{1,2}



	Number of Investments	Commitments (mm)	Cumulative Contributions (mm)	Cumulative Distributions (mm)	Market Value (mm)	Total Value (mm)	Total Gain / (Loss) (mm)	Distributed to Paid-In	Total Value to Paid-In	Since Inception Net IRR	Since Inception PME	Total Debt-Fund Level (mm)	Total Equity-Fund Level (mm)	Total Debt-Fund Level (%)	Total Equity-Fund Level (%)
Core	82	1,630.9	7,687.7	6,988.5	3,823.6	10,812.2	3,124.5	0.91x	1.41x	7.9%	1.13	9,087.7	8,549.6	25.2%	23.7%
Debt	7	0.0	158.6	140.3	62.8	203.1	44.5	0.88x	1.28x	8.7%	1.21	109.3	98.5	39.8%	35.9%
Opportunistic	18	1,845.8	1,289.1	803.5	776.5	1,580.1	291.0	0.62x	1.23x	5.2%	0.97	15,502.1	10,977.0	49.7%	35.2%
Value-Add	12	467.2	640.4	240.5	302.9	543.4	(97.0)	0.38x	0.85x	-3.7%	0.63	5,981.1	142,298.6	4.0%	95.5%
Total Real Estate	119	3,943.9	9,775.7	8,172.8	4,965.8	13,138.6	3,363.0	0.84x	1.34x	7.1%	1.08	30,680.3	161,923.7	14.2%	74.8%

¹ Based on best available cash flow adjusted market values and includes only active investments and sold assets with balance sheet residuals.

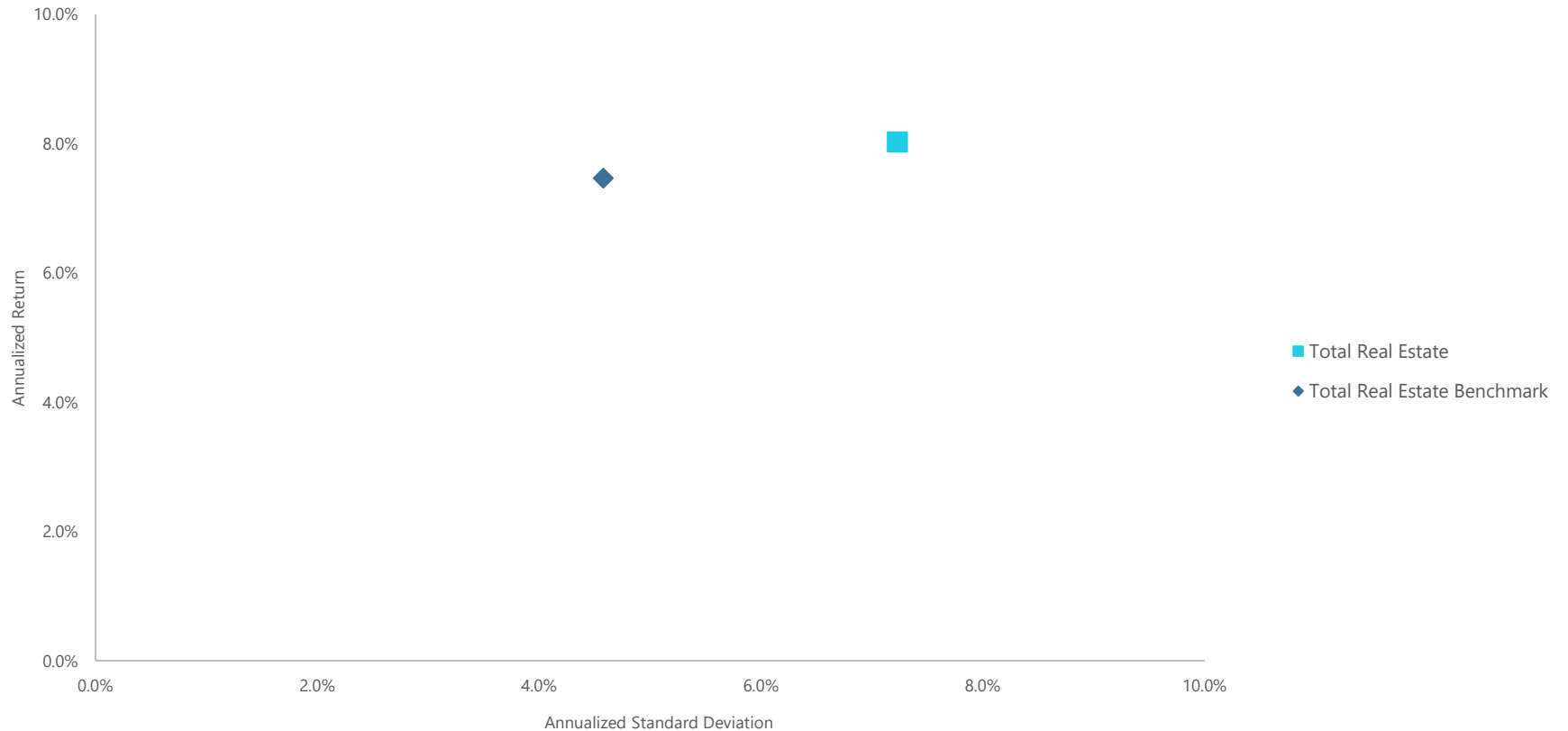
² Commitment amounts reflect only commingled fund investments.

Risk vs. Return

Real Estate

for the quarter ended September 30, 2023

3 Year (Annualized)



	Annualized Return	Standard Deviation	Sharpe Ratio	Information Ratio	Beta	Tracking Error
Total Real Estate	8.0%	7.2%				
Total Real Estate Benchmark	7.5%	4.6%	0.87	0.10	0.94	20.2%

Annual Cash Flow Activity

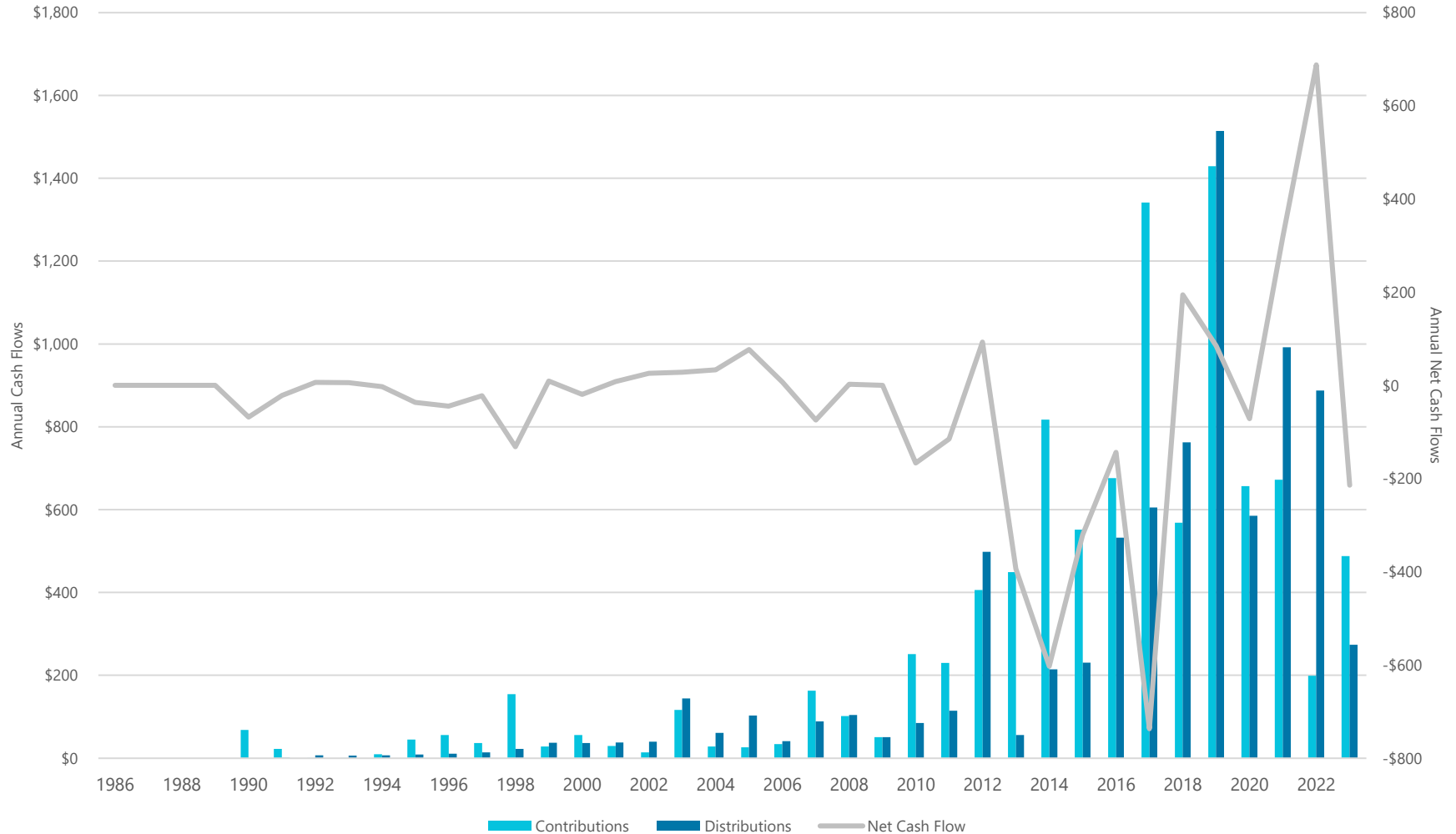
Real Estate

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

By Year (mm)



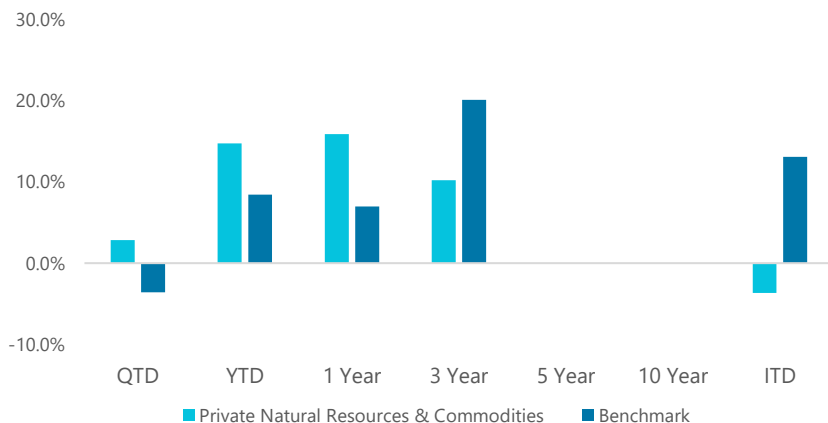
Summary

Private Real Assets ex. Real Estate
for the quarter ended September 30, 2023



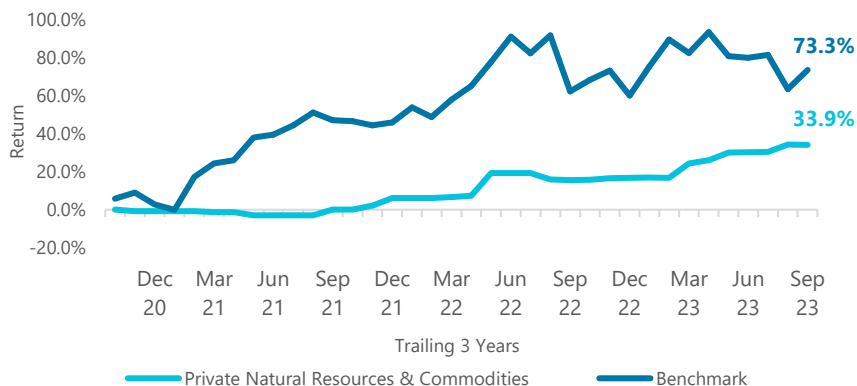
Los Angeles County Employees Retirement Association

Performance (net)¹



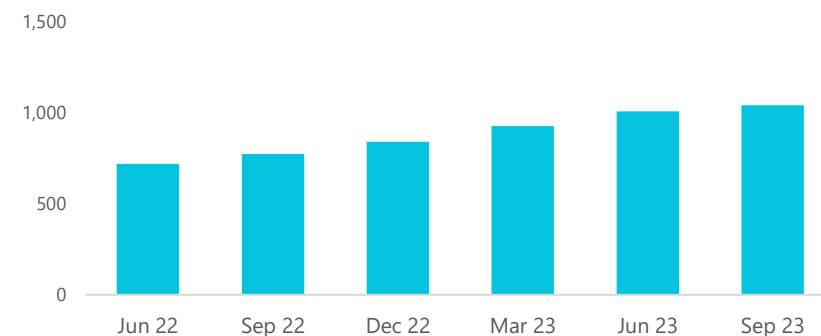
	QTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD
Private Natural Resources & Commodities	2.8%	14.7%	15.9%	10.2%	--	--	-3.7%
Benchmark	-3.6%	8.4%	7.0%	20.1%	--	--	13.1%
Excess	6.4%	6.3%	8.9%	-9.9%	--	--	-16.8%

Cumulative Return¹

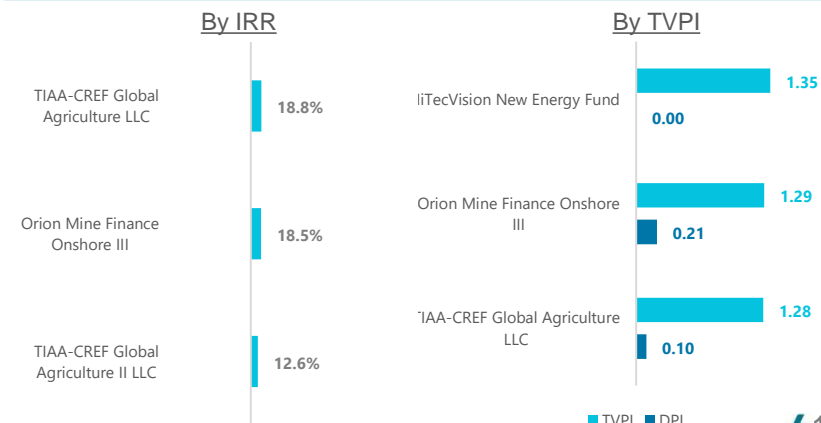


Asset Growth (mm)

	QTD	1 Year	3 Year
Beginning Market Value	1,007	772	72
Net Cash Flow	5	132	766
Gain/Loss	29	136.6	202.6
Ending Market Value	1,040	1,040	1,040



Top Performing Investments (since inception)¹



¹ Private natural resources & commodities funds reflect early-stage life cycle performance.

Summary

Private Real Assets ex. Real Estate
for the quarter ended September 30, 2023



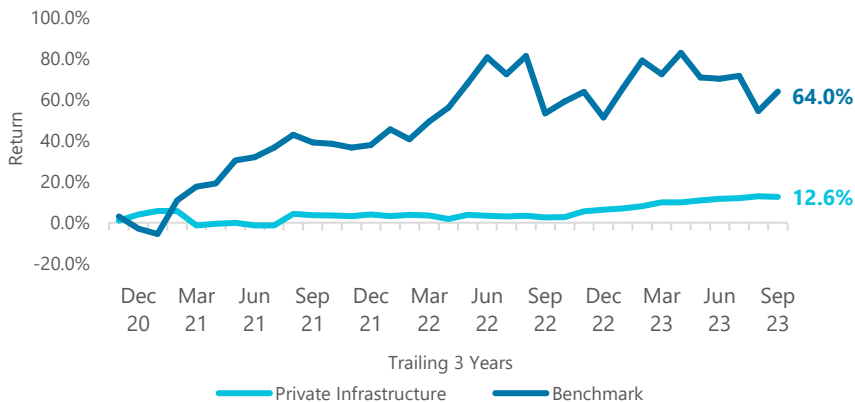
Los Angeles County Employees Retirement Association

Performance (net)¹



	QTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD
Private Infrastructure	0.8%	5.8%	9.6%	--	--	--	4.1%
Benchmark	-0.4%	12.3%	0.8%	--	--	--	7.1%
Excess	1.2%	-6.5%	8.8%	--	--	--	-3.0%

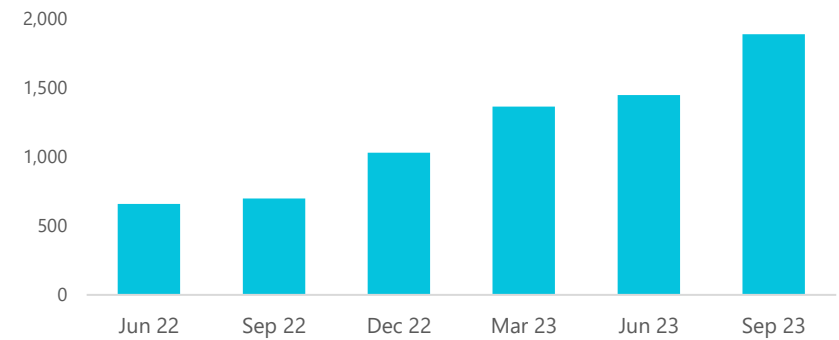
Cumulative Return¹



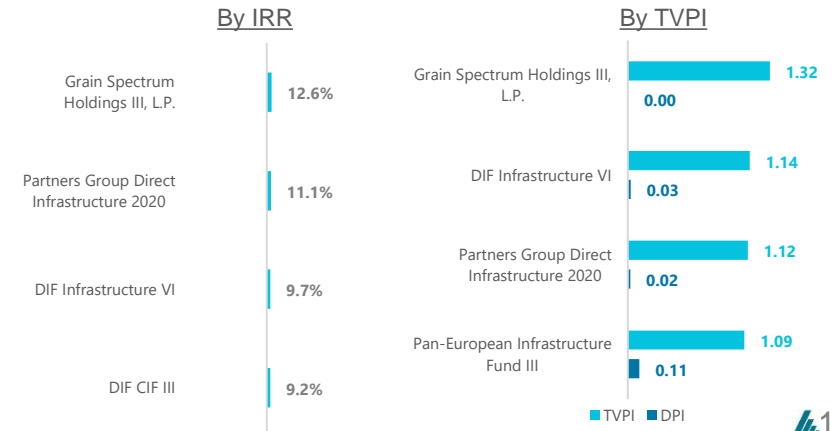
¹ Private infrastructure funds reflect early-stage life cycle performance.

Asset Growth (mm)

	QTD	1 Year	3 Year
Beginning Market Value	1,449	699	--
Net Cash Flow	426	1,077	--
Gain/Loss	15	114	--
Ending Market Value	1,890	1,890	--



Top Performing Investments (since inception)¹

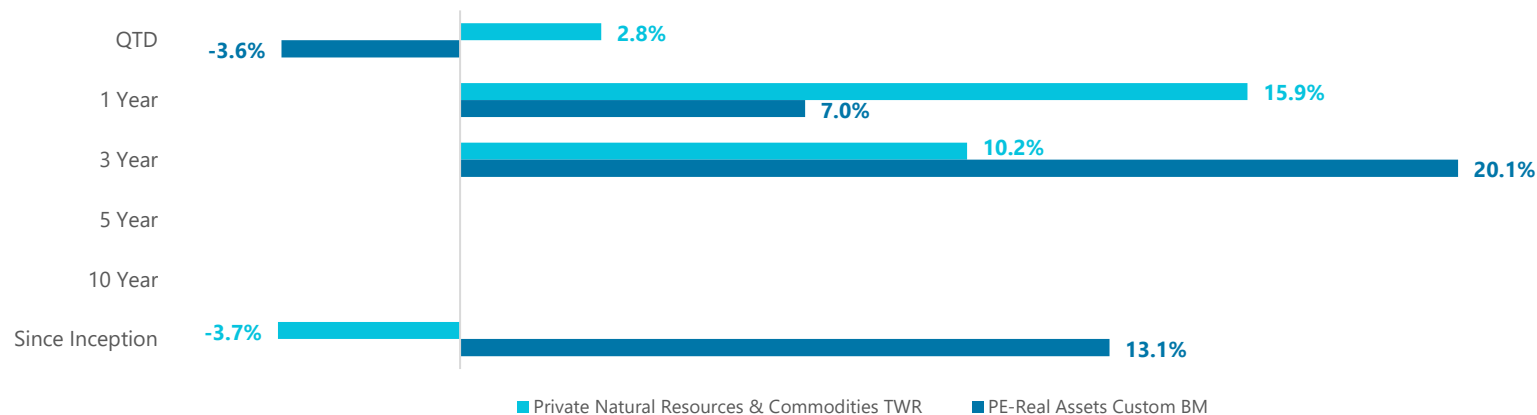


Historical Returns

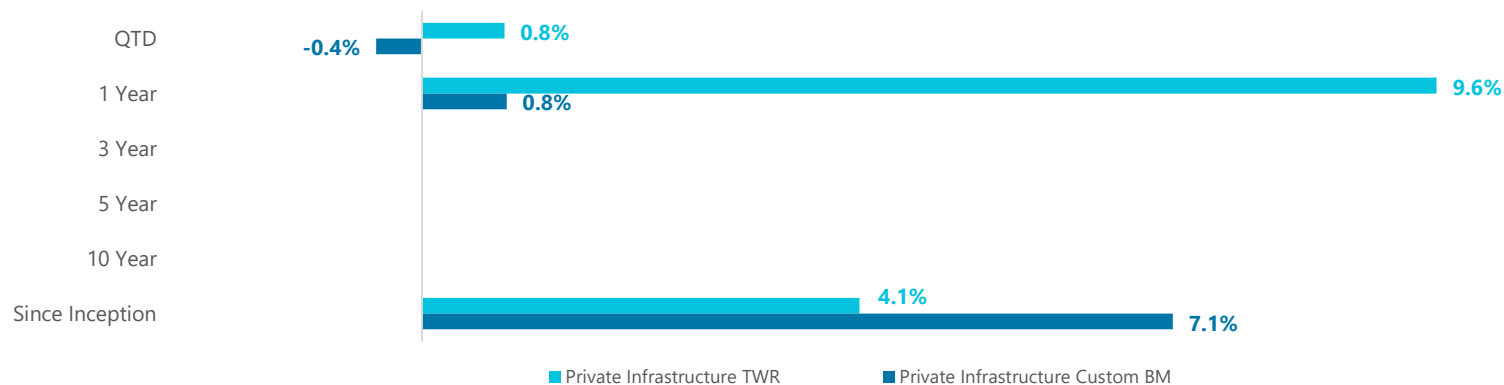
Private Real Assets ex. Real Estate
for the quarter ended September 30, 2023

Time-Weighted Returns (net)¹

Private Natural Resources & Commodities



Private Infrastructure



¹ Private natural resources and infrastructure funds reflect early-stage life cycle performance.

Performance by Strategy

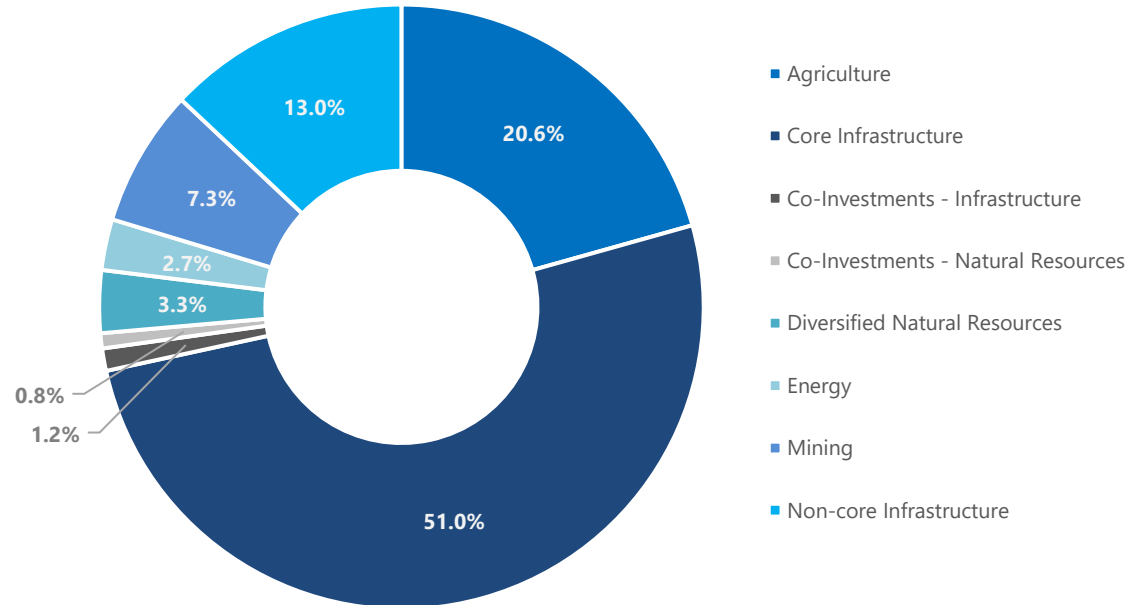
Private Real Assets ex. Real Estate

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

By Strategy¹



	Number of Investments	Commitments (mm)	Cumulative Contributions (mm)	Cumulative Distributions (mm)	Market Value (mm)	Total Value (mm)	Total Gain / Loss (mm)	Distributed to Paid-In	Total Value to Paid-In	Since Inception Net IRR	Since Inception PME
Agriculture	4	750.0	573.3	84.4	611.9	696.3	123.0	0.15x	1.21x	14.4%	1.13
Core Infrastructure	5	1,656.7	1,466.4	41.8	1,510.0	1,551.8	85.3	0.03x	1.06x	7.1%	1.05
Co-Investments - Infrastructure	3	96.0	35.1	0.0	35.5	35.5	0.4	0.00x	1.01x	1.4%	1.03
Co-Investments - Natural Resources	3	140.1	24.0	0.0	23.9	23.9	(0.1)	0.00x	1.00x	-0.6%	0.92
Diversified Natural Resources	1	132.3	73.6	0.0	99.2	99.2	25.7	0.00x	1.35x	36.7%	1.26
Energy	3	325.0	205.6	119.3	80.6	199.9	(5.7)	0.58x	0.97x	-0.8%	0.75
Mining	4	425.0	215.4	29.2	217.6	246.7	31.4	0.14x	1.15x	11.7%	1.07
Non-core Infrastructure	7	798.1	363.0	10.3	384.8	395.0	32.1	0.03x	1.09x	6.1%	0.99
Total Private Real Assets ex. Real Estate	30	4,323.2	2,956.4	284.9	2,963.5	3,248.4	292.0	0.10x	1.10x	7.6%	1.03

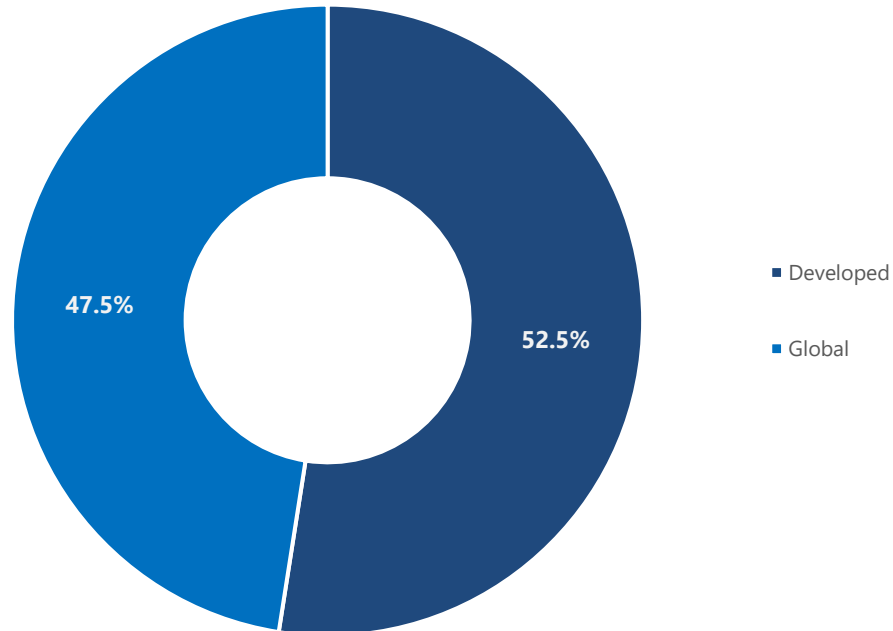
¹ Based on best available cash flow adjusted market values.

Performance by Geography

Private Real Assets ex. Real Estate

for the quarter ended September 30, 2023

By Geography¹



	Number of Investments	Commitments (mm)	Cumulative Contributions (mm)	Cumulative Distributions (mm)	Market Value (mm)	Total Value (mm)	Total Gain / Loss (mm)	Distributed to Paid-In	Total Value to Paid-In	Since Inception Net IRR	Since Inception PME
Developed	14	2,081.1	1,640.3	211.1	1,555.2	1,766.3	126.0	0.13x	1.08x	5.7%	0.99
Global	16	2,242.1	1,316.1	73.8	1,408.3	1,482.1	166.0	0.06x	1.13x	10.4%	1.08
Total Private Real Assets ex. Real Estate	30	4,323.2	2,956.4	284.9	2,963.5	3,248.4	292.0	0.10x	1.10x	7.6%	1.03

¹ Based on best available cash flow adjusted market values.

Performance by Vintage Year

Private Real Assets ex. Real Estate

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

By Vintage Year^{1,2}

Private Natural Resources & Commodities

	Number of Investments	Commitments (mm)	Cumulative Contributions (mm)	Cumulative Distributions (mm)	Market Value (mm)	Total Value (mm)	Total Gain / Loss (mm)	Distributed to Paid-In	Total Value to Paid-In	Since Inception Net IRR	Since Inception PME	Quartile Ranking
2004	1	50.0	50.0	91.4	0.0	91.4	41.4	1.83x	1.83x	31.1%	1.40	1st
2011	1	350.0	256.9	25.9	301.9	327.8	71.0	0.10x	1.28x	18.8%	1.19	1st
2014	2	450.0	435.7	86.4	357.8	444.2	8.5	0.20x	1.02x	0.5%	0.81	4th
2021	2	250.0	167.3	29.2	171.0	200.2	32.9	0.17x	1.20x	13.2%	1.11	2nd
2022	4	247.4	125.0	0.0	147.1	147.1	22.1	0.00x	1.18x	18.5%	1.13	1st
2023	5	425.0	57.1	0.0	55.5	55.5	(1.7)	0.00x	0.97x	-3.9%	0.93	1st
Total Private Natural Resources & Commodities	15	1,772.4	1,092.0	232.8	1,033.3	1,266.1	174.2	0.21x	1.16x	8.2%	1.02	

1. Based on best available cash flow adjusted market values.

2. Benchmark data used to generate IRR quartile rankings is latest available by Burgiss Private IQ.

Private Infrastructure

	Number of Investments	Commitments (mm)	Cumulative Contributions (mm)	Cumulative Distributions (mm)	Market Value (mm)	Total Value (mm)	Total Gain / Loss (mm)	Distributed to Paid-In	Total Value to Paid-In	Since Inception Net IRR	Since Inception PME	Quartile Ranking
2020	3	324.7	240.0	10.9	268.3	279.2	39.1	0.05x	1.16x	9.3%	1.02	3rd
2021	6	1,171.3	951.8	25.1	950.2	975.3	23.5	0.03x	1.02x	3.8%	1.02	3rd
2022	4	958.8	637.5	16.1	676.2	692.3	54.8	0.03x	1.09x	8.0%	1.06	2nd
2023	2	96.0	35.1	0.0	35.5	35.5	0.4	0.00x	1.01x	1.4%	1.03	1st
Total Private Infrastructure	15	2,550.8	1,864.5	52.1	1,930.2	1,982.3	117.8	0.03x	1.06x	6.8%	1.03	

1. Based on best available cash flow adjusted market values.

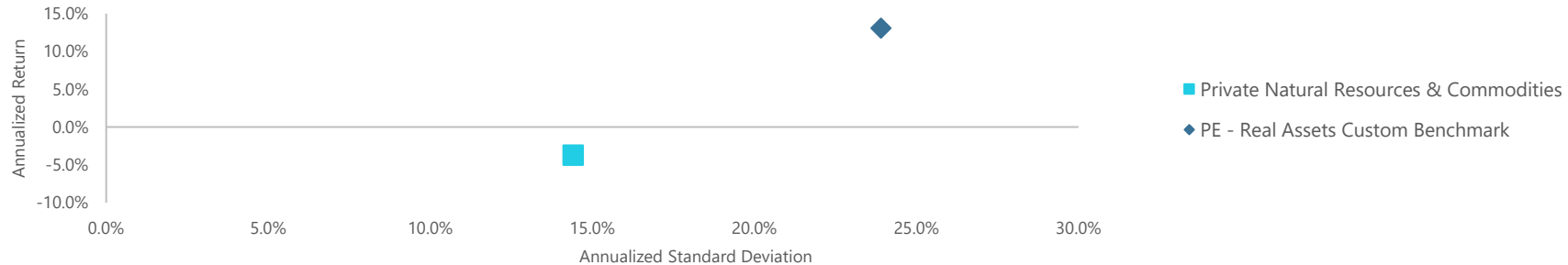
2. Benchmark data used to generate IRR quartile rankings is latest available by Burgiss Private IQ.

Risk vs. Return

Private Real Assets ex. Real Estate
for the quarter ended September 30, 2023

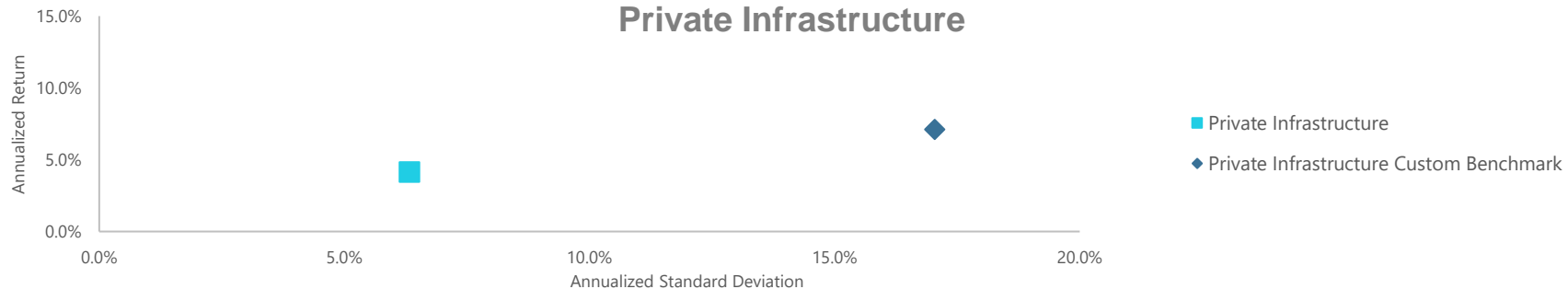
Since Inception (Annualized)

Private Natural Resources & Commodities



	Annualized Return	Standard Deviation	Sharpe Ratio	Information Ratio	Beta	Tracking Error
Private Natural Resources & Commodities	-3.7%	14.4%				
PE - Real Assets Custom Benchmark	13.1%	23.9%	(0.29)	(0.65)	0.11	25.7%

Private Infrastructure



	Annualized Return	Standard Deviation	Sharpe Ratio	Information Ratio	Beta	Tracking Error
Private Infrastructure	4.1%	6.3%				
Private Infrastructure Custom Benchmark	7.1%	17.0%	0.35	(0.16)	(0.05)	19.0%

Annual Cash Flow Activity

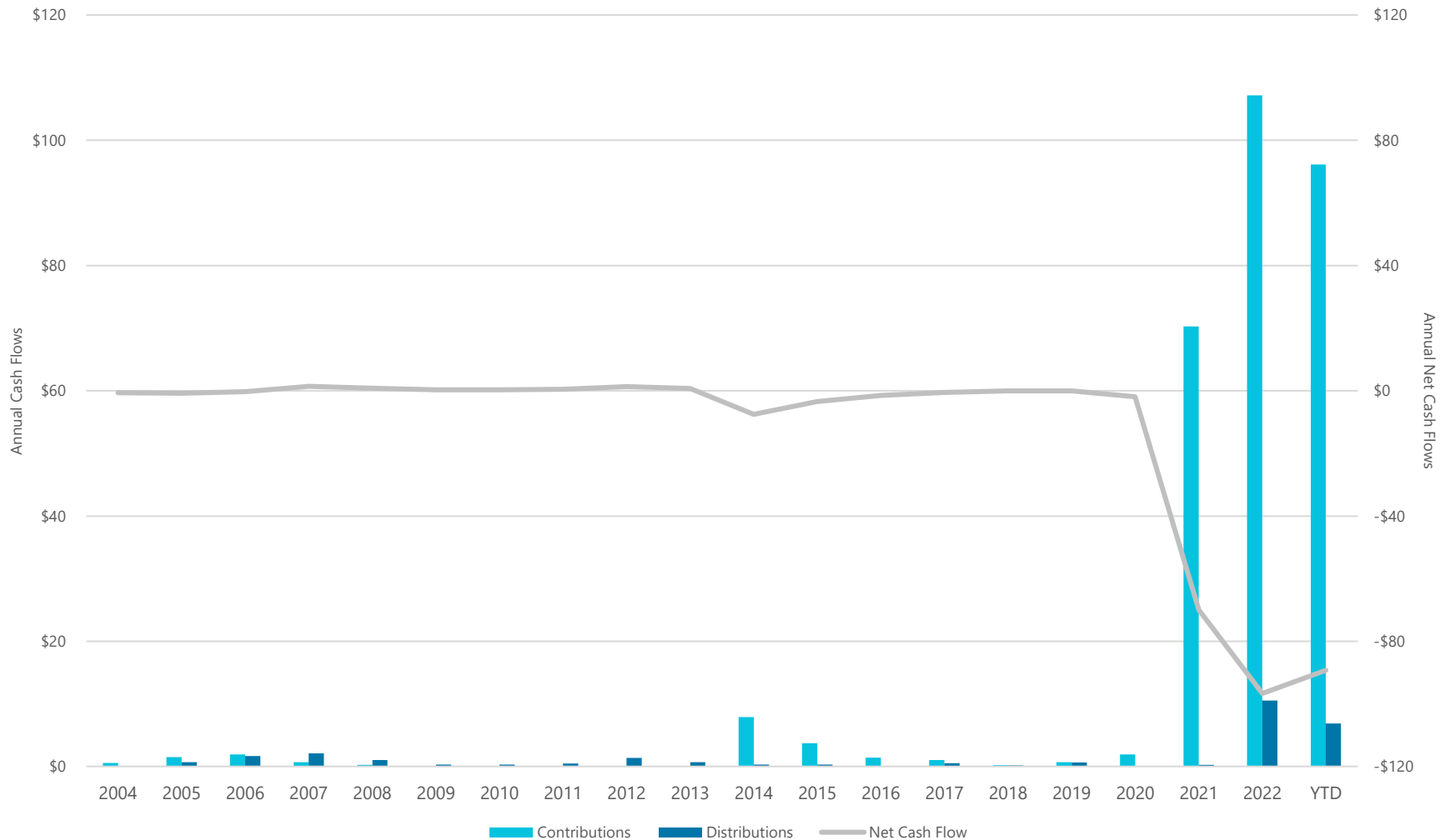
Private Real Assets ex. Real Estate

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

By Year (mm)



Summary

Diversified Hedge Funds

for the quarter ended September 30, 2023



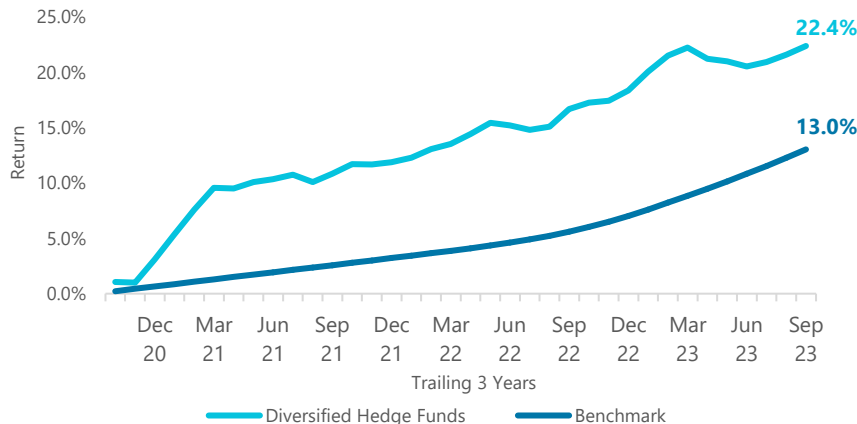
Los Angeles County Employees Retirement Association

Performance (net)



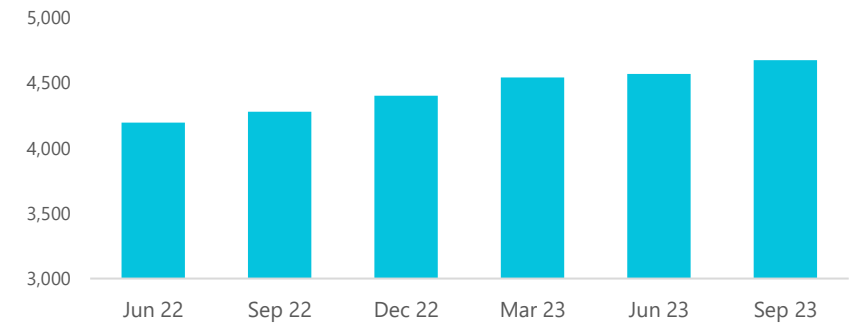
	QTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD
Diversified Hedge Funds	1.5%	3.4%	4.9%	7.0%	--	--	6.3%
Benchmark	2.0%	5.6%	7.0%	4.2%	--	--	4.2%
Excess	-0.4%	-2.2%	-2.2%	2.8%	--	--	2.2%

Cumulative Return

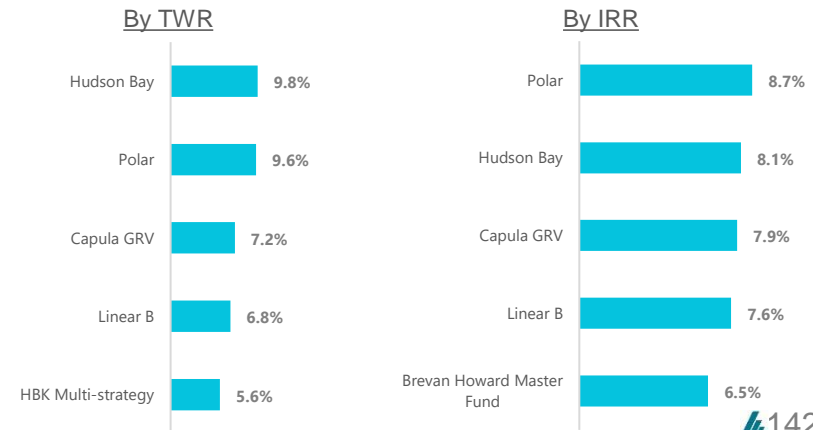


Asset Growth (mm)

	QTD	1 Year	3 Year
Beginning Market Value	4,570	4,281	1,978
Net Cash Flow	36	183	2,087
Gain/Loss	70	213	612
Ending Market Value	4,677	4,677	4,677



Top Performing Investments (since inception)

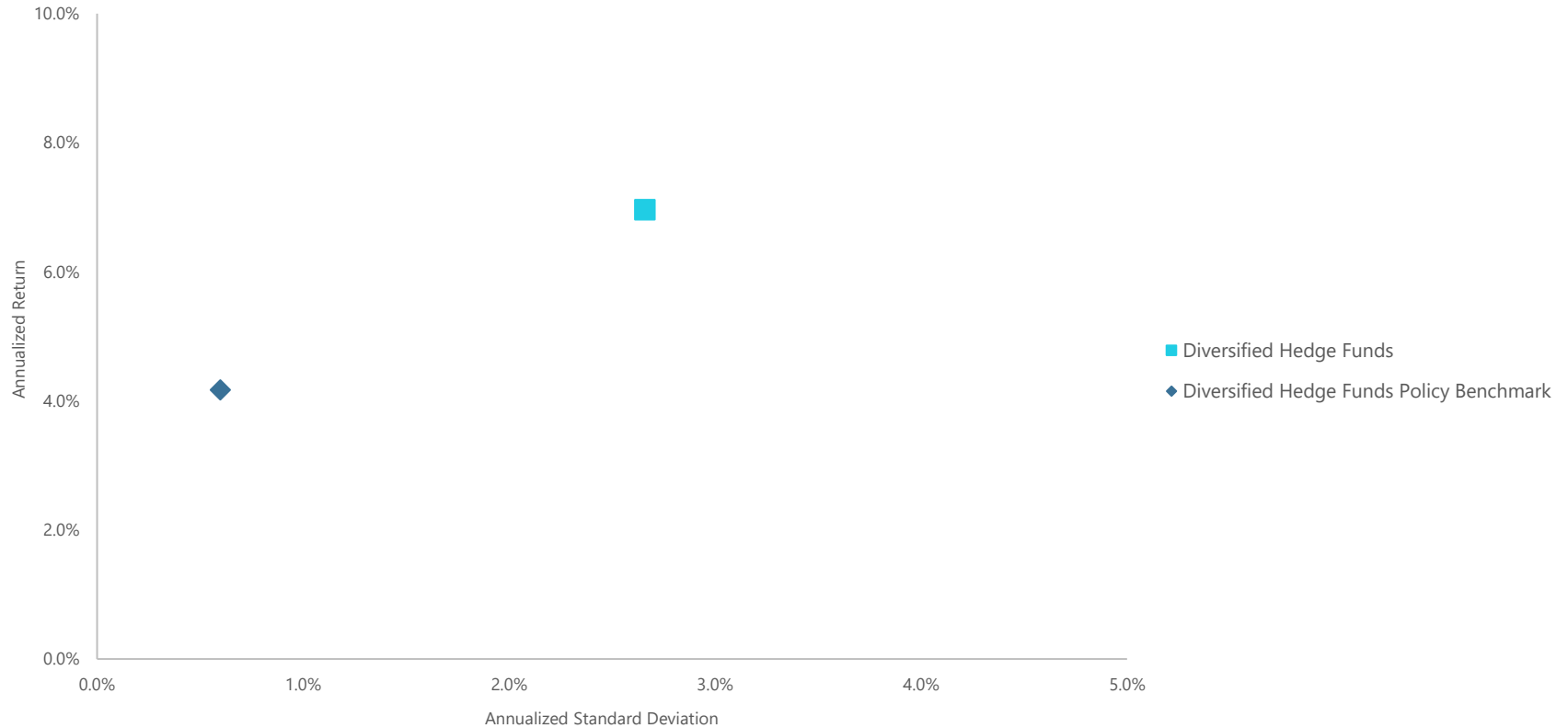


Risk vs. Return

Diversified Hedge Funds

for the quarter ended September 30, 2023

3 Year (Annualized)



	Annualized Return	Standard Deviation	Sharpe Ratio	Information Ratio	Beta	Tracking Error
Diversified Hedge Funds	7.0%	2.7%				
Diversified Hedge Funds Policy Benchmark	4.2%	0.6%	1.92	0.95	(2.67)	2.8%

Performance Detail

Diversified Hedge Funds

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Annualized Net Returns

	% of Composite	Ending Market Value (mm)	Prior Quarter Ending MV (mm)	QTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date
Diversified Hedge Funds	100.0%	4,677	4,570	1.5%	3.4%	4.9%	7.0%	--	--	6.3%	Apr-2019
Diversified Hedge Funds Policy Benchmark				2.0%	5.6%	7.0%	4.2%	--	--	4.2%	
LACERA HF Direct	88.2%	4,125	4,066	1.4%	3.4%	4.9%	7.0%	6.2%	--	5.0%	Apr-2019
Custom Hedge Fund Benchmark				2.0%	5.6%	7.0%	4.2%	4.5%	--	4.7%	
AM Asia Strategies	4.9%	230	245	-6.3%	6.0%	3.9%	--	--	--	0.8%	Jun-2021
Brevan Howard Master Fund	13.5%	631	625	1.0%	-3.0%	-2.6%	--	--	--	5.2%	Apr-2021
Capula GRV	14.8%	694	676	2.8%	8.1%	10.9%	7.3%	--	--	7.2%	Dec-2018
Caxton Global Investments	6.1%	283	282	0.5%	-4.5%	-3.0%	--	--	--	5.2%	Feb-2021
DK Institutional Partners	10.8%	506	497	1.9%	4.1%	4.0%	5.1%	4.9%	--	4.8%	May-2018
HBK Multi-strategy	12.9%	604	586	3.1%	4.5%	8.8%	7.1%	6.1%	--	5.6%	Jun-2018
Hudson Bay	14.6%	684	672	1.9%	5.3%	6.8%	9.6%	--	--	9.8%	Jul-2020
Polar	10.5%	491	484	1.5%	5.2%	6.4%	6.6%	--	--	9.6%	May-2020
HF Emerging Managers Program	11.4%	532	480	2.4%	3.2%	5.0%	--	--	--	1.3%	Aug-2021
Custom Hedge Fund Benchmark				2.0%	5.6%	7.0%	--	--	--	4.8%	
Stable Asset Management	11.4%	532	480	2.4%	3.2%	5.0%	--	--	--	1.3%	Aug-2021
Stable Fund Investments	11.4%	532	480	2.5%	3.4%	5.3%	--	--	--	1.6%	Aug-2021
Amundsen	1.4%	63	61	4.3%	0.1%	4.6%	--	--	--	-1.3%	Sep-2021
ClearAlpha	2.0%	96	93	2.9%	--	--	--	--	--	2.9%	May-2023
Clear Sky	1.8%	86	88	-2.1%	-6.8%	-6.5%	--	--	--	-2.9%	Apr-2022
Linear B	1.6%	74	72	2.7%	5.9%	6.8%	--	--	--	6.8%	Aug-2021
Quarry	1.9%	88	82	6.4%	6.7%	5.9%	--	--	--	5.7%	Sep-2022
ShadowFall	0.9%	40	0	--	--	--	--	--	--	0.0%	Sep-2023
Sparta	1.1%	53	52	1.1%	10.9%	11.4%	--	--	--	2.6%	Sep-2021
Trutino	0.7%	33	32	1.6%	11.7%	25.1%	--	--	--	4.3%	Aug-2021

emerging manager program

Emerging Manager Program

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Annualized Net Returns

	Ending Market Value (mm)	QTD	1 Year	3 Year	5 Year	ITD TWR	ITD MWR	Inception Date
Growth								
Global Equity								
Cornercap	80.6	-1.8%	10.9%	16.5%	6.1%	6.1%	6.1%	Oct-2018
Global Equity Policy Benchmark		-3.4%	20.2%	6.9%	--	7.4%	7.4%	
Private Equity								
Hamilton Lane Emerging Managers Program	4.9	80.1%	--	--	--	88.8%	55.7%	Mar-2023
J.P. Morgan Emerging Managers Program	62.0	0.8%	7.4%	27.6%	21.9%	25.4%	22.5%	Jan-2010
J.P. Morgan Emerging Managers Program II	68.0	0.4%	-8.3%	16.1%	6.9%	25.5%	35.8%	Apr-2014
J.P. Morgan Emerging Managers Program III	101.7	0.2%	-2.9%	28.3%	26.5%	27.4%	31.3%	Jan-2017
J.P. Morgan Emerging Managers Program IV	255.0	4.4%	8.7%	19.8%	--	18.3%	16.0%	Nov-2018
Total Private Equity Custom Benchmark		1.7%	13.0%	11.3%	12.6%	13.6%	13.6%	
Non-Core Private Real Estate								
Cityview Bay Area Fund II	76.0	0.0%	-9.5%	1.4%	1.1%	--	10.0%	Nov-2012
Cityview Western Fund I, L.P	222.1	0.2%	-1.9%	15.0%	18.4%	-46.7%	12.1%	Jul-2016
CVBAF II Union City Co-Invest	23.6	0.2%	-0.9%	4.9%	-0.3%	4.9%	5.1%	Dec-2015
Non-Core Private RE Policy Benchmark		-2.3%	-8.7%	9.7%	8.4%	10.9%	10.9%	
Credit								
Illiquid Credit								
Stable Asset Management - IC	65.2	2.1%	--	--	--	2.0%	3.6%	Nov-2022
Illiquid Credit Policy Benchmark		4.1%	--	--	--	16.4%	16.4%	
Real Assets & Inflation Hedges								
Core Private Real Estate								
Cityview Core I.M.A	169.4	0.1%	-18.5%	-0.6%	-0.6%	2.5%	2.6%	Jun-2014
Core Private RE Policy Benchmark		-2.9%	-10.7%	7.2%	5.9%	6.7%	6.7%	
Risk Reduction & Mitigation								
Hedge Funds								
Stable Asset Management	532.1	2.4%	5.0%	--	--	1.3%	2.5%	Aug-2021
Custom Hedge Fund Benchmark		2.0%	7.0%	--	--	4.8%	4.8%	

manager scorecards

PUBLIC MARKETS MANAGER SCORECARD

3rd Quarter 2023

Performance	Organization & Operations	ESG	Partnership	Fees & Terms
-------------	---------------------------	-----	-------------	--------------

1 to 5 (with 5 the best)	S+, S, or S- (with S+ the best)	1 to 5 (with 5 the best)	A, B, or C (with A the best)	1 to 5 (with 5 the best)
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Manager	Market Value (in \$ millions)	% of Total Fund	SCORE	SCORE	SCORE	SCORE	SCORE
---------	----------------------------------	--------------------	-------	-------	-------	-------	-------

GROWTH	GLOBAL EQUITY			SCORE	SCORE	SCORE	SCORE	SCORE
	Acadian Developed Markets	572.6	0.8%	5	S-	3	B	3
	BTC Euro Tilts	579.8	0.8%	5	S	4	A	3
	Capital Group Developed Markets	381.6	0.5%	3	S	2	B	3
	Cevian Capital II - Activist	457.3	0.6%	4	S	4	B	1
	Comeracap US SC - EMP	80.6	0.1%	5	S-	1	A	3
	Frontier US SMID Growth	282.5	0.4%	3	S	2	A	1
	Global Alpha	166.7	0.2%	4	S+	3	A	3
	JPMAM Strategic Beta Non-U.S.	582.4	0.8%	3	S	2	B	3
	JPMAM Strategic Beta U.S.	4,518.6	6.3%	3	S	2	B	3
	Lazard Emerging Markets	366.7	0.5%	1	S-	3	B	1
Parametric GE Cash Overlay	200.7	0.3%	—	S	—	B	5	
SSGA MSCI ACWI IMI	14,947.5	20.7%	3	S	—	B	5	
Systematic US Small Cap Value	196.4	0.3%	4	S	2	A	3	

CREDIT	HIGH YIELD			SCORE	SCORE	SCORE	SCORE	SCORE
	Beach Point	302.5	0.4%	5	S	3	A	3
	Brigade Cap Mgmt	469.0	0.6%	3	S	3	B	3
	Pinebridge Investments	454.2	0.6%	* 3	S	3	B	3
	BANK LOANS			SCORE	SCORE	SCORE	SCORE	SCORE
	Bain Capital Credit	461.0	0.6%	4	S	3	B	1
	Credit Suisse Bank Loans	434.1	0.6%	2	S-	3	B	5
	Crescent Capital	476.7	0.7%	4	S	3	B	3
	EMERGING MARKET DEBT			SCORE	SCORE	SCORE	SCORE	SCORE
	Aberdeen Asset Management	240.4	0.3%	1	S	3	B	3
Ashmore Investment Management	251.3	0.3%	1	S	3	B	3	

REAL ASSETS & INFLATION HEDGES	NATURAL RESOURCES & COMMODITIES			SCORE	SCORE	SCORE	SCORE	SCORE
	Credit Suisse Commodity	297.7	0.4%	4	S-	1	A	3
	DWS Natural Resources	484.7	0.7%	3	S-	2	A	5
	Neuberger Berman/Gresham	355.9	0.5%	4	S	1	A	1
	INFRASTRUCTURE			SCORE	SCORE	SCORE	SCORE	SCORE
	DWS Infrastructure	2,076.2	2.9%	2	S-	2	A	5
	TIPS			SCORE	SCORE	SCORE	SCORE	SCORE
Blackrock TIPS	1,846.9	2.6%	3	S	—	A	5	

PUBLIC MARKETS MANAGER SCORECARD

3rd Quarter 2023

			Performance	Organization & Operations	ESG	Partnership	Fees & Terms
			1 to 5 (with 5 the best)	S+, S, or S- (with S+ the best)	1 to 5 (with 5 the best)	A, B, or C (with A the best)	1 to 5 (with 5 the best)
			SCORE	SCORE	SCORE	SCORE	SCORE
Manager	Market Value (in \$ millions)	% of Total Fund					

RISK REDUCTION & MITIGATION	INVESTMENT GRADE BONDS							
	Allspring/Wells	1,242.6	1.7%	5	S	3	B	5
	BTC US Debt Index Fund	2,804.2	3.9%	4	S	—	B	5
	Pugh Capital Mgmt	826.7	1.1%	3	S	2	A	3
OVERLAYS & HEDGES	LONG-TERM GOVERNMENT BONDS							
	BlackRock	2,791.6	3.9%	* 3	S	—	B	5
	CASH							
	SSGA Cash	617.4	0.9%	3	S	—	A	5
OVERLAYS & HEDGES	OVERLAYS							
	Parametric Cash Overlay	352.6	0.5%	—	S	—	B	5
	HEDGES							
BTC Passive Currency Hedge	128.9	0.2%	—	S	—	B	5	

	Exceeds 3-Year Net Excess Return
	Meets 3-Year Net Excess Return
	Below 3-Year Net Excess Return

For Organization, ESG, and Partnership	
	Downgrade from the prior quarter
	Upgrade from the prior quarter

Footnotes

Pillar methodologies in refinement and may evolve over time

Category Descriptions

Performance

Quarterly score based on Sharpe and Information Ratios, which provide insight into a manager's risk-adjusted performance and performance relative to its benchmark, respectively

'*' denotes a manager with an inception date of less than 3 years, resulting in a neutral score of 3

Circle icons reflect trailing 3-year net excess returns against the manager's benchmark above or below a specified range

Organization & Operations

Includes factors such as organization, professional staff, diversity & inclusion, investment philosophy & process, risk management, legal & compliance framework

'S' stands for Satisfactory

ESG

Evaluates the extent to which material ESG factors are identified, assessed, and incorporated into risk/return analysis and portfolio construction

'—' denotes passive index funds and cash where ESG scores are not relevant and/or reflect strategies that do not incorporate active decisions, including ESG considerations, in portfolio construction

'+' denotes mandates where ESG scores are currently under review

Partnership

Blended score based on:

- Value added services – e.g., providing education, distributing research, and performing analytics on portfolio
- Client service – e.g., responsiveness, timeliness, competency, and approach
- Size of LACERA's investment relative to the firm's assets under management

Fees & Terms

Compared to a benchmark of median fees by asset category and/or investment structure

PRIVATE MARKETS MANAGER SCORECARD

3rd Quarter 2023

			Performance	Organization & Operations	ESG	Partnership	Fees & Terms
			1 to 5 (with 5 the best)	S+, S, or S- (with S+ the best)	1 to 5 (with 5 the best)	A, B, or C (with A the best)	1 to 5 (with 5 the best)
			SCORE	SCORE	SCORE	SCORE	SCORE
Manager	Market Value (in \$ millions)	% of Total Fund					
GLOBAL/LARGE BUYOUT							
Advent International Group	158.4	0.2%	4	S+	3	C	4
Blackstone Management	205.8	0.3%	2	S	4	B	5
CVC Capital Partners	551.3	0.8%	5	S	4	A	4
Green Equity Investors	386.9	0.5%	5	S+	3	A	4
Hellman & Friedman	477.4	0.7%	1	S+	3	B	4
MBK	315.1	0.4%	1	S	4	A	2
Silver Lake Partners	589.0	0.8%	3	S+	3	A	5
Thoma Bravo LLC	245.7	0.3%	*	S+	3	B	3
Vista Equity Partners	846.7	1.2%	3	S-	3	A	2
MID-MARKET BUYOUT							
Accel-KKR Capital Partners	237.6	0.3%	2	S+	4	A	3
Alpine Investors	0.0	0.0%	*	S+	3	B	2
BlackFin Capital Partners	65.0	0.1%	1	S	3	B	3
Carlyle Group	204.8	0.3%	3	S+	4	B	4
Clearlake Capital	536.1	0.7%	5	S	4	A	4
GHO Capital	119.6	0.2%	*	S	3	A	3
Gilde Partners	36.0	0.0%	5	S	2	A	5
Harvest Partners	58.8	0.1%	5	S	1	C	3
Marlin Equity	25.7	0.0%	1	S-	2	C	3
Novacap	24.0	0.0%	*	S	3	B	3
Onex Partners	320.1	0.4%	2	S	4	A	5
PAI	181.1	0.3%	4	S-	2	B	4
Revelstoke	177.5	0.2%	3	S	4	A	2
Riverside Capital	107.8	0.1%	1	S	3	B	3
Siris Capital Group	164.0	0.2%	2	S	3	B	4
Sterling Partners	137.5	0.2%	4	S	3	A	4
STG Partners	82.9	0.1%	*	S	3	A	3
Triton	161.9	0.2%	5	S-	3	C	5
TSG	2.7	0.0%	*	S+	3	C	2
Veritas Capital	81.8	0.1%	*	S+	3	B	3
Vinci Partners	94.5	0.1%	3	S	4	B	5
Webster Equity Partners	93.5	0.1%	*	S	3	B	3
Wynnchurch Capital	63.1	0.1%	*	S+	3	C	3

PRIVATE EQUITY



Los Angeles County Employees Retirement Association

PRIVATE MARKETS MANAGER SCORECARD

3rd Quarter 2023

			Performance	Organization & Operations	ESG	Partnership	Fees & Terms
			1 to 5 (with 5 the best)	S+, S, or S- (with S+ the best)	1 to 5 (with 5 the best)	A, B, or C (with A the best)	1 to 5 (with 5 the best)
			SCORE	SCORE	SCORE	SCORE	SCORE
Manager	Market Value (in \$ millions)	% of Total Fund					
SMALL BUYOUT							
AE Industrial Partners	133.8	0.2%	5	S+	4	A	3
Atlantic Street Capital	51.4	0.1%	5	S	3	A	3
Clarion	30.6	0.0%	3	S+	2	B	4
Excellere Partners	137.7	0.2%	1	S-	3	A	3
Incline Equity Partners	41.3	0.1%	5	S	2	C	4
Insignia Capital Partners	143.7	0.2%	5	S	1	B	5
Juggernaut Capital Partners	317.1	0.4%	4	S	3	A	4
Lightyear Capital	260.1	0.4%	3	S	3	A	5
Livingbridge	66.3	0.1%	2	S+	4	A	3
Montefiore Investment	29.7	0.0%	*	S+	4	B	4
One Rock Capital Partners	236.6	0.3%	1	S	3	A	4
Palladium Equity Partners	98.2	0.1%	2	S-	4	C	2
GROWTH EQUITY							
Australis Partners	118.8	0.2%	1	S-	4	B	5
Great Hill Partners	16.4	0.0%	*	S	4	A	4
JMI Equity	4.3	0.0%	2	S	3	C	2
RedBird Capital Partners	192.6	0.3%	4	S	4	A	3
Summit Partners	97.6	0.1%	3	S	4	A	4
TA Associates	178.3	0.2%	5	S	4	B	4
Technology Crossover Ventures	2.2	0.0%	5	S	2	B	3
VENTURE CAPITAL							
BlueRun Ventures	130.7	0.2%	2	S	2	B	2
Canaan Partners	168.0	0.2%	4	S	3	A	4
GGV Capital	435.6	0.6%	2	S	3	A	3
Innovation Endeavors	0.0	0.0%	*	S	3	C	3
Institutional Venture Partners	140.2	0.2%	5	S	1	C	5
Joy Capital	82.9	0.1%	1	S-	2	B	4
Lilly Asia Ventures	155.4	0.2%	4	S	4	B	2
Primary Ventures	0.0	0.0%	*	S	2	C	5
Sinovation Ventures	90.4	0.1%	1	S-	2	C	2
Storm Ventures LLC	230.2	0.3%	4	S	3	A	4
Union Square	94.2	0.1%	5	S-	1	B	5
SPECIAL SITUATIONS							
Alchemy Partners	54.7	0.1%	1	S	3	B	4
Black Diamond	183.2	0.3%	5	S	3	B	4
Centerbridge	215.8	0.3%	3	S	4	A	2
FUND OF FUNDS							
Gateway	646.6	0.9%	5	S	3	C	4
Hamilton Lane	2.7	0.0%	*	S+	3	B	4
MS GTB Capital Partners	336.7	0.5%	1	S	4	A	2
J.P. Morgan	483.4	0.7%	3	S+	3	B	4

PRIVATE EQUITY
(continued)

PRIVATE MARKETS MANAGER SCORECARD

3rd Quarter 2023

REAL ESTATE

			Performance	Organization & Operations	ESG	Partnership	Fees & Terms
			1 to 5 (with 5 the best)	S+, S, or S- (with S+ the best)	1 to 5 (with 5 the best)	A, B, or C (with A the best)	1 to 5 (with 5 the best)
			SCORE	SCORE	SCORE	SCORE	SCORE
Manager	Market Value (in \$ millions)	% of Total Fund					
COMMINGLED FUNDS							
AERMONT Real Estate Fund IV	32.2	0.0%	3	S	4	B	3
AEW Value Investors Asia III	28.9	0.0%	1	S	4	B	4
AG Asia Realty Fund IV	73.1	0.1%	4	S	3	B	3
AG Europe Realty Fund II	44.4	0.1%	3	S	3	B	3
Bain Capital Real Estate Fund I	77.6	0.1%	5	S	3	A	3
Bain Capital Real Estate Fund II	52.5	0.1%	*	S	3	A	3
Blackstone Real Estate Partners Fund X	11.3	0.0%	*	S	3	B	3
Brookfield Strategic Real Estate Partners Fund IV	159.5	0.2%	*	S	3	B	3
CapMan Nordic Real Estate Fund II	41.7	0.1%	1	S	4	A	3
CapMan Nordic Real Estate Fund III	36.3	0.1%	*	S	4	A	3
CBRE US Core Partners	99.7	0.1%	*	S+	3	A	5
CityView Bay Area Fund II	71.0	0.1%	1	S-	3	B	3
CityView Western Fund I, L.P.	234.0	0.3%	5	S-	3	B	3
Core Property Index Fund	114.5	0.2%	3	S	2	A	5
Europa Fund IV	11.9	0.0%	1	S-	3	C	2
Heitman Asia-Pacific Property Investors	31.8	0.0%	2	S	3	B	4
Invesco Real Estate Asia Fund	150.2	0.2%	2	S	4	B	5
Prologis European Logistics Fund (PELF)	188.5	0.3%	2	S	4	A	1
RREEF Core Plus Industrial Fund (CPIF)	287.4	0.4%	5	S-	3	B	5
Starwood Capital Hospitality Fund	6.3	0.0%	4	S	3	C	3
TPG Real Estate Partners III	38.2	0.1%	4	S	2	B	3
TPG Real Estate Partners IV	4.1	0.0%	*	S	2	B	3
SEPARATE ACCOUNTS							
Cityview Core I.M.A.	169.1	0.2%	2	S-	3	B	2
Clarion I.M.A.	495.2	0.7%	5	S	3	A	4
Clarion Takeover Core IMA	322.0	0.4%	*	S	3	A	4
Clarion Takeover Value IMA	8.6	0.0%	*	S	3	A	3
Heitman I.M.A.	374.7	0.5%	4	S	3	B	4
RREEF Core/High Return I.M.A. III	1,251.2	1.7%	2	S-	3	C	5
RREEF Takeover I.M.A.	0.1	0.0%	2	S-	3	C	4
Stockbridge I.M.A.	622.3	0.9%	3	S	2	B	4
Stockbridge High I.M.A. Vintage 2014	59.1	0.1%	*	S	2	B	5
Stockbridge Value I.M.A. Vintage 2014	24.6	0.0%	*	S	2	B	3

PRIVATE MARKETS MANAGER SCORECARD

3rd Quarter 2023

			Performance	Organization & Operations	ESG	Partnership	Fees & Terms	
			1 to 5 (with 5 the best)	S+, S, or S- (with S+ the best)	1 to 5 (with 5 the best)	A, B, or C (with A the best)	1 to 5 (with 5 the best)	
			SCORE	SCORE	SCORE	SCORE	SCORE	
Manager	Market Value (in \$ millions)	% of Total Fund						
PRIVATE REAL ASSETS (ex. Real Estate)	NATURAL RESOURCES & COMMODITIES							
	Appian III	2.2	0.0%	*	S	3	B	3
	Ara III	0.0	0.0%	*	S	4	B	3
	Cibus Enterprise II	4.1	0.0%	*	S	3	B	3
	Cibus Fund II	28.7	0.0%	*	S	3	B	3
	EMG	80.9	0.1%	2	S	3	B	1
	HiTecVision	99.2	0.1%	*	S	3	A	3
	Orion Mine Finance Onshore III	149.6	0.2%	*	S	4	B	4
	Orion Mineral Royalty Fund I	27.9	0.0%	*	S	4	B	4
	Sprott	44.4	0.1%	*	S	3	B	5
	TIAA-CREF Global Agriculture	301.9	0.4%	5	S+	4	A	5
	TIAA-CREF Global Agriculture II	277.2	0.4%	5	S+	4	A	5
	INFRASTRUCTURE							
	Antin Mid Cap	48.9	0.1%	*	S	3	B	2
	Axium Infrastructure Canada II	149.8	0.2%	*	S	4	A	3
	Axium Infrastructure US II	267.8	0.4%	*	S	4	A	3
	DIF CIF III	45.8	0.1%	*	S	3	A	4
	DIF Infrastructure VI	123.0	0.2%	4	S	3	A	2
	Grain Communications Opportunity Fund III	41.1	0.1%	*	S-	3	C	2
	Grain Spectrum Holdings III	70.5	0.1%	3	S-	3	C	2
Guardian Smart Infrastructure	0.0	0.0%	*	S	3	B	4	
KKR Diversified Core Infrastructure Fund	514.6	0.7%	*	S	3	B	4	
Macquarie Global Infrastructure Fund	413.8	0.6%	*	S	3	A	4	
Pan-European Infrastructure Fund III	74.9	0.1%	2	S-	3	B	3	
Partners Group Direct Infrastructure 2020	104.3	0.1%	*	S	3	A	3	

PRIVATE MARKETS MANAGER SCORECARD

3rd Quarter 2023

				Performance	Organization & Operations	ESG	Partnership	Fees & Terms
				1 to 5 (with 5 the best)	S+, S, or S- (with S+ the best)	1 to 5 (with 5 the best)	A, B, or C (with A the best)	1 to 5 (with 5 the best)
				SCORE	SCORE	SCORE	SCORE	SCORE
Manager	Market Value (in \$ millions)	% of Total Fund						
DIVERSIFIED HEDGE FUNDS								
AM Asia	230.0	0.3%		3	S	2	A	5
Brevan Howard	630.9	0.9%		4	S+	2	A	2
Capula GRV	694.5	1.0%		5	S	2	B	3
Caxton	283.4	0.4%		4	S	3	B	3
DK Institutional Partners	506.3	0.7%		4	S	2	B	3
HBK Multistrategy	604.0	0.8%		4	S	2	B	3
Hudson Bay	684.4	0.9%		5	S	2	B	3
Polar	491.3	0.7%		4	S	2	B	4
Stable	532.1	0.7%		*	S	2	A	5
ILLIQUID CREDIT								
Barings	37.3	0.1%		4	S-	3	C	4
Beach Point	442.9	0.6%		3	S	3	B	3
BlackRock/Tennenbaum	601.8	0.8%		2	S-	3	C	4
Glendon	0.0	0.0%		5	S	2	B	2
Magnetar	1,000.2	1.4%		4	S	3	A	3
Napier Park	981.1	1.4%		2	S	3	A	3
Oaktree	0.0	0.0%		5	S	2	B	2
PIMCO Tac Opps	234.3	0.3%		1	S-	1	C	3
Quadrant	24.6	0.0%		1	S	2	B	4
Silver Rock	560.3	0.8%		*	S	2	A	4
Stable - IC	65.2	0.1%		*	S	2	A	4
Varde	687.7	1.0%		*	S	3	A	4
Waterfall	702.3	1.0%		*	S	3	A	4

DIVERSIFIED HEDGE FUNDS & ILLIQUID CREDIT

For Organization, ESG, and Partnership

- Downgrade from the prior quarter
- Upgrade from the prior quarter

Footnotes

Pillar methodologies in refinement and may evolve over time

Category Descriptions

Performance

Quarterly score based on risk-adjusted performance metrics over time
 '*' denotes a manager with an inception date of less than 3 years

Organization & Operations

Includes factors such as organization, professional staff, investment philosophy & process, risk management, legal & compliance framework, diversity & inclusion
 'S' stands for Satisfactory

ESG

Evaluates the extent to which material ESG factors are identified, assessed, and incorporated into risk/return analysis and portfolio construction
 '+' denotes mandates where ESG scores are currently under review

Partnership

Assesses the quality of investment manager relationships both quantitatively and qualitatively

Fees & Terms

Compares various fees and terms within each asset category, strategy and/or investment structure

appendix

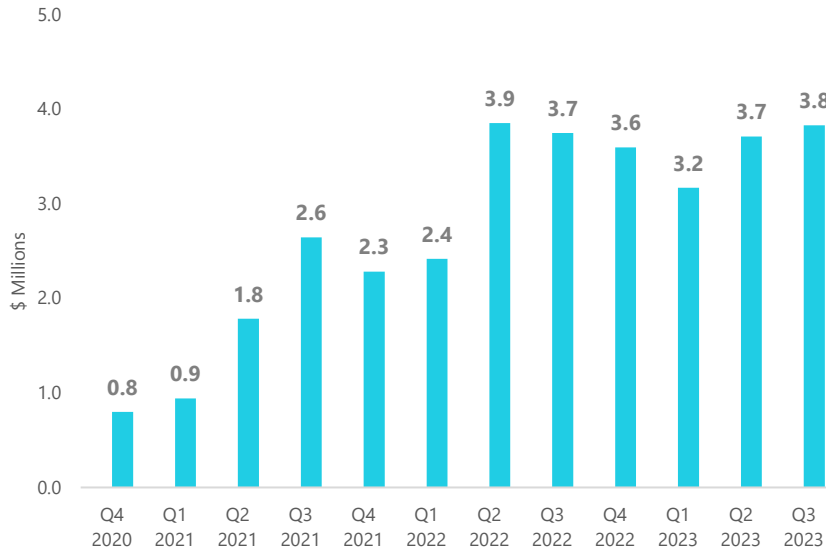
Summary

Securities Lending Income
for the quarter ended September 30, 2023

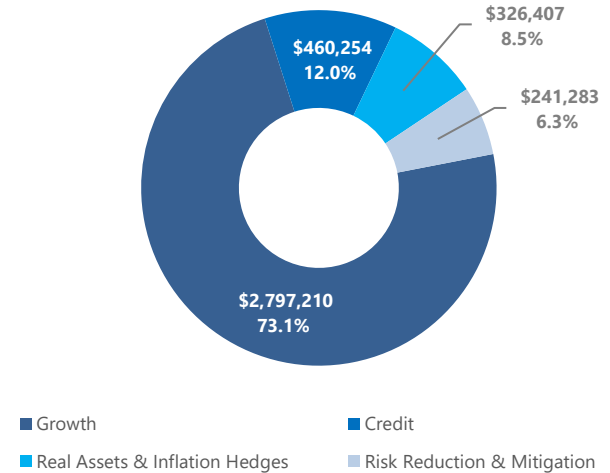


Los Angeles County Employees Retirement Association

Earnings by Quarter



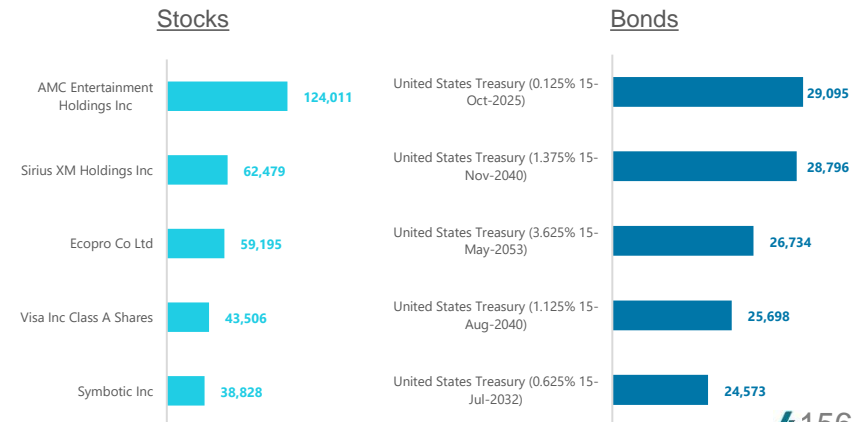
Earnings by Functional Category



Top Earning Funds

Fund	% of Total Fund Earnings	Total Earnings	Cash Earnings	Non-Cash Earnings
SSGA MSCI ACWI IMI	53.3%	2,039,120	1,407,508	631,612
JPMAM Strategic Beta US	10.4%	399,472	333,095	66,377
BlackRock TIPS	7.3%	279,373	51,340	228,033
Blackrock Long Treasury Bonds	6.5%	248,362	57,951	190,411
Frontier US SMID Growth	4.6%	176,723	132,844	43,879

Top Earning Securities



Public Markets Manager Fees

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Growth

	Average Market Value (\$ mm)	Fees ¹	Annualized Effective Rate (bps)
Active			
Acadian Asset Management	\$589.2	\$553,093	37.5
BTC Europe Alpha Tilts	\$584.5	\$515,681	35.3
Capital Guardian	\$403.2	\$349,638	34.7
Cevian Capital	\$460.4	\$1,266,494	110.0
CornerCap	\$84.1	\$110,787	52.7
Frontier Capital Management	\$300.9	\$564,096	75.0
Global Alpha	\$176.4	\$314,206	71.2
Lazard Asset Management	\$385.0	\$615,051	63.9
Parametric GE Market Cap	\$974.5	\$64,833	2.7
Parametric GE Region	\$598.0	\$39,784	2.7
Systematic	\$203.7	\$280,036	55.0
Subtotal:	\$4,759.9	\$4,673,700	39.3
Factor-Based			
JPMAM Strategic Beta Non-US	\$602.2	\$50,859	3.4
JPMAM Strategic Beta US	\$4,690.0	\$396,060	3.4
Subtotal:	\$5,292.2	\$446,919	3.4
Passive			
SSGA MSCI ACWI IMI	\$15,605.1	\$285,032	0.7
Subtotal:	\$15,605.1	\$285,032	0.7

¹ Reflects estimated investment management fees.

Public Markets Manager Fees

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Credit

	Average Market Value (\$ mm)	Fees ¹	Annualized Effective Rate (bps)
Liquid Credit			
Aberdeen Standard Investments	\$276.2	\$275,550	39.9
Ashmore Investment Management	\$251.3	\$322,887	51.4
Bain Capital	\$461.0	\$609,644	52.9
Beach Point Capital	\$303.8	\$341,788	45.0
Brigade Capital Management	\$470.2	\$501,499	42.7
Credit Suisse Bank Loan	\$500.1	\$275,028	22.0
Crescent Capital Group	\$475.2	\$556,485	46.8
Pinebridge	\$456.8	\$376,892	33.0
Subtotal:	\$3,194.7	\$3,259,772	40.8

¹ Reflects estimated investment management fees.

Public Markets Manager Fees

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Real Assets & Inflation Hedges

	Average Market Value (\$ mm)	Fees ¹	Annualized Effective Rate (bps)
Natural Resources & Commodities			
Credit Suisse	\$300.9	\$203,042	27.0
DWS Natural Resources	\$489.2	\$229,108	18.7
Neuberger Berman/Gresham	\$352.7	\$329,312	37.3
Subtotal:	\$1,142.8	\$761,462	26.7
Infrastructure			
DWS Infrastructure	\$2,242.4	\$1,050,103	18.7
Subtotal:	\$2,242.4	\$1,050,103	18.7
Treasury Inflation-Protected Securities			
BlackRock TIPS	\$1,875.9	\$47,283	1.0
Subtotal:	\$1,875.9	\$47,283	1.0

¹ Reflects estimated investment management fees.

Public Markets Manager Fees

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Risk Reduction & Mitigation

	Average Market Value (\$ mm)	Fees ¹	Annualized Effective Rate (bps)
Investment Grade Bonds			
Allspring/Wells	\$1,266.7	\$335,833	10.6
Pugh Capital Management	\$843.0	\$282,352	13.4
Subtotal:²	\$4,968.8	\$679,441	5.5
Long-Term Government Bonds			
BlackRock	\$2,900.9	\$72,483	1.0
Subtotal:	\$2,900.9	\$72,483	1.0
Cash			
SSGA Cash	\$765.4	\$76,542	4.0
Subtotal:	\$765.4	\$76,542	4.0

¹ Reflects estimated investment management fees.

² Includes BTC US Debt Index account.

Public Markets Manager Fees

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Overlays & Hedges

	Average Market Value (\$ mm)	Fees ¹	Annualized Effective Rate (bps)
Overlays			
Parametric Cash Overlay	\$2,132.5	\$141,878	2.7
Subtotal:	\$2,132.5	\$141,878	2.7
Hedges			
BlackRock Developed Markets Currency Hedge	\$7,179.3	\$271,437	1.5
Subtotal:	\$7,179.3	\$271,437	1.5

¹ Reflects estimated investment management fees.

Benchmark Definitions

Current Composition

	Weight	Component
Total Fund		
Total Fund Policy Benchmark		
	53%	Growth Policy Benchmark
	11%	Credit Policy Benchmark
	17%	RA & IH Policy Benchmark
	19%	RR & M Policy Benchmark
Growth		
Growth Policy Benchmark		
	60%	Global Equity Policy Benchmark
	32%	Private Equity – Growth Policy BM
	8%	Non-Core Private RE Policy Benchmark
Global Equity Policy Benchmark		
	100%	MSCI ACWI IMI Net
Private Equity – Growth Policy BM		
	100%	MSCI ACWI IMI Net + 200 bps (3-month lagged)
Non-Core Private RE Policy Benchmark		
	100%	NFI ODCE + 225 bps (3-month lagged)

Benchmark Definitions

Current Composition

	Weight	Component
Credit		
Credit Policy Benchmark		
	36%	Liquid Credit Policy Benchmark
	64%	Illiquid Credit Policy Benchmark
Liquid Credit Policy Benchmark		
	40%	Bloomberg U.S. Corporate High Yield
	40%	CS Leveraged Loan Index
	10%	JPMorgan EMBI Global Diversified Index
	5%	JPM GBI-EM Global Diversified Index
	5%	JPM CEMBI Broad Diversified
Illiquid Credit Policy Benchmark		
	100%	Liquid Credit Policy BM + 150 bps (1-month lagged)
Bank Loans Custom Benchmark	100%	CS Leveraged Loan Index
Beachpoint Custom Benchmark	100%	Bloomberg U.S. Corporate High Yield
Brigade Custom Index	100%	Bloomberg U.S. Corporate High Yield
EMD Custom Benchmark		
	50%	JPMorgan EMBI Global Diversified Index
	25%	JPM CEMBI Broad Diversified
	25%	JPM GBI-EM Global Diversified Index

Benchmark Definitions

Current Composition

	Weight	Component
Real Assets & Inflation Hedges		
RA & IH Policy Benchmark		
	35%	Core Private RE Policy Benchmark
	18%	Nat Res & Comm Policy Benchmark
	29%	DJ Brookfield Global Infra Comp
	18%	Bloomberg U.S. Treasury: U.S. TIPS
Core Private RE Policy Benchmark		
	100%	NFI ODCE (3-month lagged)
Nat Res & Comm Policy Benchmark		
	33%	Bloomberg Commodity Index Total Return
	66%	S&P Global Natural Resources Index
<hr/>		
Private Equity – Real Assets Custom BM	100%	S&P Glb LargeMidCap Commod & Resources (3-month lagged)
Private Infrastructure Custom BM	100%	DJ Brookfield Global Infra Comp (3-month lagged)
Risk Reduction & Mitigation		
RR & M Policy Benchmark		
	37%	Bloomberg U.S. Aggregate
	32%	Diversified Hedge Funds Policy Benchmark
	26%	Bloomberg U.S. Treasury: Long
	5%	FTSE 3-Month US Treasury Bill
Diversified Hedge Funds Policy Benchmark		
	100%	FTSE 3-Month US Treasury Bill + 250 bps (1-month lagged)
Cash Policy Benchmark		
	100%	FTSE 3-Month US Treasury Bill
<hr/>		
Custom Hedge Fund BM	100%	Diversified Hedge Funds Policy Benchmark

A

ANNUAL RETURN

The total return of a security over a specified period, expressed as an annual rate of interest.

ACTIVE RISK

The expected standard deviation of the differential return between the portfolio and the benchmark. Active total risk arises from active management, and it is the result of active weights (deviations from the benchmark at the asset level) and therefore active exposures; for passively managed portfolios, it is referred to as “total tracking error.”

ACTIVE RISK CONTRIBUTION

Percent contribution to active total risk (or tracking error). The percent of active total risk that an individual asset or risk source contributes. For example, a % CR to Active Total Risk of 10% indicates that 10% of the portfolio’s active total risk is arising from the active position in that particular asset.

B

BASIS POINTS (BPS)

One one-hundredth of one percent. One hundred basis points equal one percent.

BETA

A measure of the volatility of a stock relative to the overall market. A beta of less than one indicates lower risk than the market; a beta of more than one indicates higher risk than the market.

D

DURATION

A measure of the price sensitivity of a bond portfolio to changes in interest rates.

DISTRIBUTED TO PAID-IN (DPI)

A measure of distributions received relative to contributed capital.

F

FUTURES CONTRACT

Agreement to buy or sell a specific amount of a commodity or financial instrument at a particular price and a stipulated future date.

H

HIGH YIELD BOND

A bond with a low investment quality and credit worthiness, usually with a rating of BB or less.

I

INFORMATION RATIO

The excess return (alpha) per unit of active risk (tracking error).

INTERNAL RATE OF RETURN (IRR)

A total rate of return that gives full weight to the size and timing of cash flows over the period measured and fully reflects unrealized gains and losses in addition to realized gains and losses, interest and dividend income.

K

KAPLAN & SCHOAR PUBLIC MARKET EQUIVALENT (KS-PME)

A ratio that benchmarks the performance of a fund against an appropriate public market index while accounting for the timing of a fund's cash flows.

M

MC TO TOTAL TRACKING ERROR

This value represents the change in the active risk of an asset's portfolio or group that would result from a one percent increase in the asset's effective position plus an equal short position in the benchmark.

S

SHARPE RATIO

Measures the performance of an investment compared to a risk-free asset, after adjusting for its risk. It is the difference between the returns of the investment and the risk-free return, divided by the standard deviation of the investment.

STANDARD DEVIATION

Statistical measure of the degree to which an individual value in a probability distribution tends to vary from the mean of the distribution. The greater the degree of dispersion, the greater the risk.

T

TIME-WEIGHTED RATE OF RETURN (TWR)

A measure of the compound rate of growth in a portfolio. Often used to compare the returns of investment managers because it eliminates the distorting effects on growth rates created by inflows and outflows of money.

TOTAL RISK

The total (gross) risk to an asset (or portfolio), which is the standard deviation of the asset's total return distribution, expressed in percent. Total risk is forecasted using MSCI Barra's multiple factor models. The total risk for an asset depends on the asset's exposures to the risk factors, the factor variance/covariance matrix, and the forecast selection risk of the asset.

TOTAL RISK CONTRIBUTION

The percent of total risk that an individual asset or risk source contributes. For example, a % CR to Total Risk of 10% indicates that 10% of the portfolio's total risk is arising from the portfolio's position in that particular asset.

TOTAL VALUE TO PAID-IN (TVPI)

A measure of total value created relative to capital invested.

TRACKING ERROR

The volatility of a manager's excess return. It is measured by subtracting the benchmark return from the manager's return and calculating the standard deviation.

Y

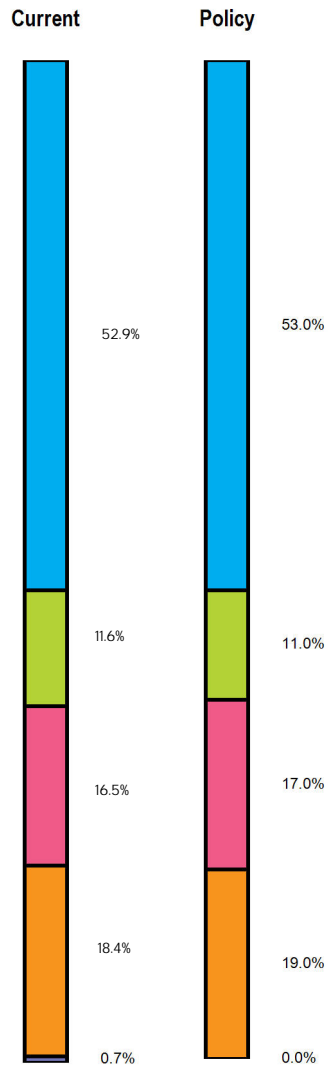
YIELD TO MATURITY

The return a bond earns on the price at which it was purchased if it were held to maturity. It assumes that coupon payments can be reinvested at the yield to maturity.

Los Angeles County Employees Retirement Association

September 30, 2023

Fund Evaluation Report



Allocation vs. Targets and Policy							
	Current Balance	Current Allocation	Policy	Difference	Policy Range	Within IPS Range?	
Growth	\$38,154,165,836	52.9%	53.0%	-0.1%	45.0% - 61.0%	Yes	
Global Equity	\$23,352,170,582	32.4%	32.0%	0.4%	25.0% - 39.0%	Yes	
Private Equity	\$13,625,053,225	18.9%	17.0%	1.9%	12.0% - 20.0%	Yes	
Non-Core Private Real Estate	\$1,176,942,029	1.6%	4.0%	-2.4%	2.0% - 6.0%	No	
Credit	\$8,351,370,185	11.6%	11.0%	0.6%	8.0% - 14.0%	Yes	
Liquid Credit ¹	\$3,089,227,671	4.3%	4.0%	0.3%	1.0% - 7.0%	Yes	
Illiquid Credit ²	\$5,262,142,264	7.3%	7.0%	0.3%	4.0% - 10.0%	Yes	
Real Assets and Inflation Hedges	\$11,912,064,614	16.5%	17.0%	-0.5%	14.0% - 20.0%	Yes	
Core Real Estate	\$3,920,115,686	5.4%	6.0%	-0.6%	3.0% - 9.0%	Yes	
Natural Resources & Commodities	\$2,178,867,814	3.0%	3.0%	0.0%	1.0% - 5.0%	Yes	
Infrastructure	\$3,966,179,192	5.5%	5.0%	0.5%	2.0% - 6.0%	Yes	
TIPS	\$1,846,901,921	2.6%	3.0%	-0.4%	0.0% - 6.0%	Yes	
Risk Reduction and Mitigation	\$13,267,589,996	18.4%	19.0%	-0.6%	13.0% - 25.0%	Yes	
Investment Grade Bonds	\$4,882,871,301	6.8%	7.0%	-0.2%	1.0% - 13.0%	Yes	
Diversified Hedge Funds	\$4,676,710,750	6.5%	6.0%	0.5%	2.0% - 8.0%	Yes	
Long-Term Government Bonds	\$2,791,643,796	3.9%	5.0%	-1.1%	0.0% - 10.0%	Yes	
Cash	\$916,378,159	1.3%	1.0%	0.3%	0.0% - 3.0%	Yes	
Overlays and Hedges	\$481,504,974	0.7%	0.0%				
Cash Overlay	\$352,633,632	0.5%					
Currency Hedge	\$128,871,341	0.2%					
Total³	\$72,166,695,604	100.0%	100.0%				

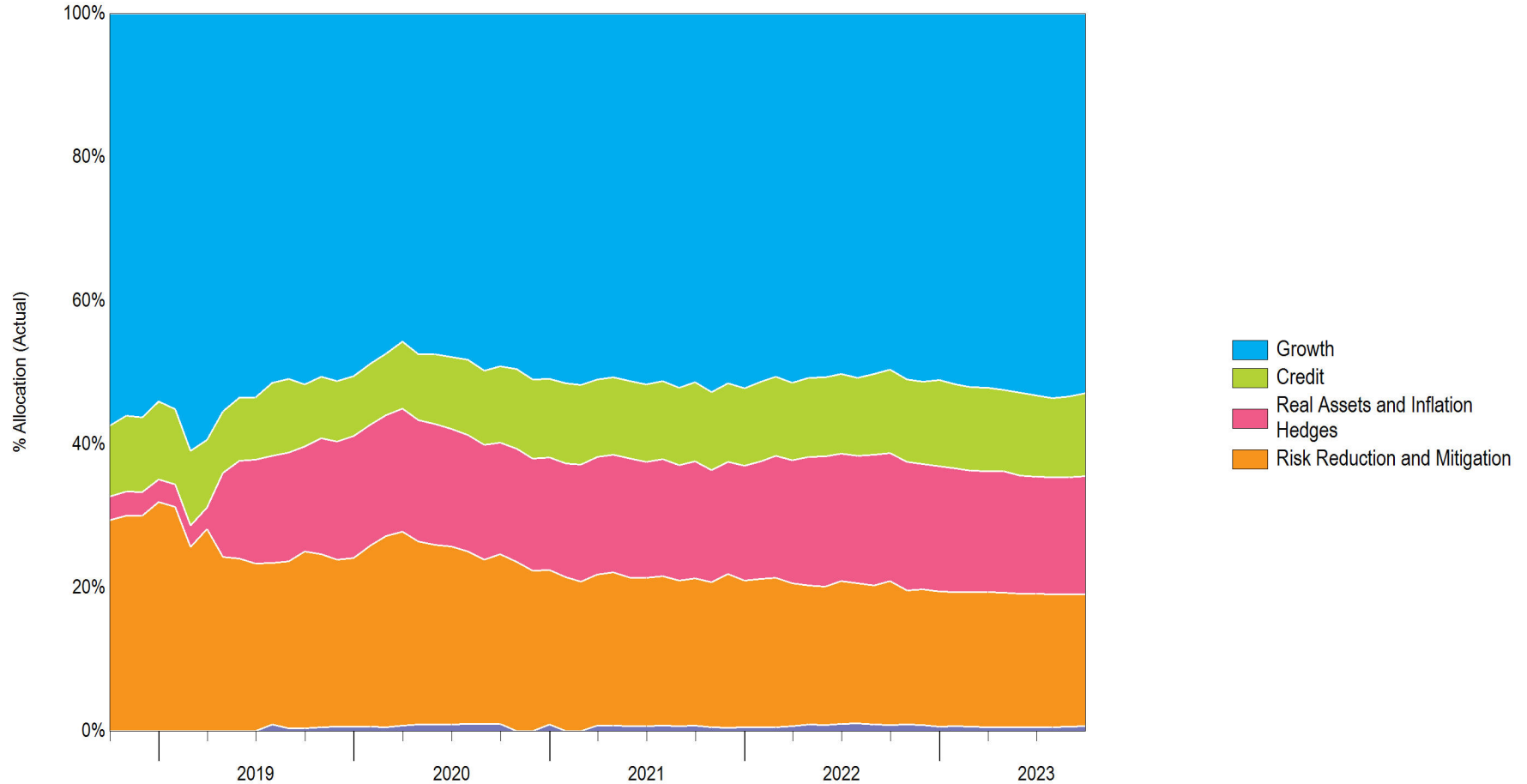
¹ Liquid Credit contains high yield, bank loans, and EM debt.

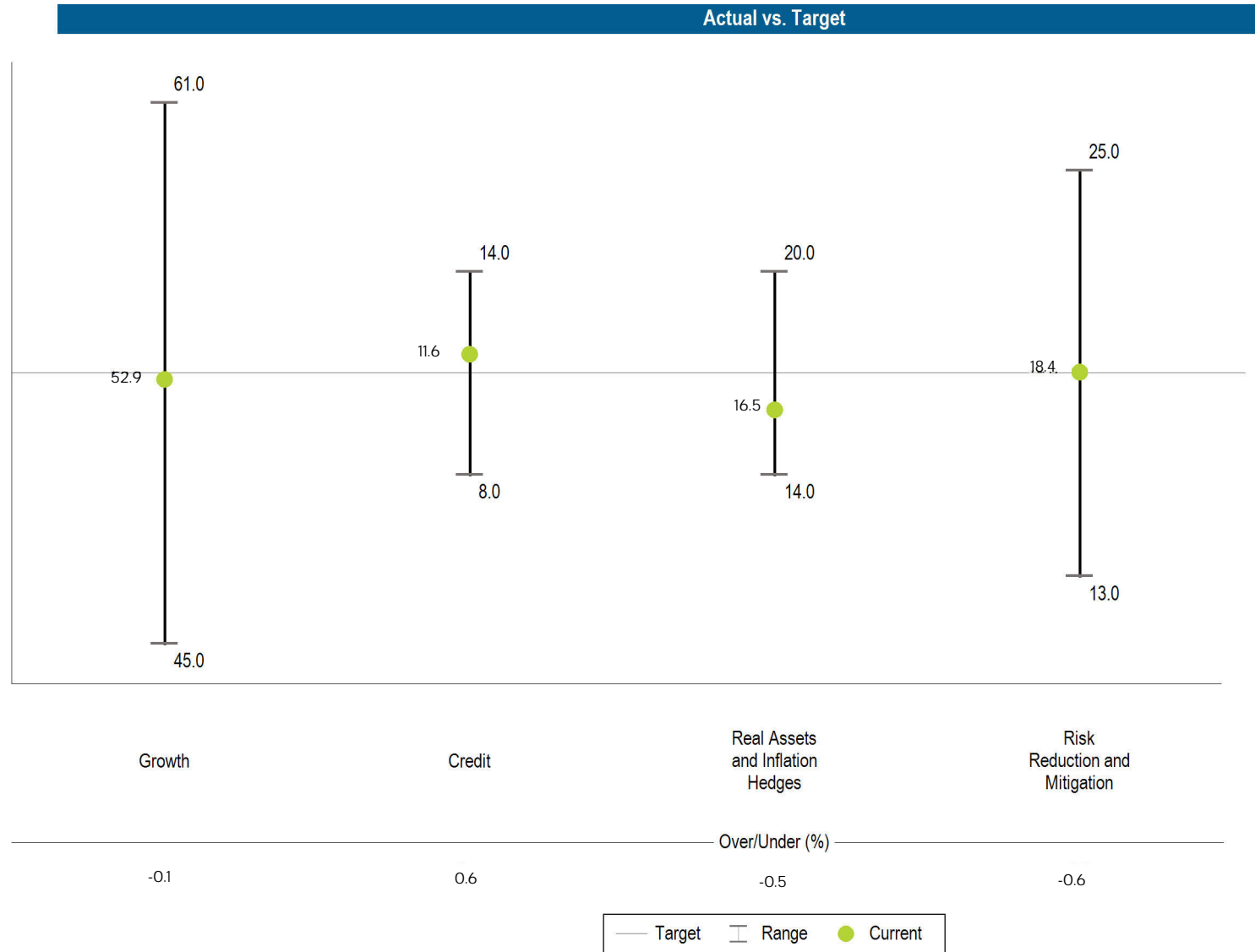
² Illiquid Credit contains credit hedge funds, real estate debt, private debt strategies and private equity-related debt.

³ Totals may not add up due to rounding.

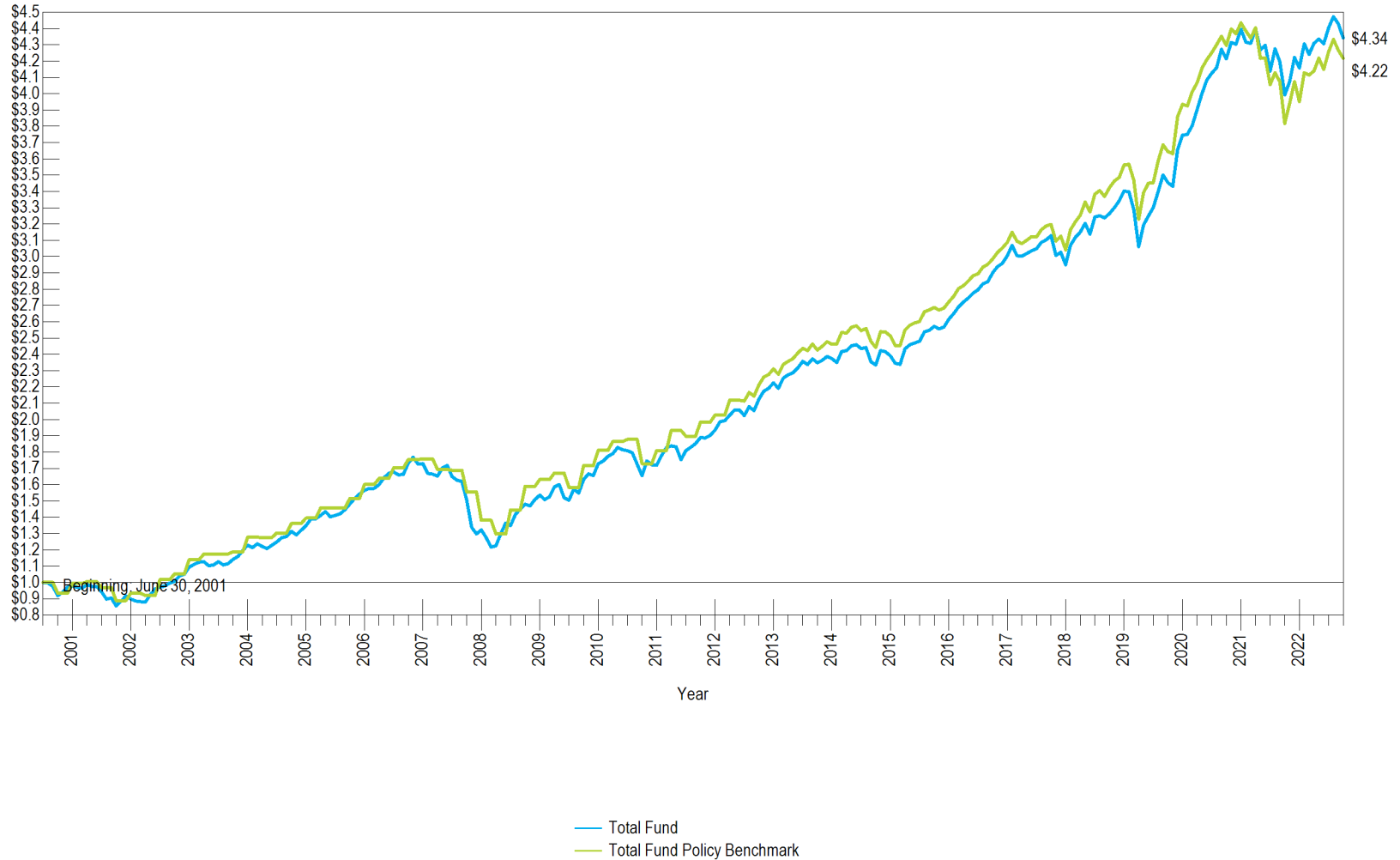
* The Functional Framework became effective April 1, 2019.

Asset Allocation History
5 Years Ending September 30, 2023





Growth of a Dollar



Asset Class Performance Summary (Net)									
	Market Value (\$)	% of Portfolio	1 Mo (%)	QTD (%)	Fiscal YTD ¹ (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Total Fund (Net)	72,166,695,604	100.0	-1.9	-1.4	-1.4	8.7	7.9	6.8	7.4
<i>Total Fund Policy Benchmark</i>			<u>-1.2</u>	<u>-0.9</u>	<u>-0.9</u>	<u>10.5</u>	<u>5.0</u>	<u>5.7</u>	<u>6.7</u>
Excess Return			-0.7	-0.5	-0.5	-1.8	2.9	1.1	0.7
Growth (Net)	38,154,165,836	52.9	-2.7	-1.6	-1.6	14.0	12.2	--	--
<i>Growth Custom Blended Benchmark</i>			<u>-0.7</u>	<u>-0.2</u>	<u>-0.2</u>	<u>17.8</u>	<u>8.9</u>	--	--
Excess Return			-2.0	-1.4	-1.4	-3.8	3.3		
Credit (Net)	8,351,370,185	11.6	0.7	3.1	3.1	11.6	6.1	--	--
<i>Credit Custom Blended Benchmark</i>			<u>0.0</u>	<u>3.0</u>	<u>3.0</u>	<u>10.2</u>	<u>2.3</u>	--	--
Excess Return			0.7	0.1	0.1	1.4	3.8		
Real Assets and Inflation Hedges (Net)	11,912,064,614	16.5	-1.2	-2.3	-2.3	-0.1	8.4	--	--
<i>Real Assets & Inflation Hedges Custom BM</i>			<u>-1.9</u>	<u>-2.8</u>	<u>-2.8</u>	<u>-0.3</u>	<u>7.5</u>	--	--
Excess Return			0.7	0.5	0.5	0.2	0.9		
Risk Reduction and Mitigation (Net)	13,267,589,996	18.4	-2.3	-3.2	-3.2	0.3	-3.3	--	--
<i>Risk Reduction and Mitigation Custom Blended Benchmark</i>			<u>-2.6</u>	<u>-3.7</u>	<u>-3.7</u>	<u>0.3</u>	<u>-4.0</u>	--	--
Excess Return			0.3	0.5	0.5	0.0	0.7		
Overlay and Hedges (Net)	481,504,974	0.7	5.1	13.0	13.0	50.9	--	--	--

¹ Fiscal Year begins July 1.

* See Glossary for all custom index definitions.

Trailing Performance									
	Market Value (\$)	% of Portfolio	1 Mo (%)	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Total Fund (Net)	72,166,695,604	100.0	-1.9	-1.4	-1.4	8.7	7.9	6.8	7.4
Total Fund (Gross)			-1.9	-1.3	-1.3	9.0	8.3	7.1	7.7
<i>Total Fund Policy Benchmark</i>			<u>-1.2</u>	<u>-0.9</u>	<u>-0.9</u>	<u>10.5</u>	<u>5.0</u>	<u>5.7</u>	<u>6.7</u>
Excess Return (vs. Net)			-0.7	-0.5	-0.5	-1.8	2.9	1.1	0.7
Growth (Net)¹	38,154,165,836	52.9	-2.7	-1.6	-1.6	14.0	12.2	--	--
Growth (Gross)			-2.7	-1.5	-1.5	14.5	12.7	--	--
<i>Growth Custom Blended Benchmark</i>			<u>-0.7</u>	<u>-0.2</u>	<u>-0.2</u>	<u>17.8</u>	<u>8.9</u>	--	--
Excess Return (vs. Net)			-2.0	-1.4	-1.4	-3.8	3.3		
Global Equity (Net)	23,352,170,582	32.4	-4.2	-3.3	-3.3	20.6	7.8	6.6	8.2
Global Equity (Gross)			-4.2	-3.2	-3.2	20.7	8.0	6.8	8.4
<i>Global Equity Custom BM</i>			<u>-4.2</u>	<u>-3.4</u>	<u>-3.4</u>	<u>20.2</u>	<u>6.9</u>	--	--
Excess Return (vs. Net)			0.0	0.1	0.1	0.4	0.9		
Acadian Developed Markets (Net)	572,641,634	0.8	-2.7	-2.2	-2.2	17.3	5.5	3.5	6.2
Acadian Developed Markets (Gross)			-2.7	-2.1	-2.1	17.7	5.9	3.9	6.6
<i>EAFE Custom Benchmark</i>			<u>-3.4</u>	<u>-4.1</u>	<u>-4.1</u>	<u>24.0</u>	<u>6.1</u>	<u>3.4</u>	<u>3.8</u>
Excess Return (vs. Net)			0.7	1.9	1.9	-6.7	-0.6	0.1	2.4
BTC Euro Tilts (Net)	579,826,467	0.8	-3.6	-4.6	-4.6	30.5	10.2	5.6	5.6
BTC Euro Tilts (Gross)			-3.5	-4.5	-4.5	30.5	10.5	5.9	6.0
<i>MSCI EUROPE</i>			<u>-4.0</u>	<u>-5.0</u>	<u>-5.0</u>	<u>28.8</u>	<u>7.2</u>	<u>4.0</u>	<u>3.8</u>
Excess Return (vs. Net)			0.4	0.4	0.4	1.7	3.0	1.6	1.8

¹ Includes accounts that are lagged by 3-months and latest available adjusted for cash flows.

Los Angeles County Employees Retirement Association | September 30, 2023

	Market Value (\$)	% of Portfolio	1 Mo (%)	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Capital Guardian (Net)	381,597,939	0.5	-6.4	-7.7	-7.7	23.1	-0.4	3.9	4.8
Capital Guardian (Gross)			-6.4	-7.7	-7.7	23.5	-0.1	4.3	5.2
<i>EAFE Custom Benchmark</i>			<u>-3.4</u>	<u>-4.1</u>	<u>-4.1</u>	<u>24.0</u>	<u>6.1</u>	<u>3.4</u>	<u>3.8</u>
Excess Return (vs. Net)			-3.0	-3.6	-3.6	-0.9	-6.5	0.5	1.0
Cevian Capital (Net)	457,331,926	0.6	-0.7	1.1	1.1	25.7	16.6	8.0	--
Cevian Capital (Gross)			-0.6	1.4	1.4	27.1	17.8	9.2	--
<i>MSCI EUROPE</i>			<u>-4.0</u>	<u>-5.0</u>	<u>-5.0</u>	<u>28.8</u>	<u>7.2</u>	<u>4.0</u>	--
Excess Return (vs. Net)			3.3	6.1	6.1	-3.1	9.4	4.0	
CornerCap (Net)	80,575,913	0.1	-4.7	-1.8	-1.8	10.9	16.5	6.1	--
CornerCap (Gross)			-4.7	-1.7	-1.7	11.5	17.1	6.7	--
<i>Russell 2000</i>			<u>-5.9</u>	<u>-5.1</u>	<u>-5.1</u>	<u>8.9</u>	<u>7.2</u>	<u>2.4</u>	--
Excess Return (vs. Net)			1.2	3.3	3.3	2.0	9.3	3.7	
Frontier Capital Management (Net)	282,499,972	0.4	-7.4	-6.9	-6.9	22.5	11.4	5.5	8.5
Frontier Capital Management (Gross)			-7.3	-6.7	-6.7	23.4	12.2	6.3	9.3
<i>Russell 2500</i>			<u>-5.6</u>	<u>-4.8</u>	<u>-4.8</u>	<u>11.3</u>	<u>8.4</u>	<u>4.5</u>	<u>7.9</u>
Excess Return (vs. Net)			-1.8	-2.1	-2.1	11.2	3.0	1.0	0.6

	Market Value (\$)	% of Portfolio	1 Mo (%)	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Global Alpha IE EMP (Net)	166,714,068	0.2	-6.6	-5.3	-5.3	15.9	2.6	--	--
Global Alpha IE EMP (Gross)			-6.5	-5.1	-5.1	16.7	3.3	--	--
<i>MSCI EAFE Small Cap</i>			<u>-4.4</u>	<u>-3.5</u>	<u>-3.5</u>	<u>17.9</u>	<u>1.1</u>	--	--
Excess Return (vs. Net)			-2.2	-1.8	-1.8	-2.0	1.5		
JPMAM Strategic BETA NON-U.S. (Net)	582,447,457	0.8	-2.8	-3.0	-3.0	20.7	5.0	--	--
JPMAM Strategic BETA NON-U.S. (Gross)			-2.8	-3.0	-3.0	20.8	5.0	--	--
<i>MSCI ACWI ex USA IMI</i>			<u>-3.2</u>	<u>-3.5</u>	<u>-3.5</u>	<u>20.2</u>	<u>3.8</u>	--	--
Excess Return (vs. Net)			0.4	0.5	0.5	0.5	1.2		
JPMAM Strategic BETA U.S. (Net)	4,518,572,104	6.3	-4.6	-3.0	-3.0	21.6	10.3	--	--
JPMAM Strategic BETA U.S. (Gross)			-4.6	-2.9	-2.9	21.6	10.3	--	--
<i>MSCI USA IMI Gross</i>			<u>-4.8</u>	<u>-3.2</u>	<u>-3.2</u>	<u>20.7</u>	<u>9.6</u>	--	--
Excess Return (vs. Net)			0.2	0.2	0.2	0.9	0.7		
Lazard Emerging Markets (Net)	366,659,298	0.5	-3.7	-3.9	-3.9	14.0	-1.1	2.4	3.0
Lazard Emerging Markets (Gross)			-3.6	-3.7	-3.7	14.8	-0.4	3.1	3.8
<i>MSCI Emerging Markets</i>			<u>-2.6</u>	<u>-2.9</u>	<u>-2.9</u>	<u>11.7</u>	<u>-1.7</u>	<u>0.6</u>	<u>2.1</u>
Excess Return (vs. Net)			-1.1	-1.0	-1.0	2.3	0.6	1.8	0.9

	Market Value (\$)	% of Portfolio	1 Mo (%)	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Parametric GE Market Cap (Net)	184,259,977	0.3	0.8	3.1	3.1	26.4	--	--	--
Parametric GE Market Cap (Gross)			0.8	3.1	3.1	26.7	--	--	--
Parametric GE Region (Net)	16,406,074	0.0	5.6	-15.2	-15.2	-48.0	--	--	--
Parametric GE Region (Gross)			5.6	-15.0	-15.0	-47.8	--	--	--
SSGA MSCI ACWI IMI (Net)	14,947,488,964	20.7	-4.2	-3.4	-3.4	20.6	7.5	--	--
SSGA MSCI ACWI IMI (Gross)			-4.2	-3.4	-3.4	20.6	7.5	--	--
<i>MSCI ACWI IMI Net (DAILY)</i>			<u>-4.2</u>	<u>-3.4</u>	<u>-3.4</u>	<u>20.2</u>	<u>6.9</u>	--	--
Excess Return (vs. Net)			0.0	0.0	0.0	0.4	0.6		
Systematic Financial Management (Net)	196,445,906	0.3	-4.2	-1.2	-1.2	17.9	16.6	5.6	--
Systematic Financial Management (Gross)			-4.1	-1.1	-1.1	18.5	17.2	6.2	--
<i>Russell 2000</i>			<u>-5.9</u>	<u>-5.1</u>	<u>-5.1</u>	<u>8.9</u>	<u>7.2</u>	<u>2.4</u>	--
Excess Return (vs. Net)			1.7	3.9	3.9	9.0	9.4	3.2	

	Market Value (\$)	% of Portfolio	1 Mo (%)	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Private Equity - Growth (Net)	13,625,053,225	18.9	-0.3	1.4	1.4	4.7	22.8	--	--
Private Equity - Growth (Gross)			-0.2	1.6	1.6	5.6	24.3	--	--
<i>Private Equity - Growth Custom BM</i>			<u>6.0</u>	<u>6.4</u>	<u>6.4</u>	<u>18.4</u>	<u>13.2</u>	--	--
Excess Return (vs. Net)			-6.3	-5.0	-5.0	-13.7	9.6		
Non-Core Private Real Estate (Net)	1,176,942,029	1.6	-0.1	-1.4	-1.4	-2.1	11.5	10.2	10.4
Non-Core Private Real Estate (Gross)			-0.1	-1.3	-1.3	-1.5	12.6	11.5	12.3
<i>Non-Core Private RE Policy BM</i>			<u>-0.8</u>	<u>-2.3</u>	<u>-2.3</u>	<u>-8.7</u>	<u>9.7</u>	<u>8.4</u>	<u>10.8</u>
Excess Return (vs. Net)			0.7	0.9	0.9	6.6	1.8	1.8	-0.4
Credit (Net)¹	8,351,370,185	11.6	0.7	3.1	3.1	11.6	6.1	--	--
Credit (Gross)			0.7	3.1	3.1	11.5	6.4	--	--
<i>Credit Custom Blended Benchmark</i>			<u>0.0</u>	<u>3.0</u>	<u>3.0</u>	<u>10.2</u>	<u>2.3</u>	--	--
Excess Return (vs. Net)			0.7	0.1	0.1	1.4	3.8		
Liquid Credit (Net)	3,089,227,670	4.3	-0.5	1.8	1.8	12.2	--	--	--
Liquid Credit (Gross)			-0.4	1.9	1.9	12.6	--	--	--
<i>Liquid Credit Custom BM</i>			<u>-0.6</u>	<u>1.1</u>	<u>1.1</u>	<u>11.2</u>	--	--	--
Excess Return (vs. Net)			0.1	0.7	0.7	1.0			

¹ Includes accounts that are lagged by 1-month, 3-months, and latest available adjusted for cash flows.

	Market Value (\$)	% of Portfolio	1 Mo (%)	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
High Yield (Net)	1,225,640,540	1.7	-0.9	1.4	1.4	10.1	2.4	--	--
High Yield (Gross)			-0.9	1.5	1.5	10.4	2.6	--	--
<i>BBgBarc US High Yield TR</i>			<i>-1.2</i>	<i>0.5</i>	<i>0.5</i>	<i>10.3</i>	<i>1.8</i>	<i>--</i>	<i>--</i>
Excess Return (vs. Net)			0.3	0.9	0.9	-0.2	0.6		
Beach Point (Net)	302,472,133	0.4	-0.8	1.0	1.0	12.5	1.7	3.1	--
Beach Point (Gross)			-0.8	1.1	1.1	13.0	2.1	3.6	--
<i>Beach Point Custom BM</i>			<i>-1.2</i>	<i>0.5</i>	<i>0.5</i>	<i>10.3</i>	<i>1.8</i>	<i>2.5</i>	<i>--</i>
Excess Return (vs. Net)			0.4	0.5	0.5	2.2	-0.1	0.6	
Brigade Capital Management (Net)	468,984,310	0.6	-0.8	1.9	1.9	8.3	4.3	2.7	4.0
Brigade Capital Management (Gross)			-0.8	2.0	2.0	8.7	4.7	3.2	4.7
<i>Brigade Custom Index</i>			<i>-1.2</i>	<i>0.5</i>	<i>0.5</i>	<i>10.3</i>	<i>1.8</i>	<i>2.8</i>	<i>3.8</i>
Excess Return (vs. Net)			0.4	1.4	1.4	-2.0	2.5	-0.1	0.2
Pinebridge Investments (Net)	454,183,719	0.6	-1.1	1.0	1.0	11.1	--	--	--
Pinebridge Investments (Gross)			-1.1	1.1	1.1	11.5	--	--	--
<i>BBgBarc US High Yield TR</i>			<i>-1.2</i>	<i>0.5</i>	<i>0.5</i>	<i>10.3</i>	<i>--</i>	<i>--</i>	<i>--</i>
Excess Return (vs. Net)			0.1	0.5	0.5	0.8			

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	Market Value (\$)	% of Portfolio	1 Mo (%)	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Bank Loans (Net)	1,371,848,601	1.9	0.7	3.5	3.5	13.4	6.3	--	--
Bank Loans (Gross)			0.8	3.6	3.6	13.9	6.7	--	--
<i>CS Leveraged Loan Index</i>			<u>0.9</u>	<u>3.4</u>	<u>3.4</u>	<u>12.5</u>	<u>5.9</u>	--	--
Excess Return (vs. Net)			-0.2	0.1	0.1	0.9	0.4		
Bain Capital (Net)	461,021,962	0.6	1.3	3.4	3.4	13.0	7.1	5.1	--
Bain Capital (Gross)			1.3	3.6	3.6	13.6	7.7	5.7	--
<i>Bank Loans Custom Index</i>			<u>0.9</u>	<u>3.4</u>	<u>3.4</u>	<u>12.5</u>	<u>5.9</u>	<u>4.8</u>	--
Excess Return (vs. Net)			0.4	0.0	0.0	0.5	1.2	0.3	
Credit Suisse Bank Loans (Net)	434,077,406	0.6	0.9	3.6	3.6	14.6	6.1	--	--
Credit Suisse Bank Loans (Gross)			0.9	3.6	3.6	14.9	6.3	--	--
<i>CS Leveraged Loan Index</i>			<u>0.9</u>	<u>3.4</u>	<u>3.4</u>	<u>12.5</u>	<u>5.9</u>	--	--
Excess Return (vs. Net)			0.0	0.2	0.2	2.1	0.2		
Crescent Capital Group (Net)	476,749,233	0.7	0.0	3.6	3.6	11.2	5.6	4.8	--
Crescent Capital Group (Gross)			0.0	3.7	3.7	11.7	6.0	5.3	--
<i>Bank Loans Custom Index</i>			<u>0.9</u>	<u>3.4</u>	<u>3.4</u>	<u>12.5</u>	<u>5.9</u>	<u>4.8</u>	--
Excess Return (vs. Net)			-0.9	0.2	0.2	-1.3	-0.3	0.0	

	Market Value (\$)	% of Portfolio	1 Mo (%)	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
EM Debt (Net)	491,738,530	0.7	-2.6	-1.8	-1.8	13.8	-3.4	-0.9	--
EM Debt (Gross)			-2.5	-1.7	-1.7	14.2	-3.0	-0.4	--
<i>EMD Custom</i>			<u>-2.3</u>	<u>-2.0</u>	<u>-2.0</u>	<u>10.4</u>	<u>-3.3</u>	<u>0.4</u>	--
Excess Return (vs. Net)			-0.3	0.2	0.2	3.4	-0.1	-1.3	
Aberdeen Asset Management (Net)	240,400,974	0.3	-2.3	-1.9	-1.9	14.7	-2.8	0.3	--
Aberdeen Asset Management (Gross)			-2.2	-1.8	-1.8	15.1	-2.5	0.6	--
<i>EMD Custom</i>			<u>-2.3</u>	<u>-2.0</u>	<u>-2.0</u>	<u>10.4</u>	<u>-3.3</u>	<u>0.4</u>	--
Excess Return (vs. Net)			0.0	0.1	0.1	4.3	0.5	-0.1	
Ashmore Investment Management (Net)	251,337,556	0.3	-2.8	-1.8	-1.8	12.5	-4.0	-2.1	--
Ashmore Investment Management (Gross)			-2.8	-1.7	-1.7	13.0	-3.5	-1.6	--
<i>EMD Custom</i>			<u>-2.3</u>	<u>-2.0</u>	<u>-2.0</u>	<u>10.4</u>	<u>-3.3</u>	<u>0.4</u>	--
Excess Return (vs. Net)			-0.5	0.2	0.2	2.1	-0.7	-2.5	

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	Market Value (\$)	% of Portfolio	1 Mo (%)	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Illiquid Credit (Net)	5,262,142,264	7.3	1.4	3.8	3.8	9.6	12.7	--	--
Illiquid Credit (Gross)			1.4	3.8	3.8	8.9	13.1	--	--
<i>Illiquid Credit Custom BM</i>			<u>0.4</u>	<u>4.1</u>	<u>4.1</u>	<u>9.5</u>	<u>1.5</u>	--	--
Excess Return (vs. Net)			1.0	-0.3	-0.3	0.1	11.2		
Beach Point - Fund III (Net)	108,381,683	0.2	0.2	4.1	4.1	-3.1	11.7	8.8	--
Beach Point - Fund III (Gross)			0.2	4.1	4.1	-16.3	11.3	9.2	--
<i>Opportunistic Custom Index 1 Month Lag</i>			<u>0.7</u>	<u>4.1</u>	<u>4.1</u>	<u>8.1</u>	<u>3.9</u>	<u>3.8</u>	--
Excess Return (vs. Net)			-0.5	0.0	0.0	-11.2	7.8	5.0	
Lake Cascade (Net)	702,301,050	1.0	1.3	3.5	3.5	--	--	--	--
Lake Cascade (Gross)			1.3	3.5	3.5	--	--	--	--
<i>Illiquid Credit Custom BM</i>			<u>0.4</u>	<u>4.1</u>	<u>4.1</u>	--	--	--	--
Excess Return (vs. Net)			0.9	-0.6	-0.6				
Lake Cottage (Net)	687,728,723	1.0	0.0	1.5	1.5	--	--	--	--
Lake Cottage (Gross)			0.0	1.5	1.5	--	--	--	--
<i>Illiquid Credit Custom BM</i>			<u>0.4</u>	<u>4.1</u>	<u>4.1</u>	--	--	--	--
Excess Return (vs. Net)			-0.4	-2.6	-2.6				
Lake Vineyard (Net)	560,340,603	0.8	1.6	3.2	3.2	9.6	--	--	--
Lake Vineyard (Gross)			1.6	3.2	3.2	9.6	--	--	--
<i>Illiquid Credit Custom BM</i>			<u>0.4</u>	<u>4.1</u>	<u>4.1</u>	<u>9.5</u>	--	--	--
Excess Return (vs. Net)			1.2	-0.9	-0.9	0.1			

	Market Value (\$)	% of Portfolio	1 Mo (%)	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Magnetar Credit Fund (Net)	1,000,216,212	1.4	2.1	4.4	4.4	10.4	18.3	--	--
Magnetar Credit Fund (Gross)			2.1	4.4	4.4	10.4	18.3	--	--
<i>Illiquid Credit Custom BM</i>			<u>0.4</u>	<u>4.1</u>	<u>4.1</u>	<u>9.5</u>	<u>1.5</u>	--	--
Excess Return (vs. Net)			1.7	0.3	0.3	0.9	16.8		
Napier Park (Net)	981,179,500	1.4	2.1	6.8	6.8	14.8	11.4	--	--
Napier Park (Gross)			2.1	6.8	6.8	14.8	11.4	--	--
<i>Illiquid Credit Custom BM</i>			<u>0.4</u>	<u>4.1</u>	<u>4.1</u>	<u>9.5</u>	<u>1.5</u>	--	--
Excess Return (vs. Net)			1.7	2.7	2.7	5.3	9.9		
PIMCO Tac Opps (Net)	234,203,436	0.3	1.6	3.0	3.0	6.3	7.4	--	--
PIMCO Tac Opps (Gross)			1.6	3.0	3.0	6.3	7.4	--	--
<i>PIMCO Tac Opps Custom BM</i>			<u>0.4</u>	<u>4.1</u>	<u>4.1</u>	<u>9.5</u>	<u>1.5</u>	--	--
Excess Return (vs. Net)			1.2	-1.1	-1.1	-3.2	5.9		
Private Equity - Credit (Net)	226,776,552	0.3	0.0	-0.4	-0.4	16.5	27.5	--	--
Private Equity - Credit (Gross)			0.0	-0.4	-0.4	16.5	27.5	--	--
<i>PE-Credit Custom Benchmark</i>			<u>-0.2</u>	<u>-0.2</u>	<u>-0.2</u>	<u>1.5</u>	<u>-1.6</u>	--	--
Excess Return (vs. Net)			0.2	-0.2	-0.2	15.0	29.1		
Real Estate - Credit (Net)	61,879,850	0.1	0.0	4.7	4.7	15.6	11.8	10.8	9.3
Real Estate - Credit (Gross)			0.0	4.8	4.8	15.9	12.4	11.6	10.3
<i>RE Credit BM</i>			<u>0.4</u>	<u>4.1</u>	<u>4.1</u>	<u>9.5</u>	<u>2.1</u>	<u>3.0</u>	<u>4.0</u>
Excess Return (vs. Net)			-0.4	0.6	0.6	6.1	9.7	7.8	5.3

	Market Value (\$)	% of Portfolio	1 Mo (%)	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Tennenbaum Capital (Net)	601,830,966	0.8	2.1	3.2	3.2	8.9	8.7	7.4	--
Tennenbaum Capital (Gross)			2.1	3.2	3.2	9.1	9.3	8.0	--
<i>CSFB Leveraged Loan Index 1 Month Lagged</i>			<u>1.2</u>	<u>4.8</u>	<u>4.8</u>	<u>9.1</u>	<u>5.8</u>	<u>4.3</u>	--
Excess Return (vs. Net)			0.9	-1.6	-1.6	-0.2	2.9	3.1	
IC EM Program (Net)	65,207,823	0.1	0.0	2.1	2.1	--	--	--	--
IC EM Program (Gross)			0.0	2.1	2.1	--	--	--	--
<i>Illiquid Credit Custom BM</i>			<u>0.4</u>	<u>4.1</u>	<u>4.1</u>	--	--	--	--
Excess Return (vs. Net)			-0.4	-2.0	-2.0				
Stable Asset Management - IC (Net)	65,207,823	0.1	0.0	2.1	2.1	--	--	--	--
Stable Asset Management - IC (Gross)			0.0	2.1	2.1	--	--	--	--
<i>Illiquid Credit Custom BM</i>			<u>0.4</u>	<u>4.1</u>	<u>4.1</u>	--	--	--	--
Excess Return (vs. Net)			-0.4	-2.0	-2.0				
Stable Fund Investments - IC (Net)	65,207,823	0.1	1.7	2.5	2.5	5.3	--	--	--
Stable Fund Investments - IC (Gross)			1.7	2.5	2.5	5.3	--	--	--
<i>Illiquid Credit Custom BM</i>			<u>0.4</u>	<u>4.1</u>	<u>4.1</u>	<u>9.5</u>	--	--	--
Excess Return (vs. Net)			1.3	-1.6	-1.6	-4.2			
HarbourView (Net)	65,207,823	0.1	0.0	2.4	2.4	--	--	--	--
HarbourView (Gross)			0.0	2.4	2.4	--	--	--	--
<i>Illiquid Credit Custom BM</i>			<u>0.4</u>	<u>4.1</u>	<u>4.1</u>	--	--	--	--
Excess Return (vs. Net)			-0.4	-1.7	-1.7				

	Market Value (\$)	% of Portfolio	1 Mo (%)	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Real Assets and Inflation Hedges (Net)¹	11,912,064,614	16.5	-1.2	-2.3	-2.3	-0.1	8.4	--	--
Real Assets and Inflation Hedges (Gross)			-1.2	-2.3	-2.3	0.2	8.8	--	--
<i>Real Assets & Inflation Hedges Custom BM</i>			<u>-1.9</u>	<u>-2.8</u>	<u>-2.8</u>	<u>-0.3</u>	<u>7.5</u>	--	--
Excess Return (vs. Net)			0.7	0.5	0.5	0.2	0.9		
Core Private Real Estate (Net)	3,920,115,686	5.4	-0.1	-4.1	-4.1	-10.2	7.4	4.9	7.0
Core Private Real Estate (Gross)			-0.1	-4.0	-4.0	-9.7	8.0	5.5	7.7
<i>Core Private Real Estate Custom BM</i>			<u>-1.0</u>	<u>-2.9</u>	<u>-2.9</u>	<u>-10.7</u>	<u>7.2</u>	<u>5.9</u>	<u>8.2</u>
Excess Return (vs. Net)			0.9	-1.2	-1.2	0.5	0.2	-1.0	-1.2
Natural Resources and Commodities (Net)	2,178,867,814	3.0	-0.4	3.4	3.4	8.4	19.7	7.2	0.5
Natural Resources and Commodities (Gross)			-0.4	3.5	3.5	8.6	20.0	7.5	0.8
<i>Natural Resources & Commodities Custom BM</i>			<u>-0.5</u>	<u>3.9</u>	<u>3.9</u>	<u>10.8</u>	<u>18.1</u>	<u>7.1</u>	<u>-0.3</u>
Excess Return (vs. Net)			0.1	-0.5	-0.5	-2.4	1.6	0.1	0.8
Public Natural Resources and Commodities (Net)	1,138,683,363	1.6	-0.5	4.0	4.0	2.6	17.3	--	--
Public Natural Resources and Commodities (Gross)			-0.5	4.1	4.1	2.9	17.6	--	--
<i>Natural Resources & Commodities Custom BM</i>			<u>-0.5</u>	<u>3.9</u>	<u>3.9</u>	<u>10.8</u>	<u>18.1</u>	--	--
Excess Return (vs. Net)			0.0	0.1	0.1	-8.2	-0.8		
Credit Suisse Commodity (Net)	297,681,789	0.4	-1.2	4.0	4.0	-3.3	16.2	6.5	-0.3
Credit Suisse Commodity (Gross)			-1.2	4.1	4.1	-3.1	16.5	6.8	-0.1
<i>Bloomberg Commodity Index TR USD</i>			<u>-0.7</u>	<u>4.7</u>	<u>4.7</u>	<u>-1.3</u>	<u>16.2</u>	<u>6.1</u>	<u>-0.7</u>
Excess Return (vs. Net)			-0.5	-0.7	-0.7	-2.0	0.0	0.4	0.4

¹ Includes accounts that are lagged by 3-months and latest available adjusted for cash flows.

	Market Value (\$)	% of Portfolio	1 Mo (%)	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
DWS Natural Resources (Net)	484,722,928	0.7	0.1	3.0	3.0	9.4	17.9	--	--
DWS Natural Resources (Gross)			0.1	3.1	3.1	9.6	18.1	--	--
<i>S&P Global Large/MidCap Commodities & Resources</i>			<u>0.4</u>	<u>3.6</u>	<u>3.6</u>	<u>17.0</u>	<u>18.6</u>	--	--
Excess Return (vs. Net)			-0.3	-0.6	-0.6	-7.6	-0.7		
Neuberger Berman/ Gresham (Net)	355,934,408	0.5	-0.6	5.4	5.4	-1.6	16.8	5.6	-0.3
Neuberger Berman/ Gresham (Gross)			-0.6	5.4	5.4	-1.3	17.2	6.0	0.1
<i>Bloomberg Commodity Index TR USD</i>			<u>-0.7</u>	<u>4.7</u>	<u>4.7</u>	<u>-1.3</u>	<u>16.2</u>	<u>6.1</u>	<u>-0.7</u>
Excess Return (vs. Net)			0.1	0.7	0.7	-0.3	0.6	-0.5	0.4
Private Natural Resources and Commodities (Net)	1,040,184,451	1.4	-0.2	2.9	2.9	15.9	10.2	--	--
Private Natural Resources and Commodities (Gross)			-0.2	2.9	2.9	16.0	12.1	--	--
<i>PE - Real Assets Custom BM</i>			<u>6.2</u>	<u>-3.6</u>	<u>-3.6</u>	<u>7.0</u>	<u>20.1</u>	--	--
Excess Return (vs. Net)			-6.4	6.5	6.5	8.9	-9.9		
Cibus Enterprise II (Net)	4,136,202	0.0	0.0	-0.9	-0.9	--	--	--	--
Cibus Enterprise II (Gross)			0.0	-0.9	-0.9	--	--	--	--
<i>PE - Real Assets Custom BM</i>			<u>6.2</u>	<u>-3.6</u>	<u>-3.6</u>	--	--	--	--
Excess Return (vs. Net)			-6.2	2.7	2.7				
Co-Investments - Natural Resources (Net)	23,931,759	0.0	0.0	-0.4	-0.4	--	--	--	--
Co-Investments - Natural Resources (Gross)			0.0	-0.4	-0.4	--	--	--	--
<i>PE - Real Assets Custom BM</i>			<u>6.2</u>	<u>-3.6</u>	<u>-3.6</u>	--	--	--	--
Excess Return (vs. Net)			-6.2	3.2	3.2				

Private natural resources and infrastructure funds reflect early-stage life cycle performance.

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	Market Value (\$)	% of Portfolio	1 Mo (%)	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Cibus Fund II (Net)	28,700,275	0.0	0.0	-0.9	-0.9	-10.9	--	--	--
Cibus Fund II (Gross)			0.0	-0.9	-0.9	-10.9	--	--	--
<i>PE - Real Assets Custom BM</i>			<u>6.2</u>	<u>-3.6</u>	<u>-3.6</u>	<u>7.0</u>	--	--	--
Excess Return (vs. Net)			-6.2	2.7	2.7	-17.9			
HiTecVision New Energy (Net)	99,230,880	0.1	-2.5	3.6	3.6	43.3	--	--	--
HiTecVision New Energy (Gross)			-2.5	3.6	3.6	43.3	--	--	--
<i>PE - Real Assets Custom BM</i>			<u>6.2</u>	<u>-3.6</u>	<u>-3.6</u>	<u>7.0</u>	--	--	--
Excess Return (vs. Net)			-8.7	7.2	7.2	36.3			
Orion Mine Finance Fund III (Net)	149,615,014	0.2	0.0	10.7	10.7	29.9	--	--	--
Orion Mine Finance Fund III (Gross)			0.0	10.7	10.7	29.9	--	--	--
<i>PE - Real Assets Custom BM</i>			<u>6.2</u>	<u>-3.6</u>	<u>-3.6</u>	<u>7.0</u>	--	--	--
Excess Return (vs. Net)			-6.2	14.3	14.3	22.9			
Orion Mining Royalty Fund I (Net)	27,948,745	0.0	0.0	5.8	5.8	-5.0	--	--	--
Orion Mining Royalty Fund I (Gross)			0.0	5.8	5.8	-5.0	--	--	--
<i>PE - Real Assets Custom BM</i>			<u>6.2</u>	<u>-3.6</u>	<u>-3.6</u>	<u>7.0</u>	--	--	--
Excess Return (vs. Net)			-6.2	9.4	9.4	-12.0			
PE - Real Assets & Inflation Hedges (Net)	80,934,200	0.1	0.0	-0.7	-0.7	2.7	6.9	--	--
PE - Real Assets & Inflation Hedges (Gross)			0.0	-0.7	-0.7	3.9	8.9	--	--
<i>PE - Real Assets Custom BM</i>			<u>6.2</u>	<u>-3.6</u>	<u>-3.6</u>	<u>7.0</u>	<u>20.1</u>	--	--
Excess Return (vs. Net)			-6.2	2.9	2.9	-4.3	-13.2		

Private natural resources and infrastructure funds reflect early-stage life cycle performance.

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	Market Value (\$)	% of Portfolio	1 Mo (%)	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
TIAA-CREF Global Agriculture (Net)	301,893,865	0.4	0.0	2.4	2.4	17.7	--	--	--
TIAA-CREF Global Agriculture (Gross)			0.0	2.4	2.4	17.7	--	--	--
<i>PE - Real Assets Custom BM</i>			<u>6.2</u>	<u>-3.6</u>	<u>-3.6</u>	<u>7.0</u>	--	--	--
Excess Return (vs. Net)			-6.2	6.0	6.0	10.7			
TIAA-CREF Global Agriculture II (Net)	277,199,727	0.4	0.0	1.8	1.8	11.9	--	--	--
TIAA-CREF Global Agriculture II (Gross)			0.0	1.8	1.8	11.9	--	--	--
<i>PE - Real Assets Custom BM</i>			<u>6.2</u>	<u>-3.6</u>	<u>-3.6</u>	<u>7.0</u>	--	--	--
Excess Return (vs. Net)			-6.2	5.4	5.4	4.9			
Sprott (Net)	44,439,364	0.1	0.0	1.0	1.0	--	--	--	--
Sprott (Gross)			0.0	1.0	1.0	--	--	--	--
<i>PE - Real Assets Custom BM</i>			<u>6.2</u>	<u>-3.6</u>	<u>-3.6</u>	--	--	--	--
Excess Return (vs. Net)			-6.2	4.6	4.6				
Appian Fund III (Net)	2,154,421	0.0	-0.1	-40.9	-40.9	--	--	--	--
Appian Fund III (Gross)			-0.1	-40.9	-40.9	--	--	--	--
<i>PE - Real Assets Custom BM</i>			<u>6.2</u>	<u>-3.6</u>	<u>-3.6</u>	--	--	--	--
Excess Return (vs. Net)			-6.3	-37.3	-37.3				
Infrastructure (Net)	3,966,179,192	5.5	-2.4	-3.5	-3.5	6.1	7.3	--	--
Infrastructure (Gross)			-2.4	-3.5	-3.5	6.3	7.5	--	--
<i>DJ Brookfield Global Infrastructure Comp TR</i>			<u>-3.9</u>	<u>-6.9</u>	<u>-6.9</u>	<u>4.5</u>	<u>5.8</u>	--	--
Excess Return (vs. Net)			1.5	3.4	3.4	1.6	1.5		

Private natural resources and infrastructure funds reflect early-stage life cycle performance.

	Market Value (\$)	% of Portfolio	1 Mo (%)	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Public Infrastructure (Net)	2,076,246,737	2.9	-4.2	-6.9	-6.9	2.4	5.3	--	--
Public Infrastructure (Gross)			-4.2	-6.8	-6.8	2.6	5.5	--	--
<i>DJ Brookfield Global Infrastructure Comp TR</i>			<u>-3.9</u>	<u>-6.9</u>	<u>-6.9</u>	<u>4.5</u>	<u>5.8</u>	--	--
Excess Return (vs. Net)			-0.3	0.0	0.0	-2.1	-0.5		
DWS Infrastructure (Net)	2,076,246,737	2.9	-4.2	-6.9	-6.9	2.5	5.3	--	--
DWS Infrastructure (Gross)			-4.2	-6.8	-6.8	2.6	5.5	--	--
<i>DJ Brookfield Global Infrastructure Comp TR</i>			<u>-3.9</u>	<u>-6.9</u>	<u>-6.9</u>	<u>4.5</u>	<u>5.8</u>	--	--
Excess Return (vs. Net)			-0.3	0.0	0.0	-2.0	-0.5		
Private Infrastructure (Net)	1,889,932,455	2.6	-0.4	0.8	0.8	9.6	--	--	--
Private Infrastructure (Gross)			-0.4	0.8	0.8	9.8	--	--	--
<i>Private Infrastructure Policy BM</i>			<u>3.2</u>	<u>-0.4</u>	<u>-0.4</u>	<u>0.8</u>	--	--	--
Excess Return (vs. Net)			-3.6	1.2	1.2	8.8			
Antin Mid Cap (Net)	48,860,186	0.1	-2.5	-2.2	-2.2	16.2	--	--	--
Antin Mid Cap (Gross)			-2.5	-2.2	-2.2	16.2	--	--	--
<i>DJ Brookfield Global Infrastructure Comp TR</i>			<u>-3.9</u>	<u>-6.9</u>	<u>-6.9</u>	<u>4.5</u>	--	--	--
Excess Return (vs. Net)			1.4	4.7	4.7	11.7			
Axium Infrastructure (Net)	267,847,613	0.4	0.0	1.8	1.8	7.8	--	--	--
Axium Infrastructure (Gross)			0.2	2.0	2.0	8.7	--	--	--
<i>Private Infrastructure Policy BM</i>			<u>3.2</u>	<u>-0.4</u>	<u>-0.4</u>	<u>0.8</u>	--	--	--
Excess Return (vs. Net)			-3.2	2.2	2.2	7.0			

Private natural resources and infrastructure funds reflect early-stage life cycle performance.

	Market Value (\$)	% of Portfolio	1 Mo (%)	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Axium Infrastructure Canada (Net)	149,763,810	0.2	0.1	0.6	0.6	6.7	--	--	--
Axium Infrastructure Canada (Gross)			0.1	0.8	0.8	7.6	--	--	--
<i>Private Infrastructure Policy BM</i>			<u>3.2</u>	<u>-0.4</u>	<u>-0.4</u>	<u>0.8</u>	--	--	--
Excess Return (vs. Net)			-3.1	1.0	1.0	5.9			
DIF CIF III (Net)	45,756,171	0.1	-2.5	1.2	1.2	-0.2	--	--	--
DIF CIF III (Gross)			-2.5	1.2	1.2	-0.2	--	--	--
<i>Private Infrastructure Policy BM</i>			<u>3.2</u>	<u>-0.4</u>	<u>-0.4</u>	<u>0.8</u>	--	--	--
Excess Return (vs. Net)			-5.7	1.6	1.6	-1.0			
DIF Infrastructure VI (Net)	122,952,108	0.2	-2.5	0.0	0.0	14.2	--	--	--
DIF Infrastructure VI (Gross)			-2.5	0.0	0.0	13.8	--	--	--
<i>Private Infrastructure Policy BM</i>			<u>3.2</u>	<u>-0.4</u>	<u>-0.4</u>	<u>0.8</u>	--	--	--
Excess Return (vs. Net)			-5.7	0.4	0.4	13.4			
Grain Communications Opportunity III (Net)	41,088,064	0.1	0.0	-7.6	-7.6	-2.2	--	--	--
Grain Communications Opportunity III (Gross)			0.0	-7.6	-7.6	-2.2	--	--	--
<i>Private Infrastructure Policy BM</i>			<u>3.2</u>	<u>-0.4</u>	<u>-0.4</u>	<u>0.8</u>	--	--	--
Excess Return (vs. Net)			-3.2	-7.2	-7.2	-3.0			
Grain Spectrum Holdings III (Net)	70,535,950	0.1	0.0	-0.1	-0.1	38.2	--	--	--
Grain Spectrum Holdings III (Gross)			0.0	-0.1	-0.1	38.2	--	--	--
<i>Private Infrastructure Policy BM</i>			<u>3.2</u>	<u>-0.4</u>	<u>-0.4</u>	<u>0.8</u>	--	--	--
Excess Return (vs. Net)			-3.2	0.3	0.3	37.4			

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	Market Value (\$)	% of Portfolio	1 Mo (%)	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
KKR DCIF (Net)	514,610,500	0.7	0.0	2.1	2.1	5.9	--	--	--
KKR DCIF (Gross)			0.0	2.1	2.1	5.9	--	--	--
<i>Private Infrastructure Policy BM</i>			<u>3.2</u>	<u>-0.4</u>	<u>-0.4</u>	<u>0.8</u>	--	--	--
Excess Return (vs. Net)			-3.2	2.5	2.5	5.1			
Pan European Infrastructure Fund III (Net)	74,907,303	0.1	-2.5	-0.5	-0.5	15.4	--	--	--
Pan European Infrastructure Fund III (Gross)			-2.5	-0.5	-0.5	15.8	--	--	--
<i>Private Infrastructure Policy BM</i>			<u>3.2</u>	<u>-0.4</u>	<u>-0.4</u>	<u>0.8</u>	--	--	--
Excess Return (vs. Net)			-5.7	-0.1	-0.1	14.6			
Partners Grp Direct Infra 2020 (Net)	104,345,280	0.1	0.0	2.9	2.9	19.4	--	--	--
Partners Grp Direct Infra 2020 (Gross)			-0.1	2.8	2.8	19.1	--	--	--
<i>Private Infrastructure Policy BM</i>			<u>3.2</u>	<u>-0.4</u>	<u>-0.4</u>	<u>0.8</u>	--	--	--
Excess Return (vs. Net)			-3.2	3.3	3.3	18.6			
Private Infrastructure Co-Investments (Net)	35,499,079	0.0	0.0	1.4	1.4	--	--	--	--
Private Infrastructure Co-Investments (Gross)			0.0	1.4	1.4	--	--	--	--
<i>Private Infrastructure Policy BM</i>			<u>3.2</u>	<u>-0.4</u>	<u>-0.4</u>	--	--	--	--
Excess Return (vs. Net)			-3.2	1.8	1.8				
TIPS (Net)	1,846,901,921	2.6	-1.9	-2.6	-2.6	1.3	-2.0	--	--
TIPS (Gross)			-1.9	-2.6	-2.6	1.3	-2.0	--	--
<i>BBqBarc US TIPS TR</i>			<u>-1.8</u>	<u>-2.6</u>	<u>-2.6</u>	<u>1.2</u>	<u>-2.0</u>	--	--
Excess Return (vs. Net)			-0.1	0.0	0.0	0.1	0.0		

	Market Value (\$)	% of Portfolio	1 Mo (%)	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Blackrock TIPS (Net)	1,846,901,921	2.6	-1.9	-2.6	-2.6	1.3	-2.0	--	--
Blackrock TIPS (Gross)			-1.9	-2.6	-2.6	1.3	-2.0	--	--
<i>BBgBarc US TIPS TR</i>			<u>-1.8</u>	<u>-2.6</u>	<u>-2.6</u>	<u>1.2</u>	<u>-2.0</u>	--	--
Excess Return (vs. Net)			-0.1	0.0	0.0	0.1	0.0		
Risk Reduction and Mitigation (Net)	13,267,589,996	18.4	-2.3	-3.2	-3.2	0.3	-3.3	--	--
Risk Reduction and Mitigation (Gross)			-2.3	-3.2	-3.2	0.3	-3.2	--	--
<i>Risk Reduction and Mitigation Custom Blended Benchmark</i>			<u>-2.6</u>	<u>-3.7</u>	<u>-3.7</u>	<u>0.3</u>	<u>-4.0</u>	--	--
Excess Return (vs. Net)			0.3	0.5	0.5	0.0	0.7		
Investment Grade Bonds (Net)	4,882,871,301	6.8	-2.5	-3.2	-3.2	0.9	-5.1	0.2	1.5
Investment Grade Bonds (Gross)			-2.5	-3.2	-3.2	1.0	-5.0	0.3	1.6
<i>BBgBarc US Aggregate TR</i>			<u>-2.5</u>	<u>-3.2</u>	<u>-3.2</u>	<u>0.6</u>	<u>-5.2</u>	<u>0.1</u>	<u>1.1</u>
Excess Return (vs. Net)			0.0	0.0	0.0	0.3	0.1	0.1	0.4
Allspring/Wells (Net)	1,242,616,413	1.7	-2.5	-3.1	-3.1	1.3	-4.9	0.6	1.5
Allspring/Wells (Gross)			-2.5	-3.1	-3.1	1.4	-4.8	0.7	1.7
<i>BBgBarc US Aggregate TR</i>			<u>-2.5</u>	<u>-3.2</u>	<u>-3.2</u>	<u>0.6</u>	<u>-5.2</u>	<u>0.1</u>	<u>1.1</u>
Excess Return (vs. Net)			0.0	0.1	0.1	0.7	0.3	0.5	0.4

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	Market Value (\$)	% of Portfolio	1 Mo (%)	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
BTC US Debt Index (Net)	2,804,214,945	3.9	-2.5	-3.2	-3.2	0.7	-5.1	0.2	1.2
BTC US Debt Index (Gross)			-2.5	-3.2	-3.2	0.7	-5.1	0.2	1.2
<i>BBgBarc US Aggregate TR</i>			<u>-2.5</u>	<u>-3.2</u>	<u>-3.2</u>	<u>0.6</u>	<u>-5.2</u>	<u>0.1</u>	<u>1.1</u>
Excess Return (vs. Net)			0.0	0.0	0.0	0.1	0.1	0.1	0.1
Member Home Loan Program (MHLP) (Net)	9,372,660	0.0	0.8	1.2	1.2	5.0	5.1	5.2	5.6
Member Home Loan Program (MHLP) (Gross)			0.9	1.3	1.3	5.3	5.4	5.5	5.9
Pugh Capital Management (Net)	826,667,277	1.1	-2.6	-3.3	-3.3	0.9	-5.1	0.3	1.2
Pugh Capital Management (Gross)			-2.5	-3.2	-3.2	1.0	-5.0	0.4	1.4
<i>BBgBarc US Aggregate TR</i>			<u>-2.5</u>	<u>-3.2</u>	<u>-3.2</u>	<u>0.6</u>	<u>-5.2</u>	<u>0.1</u>	<u>1.1</u>
Excess Return (vs. Net)			-0.1	-0.1	-0.1	0.3	0.1	0.2	0.1
Long-Term Government Bonds (Net)	2,791,643,796	3.9	-7.3	-11.9	-11.9	-9.3	--	--	--
Long-Term Government Bonds (Gross)			-7.3	-11.9	-11.9	-9.3	--	--	--
<i>Bloomberg U.S. Treasury: Long</i>			<u>-7.3</u>	<u>-11.8</u>	<u>-11.8</u>	<u>-9.1</u>	--	--	--
Excess Return (vs. Net)			0.0	-0.1	-0.1	-0.2			
Blackrock Long Treasury Bonds (Net)	2,791,643,796	3.9	-7.3	-11.9	-11.9	-9.3	--	--	--
Blackrock Long Treasury Bonds (Gross)			-7.3	-11.9	-11.9	-9.3	--	--	--
<i>Bloomberg U.S. Treasury: Long</i>			<u>-7.3</u>	<u>-11.8</u>	<u>-11.8</u>	<u>-9.1</u>	--	--	--
Excess Return (vs. Net)			0.0	-0.1	-0.1	-0.2			

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	Market Value (\$)	% of Portfolio	1 Mo (%)	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Diversified Hedge Fund Portfolio (Net)	4,676,710,750	6.5	0.6	1.5	1.5	4.9	7.0	--	--
Diversified Hedge Fund Portfolio (Gross)			0.6	1.5	1.5	4.9	7.0	--	--
<i>Diversified Hedge Funds Custom BM</i>			<u>0.7</u>	<u>2.0</u>	<u>2.0</u>	<u>7.0</u>	<u>4.2</u>	--	--
Excess Return (vs. Net)			-0.1	-0.5	-0.5	-2.1	2.8		
LACERA HF Direct (Net)	4,124,855,595	5.7	0.5	1.4	1.4	4.9	7.0	6.1	--
LACERA HF Direct (Gross)			0.5	1.4	1.4	4.9	7.0	6.1	--
<i>Hedge Fund Custom BM</i>			<u>0.7</u>	<u>2.0</u>	<u>2.0</u>	<u>7.0</u>	<u>4.2</u>	<u>4.5</u>	--
Excess Return (vs. Net)			-0.2	-0.6	-0.6	-2.1	2.8	1.6	
AM Asia Strategies Fund (Net)	230,020,200	0.3	-3.3	-6.3	-6.3	3.9	--	--	--
AM Asia Strategies Fund (Gross)			-3.3	-6.3	-6.3	3.9	--	--	--
<i>Hedge Fund Custom BM</i>			<u>0.7</u>	<u>2.0</u>	<u>2.0</u>	<u>7.0</u>	--	--	--
Excess Return (vs. Net)			-4.0	-8.3	-8.3	-3.1			
Brevan Howard Master Fund (Net)	630,893,450	0.9	0.3	1.0	1.0	-2.6	--	--	--
Brevan Howard Master Fund (Gross)			0.3	1.0	1.0	-2.6	--	--	--
<i>Hedge Fund Custom BM</i>			<u>0.7</u>	<u>2.0</u>	<u>2.0</u>	<u>7.0</u>	--	--	--
Excess Return (vs. Net)			-0.4	-1.0	-1.0	-9.6			
Capula GRV (Net)	694,453,395	1.0	1.2	2.8	2.8	10.9	7.3	--	--
Capula GRV (Gross)			1.2	2.8	2.8	10.9	7.3	--	--
<i>Hedge Fund Custom BM</i>			<u>0.7</u>	<u>2.0</u>	<u>2.0</u>	<u>7.0</u>	<u>4.2</u>	--	--
Excess Return (vs. Net)			0.5	0.8	0.8	3.9	3.1		

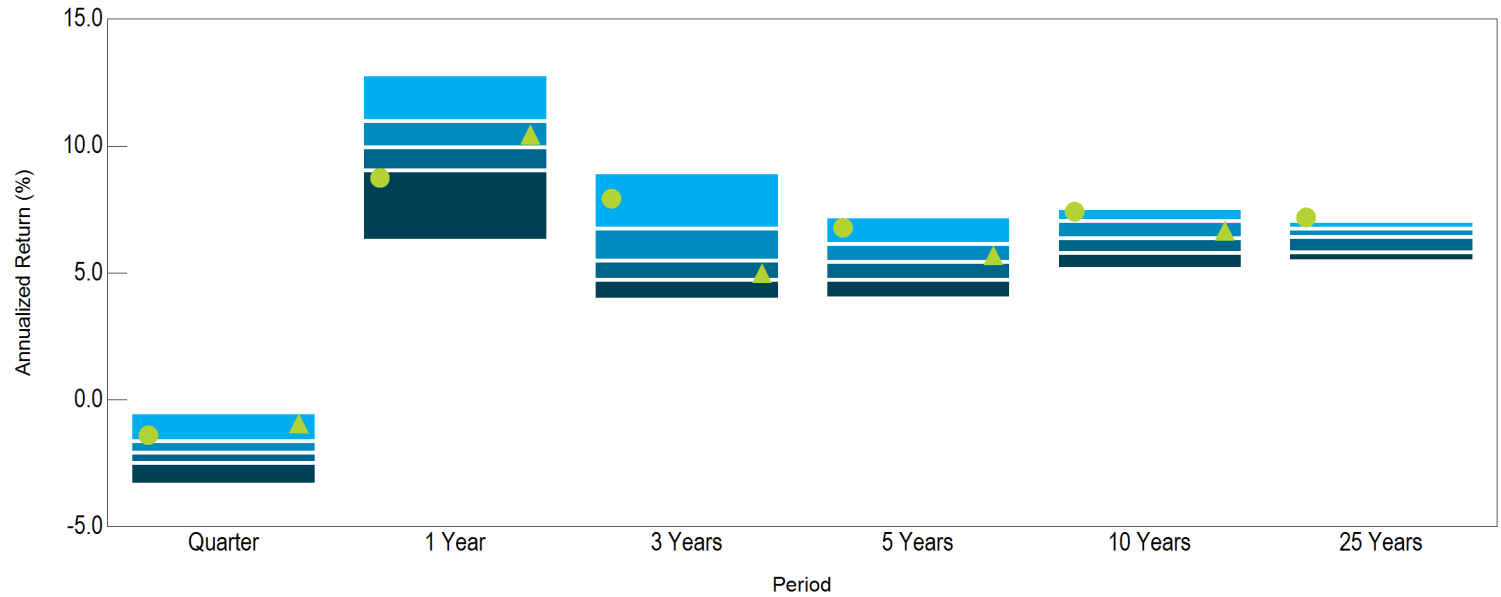
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	Market Value (\$)	% of Portfolio	1 Mo (%)	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Caxton Global Investments (Net)	283,372,250	0.4	0.8	0.5	0.5	-3.0	--	--	--
Caxton Global Investments (Gross)			0.8	0.5	0.5	-3.0	--	--	--
<i>Hedge Fund Custom BM</i>			<u>0.7</u>	<u>2.0</u>	<u>2.0</u>	<u>7.0</u>	--	--	--
Excess Return (vs. Net)			0.1	-1.5	-1.5	-10.0			
DK Institutional Partners (Net)	506,299,050	0.7	0.5	1.9	1.9	4.0	5.1	4.9	--
DK Institutional Partners (Gross)			0.5	1.9	1.9	4.0	5.1	4.9	--
<i>Hedge Fund Custom BM</i>			<u>0.7</u>	<u>2.0</u>	<u>2.0</u>	<u>7.0</u>	<u>4.2</u>	<u>4.5</u>	--
Excess Return (vs. Net)			-0.2	-0.1	-0.1	-3.0	0.9	0.4	
HBK Multistrategy (Net)	604,037,000	0.8	1.3	3.1	3.1	8.8	7.1	6.1	--
HBK Multistrategy (Gross)			1.3	3.1	3.1	8.8	7.1	6.1	--
<i>Hedge Fund Custom BM</i>			<u>0.7</u>	<u>2.0</u>	<u>2.0</u>	<u>7.0</u>	<u>4.2</u>	<u>4.5</u>	--
Excess Return (vs. Net)			0.6	1.1	1.1	1.8	2.9	1.6	
Hudson Bay Fund (Net)	684,436,500	0.9	0.9	1.9	1.9	6.8	9.6	--	--
Hudson Bay Fund (Gross)			0.9	1.9	1.9	6.8	9.6	--	--
<i>Hedge Fund Custom BM</i>			<u>0.7</u>	<u>2.0</u>	<u>2.0</u>	<u>7.0</u>	<u>4.2</u>	--	--
Excess Return (vs. Net)			0.2	-0.1	-0.1	-0.2	5.4		
Polar (Net)	491,343,750	0.7	0.0	1.5	1.5	6.4	6.7	--	--
Polar (Gross)			0.0	1.5	1.5	6.4	6.7	--	--
<i>Hedge Fund Custom BM</i>			<u>0.7</u>	<u>2.0</u>	<u>2.0</u>	<u>7.0</u>	<u>4.2</u>	--	--
Excess Return (vs. Net)			-0.7	-0.5	-0.5	-0.6	2.5		

	Market Value (\$)	% of Portfolio	1 Mo (%)	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Hedge Fund Emerging Managers Program (Net)	532,053,415	0.7	1.7	2.4	2.4	5.0	--	--	--
Hedge Fund Emerging Managers Program (Gross)			1.7	2.5	2.5	5.4	--	--	--
<i>Hedge Fund Custom BM</i>			<u>0.7</u>	<u>2.0</u>	<u>2.0</u>	<u>7.0</u>	--	--	--
Excess Return (vs. Net)			1.0	0.4	0.4	-2.0			
Stable Asset Management (Net)	532,053,415	0.7	1.7	2.4	2.4	5.0	--	--	--
Stable Asset Management (Gross)			1.7	2.5	2.5	5.4	--	--	--
<i>Hedge Fund Custom BM</i>			<u>0.7</u>	<u>2.0</u>	<u>2.0</u>	<u>7.0</u>	--	--	--
Excess Return (vs. Net)			1.0	0.4	0.4	-2.0			
Stable Fund Investments (Net)	532,053,415	0.7	1.7	2.5	2.5	5.3	--	--	--
Stable Fund Investments (Gross)			1.7	2.5	2.5	5.3	--	--	--
<i>Hedge Fund Custom BM</i>			<u>0.7</u>	<u>2.0</u>	<u>2.0</u>	<u>7.0</u>	--	--	--
Excess Return (vs. Net)			1.0	0.5	0.5	-1.7			
Cash (Net)	916,378,159	1.3	0.6	0.6	0.6	5.1	2.7	2.4	1.6
Cash (Gross)			0.6	0.6	0.6	5.4	2.7	2.5	1.7
<i>Cash Custom BM</i>			<u>0.5</u>	<u>1.4</u>	<u>1.4</u>	<u>4.7</u>	<u>1.8</u>	<u>1.8</u>	<u>1.2</u>
Excess Return (vs. Net)			0.1	-0.8	-0.8	0.4	0.9	0.6	0.4
SSGA Cash (Net)			0.0	-0.1	-0.1	0.4	0.4	--	--
SSGA Cash (Gross)			0.0	-0.1	-0.1	0.5	0.5	--	--
<i>Cash Custom BM</i>			<u>0.5</u>	<u>1.4</u>	<u>1.4</u>	<u>4.7</u>	<u>1.8</u>	--	--
Excess Return (vs. Net)			-0.5	-1.5	-1.5	-4.3	-1.4		

	Market Value (\$)	% of Portfolio	1 Mo (%)	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Overlay and Hedges (Net)	481,504,974	0.7	5.1	13.0	13.0	50.9	--	--	--
Overlay and Hedges (Gross)			5.1	13.1	13.1	51.4	--	--	--
Cash Overlay (Net)	352,633,632	0.5	-13.4	-15.1	-15.1	49.1	--	--	--
Cash Overlay (Gross)			-13.4	-15.0	-15.0	49.3	--	--	--
Cash Overlay (Net)	352,633,632	0.5	-13.4	-15.1	-15.1	49.1	19.6	--	--
Cash Overlay (Gross)			-13.4	-15.0	-15.0	49.3	19.9	--	--
<i>Total Overlay Policy BM</i>			<i>-3.5</i>	<i>-3.0</i>	<i>-3.0</i>	<i>12.6</i>	<i>3.0</i>	--	--
Excess Return (vs. Net)			<i>-9.9</i>	<i>-12.1</i>	<i>-12.1</i>	<i>36.5</i>	<i>16.6</i>		
Currency Hedge (Net)	128,871,341	0.2	1.1	1.7	1.7	0.9	--	--	--
Currency Hedge (Gross)			1.1	1.7	1.7	1.7	--	--	--
Currency Hedge (Net)	128,871,341	0.2	1.1	1.7	1.7	-0.9	--	--	--
Currency Hedge (Gross)			1.1	1.7	1.7	-0.9	--	--	--

InvMetrics Public DB > \$1B Net Return Comparison Ending September 30, 2023



	Quarter		1 Year		3 Years		5 Years		10 Years		25 Years	
Return (Rank)	-0.5		12.8		9.0		7.2		7.6		7.0	
5th Percentile	-0.5		12.8		9.0		7.2		7.6		7.0	
25th Percentile	-1.6		11.0		6.8		6.2		7.1		6.8	
Median	-2.1		10.0		5.5		5.5		6.4		6.4	
75th Percentile	-2.5		9.1		4.8		4.8		5.8		5.8	
95th Percentile	-3.3		6.3		4.0		4.0		5.2		5.5	
# of Portfolios	62		61		60		60		56		33	
● Total Fund	-1.4	(23)	8.7	(77)	7.9	(10)	6.8	(12)	7.4	(9)	7.2	(4)
▲ Total Fund Policy Benchmark	-0.9	(9)	10.5	(41)	5.0	(66)	5.7	(37)	6.7	(46)	--	(--)

Benchmark History

As of September 30, 2023

Total Fund		
10/1/2021	Present	51% OPEB Growth Custom Blended Benchmark / 11% Credit Custom Blended Benchmark / 17% Real Assets & Inflation Hedges Custom BM / 21% Risk Reduction and Mitigation Custom Blended Benchmark
10/1/2019	9/30/2021	35% Global Equity Custom BM / 10% PE-Credit Custom Benchmark / 2% Non-Core Private RE Policy BM / 3% Bloomberg U.S. High Yield / 4% Credit Suisse Leveraged Loans / 2% EMD Custom / 3% Illiquid Credit Custom BM / 7% Core Private Real Estate Custom BM / 4% Natural Resources & Commodities Custom BM / 3% DJ Brookfield Global Infrastructure Comp TR / 3% Bloomberg U.S. TIPS Index / 19% Bloomberg US Aggregate TR / 4% Diversified Hedge Funds Custom BM / 1% Citigroup 3-Month U.S. Treasury Bill Index
1/1/2019	9/30/2019	41% Global Equity Custom BM / 10% PE-Credit Custom Benchmark / 1% Non-Core Private RE Policy BM / 4% Bloomberg U.S. High Yield / 3% Credit Suisse Leveraged Loans / 1% EMD Custom / 2% Illiquid Credit Custom BM / 8% Core Private Real Estate Custom BM / 3% Natural Resources & Commodities Custom BM / 2% DJ Brookfield Global Infrastructure Comp TR / 2% Bloomberg U.S. TIPS Index / 19% Bloomberg US Aggregate TR / 3% Diversified Hedge Funds Custom BM / 1% Citigroup 3-Month U.S. Treasury Bill Index
10/1/2018	12/31/2018	22.7% Russell 3000 / 18.7% Custom MSCI ACWI IMI Net 50% Hedge / 27.8% Bloomberg US Universal TR / 10% Private Equity Target / 11% Real Estate Target / 5.0% Hedge Fund Custom Index / 2.8% Bloomberg Commodity Index TR USD / 2% FTSE T-Bill 6 Months TR
7/1/2018	9/30/2018	23.1% Russell 3000 / 20.3% Custom MSCI ACWI IMI Net 50% Hedge / 26.6% Bloomberg US Universal TR / 10% Private Equity Target / 11% Real Estate Target / 4.2% Hedge Fund Custom Index / 2.8% Bloomberg Commodity Index TR USD / 2% FTSE T-Bill 6 Months TR
1/1/2018	6/30/2018	22.4% Russell 3000 / 21.0% Custom MSCI ACWI IMI Net 50% Hedge / 26.6% Bloomberg US Universal TR / 10% Private Equity Target / 11% Real Estate Target / 4.2% Hedge Fund Custom Index / 2.8% Bloomberg Commodity Index TR USD / 2% FTSE T-Bill 6 Months TR
10/1/2017	12/31/2017	23.5% Russell 3000 / 21.9% Custom MSCI ACWI IMI Net 50% Hedge / 25.4% Bloomberg US Universal TR / 10% Private Equity Target / 11% Real Estate Target / 3.4% Hedge Fund Custom Index / 2.8% Bloomberg Commodity Index TR USD / 2% FTSE T-Bill 6 Months TR
7/1/2017	9/30/2017	23.7% Russell 3000 / 21.7% Custom MSCI ACWI IMI Net 50% Hedge / 25.4% Bloomberg US Universal TR / 10% Private Equity Target / 11% Real Estate Target / 3.4% Hedge Fund Custom Index / 2.8% Bloomberg Commodity Index TR USD / 2% FTSE T-Bill 6 Months TR
4/1/2017	6/30/2017	24.1% Russell 3000 / 21.3% Custom MSCI ACWI IMI Net 50% Hedge / 25.4% Bloomberg US Universal TR / 10% Private Equity Target / 11% Real Estate Target / 3.4% Hedge Fund Custom Index / 2.8% Bloomberg Commodity Index TR USD / 2% FTSE T-Bill 6 Months TR
1/1/2017	3/31/2017	24.4% Russell 3000 / 21.0% Custom MSCI ACWI IMI Net 50% Hedge / 25.4% Bloomberg US Universal TR / 10% Private Equity Target / 11% Real Estate Target / 3.4% Hedge Fund Custom Index / 2.8% Bloomberg Commodity Index TR USD / 2% FTSE T-Bill 6 Months TR
10/1/2016	12/31/2016	23.8% Russell 3000 / 21.6% Custom MSCI ACWI IMI Net 50% Hedge / 25.4% Bloomberg US Universal TR / 10% Private Equity Target / 11% Real Estate Target / 3.4% Hedge Fund Custom Index / 2.8% Bloomberg Commodity Index TR USD / 2% FTSE T-Bill 6 Months TR
7/1/2016	9/30/2016	24.5% Russell 3000 / 21.4% Custom MSCI ACWI IMI Net 50% Hedge / 25.1% Bloomberg US Universal TR / 10% Private Equity Target / 11% Real Estate Target / 3.2% Hedge Fund Custom Index / 2.8% Bloomberg Commodity Index TR USD / 2% FTSE T-Bill 6 Months TR
10/1/2015	6/30/2016	3% Bloomberg Commodity Index TR USD / 25.5% Russell 3000 / 10% Real Estate Target / 2% FTSE T-Bill 6 Months TR / 22.5% Bloomberg US Universal TR / 11% Private Equity Target / 23% Custom MSCI ACWI IMI Net 50% Hedge / 3% 3-month U.S. T-Bill Index + 5% (1M-lag)

Los Angeles County Employees Retirement Association | September 30, 2023

4/1/2015	9/30/2015	3% Bloomberg Commodity Index TR USD / 25% Russell 3000 / 10% Real Estate Target / 2% FTSE T-Bill 6 Months TR / 22.5% Bloomberg US Universal TR / 11% Private Equity Target / 23.5% Custom MSCI ACWI IMI Net 50% Hedge / 3% 3-month U.S. T-Bill Index + 5% (1M-lag)
1/1/2015	3/31/2015	3% Bloomberg Commodity Index TR USD / 25.5% Russell 3000 / 10% Real Estate Target / 2% FTSE T-Bill 6 Months TR / 22.5% Bloomberg US Universal TR / 11% Private Equity Target / 23% Custom MSCI ACWI IMI Net 50% Hedge / 3% 3-month U.S. T-Bill Index + 5% (1M-lag)
10/1/2014	12/31/2014	3% Bloomberg Commodity Index TR USD / 25% Russell 3000 / 10% Real Estate Target / 2% FTSE T-Bill 6 Months TR / 23% Bloomberg US Universal TR / 11% Private Equity Target / 24% Custom MSCI ACWI IMI Net 50% Hedge / 2% 3-month U.S. T-Bill Index + 5% (1M-lag)
1/1/2014	9/30/2014	3% Bloomberg Commodity Index TR USD / 24% Russell 3000 / 10% Real Estate Target / 2% FTSE T-Bill 6 Months TR / 23% Bloomberg US Universal TR / 11% Private Equity Target / 25% Custom MSCI ACWI IMI Net 50% Hedge / 2% 3-month U.S. T-Bill Index + 5% (1M-lag)
10/1/2013	12/31/2013	3% Bloomberg Commodity Index TR USD / 24% Russell 3000 / 10% Real Estate Target / 2% FTSE T-Bill 6 Months TR / 24% Bloomberg US Universal TR / 10% Private Equity Target / 26% Custom MSCI ACWI IMI Net 50% Hedge / 1% 3-month U.S. T-Bill Index + 5% (1M-lag)
4/1/2013	9/30/2013	3% Bloomberg Commodity Index TR USD / 24% Russell 3000 / 10% NCREIF Property Index - 25 bps / 2% FTSE T-Bill 6 Months TR / 24% Bloomberg US Universal TR / 10% Private Equity Target / 26% Custom MSCI ACWI IMI Net 50% Hedge / 1% 3-month U.S. T-Bill Index + 5% (1M-lag)
1/1/2013	3/31/2013	3% Bloomberg Commodity Index TR USD / 23% Russell 3000 / 10% NCREIF Property Index - 25 bps / 2% FTSE T-Bill 6 Months TR / 24% Bloomberg US Universal TR / 10% Private Equity Target / 27% Custom MSCI ACWI IMI Net 50% Hedge / 1% 3-month U.S. T-Bill Index + 5% (1M-lag)
10/1/2012	12/31/2012	3% Bloomberg Commodity Index TR USD / 24% Russell 3000 / 10% NCREIF Property Index - 25 bps / 2% FTSE T-Bill 6 Months TR / 24% Bloomberg US Universal TR / 10% Private Equity Target / 26% Custom MSCI ACWI IMI Net 50% Hedge / 1% 3-month U.S. T-Bill Index + 5% (1M-lag)
1/1/2012	9/30/2012	3% Bloomberg Commodity Index TR USD / 24% Russell 3000 / 10% NCREIF Property Index - 25 bps / 2% FTSE T-Bill 6 Months TR / 26% Bloomberg US Universal TR / 7% Private Equity Target / 27% Custom MSCI ACWI IMI Net 50% Hedge / 1% 3-month U.S. T-Bill Index + 5% (1M-lag)
10/1/2011	12/31/2011	3% Bloomberg Commodity Index TR USD / 23% Russell 3000 / 10% NCREIF Property Index - 25 bps / 2% FTSE T-Bill 6 Months TR / 26% Bloomberg US Universal TR / 7% Private Equity Target / 28% Custom MSCI ACWI IMI Net 50% Hedge / 1% 3-month U.S. T-Bill Index + 5% (1M-lag)
4/1/2011	9/30/2011	3% Bloomberg Commodity Index TR USD / 23% Russell 3000 / 10% NCREIF Property Index - 25 bps / 2% FTSE T-Bill 6 Months TR / 26% Bloomberg US Universal TR / 7% Private Equity Target / 29% Custom MSCI ACWI IMI Net 50% Hedge
1/1/2011	3/31/2011	3% Bloomberg Commodity Index TR USD / 22% Russell 3000 / 10% NCREIF Property Index - 25 bps / 2% FTSE T-Bill 6 Months TR / 26% Bloomberg US Universal TR / 7% Private Equity Target / 30% Custom MSCI ACWI IMI Net 50% Hedge
10/1/2010	12/31/2010	3% Bloomberg Commodity Index TR USD / 23% Russell 3000 / 10% NCREIF Property Index - 25 bps / 2% FTSE T-Bill 6 Months TR / 26% Bloomberg US Universal TR / 7% Private Equity Target / 29% Custom MSCI ACWI IMI Net 50% Hedge
7/1/2010	9/30/2010	3% Bloomberg Commodity Index TR USD / 26% Russell 3000 / 10% NCREIF Property Index - 25 bps / 2% FTSE T-Bill 6 Months TR / 26% Bloomberg US Universal TR / 7% Private Equity Target / 26% Custom MSCI ACWI IMI Net 50% Hedge
4/1/2010	6/30/2010	3% Bloomberg Commodity Index TR USD / 26% Russell 3000 / 10% NCREIF Property Index - 25 bps / 2% FTSE T-Bill 6 Months TR / 26% Bloomberg US Universal TR / 7% Private Equity Target / 26% MSCI ACWI ex USA IMI
1/1/2010	3/31/2010	3% Bloomberg Commodity Index TR USD / 29% Russell 3000 / 10% NCREIF Property Index - 25 bps / 2% FTSE T-Bill 6 Months TR / 26% Bloomberg US Universal TR / 7% Private Equity Target / 23% MSCI ACWI ex USA IMI
4/1/2009	12/31/2009	2% Bloomberg Commodity Index TR USD / 30% Russell 3000 / 10% NCREIF Property Index - 25 bps / 2% FTSE T-Bill 6 Months TR / 28% Bloomberg US Universal TR / 7% Private Equity Target / 21% MSCI ACWI ex USA IMI
10/1/2008	3/31/2009	2% Bloomberg Commodity Index TR USD / 30% Russell 3000 / 10% NCREIF Property Index - 25 bps / 2% FTSE T-Bill 6 Months TR / 1.96% Bloomberg US High Yield BA/B TR / 26.04% Bloomberg US Aggregate TR / 7% Private Equity Target / 21% MSCI ACWI ex USA IMI
3/1/2001	9/30/2008	100% LACERA TF Blended Benchmark

Bank Loans Custom Index: Credit Suisse Leveraged Loan Index.

Beach Point Custom BM: BBg Barc US Corporate High Yield Index

Brigade Custom Index: BBg Barc US Corporate High Yield Index.

Cash Custom BM: FTSE 3-month Treasury Bill.

Core & Value-Added Real Estate Custom BM: NFI ODCE + 50 bps (3-month lag).

Custom Liquid Credit BM: 40% BBg Barc US Corporate High Yield Index / 40% Credit Suisse Leveraged Loans / 10% JP Morgan EMBI GD / 5% JP Morgan GBI – EM GD / 5% JP Morgan CEMBI BD.

Diversified Hedge Funds Custom BM: FTSE 3-Month U.S. Treasury Bill Index + 250 bps (1-month lag).

EAFE Custom Index: MSCI EAFE + Canada (Net).

EMD Custom: 50% JP Morgan EMBI + 25% JP Morgan GBI-EM GD + 25% JP Morgan CEMBI BD.

Global Equity Custom BM: MSCI ACWI IMI Index

Grosvenor Custom BM: 100% Illiquid Credit Custom BM.

Growth Custom Blended BM: ~74.5% Global Equity Custom BM/ 21.3% Private Equity- Growth Custom BM/ 4.3% Opportunistic Real Estate Custom BM.

Hedge Fund Custom Index: 100% Diversified Hedge Funds Custom BM.

Illiquid Credit Custom BM: Custom Liquid Credit BM + 150 bps (1-month lag).

MSCI EM IMI Custom Index: MSCI EM IMI (Net)

Natural Resources & Commodities Custom BM: 50% Bloomberg Commodity Index / 50% S&P Global Large MidCap Commodity and Resources Index.

Opportunistic Real Estate Custom BM: NFI ODCE + 300 bps (3-month lag).

PE – Credit Custom Benchmark: BBgBarc US Agg Index + 250bps (3-month lag).

Private Equity - Growth Custom BM: MSCI ACWI IMI Index + 200 bps (3-month lag).

PE – Real Assets Custom BM: S&P Global Large MidCap Commodity and Resources (3-month lag).

Real Assets and Inflation Hedges Custom Blended BM: ~41.2% Core & Value-Added Real Estate Custom BM/ 23.5% Natural Resources & Commodities Custom BM / 17.6% DJ Brookfield Global Infrastructure / 17.6% BBg Barc US TSY TIPS.

Risk Reduction and Mitigation Custom Blended BM: ~79.2% BBg Barc Agg / 16.7% Diversified Hedge Funds Custom BM / 4.2% FTSE 3-month Treasury Bill.

Securitized Custom Index: Barclays Securitized Bond Index + 400 bps.

Opportunistic Custom Index 1-Month Lag: 50% Barclays U.S. High Yield Index / 50% Credit Suisse Leveraged Loan Index (1-month lag).

50% FX Hedge Index: 50% MSCI World ex US IMI FX Hedged index 50% Zero Return.

WE HAVE PREPARED THIS REPORT (THIS "REPORT") FOR THE SOLE BENEFIT OF THE INTENDED RECIPIENT (THE "RECIPIENT").

SIGNIFICANT EVENTS MAY OCCUR (OR HAVE OCCURRED) AFTER THE DATE OF THIS REPORT AND THAT IT IS NOT OUR FUNCTION OR RESPONSIBILITY TO UPDATE THIS REPORT. ANY OPINIONS OR RECOMMENDATIONS PRESENTED HEREIN REPRESENT OUR GOOD FAITH VIEWS AS OF THE DATE OF THIS REPORT AND ARE SUBJECT TO CHANGE AT ANY TIME. ALL INVESTMENTS INVOLVE RISK. THERE CAN BE NO GUARANTEE THAT THE STRATEGIES, TACTICS, AND METHODS DISCUSSED HERE WILL BE SUCCESSFUL.

INFORMATION USED TO PREPARE THIS REPORT WAS OBTAINED FROM INVESTMENT MANAGERS, CUSTODIANS, AND OTHER EXTERNAL SOURCES. WHILE WE HAVE EXERCISED REASONABLE CARE IN PREPARING THIS REPORT, WE CANNOT GUARANTEE THE ACCURACY OF ALL SOURCE INFORMATION CONTAINED HEREIN.


CERTAIN INFORMATION CONTAINED IN THIS REPORT MAY CONSTITUTE "FORWARD - LOOKING STATEMENTS," WHICH CAN BE IDENTIFIED BY THE USE OF TERMINOLOGY SUCH AS "MAY," "WILL," "SHOULD," "EXPECT," "AIM", "ANTICIPATE," "TARGET," "PROJECT," "ESTIMATE," "INTEND," "CONTINUE" OR "BELIEVE," OR THE NEGATIVES THEREOF OR OTHER VARIATIONS THEREON OR COMPARABLE TERMINOLOGY. ANY FORWARD - LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION ARE BASED UPON CURRENT ASSUMPTIONS. CHANGES TO ANY ASSUMPTIONS MAY HAVE A MATERIAL IMPACT ON FORWARD-LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS. ACTUAL RESULTS MAY THEREFORE BE MATERIALLY DIFFERENT FROM ANY FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION.

PERFORMANCE DATA CONTAINED HEREIN REPRESENT PAST PERFORMANCE. PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS.

FOR INFORMATION ONLY

December 1, 2023

TO: Trustees – Board of Investments

FROM: Esmeralda del Bosque, Principal Investment Officer 

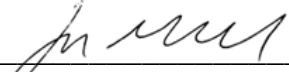
FOR: December 13, 2023 Board of Investments Meeting

SUBJECT: **OPEB TRUST QUARTERLY PERFORMANCE BOOK**

Attached is the OPEB Trust quarterly performance book as of September 30, 2023. The report contains both performance and risk sections utilizing data from our platform providers, Solovis and MSCI BarraOne, respectively.

Highlights for this quarter include the addition of fiscal year-to-date (“FYTD”) return columns as well as dedicated FYTD attribution pages for the OPEB Trust.

Noted and Reviewed:



Jonathan Grabel
Chief Investment Officer

Attachments



Los Angeles County Employees Retirement Association

Investments Division

OPEB TRUST

**PERFORMANCE
REPORT**

For the quarter ended
September 30, 2023

review

An aerial photograph of Los Angeles at sunset. The city skyline is visible in the background, with the sun setting behind the mountains, creating a warm orange and pink glow in the sky. The foreground shows residential areas with palm trees and a river or canal winding through the city.

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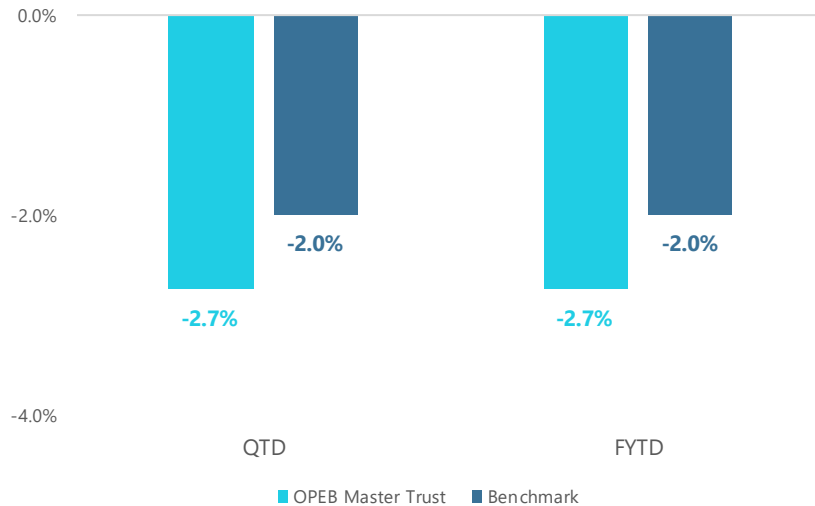
03 APPENDIX

opeb trust

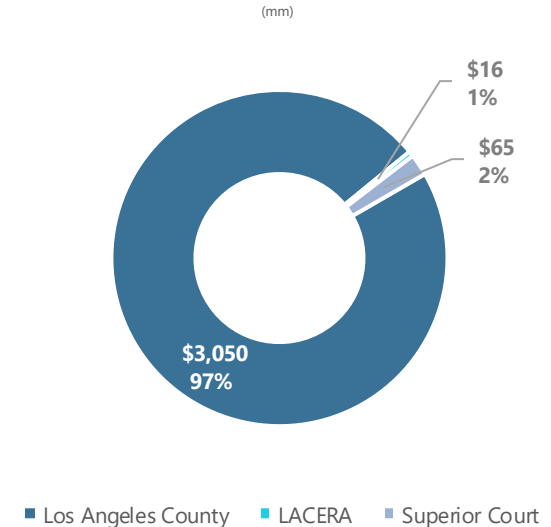
Quarterly Snapshot

for the quarter ended September 30, 2023

Performance (net)



Sub-Trust Ownership



Ending Market Value

3,130

↑ 1%
from prior quarter

Sharpe Ratio¹

0.3

↓ -46%
from prior quarter

Batting Average²

39%

↓ -4%
from prior quarter

Standard Deviation¹

12.4

—
from prior quarter

Tracking Error¹

1.5

↑ 7%
from prior quarter

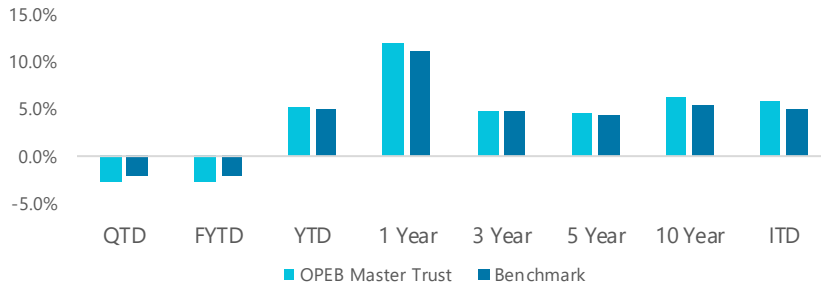
¹ 3-year annualized.

² Percentage of managers that outperformed the benchmark for the quarter.

Summary

for the quarter ended September 30, 2023

Performance (net)



	QTD	FYTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD
OPEB Master Trust	-2.7%	-2.7%	5.2%	11.9%	4.7%	4.6%	6.2%	5.8%
Benchmark	-2.0%	-2.0%	5.0%	11.0%	4.7%	4.4%	5.3%	5.0%
Excess	-0.7%	-0.7%	0.1%	0.9%	0.0%	0.2%	0.9%	0.8%
Sub-Trusts								
Los Angeles County	-2.7%	-2.7%	5.2%	11.9%	4.7%	4.6%	5.7%	5.3%
LACERA	-2.8%	-2.8%	5.0%	11.7%	4.6%	4.5%	5.6%	5.3%
Superior Court	-2.9%	-2.9%	5.0%	11.7%	4.6%	4.4%	--	6.2%

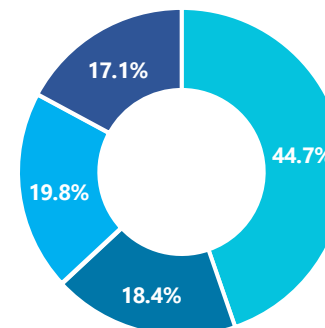
Cumulative Return



Functional Category

	QTD	FYTD	YTD	1 Year	3 Year	5 Year
OPEB Growth	-3.3%	-3.3%	9.5%	20.4%	7.1%	6.3%
OPEB Growth Policy Benchmark	-2.3%	-2.3%	11.0%	20.9%	6.9%	6.1%
Excess	-1.0%	-1.0%	-1.4%	-0.6%	0.2%	0.2%
OPEB Credit	0.8%	0.8%	7.0%	11.8%	2.6%	2.7%
OPEB Credit Policy Benchmark	2.2%	2.2%	7.9%	11.6%	2.7%	3.0%
Excess	-1.4%	-1.4%	-0.9%	0.2%	-0.1%	-0.2%
OPEB Real Assets & Inflation Hedges	-3.5%	-3.5%	-1.5%	1.9%	6.1%	3.3%
OPEB RA & IH Policy Benchmark	-2.2%	-2.2%	-4.9%	-2.2%	6.5%	3.5%
Excess	-1.3%	-1.3%	3.5%	4.0%	-0.5%	-0.2%
OPEB Risk Reduction & Mitigation	-5.0%	-5.0%	-2.5%	-1.0%	-4.6%	0.0%
OPEB RR & M Policy Benchmark	-5.3%	-5.3%	-2.9%	-1.7%	-5.2%	-0.4%
Excess	0.3%	0.3%	0.4%	0.6%	0.6%	0.4%

Exposure



- Growth
- Credit
- Real Assets & Inflation Hedges
- Risk Reduction & Mitigation

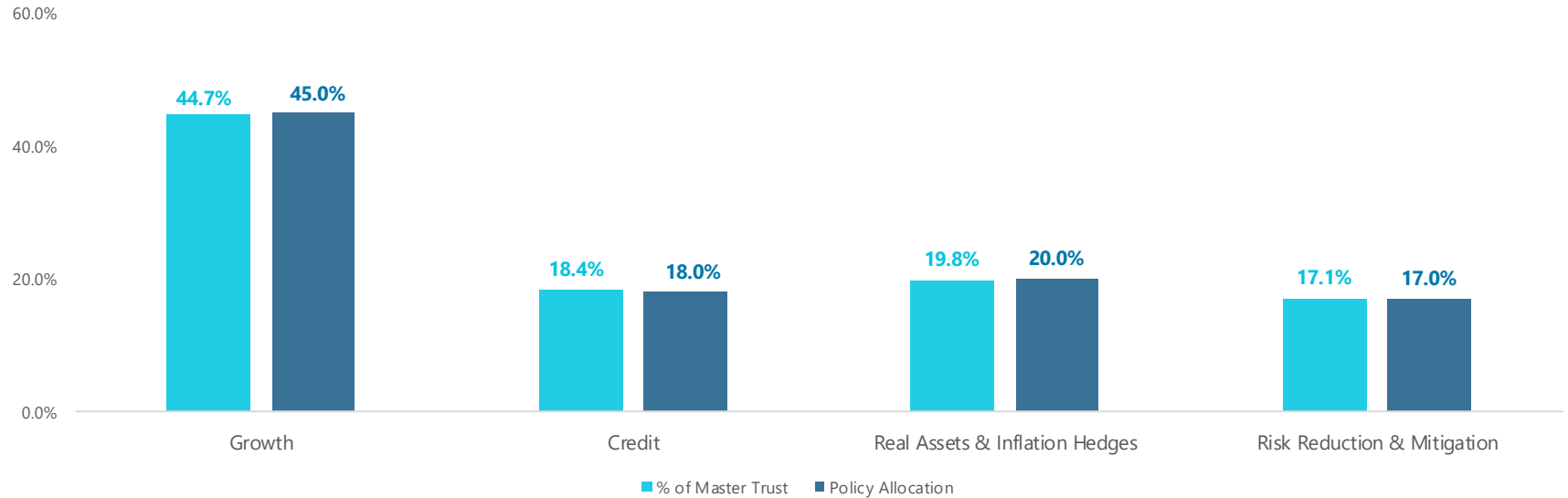
Asset Allocation

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Actual vs. Policy¹



	Ending Market Value (mm)	% of Master Trust	Policy Allocation	Over / Under (%)	Over / Under (mm)
LACERA Master OPEB Trust Fund	3,129	100.0%	100.0%		
Growth	1,399	44.7%	45.0%	-0.3%	-9
Credit	575	18.4%	18.0%	0.4%	11
Real Assets & Inflation Hedges	620	19.8%	20.0%	-0.2%	-6
Risk Reduction & Mitigation	536	17.1%	17.0%	0.1%	4
Real Assets & Inflation Hedges	620	19.8%	20.0%	-0.2%	-6
OPEB HL PM Cash	0	0.0%			

¹ Total market value excludes cash balances held in ownership funds.

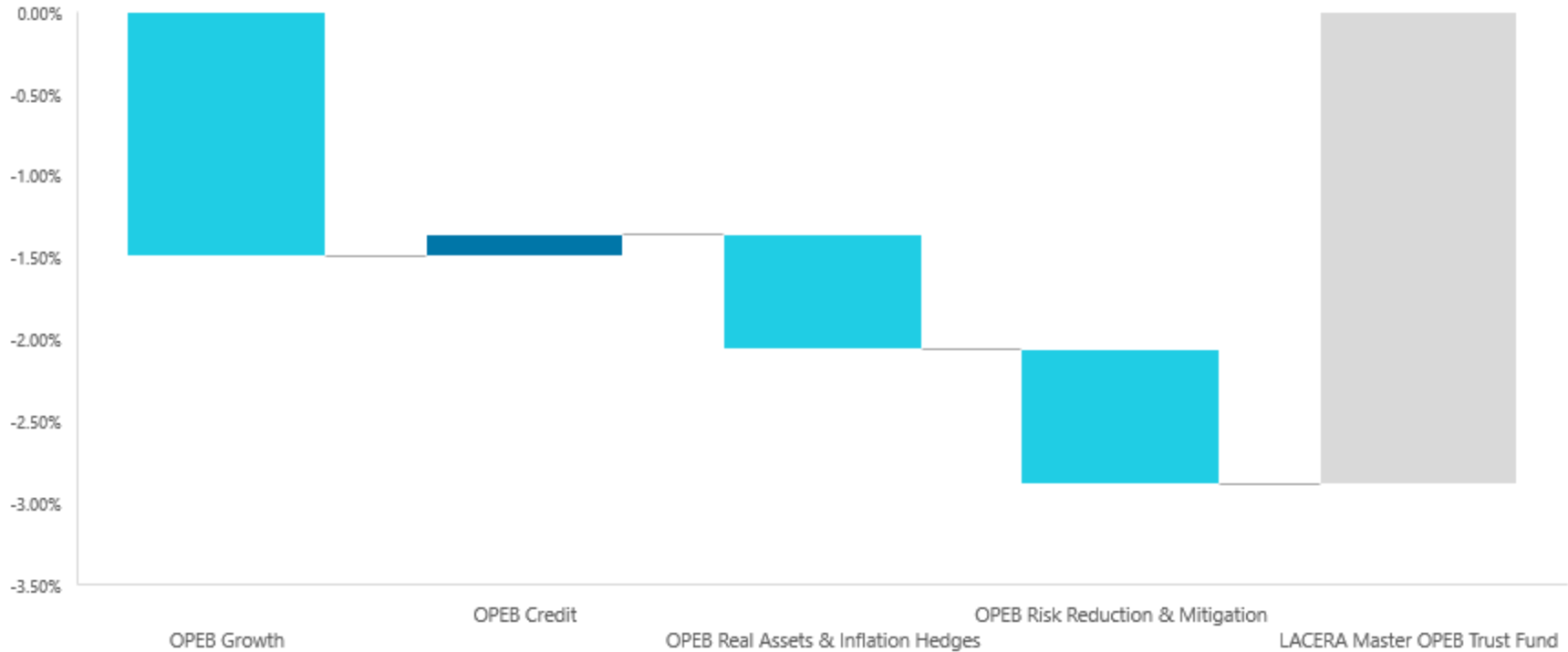
Contribution to Return

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

QTD/FYTD Contribution to Return



Functional Category	Contributors	Detractors
OPEB Growth	OPEB BLK Bank Loans	OPEB BLK Global Equities
OPEB Credit	OPEB BTC Commodities	OPEB BLK REITS
OPEB Real Assets & Inflation Hedges	OPEB Cash	OPEB LTG Bonds
OPEB Risk Reduction & Mitigation	OPEB BLK High Yield	OPEB BLK IG Bonds
LACERA Master OPEB Trust Fund		

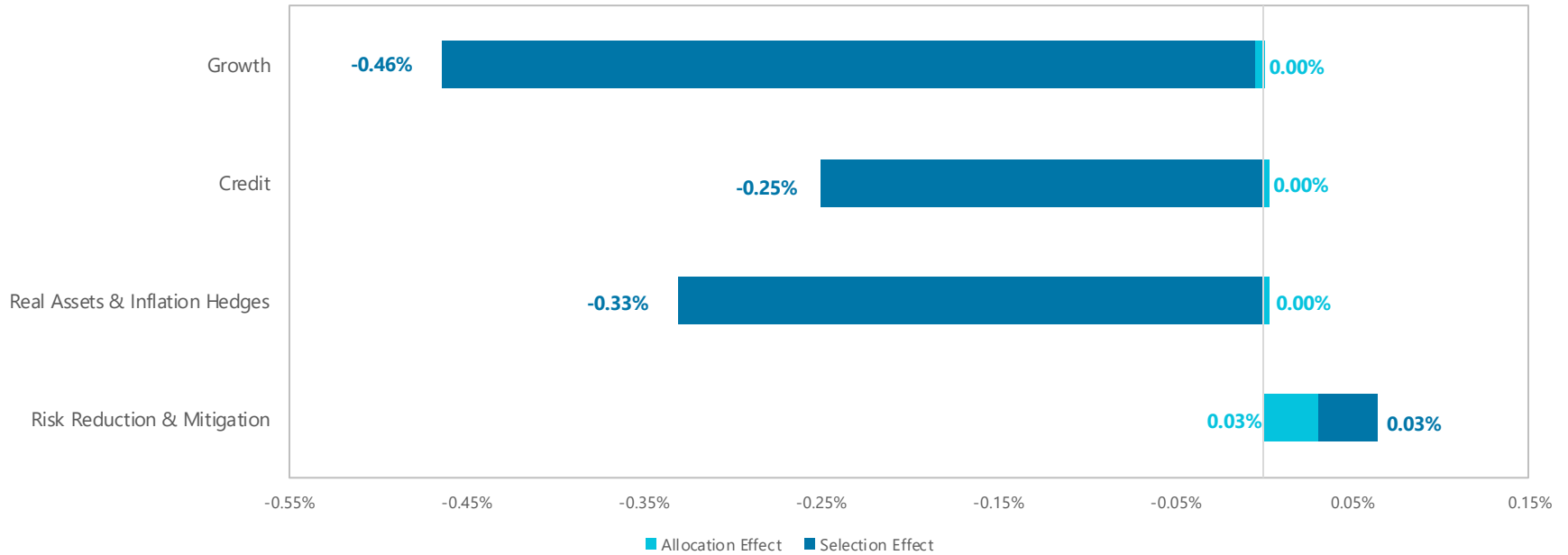
Return Attribution

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

QTD/FYTD Performance Attribution^{1,2}



	Ending Market Value (mm)	% of Master Trust	Policy Allocation	Portfolio Return	Benchmark Return	Allocation Effect	Selection Effect	Total Value Add
LACERA Master OPEB Trust Fund	3,129	100.0%	100.0%	-2.9%	-2.0%	0.03%	-1.00%	-0.97%
Growth	1,399	44.7%	45.0%	-3.3%	-2.3%	0.00%	-0.46%	-0.46%
Credit	575	18.4%	18.0%	0.8%	2.2%	0.00%	-0.25%	-0.25%
Real Assets & Inflation Hedges	620	19.8%	20.0%	-3.5%	-2.2%	0.00%	-0.33%	-0.33%
Risk Reduction & Mitigation	536	17.1%	17.0%	-5.0%	-5.3%	0.03%	0.03%	0.06%
OPEB HL PM Cash	0	0.0%	0.0%					

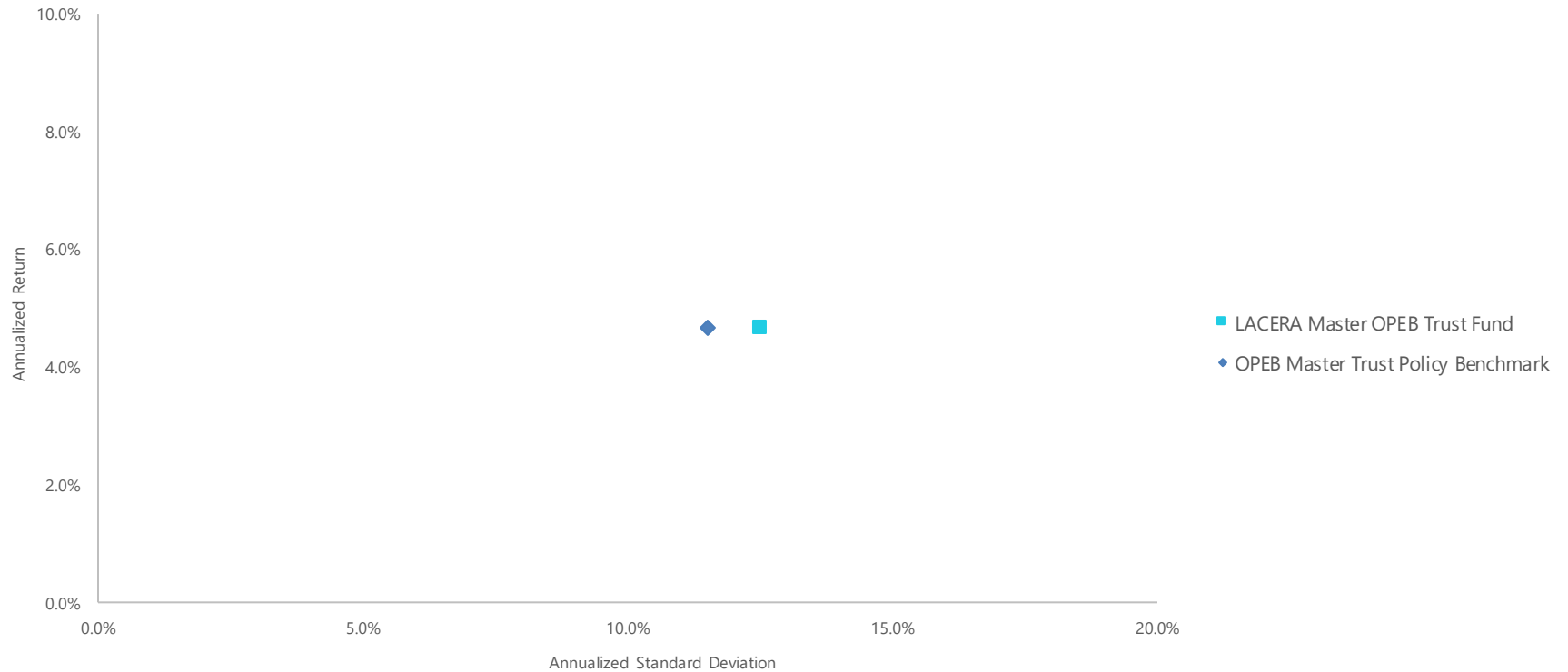
¹ Total market value excludes cash balances held in ownership funds.

² Total Value Add column includes Interaction Effect.

Risk vs. Return

for the quarter ended September 30, 2023

3 Year (Annualized)



	Annualized Return	Standard Deviation	Sharpe Ratio	Information Ratio	Beta	Tracking Error
LACERA Master OPEB Trust Fund	4.7%	12.5%				
OPEB Master Trust Policy Benchmark	4.7%	11.5%	0.29	-0.01	1.08	1.6%

Performance Detail

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Annualized Net Returns

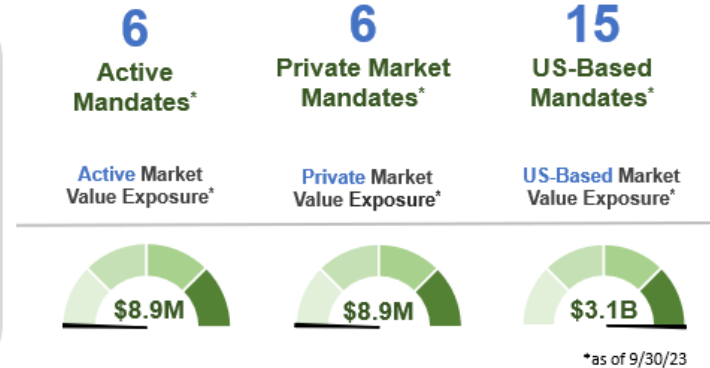
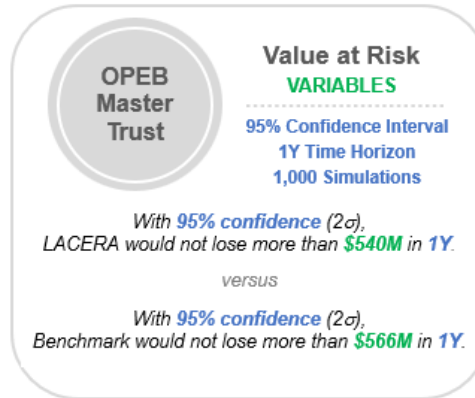
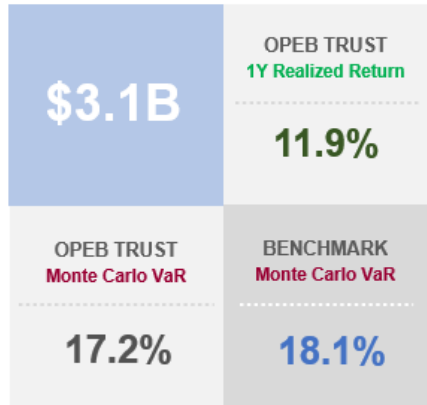
	% of Total Fund	Ending Market Value (mm)	Prior Quarter Ending MV (mm)	QTD	FYTD	YTD	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date
OPEB Master Trust	100.0%	3,130	3,092	-2.7%	-2.7%	5.2%	11.9%	4.7%	4.6%	6.2%	5.8%	Feb-2013
OPEB Master Trust Policy Benchmark				-2.0%	-2.0%	5.0%	11.0%	4.7%	4.4%	5.3%	5.0%	
Sub-Trusts												
LACERA	0.5%	16	16	-2.8%	-2.8%	5.0%	11.7%	4.6%	4.5%	5.6%	5.3%	Feb-2013
Los Angeles County	97.4%	3,050	3,009	-2.7%	-2.7%	5.2%	11.9%	4.7%	4.6%	5.7%	5.3%	Feb-2013
Superior Court	2.1%	65	67	-2.9%	-2.9%	5.0%	11.7%	4.6%	4.4%	--	6.2%	Jul-2016
LACERA Master OPEB Trust Fund	100.0%	3,129	3,084	-2.9%	-2.9%	5.1%	11.8%	4.7%	4.6%	5.7%	5.3%	Feb-2013
OPEB Master Trust Policy Benchmark				-2.0%	-2.0%	5.0%	11.0%	4.7%	4.4%	5.3%	5.0%	
OPEB Growth	44.7%	1,399	1,469	-3.3%	-3.3%	9.5%	20.4%	7.1%	6.3%	--	9.1%	Jul-2016
OPEB Growth Policy Benchmark				-2.3%	-2.3%	11.0%	20.9%	6.9%	6.1%	--	8.9%	
OPEB Global Equities	44.5%	1,392	1,469	-3.4%	-3.4%	9.4%	20.2%	7.1%	6.3%	--	7.1%	Mar-2014
MSCI ACWI IMI Net				-3.4%	-3.4%	9.4%	20.2%	6.9%	6.1%	--	6.8%	
OPEB HL Private Equity	0.2%	7	0	--	--	--	--	--	--	--	37.2%	Sep-2023
OPEB Private Equity Custom Benchmark				--	--	--	--	--	--	--	6.0%	
OPEB Credit	18.4%	575	587	0.8%	0.8%	7.0%	11.8%	2.6%	2.7%	--	2.8%	Jul-2018
OPEB Credit Policy Benchmark				2.2%	2.2%	7.9%	11.6%	2.7%	3.0%	--	3.1%	
OPEB Liquid Credit	18.4%	575	587	0.8%	0.8%	7.0%	11.8%	--	--	--	0.3%	Oct-2021
OPEB Liquid Credit Policy Benchmark				1.4%	1.4%	7.2%	11.4%	--	--	--	0.0%	
OPEB BlackRock Bank Loans	9.3%	292	294	2.8%	2.8%	9.1%	12.7%	5.6%	4.1%	--	4.3%	Jul-2018
S&P/LSTA Leverage Loan				3.5%	3.5%	10.2%	13.1%	6.1%	4.5%	--	4.6%	
OPEB BTC EM Debt LC	3.5%	111	117	-3.7%	-3.7%	3.6%	12.2%	-3.1%	-0.5%	--	-0.9%	Jul-2018
JPM GBI-EM Global Diversified				-3.3%	-3.3%	4.3%	13.1%	-2.7%	0.0%	--	-0.4%	
OPEB BTC High Yield Bonds	5.5%	172	176	0.3%	0.3%	5.7%	9.9%	1.5%	2.5%	--	2.9%	Jul-2018
BBG BC US Corporate HY Index				0.5%	0.5%	5.9%	10.3%	1.8%	3.0%	--	3.3%	
OPEB Real Assets & Inflation Hedges	19.8%	620	616	-3.5%	-3.5%	-1.5%	1.9%	6.1%	3.3%	--	3.1%	Jul-2018
OPEB RA & IH Policy Benchmark				-2.2%	-2.2%	-4.9%	-2.2%	6.5%	3.5%	--	3.2%	
OPEB BTC Commodities	4.4%	137	121	4.7%	4.7%	-3.6%	-1.5%	16.2%	6.1%	--	5.4%	Jul-2018
Bloomberg Commodity Index Total Return				4.7%	4.7%	-3.4%	-1.3%	16.2%	6.1%	--	5.4%	
OPEB BTC REITS	9.3%	291	312	-7.4%	-7.4%	-1.8%	2.9%	6.1%	1.5%	--	1.6%	Jul-2018
DJ US Select Real Estate Securities				-7.3%	-7.3%	-2.0%	2.7%	6.1%	1.6%	--	1.6%	
OPEB BTC TIPS	6.1%	190	183	-2.6%	-2.6%	-0.5%	1.4%	-1.9%	2.2%	--	1.9%	Jul-2018
Bloomberg U.S. Treasury: U.S. TIPS				-2.6%	-2.6%	-0.8%	1.2%	-2.0%	2.1%	--	1.9%	
OPEB HL Natural Resources	0.1%	2	0	--	--	--	--	--	--	--	-3.9%	Sep-2023
OPEB Natural Resources Policy Benchmark				--	--	--	--	--	--	--	6.5%	
OPEB Risk Reduction & Mitigation	17.1%	536	413	-5.0%	-5.0%	-2.5%	-1.0%	-4.6%	0.0%	--	0.4%	Jul-2016
OPEB RR & M Policy Benchmark				-5.3%	-5.3%	-2.9%	-1.7%	-5.2%	-0.4%	--	0.0%	
OPEB BTC Investment Grade Bonds	10.2%	318	275	-3.1%	-3.1%	-0.9%	0.8%	-5.1%	0.2%	--	0.2%	Jul-2018
BBG BARC Aggregate Bond Index				-3.2%	-3.2%	-1.2%	0.6%	-5.2%	0.1%	--	0.1%	
OPEB Cash	2.0%	63	62	1.4%	1.4%	4.1%	5.4%	2.0%	2.1%	1.5%	1.5%	Feb-2013
OPEB Cash Policy Benchmark				1.4%	1.4%	3.8%	4.7%	1.8%	1.8%	1.2%	1.1%	
OPEB LTG Bonds	5.0%	155	76	-12.0%	-12.0%	-8.9%	--	--	--	--	-8.7%	Dec-2022
Bloomberg U.S. Treasury: Long				-11.8%	-11.8%	-8.6%	--	--	--	--	-8.9%	
OPEB HL PM Cash	0.0%	0	0									

risk reports

Risk Summary

for the quarter ended September 30, 2023

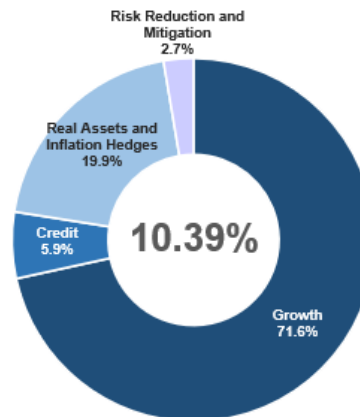
Realized (Ex-Post) Risks



Projected (Ex-Ante) Risks

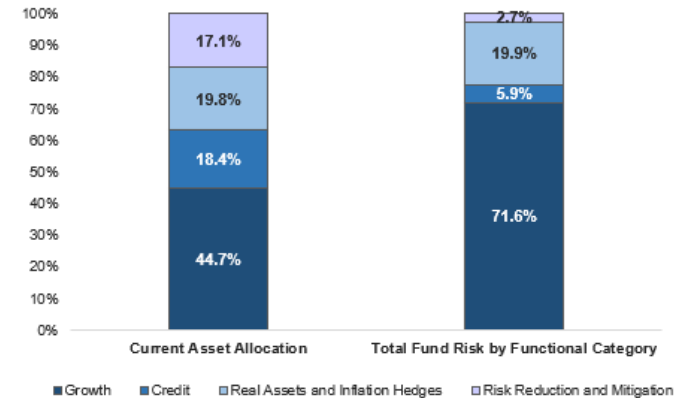


Functional Category Contributions to OPEB Trust Risk



OPEB Master Trust Asset Allocation

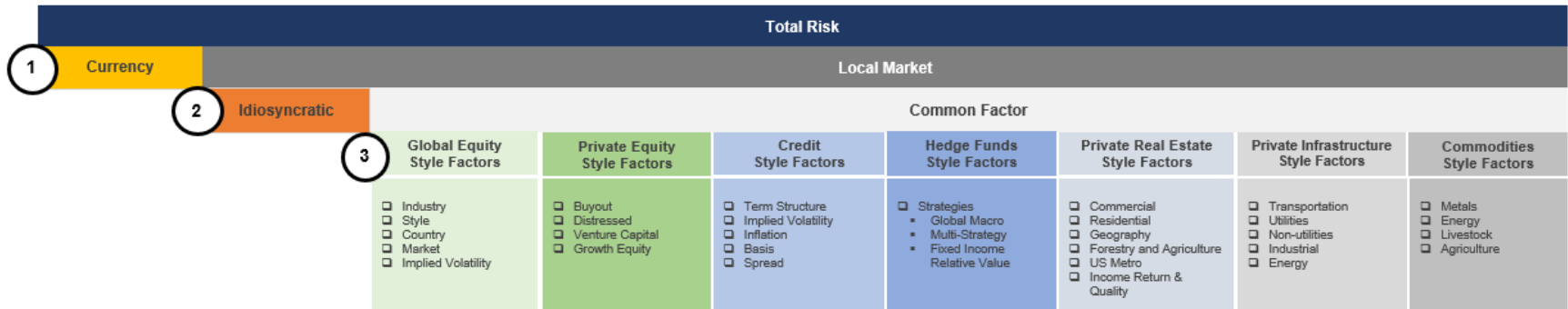
Capital-based versus Risk-based



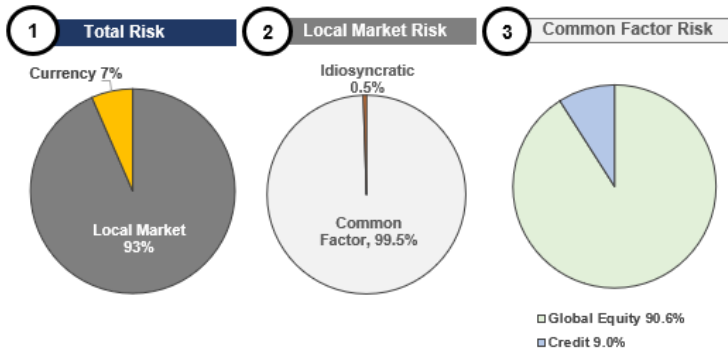
Risk Summary

for the quarter ended September 30, 2023

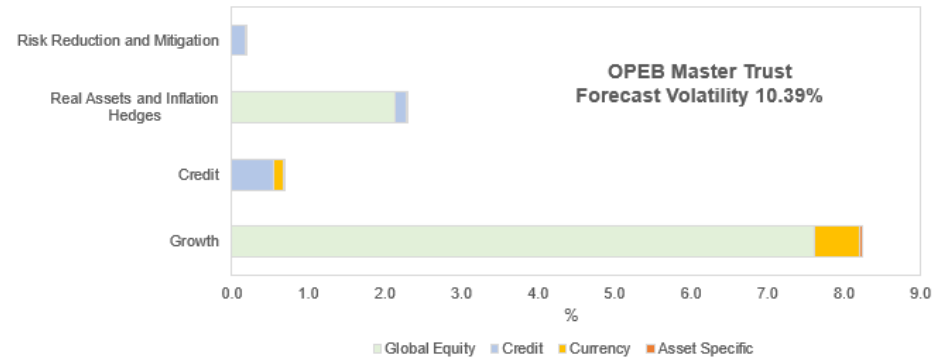
Decomposition of MSCI Risk Factors



OPEB Master Trust Risk Decomposition



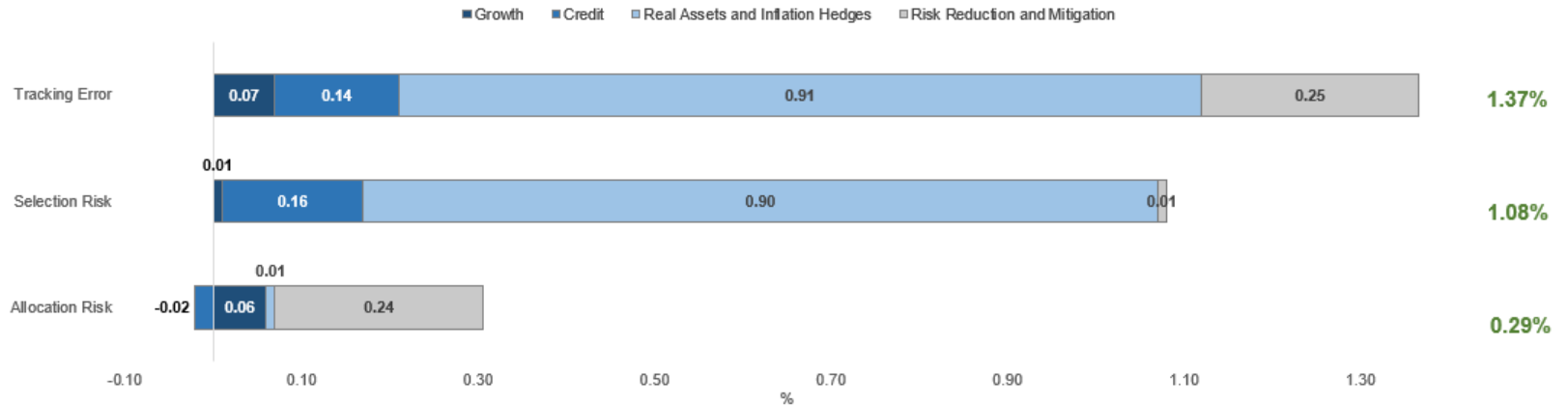
OPEB Master Trust Contribution by Risk Factor



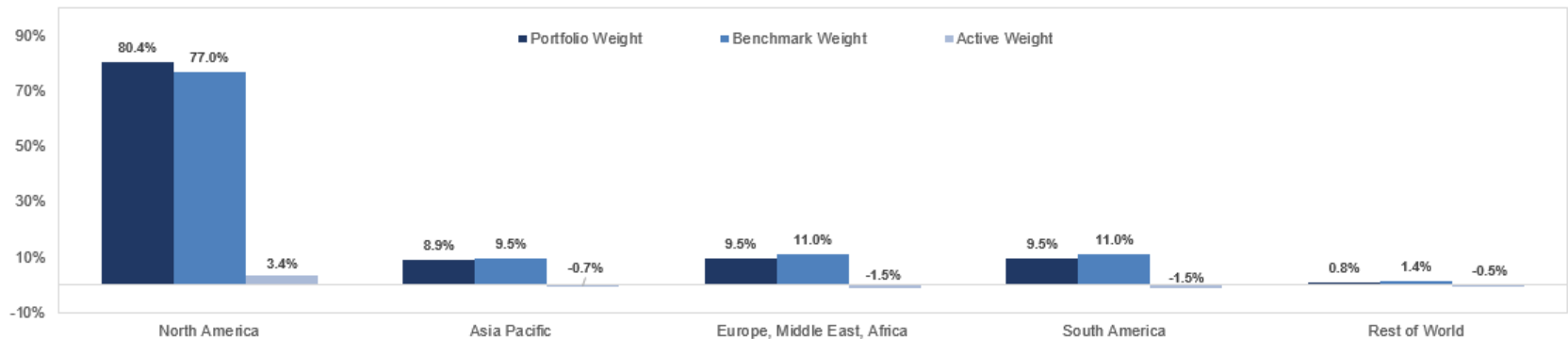
Risk Summary

for the quarter ended September 30, 2023

Functional Category Contributions to Tracking Error



Portfolio Allocation by Region¹



¹ Rest of World is sum of countries with weights below 0.5%.

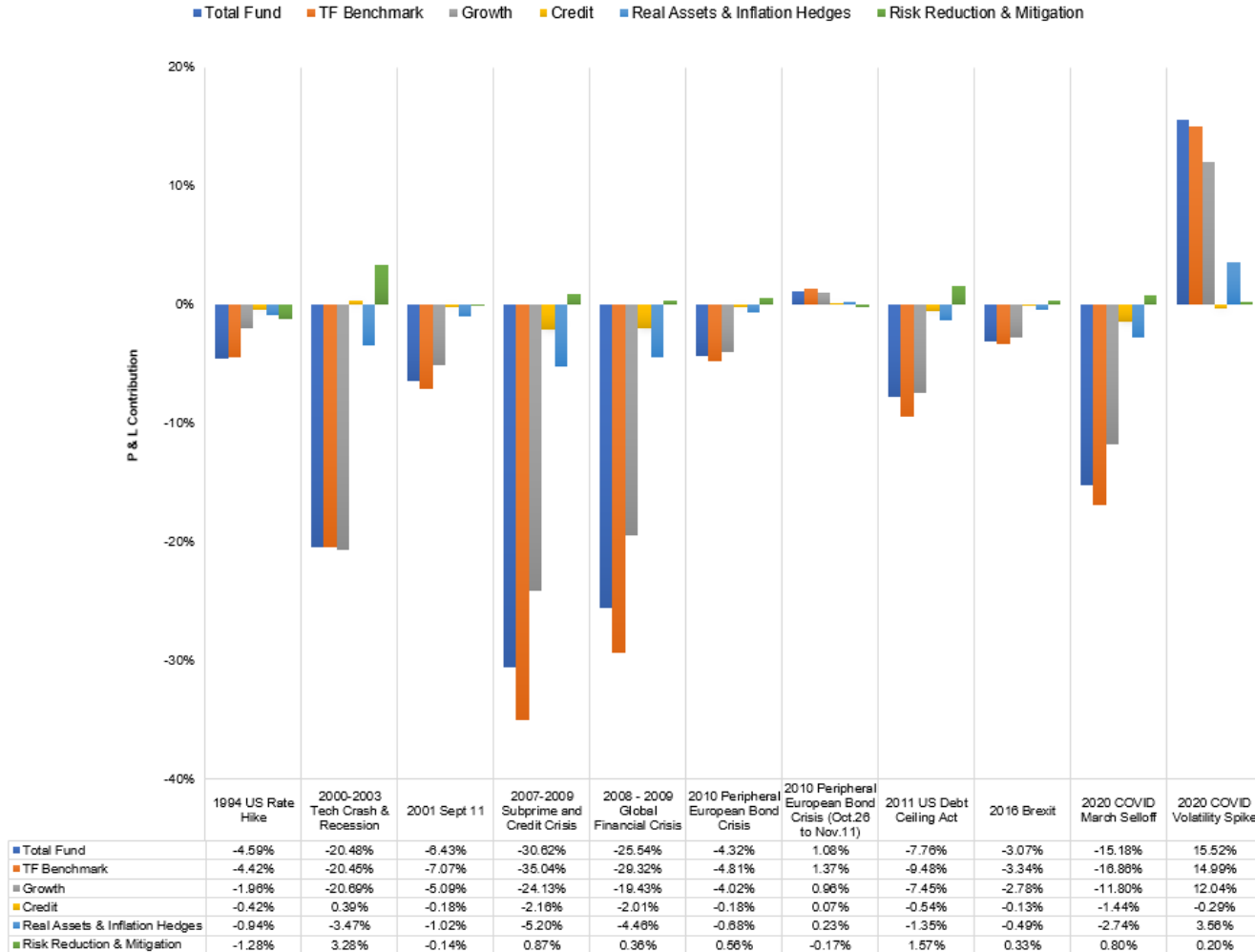
Stress Tests

for the quarter ended September 30, 2023



Los Angeles County Employees Retirement Association

Scenarios by Asset Category



Stress Tests

for the quarter ended September 30, 2023

Scenario Descriptions

Historical Scenario	Description	Stock Market	Interest Rates	Bond Market	Commodity Market
1994 US Rate Hike	In combating inflation, the US Federal Reserve raised rates from 3.25% in February to 5.5% in November 1994.				
2000-2003 Tech Crash & Recession	Period of crisis and slowdown for technological firms due to a rapid jump in stock prices when tech bubble began to burst.				
2001 September 11th	The US stock market was closed for a week upon a series of coordinated suicide attacks upon the US on September 11, 2001.				
2008-2009 Global Financial Crisis	Major financial crisis starting with the failure of several US-based financial firms. Extended into 2009, when stock markets reached their lowest.				
2010 European Bond Crisis	During crisis, the liquidity access for peripheral countries was affected by budget deficits, high borrowing costs, and failing banking systems.				
2011 US Debt Ceiling Act	Political deadlock on appropriate level of US government spending and its impacts. Debt and equity markets experienced significant volatility.				
2016 Brexit	The referendum by British voters to exit the European Union roiled global markets causing the pound to fall to its lowest level in decades.				
2020 COVID March Selloff	Peak and Valley of the MSCI ACWI index when Covid became a Global Pandemic.				
2020 COVID Volatility Spike	Period it took for the Cboe Volatility Index (VIX) to revert to pre-pandemic levels.				

Market Trend Signals

Up
 Slightly Up
 Neutral
 Down
 Slightly Down

appendix

Benchmark Definitions

Current Composition

	Weight	Component
Master Trust		
OPEB Master Trust Policy Benchmark		
	45%	OPEB Growth Policy Benchmark
	18%	OPEB Credit Policy Benchmark
	20%	OPEB RA & IH Policy Benchmark
	17%	OPEB RR & M Policy Benchmark
Growth		
OPEB Growth Policy Benchmark		
	89%	MSCI ACWI IMI Net
	11%	OPEB Private Equity Policy Benchmark
Credit		
OPEB Credit Policy Benchmark		
	72%	OPEB Liquid Credit Policy Benchmark
	28%	OPEB Illiquid Credit Policy Benchmark
OPEB Liquid Credit Policy Benchmark		
	38%	Bloomberg U.S. Corporate High Yield
	46%	CS Leveraged Loan Index
	8%	JPMorgan EMBI Global Diversified Index
	4%	JPM GBI-EM Global Diversified Index
	4%	JPM CEMBI Broad Diversified
Real Assets & Inflation Hedges		
OPEB RA & IH Policy Benchmark		
	40%	OPEB Real Estate Policy Benchmark
	10%	S&P Global Natural Resources Index
	10%	Bloomberg Commodity Index Total Return
	10%	DJ Brookfield Global Infra Comp
	30%	Bloomberg U.S. Treasury: U.S. TIPS
Risk Reduction & Mitigation		
OPEB RR & M Policy Benchmark		
	59%	Bloomberg U.S. Aggregate
	29%	Bloomberg U.S. Treasury: Long
	12%	OPEB Cash Policy Benchmark
OPEB Cash Policy Benchmark		
	100%	FTSE 3-Month US Treasury Bill

A

ANNUAL RETURN

The total return of a security over a specified period, expressed as an annual rate of interest.

ACTIVE RISK

The expected standard deviation of the differential return between the portfolio and the benchmark. Active total risk arises from active management, and it is the result of active weights (deviations from the benchmark at the asset level) and therefore active exposures; for passively managed portfolios, it is referred to as “total tracking error.”

ACTIVE RISK CONTRIBUTION

Percent contribution to active total risk (or tracking error). The percent of active total risk that an individual asset or risk source contributes. For example, a % CR to Active Total Risk of 10% indicates that 10% of the portfolio’s active total risk is arising from the active position in that particular asset.

B

BASIS POINTS (BPS)

One one-hundredth of one percent. One hundred basis points equal one percent.

BETA

A measure of the volatility of a stock relative to the overall market. A beta of less than one indicates lower risk than the market; a beta of more than one indicates higher risk than the market.

D

DURATION

A measure of the price sensitivity of a bond portfolio to changes in interest rates.

F

FUTURES CONTRACT

Agreement to buy or sell a specific amount of a commodity or financial instrument at a particular price and a stipulated future date.

H

HIGH YIELD BOND

A bond with a low investment quality and credit worthiness, usually with a rating of BB or less.

I

INFORMATION RATIO

The excess return (alpha) per unit of active risk (tracking error).

INTERNAL RATE OF RETURN (IRR)

A total rate of return that gives full weight to the size and timing of cash flows over the period measured and fully reflects unrealized gains and losses in addition to realized gains and losses, interest and dividend income.

M

MC TO TOTAL TRACKING ERROR

This value represents the change in the active risk of an asset's portfolio or group that would result from a one percent increase in the asset's effective position plus an equal short position in the benchmark.

S

SHARPE RATIO

Average return earned in excess of the risk-free rate per unit of total risk.

STANDARD DEVIATION

Statistical measure of the degree to which an individual value in a probability distribution tends to vary from the mean of the distribution. The greater the degree of dispersion, the greater the risk.

T

TIME-WEIGHTED RETURN (TWR)

A measure of the compound rate of growth in a portfolio. Often used to compare the returns of investment managers because it eliminates the distorting effects on growth rates created by inflows and outflows of money.

TOTAL RISK

The total (gross) risk to an asset (or portfolio), which is the standard deviation of the asset's total return distribution, expressed in percent. Total risk is forecasted using MSCI Barra's multiple factor models. The total risk for an asset depends on the asset's exposures to the risk factors, the factor variance/covariance matrix, and the forecast selection risk of the asset.

TOTAL RISK CONTRIBUTION

The percent of total risk that an individual asset or risk source contributes. For example, a % CR to Total Risk of 10% indicates that 10% of the portfolio's total risk is arising from the portfolio's position in that particular asset.

Y

YIELD TO MATURITY

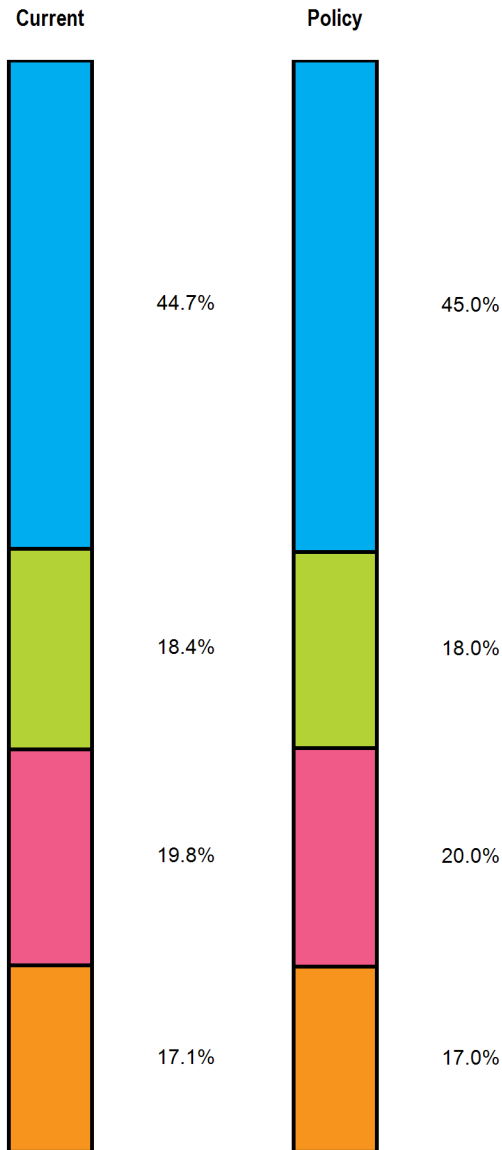
The return a bond earns on the price at which it was purchased if it were held to maturity. It assumes that coupon payments can be reinvested at the yield to maturity.

LACERA: OPEB Master Trust

September 30, 2023

Fund Evaluation Report

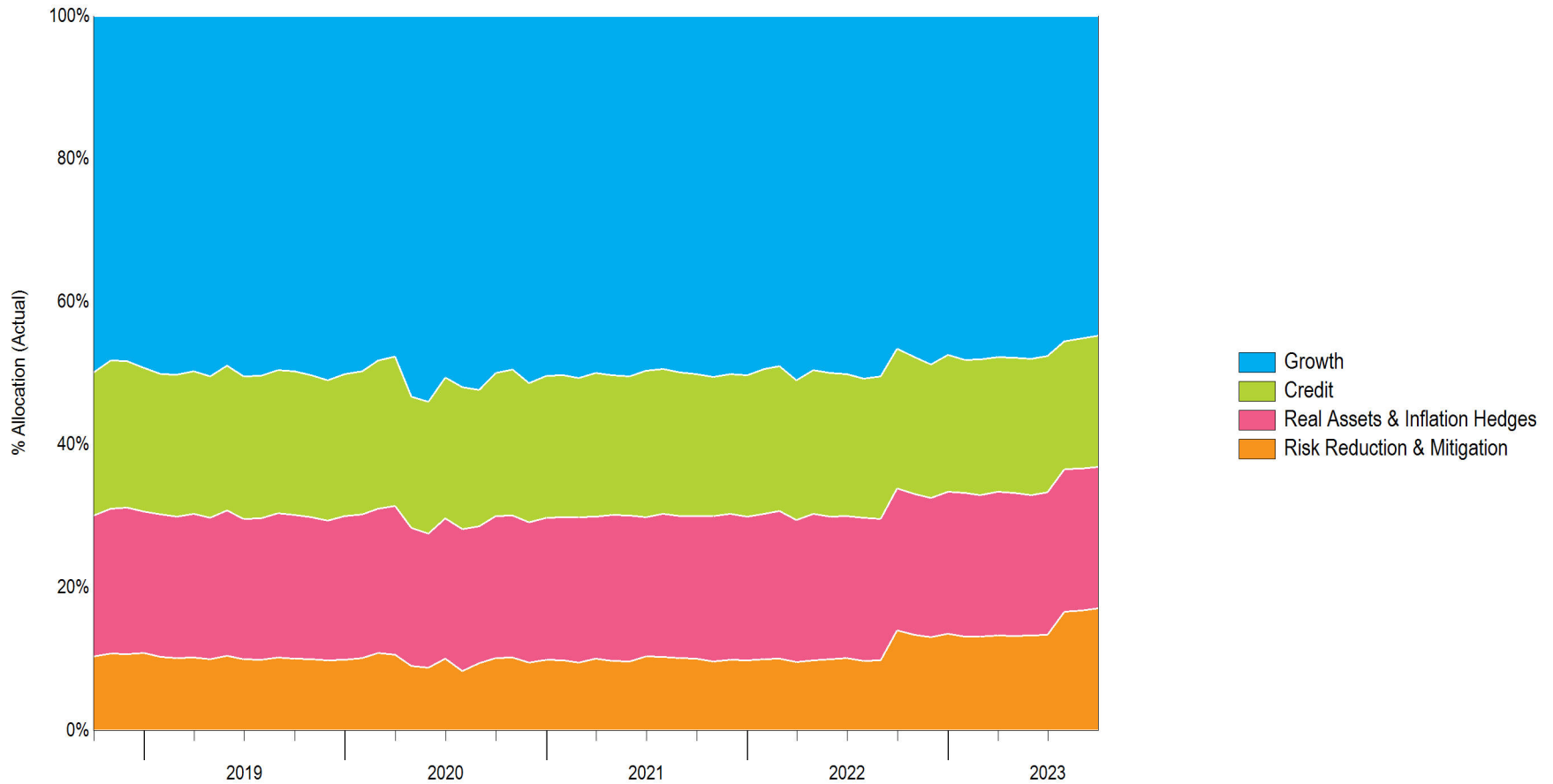
LACERA Master OPEB Trust Fund | As of September 30, 2023



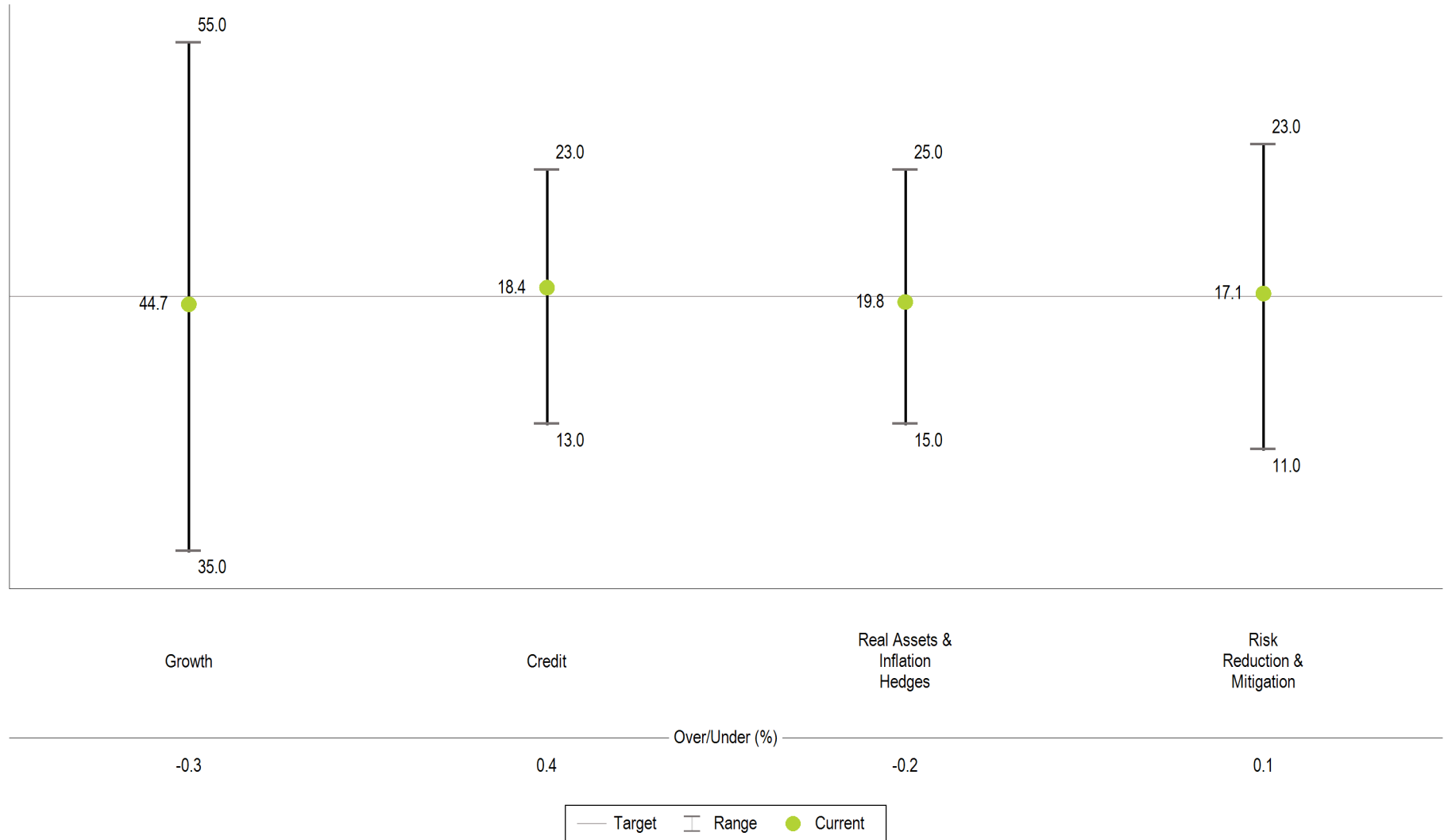
Allocation vs. Target						
	Current Balance	Current Allocation	Policy	Policy Range	Within IPS Range?	
Growth	\$1,399,033,449	44.7%	45.0%	35.0% - 55.0%	Yes	
Global Equity	\$1,392,241,440	44.5%	40.0%	30.0% - 50.0%	Yes	
Private Equity	\$6,792,009	0.2%	5.0%	0.0% - 10.0%	Yes	
Credit	\$574,616,387	18.4%	18.0%	13.0% - 23.0%	Yes	
Liquid Credit	\$574,616,387	18.4%	13.0%	8.0% - 18.0%	No	
Illiquid Credit	\$0	0.0%	5.0%	0.0% - 10.0%	Yes	
Real Assets & Inflation Hedges	\$619,552,692	19.8%	20.0%	15.0% - 25.0%	Yes	
Real Estate	\$290,634,524	9.3%	8.0%	4.0% - 12.0%	Yes	
Natural Resources	\$2,138,252	0.1%	2.0%	0.0% - 4.0%	Yes	
Commodities	\$137,153,403	4.4%	2.0%	0.0% - 4.0%	No	
Infrastructure	\$0	0.0%	2.0%	0.0% - 4.0%	Yes	
TIPS	\$189,626,514	6.1%	6.0%	2.0% - 10.0%	Yes	
Risk Reduction & Mitigation	\$536,086,862	17.1%	17.0%	11.0% - 23.0%	Yes	
Investment Grade Bonds	\$318,151,964	10.2%	10.0%	6.0% - 14.0%	Yes	
Long-Term Government Bonds	\$155,283,322	5.0%	5.0%	0.0% - 10.0%	Yes	
Cash	\$62,651,575	2.0%	2.0%	0.0% - 4.0%	Yes	
Total¹	\$3,129,289,390	100.0%	100.0%			

¹ includes unsettled trade activity.

Asset Allocation History 5 Years Ending September 30, 2023



Actual vs. Target



Trailing Net Performance

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
OPEB Master Trust (Net)	3,130,318,214	100.0	-2.7	-2.7	11.9	4.7	4.6
OPEB Master Trust (Gross)			-2.7	-2.7	11.9	4.7	4.6
<i>Custom OPEB Master Trust BM</i>			<u>-2.0</u>	<u>-2.0</u>	<u>11.0</u>	<u>4.7</u>	<u>4.4</u>
Excess Return (vs. Net)			-0.7	-0.7	0.9	0.0	0.2
Growth (Net)	1,399,033,449	44.7	-3.3	-3.3	20.4	7.1	6.4
Growth (Gross)			-3.3	-3.3	20.4	7.2	6.4
OPEB Global Equity (Net)	1,392,241,440	44.5	-3.4	-3.4	20.2	7.1	6.3
OPEB Global Equity (Gross)			-3.4	-3.4	20.2	7.1	6.3
<i>MSCI ACWI IMI Net (DAILY)</i>			<u>-3.4</u>	<u>-3.4</u>	<u>20.2</u>	<u>6.9</u>	<u>6.1</u>
Excess Return (vs. Net)			0.0	0.0	0.0	0.2	0.2
OPEB Private Equity (Net)	6,792,009	0.2	--	--	--	--	--
OPEB Private Equity (Gross)			--	--	--	--	--
<i>OPEB Private Equity Custom Benchmark</i>			--	--	--	--	--
Excess Return (vs. Net)							

Fiscal Year begins July 1.

The OPEB Master Trust started in February 2013

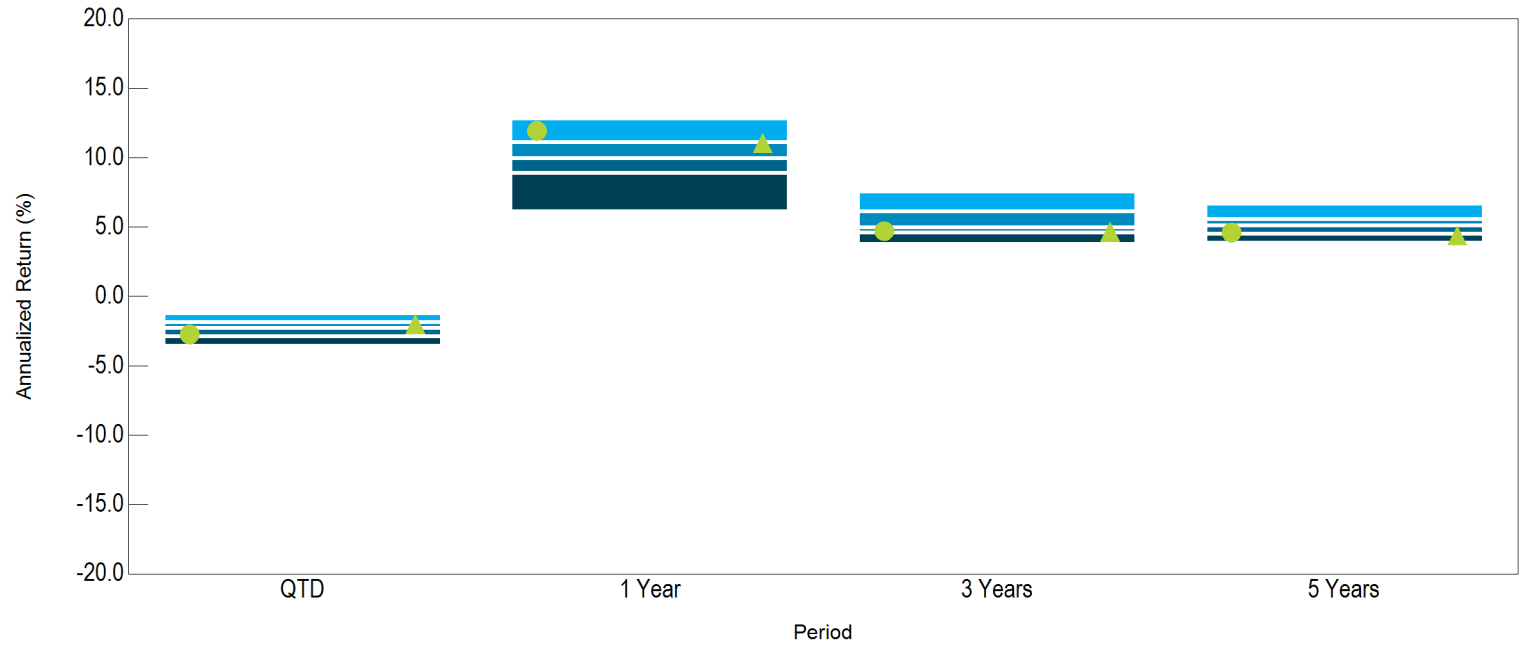
	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
Credit (Net)	574,616,387	18.4	0.8	0.8	11.8	2.6	2.7
Credit (Gross)			0.8	0.8	11.9	2.6	2.8
Liquid Credit (Net)	574,616,387	18.4	0.8	0.8	11.8	--	--
Liquid Credit (Gross)			0.8	0.8	11.8	--	--
<i>OPEB Liquid Credit BM</i>			<u>1.4</u>	<u>1.4</u>	<u>11.4</u>	--	--
Excess Return (vs. Net)			-0.6	-0.6	0.4		
OPEB BTC Bank Loans (Net)	291,590,756	9.3	2.8	2.8	12.7	5.6	4.1
OPEB BTC Bank Loans (Gross)			2.8	2.8	12.7	5.6	4.1
<i>S&P/LSTA Leveraged Loan TR</i>			<u>3.5</u>	<u>3.5</u>	<u>13.2</u>	<u>6.1</u>	<u>4.5</u>
Excess Return (vs. Net)			-0.7	-0.7	-0.5	-0.5	-0.4
OPEB BTC EM Debt LC (Net)	110,589,545	3.5	-3.7	-3.7	12.2	-3.1	-0.5
OPEB BTC EM Debt LC (Gross)			-3.6	-3.6	12.4	-3.0	-0.4
<i>JPM GBI-EM Global Diversified Index</i>			<u>-3.3</u>	<u>-3.3</u>	<u>13.1</u>	<u>-2.7</u>	<u>0.0</u>
Excess Return (vs. Net)			-0.4	-0.4	-0.9	-0.4	-0.5
OPEB BTC High Yield Bonds (Net)	172,436,087	5.5	0.3	0.3	9.9	1.5	2.5
OPEB BTC High Yield Bonds (Gross)			0.4	0.4	10.0	1.6	2.6
<i>BBgBarc US High Yield TR</i>			<u>0.5</u>	<u>0.5</u>	<u>10.3</u>	<u>1.8</u>	<u>3.0</u>
Excess Return (vs. Net)			-0.2	-0.2	-0.4	-0.3	-0.5

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
Real Assets & Inflation Hedges (Net)	619,552,692	19.8	-3.5	-3.5	1.9	6.0	3.3
Real Assets & Inflation Hedges (Gross)			-3.5	-3.5	1.9	6.1	3.3
OPEB BTC Commodities (Net)	137,153,403	4.4	4.7	4.7	-1.5	16.2	6.1
OPEB BTC Commodities (Gross)			4.7	4.7	-1.4	16.2	6.2
<i>Bloomberg Commodity Index TR USD</i>			<u>4.7</u>	<u>4.7</u>	<u>-1.3</u>	<u>16.2</u>	<u>6.1</u>
Excess Return (vs. Net)			0.0	0.0	-0.2	0.0	0.0
OPEB BTC REITs (Net)	290,634,524	9.3	-7.4	-7.4	2.9	6.1	1.5
OPEB BTC REITs (Gross)			-7.4	-7.4	3.0	6.2	1.6
<i>DJ US Select REIT TR USD</i>			<u>-7.3</u>	<u>-7.3</u>	<u>2.7</u>	<u>6.1</u>	<u>1.6</u>
Excess Return (vs. Net)			-0.1	-0.1	0.2	0.0	-0.1
OPEB Natural Resources (Net)	2,138,252	0.1	--	--	--	--	--
OPEB Natural Resources (Gross)			--	--	--	--	--
<i>OPEB Natural Resources Policy Benchmark</i>			--	--	--	--	--
Excess Return (vs. Net)							
OPEB BTC TIPS (Net)	189,626,514	6.1	-2.6	-2.6	1.4	-1.9	2.2
OPEB BTC TIPS (Gross)			-2.6	-2.6	1.4	-1.9	2.2
<i>BBgBarc US TIPS TR</i>			<u>-2.6</u>	<u>-2.6</u>	<u>1.2</u>	<u>-2.0</u>	<u>2.1</u>
Excess Return (vs. Net)			0.0	0.0	0.2	0.1	0.1

LACERA Master OPEB Trust Fund | As of September 30, 2023

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
Risk Reduction & Mitigation (Net)	536,086,862	17.1	-5.0	-5.0	-0.9	-4.6	0.0
Risk Reduction & Mitigation (Gross)			-5.0	-5.0	-0.9	-4.6	0.0
OPEB BTC Investment Grade Bonds (Net)	318,151,964	10.2	-3.1	-3.1	0.8	-5.1	0.2
OPEB BTC Investment Grade Bonds (Gross)			-3.1	-3.1	0.8	-5.1	0.2
<i>BBgBarc US Aggregate TR</i>			<u>-3.2</u>	<u>-3.2</u>	<u>0.6</u>	<u>-5.2</u>	<u>0.1</u>
Excess Return (vs. Net)			0.1	0.1	0.2	0.1	0.1
OPEB LTG Bonds (Net)	155,283,322	5.0	-12.0	-12.0	--	--	--
OPEB LTG Bonds (Gross)			-12.0	-12.0	--	--	--
<i>Bloomberg US Treasury Long TR</i>			<u>-11.8</u>	<u>-11.8</u>	--	--	--
Excess Return (vs. Net)			-0.2	-0.2			
OPEB Cash (Net)	62,651,575	2.0	1.3	1.3	4.7	1.8	2.0
OPEB Cash (Gross)			1.4	1.4	4.7	1.8	2.0
<i>Custom Cash BM</i>			<u>1.4</u>	<u>1.4</u>	<u>4.7</u>	<u>1.8</u>	<u>1.8</u>
Excess Return (vs. Net)			-0.1	-0.1	0.0	0.0	0.2

InvMetrics Public DB \$1-5B (net) USD Return Comparison



	Return (Rank)				Return (Rank)			
	QTD	1 Year	3 Years	5 Years	QTD	1 Year	3 Years	5 Years
5th Percentile	-1.2	12.8	7.6	6.7				
25th Percentile	-1.8	11.1	6.2	5.6				
Median	-2.2	10.0	5.0	5.1				
75th Percentile	-2.9	8.9	4.6	4.6				
95th Percentile	-3.5	6.1	3.8	3.9				
# of Portfolios	45	44	43	43				
● OPEB Master Trust	-2.7	11.9	4.7	4.6	(74)	(15)	(69)	(72)
▲ Custom OPEB Master Trust BM	-2.0	11.0	4.7	4.4	(37)	(29)	(74)	(85)

Benchmark History
As of September 30, 2023

LACERA Master OPEB Trust Fund

2/1/2013 Present Custom OPEB Master Trust BM

WE HAVE PREPARED THIS REPORT (THIS "REPORT") FOR THE SOLE BENEFIT OF THE INTENDED RECIPIENT (THE "RECIPIENT").

SIGNIFICANT EVENTS MAY OCCUR (OR HAVE OCCURRED) AFTER THE DATE OF THIS REPORT AND THAT IT IS NOT OUR FUNCTION OR RESPONSIBILITY TO UPDATE THIS REPORT. ANY OPINIONS OR RECOMMENDATIONS PRESENTED HEREIN REPRESENT OUR GOOD FAITH VIEWS AS OF THE DATE OF THIS REPORT AND ARE SUBJECT TO CHANGE AT ANY TIME. ALL INVESTMENTS INVOLVE RISK. THERE CAN BE NO GUARANTEE THAT THE STRATEGIES, TACTICS, AND METHODS DISCUSSED HERE WILL BE SUCCESSFUL.


INFORMATION USED TO PREPARE THIS REPORT WAS OBTAINED FROM INVESTMENT MANAGERS, CUSTODIANS, AND OTHER EXTERNAL SOURCES. WHILE WE HAVE EXERCISED REASONABLE CARE IN PREPARING THIS REPORT, WE CANNOT GUARANTEE THE ACCURACY OF ALL SOURCE INFORMATION CONTAINED HEREIN.

CERTAIN INFORMATION CONTAINED IN THIS REPORT MAY CONSTITUTE "FORWARD - LOOKING STATEMENTS," WHICH CAN BE IDENTIFIED BY THE USE OF TERMINOLOGY SUCH AS "MAY," "WILL," "SHOULD," "EXPECT," "AIM", "ANTICIPATE," "TARGET," "PROJECT," "ESTIMATE," "INTEND," "CONTINUE" OR "BELIEVE," OR THE NEGATIVES THEREOF OR OTHER VARIATIONS THEREON OR COMPARABLE TERMINOLOGY. ANY FORWARD - LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION ARE BASED UPON CURRENT ASSUMPTIONS. CHANGES TO ANY ASSUMPTIONS MAY HAVE A MATERIAL IMPACT ON FORWARD-LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS. ACTUAL RESULTS MAY THEREFORE BE MATERIALLY DIFFERENT FROM ANY FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION.

PERFORMANCE DATA CONTAINED HEREIN REPRESENT PAST PERFORMANCE. PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS.

December 4, 2023

TO: Trustees – Board of Investments

FROM: Jonathan Grabel 
Chief Investment Officer

Scott Zdrzil 
Principal Investment Officer

FOR: December 13, 2023, Board of Investments Meeting

SUBJECT: **Investment Policy Statement**

Attached is a clean copy of the Investment Policy Statement, as unanimously approved by the Board of Investments at the November 8, 2023, Board of Investment meeting (**Attachment**). This final version includes two modifications incorporated by the Board as part its motion to approve the draft version presented at the November 8, 2023, Board meeting.

The document is also publicly available on www.lacera.com.

Attachment

Investment Policy Statement

Revised November 8, 2023



L/CERA

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About LACERA

The Los Angeles County Employees Retirement Association (“LACERA”) administers a defined benefit retirement plan (the “Fund”) and other post-employment benefits (“OPEB” or the “Trust”) for employees of Los Angeles County and certain other districts.

The Los Angeles County Board of Supervisors established LACERA by ordinance in 1937. LACERA has operated since 1938, and today, serves over 170,000 active and retired members.

LACERA’s mission is to “produce, protect, and provide the promised benefits to our members.” LACERA aims to fulfill its mission through prudent investment and conservation of plan assets, in accordance with its Investment Beliefs and in consideration of actuarial analysis.

LACERA’s Board of Investments (the “Board”) is responsible for establishing LACERA’s investment policy and objectives, as well as exercising oversight of the investment management for both the Fund and the Trust.

LACERA MISSION STATEMENT

We Produce, Protect, and Provide
the Promised Benefits
to our Members

Statement of Purpose

LACERA's Investment Policy Statement (the "IPS") defines the framework by which LACERA manages the assets of the Fund in order to fulfill its mission. The document provides the primary guidance for LACERA's investment activities by outlining the philosophy and structure of LACERA's investment program, describing the general process by which assets are managed, and defining the key roles and responsibilities in LACERA's investment program.

Legal Authority

The California Constitution and LACERA's governing statutes create a legal framework within which this IPS must be interpreted and implemented by the Board in approaching its decisions. The Board is independent and has sole and exclusive legal responsibility over investment of the Fund's assets.

A. Fiduciary Duty

The Board and its members are fiduciaries, making decisions for the benefit of the Fund as a whole without other concerns or outside influence. All Board members, whether they are elected, appointed, or ex officio, have the same fiduciary duty under the law. This fiduciary duty has two components:

- *Duty of Loyalty.* Under the duty of loyalty, Board members have the sole and exclusive responsibility to administer the Fund to ensure prompt delivery of benefits to members and their beneficiaries. In making every decision, the Board must act according to a three-pronged legal formula that balances the interests of the Fund's stakeholders: (1) solely in the interest of providing benefits to members and beneficiaries, (2) to minimize employer contributions, and (3) to defray the expenses of administering the Fund. The Board's duty to members and their beneficiaries takes precedence over any other duty.
- *Duty of Prudence.* Board members must discharge their duties with the care, skill, prudence, and diligence that a prudent fiduciary familiar with the matters and the circumstances of each particular decision would use in the conduct of a similar enterprise with like aims. The Board must diversify fund investments so as to minimize risk of loss and maximize the rate of return, unless under the circumstances it is clearly prudent not to do so. The Board may invest or delegate the authority to invest Fund assets through the purchase, holding, or sale of any form or type of investment, financial instrument, or financial transaction when prudent in the informed opinion of the Board.

In order to exercise its fiduciary duties, the Board has the responsibility to stay informed and affirmatively conduct oversight of LACERA's investment program, including receiving, reviewing, and engaging on investment performance and compliance information and reports.

B. Ethics and Code of Conflicts

The Board and LACERA staff must refrain from personal activity that could conflict with the proper management of the investment program, or that could impair their ability to make decisions in compliance with fiduciary duty. Further details are defined in LACERA's Code of Ethical Conduct, Conflict of Interest Code, the Political Reform Act, Fair Political Practices Commission regulations, and other applicable law.

C. Process

Because the Board is a governing body of a public agency, the Board and its members must conduct business according to the State of California Ralph M. Brown Act, which provides that Board meetings, deliberations, and actions must be public unless subject to a specific closed session exception. The Board may go into closed session to discuss the purchase and sale of particular, specific investments under the Brown Act.

Investment Policy

I. Investment Philosophy and Strategy

A. Objectives of the Investment Program

LACERA follows a carefully planned and executed strategic investment program in order to:

- i. **Produce** the promised benefits for LACERA members and beneficiaries by achieving the Fund's assumed rate of return on a total return basis over the long-term, consistent with LACERA's mission;
- ii. **Protect** the promised benefits on behalf of LACERA members and beneficiaries by mitigating investment risks through Fund diversification and other means, consistent with LACERA's mission; and
- iii. **Provide** the promised benefits for LACERA members and beneficiaries, in part by ensuring adequate liquidity, consistent with LACERA's mission

B. Investment Beliefs

The Board has adopted the following investment beliefs ("Investment Beliefs") to describe its core beliefs and underlying assumptions about how capital markets operate. Collectively, the Investment Beliefs provide a framework to guide LACERA's investment decisions in a manner consistent with the Fund's nature as an institutional investor with a long-term investment horizon in order to achieve the Fund's objectives defined above.

i. Strategic Asset Allocation

Long-term strategic asset allocation will be the primary determinant of LACERA's risk/return outcomes.

- a. It is important that LACERA be forward-looking, as its investment horizon spans decades, if not indefinitely, into the future.
- b. Strategic asset allocation has a greater effect on return variability than asset class investment structure or manager selection.
- c. Strategic asset allocation is a critical source of investment diversification to optimize growth and mitigate risk across the total Fund.
- d. Strategic asset allocation must carefully consider plan liabilities, actuarial assumptions, and capital market assumptions.
- e. Rebalancing the portfolio is a key aspect of prudent long-term strategic asset allocation policy.

ii. Market Dynamics

Capital market efficiencies inform LACERA's strategic asset allocation and portfolio construction.

- a. The efficiency of financial markets may vary by market segment, geographic region, geopolitical regimes, and across public versus private markets.
- b. Market transparency, the regulatory environment, behavioral finance factors, and investment time horizons may influence and shape market efficiency.

- c. LACERA's investment processes should be adequately nimble to prudently capture attractive investment opportunities.

iii. Return

Risk and return are expected to be positively correlated over long-term periods. Returns can be enhanced through active strategies, illiquid investments, and leverage; however, such strategies need to be balanced with LACERA's risk tolerances, portfolio objectives, and liquidity needs.

- a. Active strategies will be used when they are expected to add value net-of-fees while adjusting for risk.
- b. The total capital allocated to illiquid strategies must be kept at a prudent level.
- c. Liquid assets serve a critical role to fund benefit payments and rebalance the portfolio.

iv. Risk

Risk is a broad term used to capture the concept of uncertainty. No single metric adequately conveys risk. LACERA will evaluate risk holistically, incorporating quantitative measures and qualitative assessments in managing its portfolio. Monitoring and managing risk is a key focus for LACERA. Risk that is not expected to be rewarded over the long-term, or mitigated through diversification, will be minimized.

Risks confronted by LACERA include, but are not limited to:

- a. Investment Risks (macroeconomic, volatility, leverage, illiquidity, geography, currency, political, credit, environmental, social, and governance); and
- b. Operational Risks (valuation, counterparty, benchmarking, business continuity, talent management, cybersecurity, reputational, fraud, regulatory, and conflicts of interest).

v. Governance

Strong governance is critical for LACERA to achieve its investment objectives.

Strategic direction-setting by the Board, prudent delegation of day-to-day portfolio management, and effective organizational controls and oversight are important components of strong governance.

vi. Stewardship

LACERA recognizes that environmental, social, and corporate governance factors (ESG) may present financial risks and opportunities for the Fund. LACERA seeks to identify, evaluate, and manage financially relevant ESG factors in its investment process—including portfolio construction, investment due diligence, and stewardship strategies—to safeguard and enhance Fund performance.

vii. Terms

Investment outcomes are determined by risk, returns, and costs. All three must be managed, and each mandate should be structured with the best possible terms available across the total Fund to enhance future outcomes.

- a. The breadth of LACERA's presence in financial markets is an asset to influence terms and fees.
- b. Consideration of net-of-fees returns is an integral part of a successful long-term investment strategy.
- c. Costs, fees, and terms should be actively monitored and negotiated to the greatest extent possible.

viii. Productivity

People and resources matter. Constructive talent management, efficient operations and procedures, and a commitment to ongoing education and improvement are essential to optimizing LACERA's investment performance.

- a. Human Capital: Trustees and staff are vital to executing LACERA's investment program. LACERA must cultivate a talented and collaborative workforce that is inclusive of diverse perspectives and backgrounds and demonstrates a steadfast commitment to high ethical conduct.
- b. Education: In an increasingly complex and dynamic investment universe, continued education on investment concepts and investment strategies within that universe is fundamental for long-term success.
- c. Operations: Strong operational processes and sufficient resources can maximize efficiency, mitigate risks, and optimize investment performance.

C. Strategic Asset Allocation

LACERA fundamentally believes long-term strategic asset allocation will be the primary determinant of risk/return outcomes, and therefore establishes a strategic asset allocation to meet its mission and investment objectives.

LACERA's strategic asset allocation categorizes capital outlays into five groups, defined by the function each allocation is intended to serve in the portfolio: (1) Growth, (2) Credit, (3) Real Assets and Inflation Hedges, (4) Risk Reduction and Mitigation, and (5) Overlays and Hedges. The functional categories include various asset classes that represent the risk/return characteristics of each area.

LACERA expects the five functional categories to diversify the Fund and optimize upside growth while mitigating downside risk. The asset allocation determines what proportion of the Fund is allocated to each functional category and underlying asset class, including target weights and allowable ranges as a percentage of the Fund.

In order to determine its strategic asset allocation, LACERA conducts a comprehensive asset allocation study every three to five years, or at the Board's request. The asset allocation study considers a number of factors, such as:

- A projection of actuarial assets, liabilities, benefits payments, contributions, and the actuarial rate of return for the Fund, as well as its current and projected funded status.
- Historical results and expected long-term capital market risk, return, and correlation forecasts.
- An assessment of future economic conditions, including inflation and interest rate levels.
- Various risk/return scenarios.
- The Fund's liquidity requirements.

LACERA's approved asset allocation and benchmarks are detailed in the tables of the Appendix.

D. Overview of Strategic Asset Allocation

LACERA groups asset classes into the following functional categories:

i. Growth

- a. Role in the portfolio: The role of assets in this category is to be the primary driver of long-term total returns for the Fund.

- b. Asset Classes: Global Equity, Private Equity, and Non-Core Private Real Estate.
- c. Investment Approach: Growth assets generally represent equity or equity-like interests in current and future income streams. Growth assets include public and private market strategies that include both liquid and illiquid investments. LACERA utilizes passive strategies in relatively efficient segments of the market for global equity. LACERA employs active strategies in relatively less efficient market segments of global equities, as well as in private equity and non-core private real estate.
- d. Risk Factors: Growth assets are primarily equity ownership positions that tend to perform well in times of positive economic growth. They are highly sensitive to economic conditions and are subject to potential loss in value based on a number of factors. For example, growth assets may be sensitive to inflation and generally perform poorly in times of high and unexpected inflation. To a lesser extent, growth assets may be sensitive to interest rates due to the use of leverage in certain strategies as well as the relationship between interest rates and the discount rates used to price securities.

ii. Credit

- a. Role in the portfolio: LACERA expects assets categorized as Credit to produce current income and moderate long-term total returns. Credit has more moderate levels of risk than assets categorized as Growth, and, accordingly, provides incremental diversification to the total Fund.
- b. Asset Classes: Liquid Credit (High Yield, Bank Loans, Emerging Market Debt), and Illiquid Credit.
- c. Investment Approach: Credit assets are generally fixed claims on assets or income streams of an issuer (e.g., government, corporation, asset-backed securities). The category is composed of certain fixed income, hedge funds, real estate, and private debt investments. Investment strategies within this category may have a specific mandate or be multi-strategy. The investment strategies may be liquid, illiquid, or a combination of both, depending on the nature and terms of the specific investment vehicle. LACERA employs active strategies across all asset classes within the Credit category but may employ passive strategies in certain segments that are relatively more efficient.
- d. Risk Factors: The primary risk for owners of Credit assets is the failure of the borrower to make timely payments of interest and principal. There are three elements of credit risk: the risk of default, the risk of a credit downgrade, and spread risk, which is the risk that investors may demand greater compensation for bearing the first two types of risk. Bonds with credit risk offer a yield premium over government bonds to compensate investors for the additional risk. Bonds with greater credit risk (i.e., bonds with lower credit ratings) are typically less liquid than higher quality bonds.

iii. Real Assets and Inflation Hedges

- a. Role in the portfolio: LACERA expects assets in this category to provide income as well as a hedge against inflation, while diversifying the Fund due to the assumed low correlation of returns between these assets and other asset classes.
- b. Asset classes: Core Private Real Estate, Natural Resources & Commodities, Infrastructure, and Treasury Inflation-Protected Securities (“TIPS”).
- c. Investment Approach: Real Assets generally include physical assets, such as real estate and infrastructure, or securities whose value is derived from a physical asset, such as commodities or natural resources. Assets in this category may be invested in both public and private investments and may be liquid or illiquid, as well as passively or actively managed.
- d. Risk Factors: Real Assets and Inflation Hedges are sensitive to inflation. The primary risk for owners of real assets/inflation hedges is that they fail to provide a hedge against long-term changes in

inflation. A secondary risk is loss of principal. The value of real estate and natural resources assets may fall, particularly during an economic downturn, but also due to idiosyncratic aspects of each asset. Diversification may offset asset-specific risk. Foreign assets are also subject to currency movements against the U.S. dollar. TIPS are exposed to liquidity risk, as they tend to be less liquid than nominally U.S. Treasuries, particularly during a market environment in which there is a flight to safety.

iv. Risk Reduction and Mitigation

- a. Role in the portfolio: LACERA expects assets in this category to provide moderate amounts of current income by generating a modest level of return while also reducing total Fund risks, in part by preserving capital in the event of a downturn in equity markets. LACERA anticipates that assets in this category will have a low level of volatility and a low correlation to Growth assets, thereby providing downside protection. In the event of a market correction, these assets could also provide a source of liquidity for benefit payments.
- b. Asset classes: Investment Grade Bonds, Diversified Hedge Fund Portfolio, Long-Term Government Bonds, and Cash.
- c. Investment Approach: The category is composed of investment grade bonds, diversified hedge funds, long-term government bonds, and cash. Cash is the least volatile asset class, as well as the most liquid; the flexibility it provides during periods of market decline helps to mitigate risk. Investment grade bonds comprise a mix of U.S. Treasuries, corporate debt, and other bonds of high quality, typically rated “BBB” or above by rating agencies. High quality bonds would be expected to protect the total Fund by retaining or increasing their value during a market correction. Diversified hedge funds comprise a variety of hedged investments, such as relative value, arbitrage, and long/short strategies within a diversified portfolio. They would be expected to produce returns at or above high-grade bond portfolios, with equal or lower volatility, and be largely uncorrelated with other portfolio assets.
- d. Risk Factors: The primary risk factor for Risk Reduction and Mitigation Assets is that they will fail to provide the anticipated level of protection during market downturns. Assets in this category are also subject to additional risks. For example, investment grade bonds are sensitive to fluctuations in interest rates and have some risk of default. Cash can include short-term instruments and vehicles where there is a low probability of loss of principal.

v. Overlays and Hedges

- a. Role in the portfolio: The category consists of overlays and hedges as a distinct functional category LACERA expects exposures in this group to assist in adhering to total Fund policy allocation targets, meeting asset class-specific objectives, and managing portfolio risk.
- b. Asset classes: Total Fund and all BOI approved asset classes may be utilized or subject to overlays and hedging strategies.
- c. Investment Approach: The category is composed of derivatives and synthetic replication investment vehicles that emulate LACERA's physical assets, holdings, foreign currency, or market exposures via overlay and hedging programs. The separation of these mandates into one category allows for increased ability to monitor exposures across the total Fund and enhances the ability to evaluate performance, attribution, portfolio impacts, and risk drivers across individual asset categories and the total Fund.
- d. Risk Factors: The primary risk factors for Overlays and Hedges are exposure mismatch and benchmarking. Best efforts will be made to replicate LACERA's underlying exposures and risk; however, there may be instances when the vehicles used will not mirror a given asset, causing an exposure mismatch. Another consideration is benchmarking. Benchmarking overlay and hedging programs is challenging

as positions are often resized more frequently than underlying physical exposures, and mandates may be used to achieve multiple objectives or be a temporary portfolio construction tool.

E. Performance Objectives

The Fund's long-term performance objective is to generate risk-adjusted returns that meet or exceed its defined actuarial target as well as its policy benchmark, net-of-fees, over the Fund's designated investment time horizon. LACERA's policy benchmarks at the total Fund level, the functional category level, and the asset class level can be found in the Appendix.

F. Rebalancing

LACERA considers rebalancing the Fund a key aspect of prudent long-term portfolio management. LACERA rebalances the Fund's portfolio in accordance with established guidelines and procedures to adhere to its approved strategic asset allocation, consistent with the Fund's stated Investment Beliefs. The approved ranges for each functional asset category and underlying asset class are defined in the Appendix.

G. Responsible Stewardship and Beneficial Ownership Rights

In pursuing its investment program, and as part of mitigating risks associated with LACERA's investments, LACERA seeks to manage its investments in a manner that promotes and safeguards the economic interests of LACERA and its members, consistent with LACERA's mission. LACERA prudently exercises its rights as an investor to support policies and practices at companies in which LACERA invests, as well as public policies governing financial markets, that are consistent with LACERA's economic interests. In doing so, LACERA aims to promote sustainable, long-term value on behalf of its members and enhance LACERA's ability to fulfill its mission. LACERA has therefore adopted Corporate Governance and Stewardship Principles (see Attachments). Beneficial ownership rights pertaining to LACERA's investments, including, but not limited to, proxy voting, are managed in accordance with LACERA's Corporate Governance and Stewardship Principles.

H. Integration of Environmental, Social, and Governance (ESG) Factors

LACERA recognizes that environmental, social, and governance factors may influence the risk-return profile and financial performance of investments. Financially material ESG factors may vary by industry, geographic exposure, business strategy, investment time horizon, and other variables. LACERA endeavors to identify, assess, and manage relevant ESG factors in its market research, portfolio construction, and throughout its investment process in furtherance of its mission and fiduciary duties. Careful consideration of ESG factors throughout LACERA's investment process aims to generate sustainable investment returns. LACERA assesses and monitors all investment partners on their capacity and skill in evaluating ESG risks and opportunities in a compelling manner to enhance LACERA's risk-adjusted returns.

I. Diversity, Equity, and Inclusion

LACERA values diversity, equity, and inclusion, and believes that effectively accessing and managing diverse talent leads to improved outcomes. LACERA considers diversity broadly, inclusive of—but not limited to—professional backgrounds, age, experience, race, sexual orientation, gender, gender identity, disability status, military service, ethnicity, national origin, and culture. LACERA expects external asset managers and other third party providers to respect and reflect LACERA's value of diversity, equity, and inclusion. LACERA's ongoing monitoring of third party service providers incorporates an assessment of vendors' commitment to, adherence with, and track record of accessing and retaining diverse workforces in an inclusive and equitable manner.

II. Investment Process

The following sections articulate the general parameters and processes by which LACERA executes its investment strategy, in accordance with its fiduciary duties.

A. Structure Review

After an asset allocation study apportions capital across categories, LACERA conducts a Structure Review to address how to implement each asset category. A Structure Review establishes the framework for each asset category by addressing its role and expected risk profile within a total Fund context. The Structure Review evaluates the objectives, portfolio composition, related strategic initiatives, and how the portfolio may evolve in the near to medium term. These reviews are presented to the Board for its approval no less frequently than the comprehensive asset allocation study conducted for the total Fund, or at the Board's request. To assist the Board and staff in carrying out their duties, Structure Reviews provide guidelines, including, but not limited to, Board-approved benchmarks, subcategory target allocation ranges, geographic market target allocation ranges, and any pertinent parameters on asset manager diversification relevant to the asset category.

B. Investment Management

i. Investment Agreements

Approved investment recommendations are subject to negotiation and execution of an agreement that, in the judgment of LACERA's Chief Investment Officer and Chief Counsel, includes all terms necessary to provide adequate protection for LACERA's interests under the circumstances of the transaction, including, but not limited to, an appropriate standard of care on the part of the investment manager.

ii. Selection and Monitoring

LACERA may utilize internal resources or externally managed portfolios implemented by asset management firms and service providers to effectuate LACERA's investment program. In determining whether to use internal or external resources to implement a specific investment mandate, strategy, or investment-related service, LACERA takes into consideration numerous factors, including, but not limited to, return expectations, associated risks, compliance requirements, and expenses related to the specific strategy or service.

LACERA has adopted formal procedures to guide the selection, appointment, and monitoring of external managers and service providers. LACERA expects any external party that manages Fund assets on behalf of LACERA to serve as a fiduciary.

iii. Costs

LACERA considers the costs and expenses related to executing its investment program to be a crucial component of its fiduciary duty and an important element in determining its strategic asset allocation. In all aspects and functions of its investment program, LACERA seeks to actively identify, assess, and monitor expenses. LACERA expects that the economic terms and conditions by which any external party is compensated for investment-related services should promote an alignment of interests between LACERA and the external party in fulfilling LACERA's mission and investment objectives. Accordingly, LACERA diligently attends to and negotiates the economic terms of investment services rendered to the Fund.

C. Liquidity Management and Other Investment Functions

The following sections provide the general guiding principles and parameters for certain components of LACERA's investment process, including liquidity management, the use of derivative instruments, securities lending, and certain prohibited transactions.

i. Liquidity and Cash Management

Effective cash management is integral to LACERA's investment process. LACERA strives to maintain appropriate levels of liquidity—i.e., the ability to convert investments into cash—in order to meet immediate or short-term obligations and liabilities, such as funding member benefits, meeting capital calls, and rebalancing the portfolio per the strategic asset allocation. LACERA manages liquidity by monitoring the Fund's aggregate liquidity and liquidity risk exposures.

ii. Derivatives Management

LACERA may employ derivative instruments to hedge or gain exposure to certain investments. A derivative is a financial instrument that derives its value from an underlying asset which represents direct ownership of a security or a direct obligation of an issuer. Derivatives may be exchange-traded or traded over the counter (OTC). LACERA expects that any use of derivatives by external managers must adhere to LACERA's policies and investment guidelines.

iii. Securities Lending

LACERA may lend designated securities to provide the Fund with additional income generation and offset administrative expenses. LACERA lends eligible securities (both U.S. and Non-U.S. equities and bonds) to approved and qualified borrowers, subject to the terms and conditions specified in LACERA's contract agreements. Any securities lending activity is expected to be transparent to LACERA's external investment managers and should not impede or otherwise impair the investment management process.

iv. Prohibited Transactions

LACERA prohibits the following transactions unless stated otherwise in the investment management agreement:

- "Prohibited transactions" as defined under the Employee Retirement Income Security Act of 1974 (ERISA)
- Transactions that involve a broker acting as a "principal," where such broker is also the investment manager (or an entity related to the investment manager) who is making the transaction
- Any or all applicable investment activities forbidden by the United States Securities and Exchange Commission or other applicable governing bodies
- Any acts or omissions that violate state and local laws regarding conflicts of interest and disclosures

LACERA does not lever the Fund's investment portfolio as a whole. However, leverage is implicit in many investment strategies. LACERA expects that any use of leverage by external managers must adhere to LACERA's established policies and investment guidelines.

III. Risk Management

LACERA manages risk by establishing and adhering to investment guidelines, pursuing multiple approaches to diversification (such as asset class, geography, liquidity profile, currency, and degree of active management), and conducting regular measurement and analytical exercises. LACERA assumes certain risks to achieve sufficient returns to meet the Fund's financial obligations and investment objectives. Investment risks pertain to the prospect of a permanent loss of capital or of not meeting objectives within the designated timeframe. LACERA seeks to mitigate the impact of a drawdown to the Fund in order to accomplish its investment objectives, reduce volatility, and avoid increased contributions to the Fund from the plan sponsor or employees.

A. Philosophy and Objectives

LACERA considers risk multi-faceted and, therefore, views risk from multiple perspectives. Risk may vary and evolve over time, across sectors or geographic exposures, and depends on the nature and terms of the investment vehicle that LACERA deploys to implement the Fund's investment strategies. Risk may be systematic (i.e. present across the market) or unsystematic (i.e., specific to a particular investment strategy). A risk may pertain to and potentially impact the total Fund, a functional asset category, or individual underlying asset classes.

LACERA seeks to diligently identify, assess, and monitor relevant investment risks throughout the investment process, from determining its strategic asset allocation to ongoing evaluation and monitoring of the Fund's performance. This helps to ensure that risks assumed by the Fund are intentional and adequately compensated.

B. Approach

LACERA's strategic asset allocation attempts to position the Fund to capture growth while mitigating large drawdowns. LACERA's investment strategy is designed to take intentional risk, called active risk, in order to achieve commensurate investment results. LACERA may define expectations for active return earned per unit of active risk taken for various investment strategies and portfolios.

LACERA seeks to identify and acknowledge the sources and types of risk inherent in each investment strategy. However, LACERA also recognizes that even sophisticated risk measurement techniques may not detect certain risks, including extreme events, in advance. Accordingly, risk models may only provide limited predictive qualities. LACERA endeavors to test and challenge investment strategies and assumptions prior to a capital outlay as well as for ongoing monitoring.

LACERA measures investment risk using multiple metrics on both an absolute and relative basis at all relevant levels (i.e., total Fund, functional asset categories, and underlying asset classes). LACERA also strives to employ stress testing, scenario analyses, and broader financial and economic analyses to understand current and potential risks related to its investment strategy and decisions. LACERA selects appropriate benchmarks to assess and determine whether investment risks taken by the Fund are appropriate in order to achieve expected investment returns.

LACERA may establish a risk budget to set active risk targets for each functional asset category and underlying asset classes. LACERA aims to minimize unintended risk caused by asset allocation drift or other factors.

IV. Roles and Responsibilities

LACERA has established the following roles and responsibilities to implement its investment program. The duties explained below apply to the Board, staff, and various external parties who collectively oversee and administer the functions necessary for LACERA to accomplish its investment objectives.

The overview outlined below is further complemented by the following documents: Board of Investments Charter, Board of Investments Regulations, and the Board's Funding Policy, among other policies adopted by the Board.

A. Board of Investments

i. Board

The Board is vested by the California Constitution and the County Employees Retirement Law (CERL) with the authority and fiduciary responsibility for LACERA's investment program. The exclusive fiduciary responsibility of the Board is to ensure prudent investment and management of the Fund so as to provide for the timely payment of benefits to members and their beneficiaries, minimize employer contributions, and defray the reasonable cost of administration, with the duty to members being paramount. It is the responsibility of the Board to ensure that LACERA employees administer Fund investments at reasonable cost, while preserving the quality of investments.

The Board has the duty to ensure that the portfolio's investments are diversified so as to minimize the risk of loss and maximize the rate of return, unless under the circumstances it is clearly not prudent to do so. The Board has the sole and exclusive power to provide for actuarial services in order to ensure the competency of system assets, which in turn informs the Board's exercise of its responsibility for investment of assets. In determining the Fund's strategic asset allocation and investment guidelines, the Board may permit the investment of fund assets in any form or type of investment deemed prudent.

In fulfillment of its plenary authority and fiduciary duties, the Board performs the following roles:

- Undertakes an informed investigation and evaluation of the Fund's financial obligations by conducting periodic asset/liability studies and actuarial analysis and approves LACERA's Funding Policy.
- Upon investigation, valuation, and recommendation of a qualified actuary, the Board recommends to the Board of Supervisors the rates of interest, rates of member contributions, and any county and district appropriations as necessary in advance of each fiscal year.
- Approves the Fund's expected rate of return.
- Approves LACERA's Investment Policy Statement, including establishing the Investment Beliefs that frame it, to guide implementation of LACERA's investment program.
- Approves a strategic asset allocation for the Fund, including, but not limited to, investment allocations and benchmark targets within defined asset categories.
- Approves Structure Reviews for each defined asset category of LACERA's strategic asset allocation including, but not limited to, establishing the following: investment allocations within defined investible categories; target allocations and ranges; benchmarks by which to measure and monitor performance; and other portfolio guidelines.
- Actively reviews, monitors, and questions the investment and administration of the portfolio, requests such information as may be necessary to perform its responsibilities, and responds to issues relative to the portfolio and its administration as may periodically arise.

- Performs additional administrative functions, as defined in the Board of Investments Charter and Board policies and direction, and as necessary to perform its responsibilities under this policy.

The Board is vested under CERL with the authority to delegate certain responsibilities, including the authority to invest, when prudent in the informed opinion of the Board. The Board exercises oversight of all aspects of the investment program.

- The Board selects, approves, and reviews investment consultants, actuaries, and fiduciary counsel (consistent with LACERA's Policy on Fiduciary Counsel) to provide research, analysis, and recommendations to assist the Board in making prudent and informed decisions in line with its fiduciary duties.
- The Board delegates to the Chief Investment Officer ("CIO") the authority to select, fund, and terminate asset managers consistent with fulfilling the provisions and guidelines as approved by the Board and defined in this IPS, the strategic asset allocation, asset class Structure Reviews, and other Board-approved policies.

The Board has the affirmative responsibility to oversee the management of the Fund in compliance with all aspects of this IPS and other Board policies and directives, and all applicable federal and state laws and regulations concerning the administration of a government pension plan. The Board has the duty to stay informed, including requesting, receiving, and reviewing information, and to monitor and make inquiries based on that information to assist in its responsibility of conduct oversight of the investment program. To that end, the Board receives and has the duty to receive and review annual and quarterly reports of Fund performance (including asset categories and asset managers), as well as investment risks and compliance to prudently inform the Board's oversight. The Board may request staff and investment consultants to inform and make recommendations on any matters pertinent to LACERA's investment operations.

ii. Committees

To assist the Board in carrying out its duties, the Board may establish one or more committees ("Committee"). A Committee makes recommendations to the Board on investment actions related to its area of focus. A Committee may request staff and investment consultants to inform and make recommendations to it on matters pertinent to LACERA's investment program.

B. Staff

LACERA staff implement Board-approved policies in adherence to fiduciary duties, LACERA's Code of Ethical Conduct, and the LACERA Conflict of Interest Code. Staff are charged with the responsibility of providing the Board with information to assist Trustees in exercising their roles and responsibilities and fulfilling their fiduciary duties.

i. Chief Executive Officer

The Board and LACERA'S Board of Retirement jointly appoint the Chief Executive Officer ("CEO"). The CEO is responsible for planning, organizing, and administering the operations of LACERA under policy guidance and direction from the Board and the Board of Retirement. The CEO exercises administrative oversight of the CIO, excluding investment decisions delegated to the CIO. The Board provides input to the CEO in the CEO's oversight of the CIO.

ii. Chief Investment Officer and Investment Staff

The CIO and investment staff manage the portfolio according to the Board's policies, advise and inform the Board about investments, assist with development and review of investment policies and procedures, oversee operational aspects of the Fund, report on the progress of the Fund in meeting its investment objectives, make any appropriate recommendations, and monitor and report to the Board on the performance of the Fund relative to the appropriate benchmarks. The Board has delegated specific investment authority and responsibility directly to the CIO:

- Conduct searches for external asset managers in line with LACERA's Board-approved Procurement Policy to provide investment services.
- Approve the selection and termination of external asset managers, with the concurrence of relevant Board-approved investment consultants for the asset class, to implement Board-approved strategic asset allocation and asset category Structure Review investment guidelines. The CIO also has authority to approve temporary variances from asset-level program and investment manager guidelines.
- Approve co-investments, secondary transactions, re-ups, and advisory board seats in adherence with Board-approved strategic asset allocations and asset category Structure Review investment guidelines.
- Approve, or delegate authority to sign, all investment-related contracts and agreements necessary to implement Board-approved strategic asset allocations and Structure Reviews that, in line with the Board-approved Procurement Policy and in the judgment of the CIO and Chief Counsel, provide adequate protection for LACERA's interests, including an appropriate standard of care on the part of each manager.
- Authorize the formation, dissolution of, and designation of officers for the Title Holding Companies of real estate portfolio holdings.
- Approve rebalancing the Fund in order to raise cash for benefit payments, adjust investment exposures, or pay operational expenses while adhering to investment policy targets outlined within Board-approved strategic asset allocations and asset category Structure Review investment guidelines.
- Approve actions as outlined in the Board-approved Procurement Policy.
- Approve limiting or freezing manager trading activity. Such actions are reported to the Board as reasonably practical and no later than the next scheduled meeting of the Board.
- Approve actions not otherwise specifically delegated, in concurrence with the CEO and the Chair of the Board, when deemed necessary in the best interest of the Fund and when there is not enough time to take the action to the full Board. Such actions are reported as reasonably practical to the full Board, and no later than the next scheduled meeting of the Board.
- Oversee an annual self-evaluation process for internal investment committees.

The CIO is authorized and directed to interact with and communicate directly with the Board regarding all investment-related matters. The internal investment staff reports to the CIO, who in turn reports to the CEO, with input of the Board. The CEO does not have any authority over any and all investment decisions that are delegated to the CIO.

LACERA's Board-approved Crisis Plan provides guidance in the event that the CIO is not available to implement delegated authorities.

iii. Chief Counsel and Legal Staff

The Office of Chief Counsel and legal staff (Legal Counsel) are primarily responsible for legal issues

concerning the investment program and advise the Board, CEO, CIO, and staff on investment-related legal matters. Legal Counsel advises the Board in performing its fiduciary responsibility. In addition to reliance upon internal resources for such matters and on fiduciary counsel, the Chief Counsel or designee within the Legal Office may retain other external legal counsel, when deemed necessary and appropriate, to advise staff, negotiate and prepare contracts on investment-related matters and individual transactions, and provide other investment legal advice to protect LACERA's interests, including its status as a tax-exempt government plan.

C. Third Party Service Providers

LACERA may engage external service providers, as described below, to implement its investment program. All service providers, unless otherwise not applicable, are expected to serve as fiduciaries to the Fund in fulfilling their contracted services. Third party service providers must refrain from gift-giving or other efforts that may jeopardize the impartiality, or appearance thereof, of LACERA's Board and staff.

i. Investment Consultants

An investment consultant works for the Board in the oversight and implementation of investment objectives. In meeting the Board's objectives, investment consultants may work with staff and investment managers. The Board's general investment consultant provides advice and recommendations to the Board or Committee regarding LACERA's strategic objectives, risks, oversight, and implementation of investment objectives. Investment consultants, both general and specialized, provide advice and recommendations regarding strategic asset allocation, portfolio implementation, and oversight of the Fund to the Board, CIO, and staff. Investment consultants provide analysis, advice, and recommendations to staff on asset manager selection and monitoring. Investment consultants report to the Board or the Committee, as directed, and serve as an independent resource accountable to the Board. Investment consultants have a fiduciary duty to LACERA and must report economic interests and conflicts in accordance with California law and LACERA policy, including the Code of Ethical Conduct and filing of Form 700s.

ii. Custodian Bank

The Custodian Bank ("Bank") serves as a fiduciary in the safekeeping of Fund assets. The Bank is responsible for maintaining the Fund's official accounting book of record, including the ongoing pricing and valuation of all assets, collection of income generated by those assets, any corporate action notification, and performance calculation. The Bank cooperates with and provides assistance to staff and investment managers in the reconciliation process. LACERA may opt to designate other duties to the Bank as stipulated in the professional services agreement. LACERA's investment office works with LACERA's accounting division to manage the custodial relationship.

iii. Investment Managers

Investment managers, subject to the terms and conditions of this IPS and applicable laws and regulations, serve LACERA through contracts that specify investment guidelines administrative requirements, responsibilities, investment fees, and performance expectations for management of each mandate. Investment managers provide reporting to LACERA on the performance of specific investment mandates in adherence to established guidelines and agreements. Staff and consultants synthesize investment managers' performance for presentation to the Board in accordance with established performance monitoring and oversight procedures. Investment managers should accept a fiduciary duty to LACERA, must report economic interests and conflicts in accordance with California law and LACERA policy,

including the Code of Ethical Conduct and filing of Form 700s, and enforce their own diversity, ethics, and sexual harassment policies.

iv. Other Third Party Service Providers

Additional third party service providers may be retained, subject to the terms and conditions of LACERA's established policies and procedures, in order to perform other duties to assist in the administration of the Fund.

V. Policy Review

The Board reviews the Investment Policy Statement upon approval of any new strategic asset allocation, or at the discretion of the Board.

Appendix

Investment Tables

Table 1: Approved Asset Allocation

Asset Class	Target Allocation (%)	Allocation Range +/- (%)	Target Allocation (½ Step) 10/1/2021
Growth	53	+/-8	51
Global Equity	32	+/-7	34
Private Equity	17	+3/-5	14
Non-Core Private Real Estate	4	+/-2	3
Credit	11	+/-3	11
Liquid Credit	4	+/-3	6
Illiquid Credit	7	+/-3	5
Real Assets and Inflation Hedges	17	+/-3	17
Core Real Estate	6	+/-3	6
Natural Resources & Commodities	3	+/-2	4
Infrastructure	5	+1/-3	4
TIPS	3	+/-3	3
Risk Reduction and Mitigation	19	+/-6	21
Investment Grade Bonds	7	+/-6	13
Diversified Hedge Funds	6	+2/-4	5
Long-term Government Bonds	5	+/-5	2
Cash	1	+2/-1	1
Overlays and Hedges	0		0
Cash Overlay	0		0
Currency Hedge	0		0
TOTAL FUND	100.0		100.0

Table 2: Benchmark Table

Asset Class	Benchmark
Growth	Custom Blend
Global Equity	MSCI ACWI IMI Net
Private Equity	MSCI ACWI IMI + 200 bps (3-Month lagged)
Non-Core Real Estate	NFI ODCE + 225 bps (3-Month lagged)
Credit	Custom Blend
Liquid Credit	40% BBg Barc U.S. Corporate High Yield; 40% Credit Suisse Leveraged Loans; 10% JP Morgan EMBI GD; 5% JP Morgan GBI-EM GD; 5% JP Morgan CEMBI BD
Illiquid Credit	Custom Liquid Credit Benchmark + 150 bps (1-Month lagged)
Real Assets and Inflation Hedges	Custom Blend
Core Real Estate	NFI ODCE (3-Month lagged)
Natural Resources & Commodities	33% Bloomberg Commodity; 66% S&P Global Natural Resources TR
Infrastructure	Dow Jones Brookfield Global Composite Infrastructure TR
TIPS	BBg Barc U.S. TIPS
Risk Reduction and Mitigation	Custom Blend
Investment Grade Bonds	BBg Barc U.S. Aggregate TR
Diversified Hedge Funds	FTSE 3-Month US Treasury Bill + 250 bps (1-Month lagged)
Long-term Government Bonds	BBg Barc U.S. Long Treasury Bond
Cash	FTSE 3-Month U.S. Treasury Bill
Overlays and Hedges	N/A
Cash Overlay	—
Currency Hedge	—
TOTAL FUND	Custom Blended Policy Benchmark

Policy History

Restated November 8, 2018
Revised December 11, 2019
Revised August 11, 2021
Revised December 14, 2022
Revised November 8, 2023

List of Attachments

Corporate Governance and Stewardship Principles
Responsible Contractor Policy
Emerging Manager Policy
Placement Agent Policy
Private Equity Privatization Policy
Procurement Policy for Investment-Related Services

**FOR INFORMATION ONLY**

November 16, 2023

TO: Each Trustee
Board of Retirement
Board of Investments

FROM: Joint Organizational Governance Committee
Herman B. Santos (BOI) Chair
David Green (BOI) Vice Chair
Gina Sanchez (BOI)
Onyx Jones (BOI)
Shawn Kehoe (BOR)
Alan Bernstein (BOR)
Elizabeth Greenwood (BOR)
Ronald Okum (BOR)

FOR: December 6, 2023 Board of Retirement Meeting
December 13, 2023 Board of Investments Meeting

SUBJECT: **FY 2023-24 MID-YEAR BUDGET ADJUSTMENTS**

LACERA staff and management have the responsibility to monitor and forecast expenditures to ensure resources are being used as intended to meet the organization's needs. To support this responsibility, LACERA's Budget Policy, attached, calls for a mid-year budget review process where the Boards may address any enterprise critical, unforeseen, and emergency resources not included in that current fiscal year's budget. The mid-year budget review shall be presented to the JOGC for information or action if required. Staff has completed its FY 2023-24 mid-year budget review and presented it to the JOGC on November 16, 2023. Because no additional appropriations, staffing, or adjustments outside of the Chief Executive Officer's (CEO's) authority are needed, no Board action is required. This memo is provided to the Board of Retirement and the Board of Investments as information only and supports LACERA's values of transparency and accountability.

ADMINISTRATIVE BUDGET

In June, the Boards adopted LACERA's FY 2023-24 Administrative Budget totaling \$135,747,974. The Administrative Budget includes two major account categories, Salaries and Employee Benefits (S&EB) with an adopted budget of approximately \$103.2 million and Services and Supplies (S&S) with an adopted budget of approximately \$32.6 million. Utilizing LACERA's new budget software, Questica Budget, staff and management have reviewed the current and projected expenditures as compared to the adopted administrative budget. No additional funding is required, and no new positions are recommended. However, staff has recommended, and the CEO has authorized, the

reallocation of \$692,500 between various accounts as detailed below:

Administrative Budget	FY 2023-24 Approved Budget	Mid-Year Adjustment Amount	Proposed Amended Budget	% Change
Salaries & Employee Benefits	\$103,263,874	(\$92,000)	\$103,071,874	(0.1%)
Services & Supplies	\$32,584,100	\$92,000	32,676,100	0.3%
Operating Budget Total	\$135,747,974	\$0	\$135,747,974	0.0%

A more detailed breakdown by Division is provided below:

Administrative Services Division: At staff's recommendation, the CEO has authorized the reallocation of \$119,000 within the Administrative Services Division as follows:

FROM:

GL Account No. - Name	Reason for Reallocation	Amount
9390 – Cyber Liability Insurance	Actual premiums were \$165,000 below budgeted levels due to improvements to LACERA's information security program and protocols.	(\$119,000)
Total		(\$119,000)

TO:

GL Account No. - Name	Reason for Reallocation	Amount
9106 - Special Order Automobile	The mailroom automobile required replacement earlier than planned for safety reasons. The cost of the new vehicle was partially offset by the salvage sale of the previous vehicle.	\$22,000
9201 - Postage Meter	Increases in USPS rates and volume greater than anticipated.	\$50,000
9384 – Earthquake/Flood Insurance	Actual rates were higher than anticipated based on general market risks.	\$12,000
9553 – Archive/Offsite Storage	Increased costs for records storage and retrieval services due to fuel surcharges and higher volume than anticipated.	\$15,000
9677 – Shredding Services	Increased costs for shredding services due to fuel surcharges and higher volume than anticipated.	\$20,000
Total		\$119,000

Board of Investments: At staff’s recommendation, CEO has approved the reallocation of \$61,000 within the Board of Investment’s (BOI’s) budget as follows:

FROM:

GL Account No. - Name	Reason for Reallocation	Amount
9961 - Memberships	Funds are available due the BOI’s decision not to renew its membership in Milken.	(\$54,000)
9983 – Off-site Board Meeting Expense	Savings are available due to the BOI’s decision to hold its 2023 off-site meeting on-site.	(\$7,000)
Total		(\$61,000)

TO:

GL Account No. - Name	Reason for Reallocation	Amount
9962 – Trustee Registration Fee	Required for four new appointed and elected Trustees to attend the Wharton Program in April.	\$54,000
9984 – Food and Beverages	Increased costs due to inflation and participation from staff and Trustees.	\$7,000
Total		\$61,000

Executive Office – The CEO has approved the reallocation of \$7,200 from within the Executive Office’s budget as follows:

FROM:

GL Account No. - Name	Reason for Reallocation	Amount
9023 – Gross Salaries	Savings are anticipated due to delays in hiring.	(\$7,200)
Total		(\$7,200)

TO:

GL Account No. - Name	Reason for Reallocation	Amount
9012 – Transportation Allowance	Rather than purchase a new vehicle, the DCEO opted for a monthly transportation allowance.	\$7,200
Total		\$7,200

Legal Office – In support of the establishment of an Ethics and Compliance Unit within the Legal office, resources are required to fund the efforts of Legal Office staff and the staff Ethics and Compliance Committee in conducting the foundational work necessary for the development of LACERA’s ethics and compliance program and the compliance and enterprise risk management pillar of the 2023 Board of Retirement’s Strategic Plan.

To support this activity, staff recommended, and the CEO authorized a new set of accounts for the Ethics and Compliance Unit to ensure proper allocation and reporting of compliance expenses from the other general expenses of the Legal Office. Staff further recommended and the CEO has approved reallocating \$182,700 from the Legal Office’s administrative budget to the newly created Ethics and Compliance Unit as follows in order to ensure independence and segregation of its expenses associated with the ethics and compliance function from the other expenses of the Legal Office:

FROM: LEGAL OFFICE (Organization Code 59307)

GL Account No. - Name	Reason for Reallocation	Amount
9023 – Gross Salaries	Salary savings are available to support the foundational work necessary to establish a new Compliance Unit with the Legal Office.	(\$182,700)
Total		(\$182,700)

TO: ETHICS AND COMPLIANCE UNIT (Organization Code 59319)

GL Account No. - Name	Reason for Reallocation	Amount
9023 – Gross Salaries	Partial year funding for the vacant Chief Ethics and Compliance Officer position previously allocated to the Legal Division.	\$90,700
9181 – Auto Mileage/ Transportation	Transportation expenses related to travel to educational conferences.	\$3,500
9182 – Travel	Educational conferences.	\$8,000
9772 – Outside Legal Counsel	Compliance consultant (Kaplan & Walker LLP).	\$20,000
9961 – Memberships	Society of Corporate Compliance and Ethics (SCCE) and Ethics and Compliance Initiative (ECI).	\$8,000
9962 – Registration Fees	Educational conferences.	\$7,500
9963 – Educational Materials	PLI subscription, Gartner subscription for the Ethics and Compliance Committee, and other material.	\$45,000
Total		\$182,700

Additional information about the Ethics and Compliance Program will be presented at the December 2023 Audit Committee Meeting at which an informational presentation, a proposed Ethics and Compliance Charter, and proposed revisions to the Audit Committee Charter, seeking to rename it as the Audit, Compliance, Risk, and Ethics (ACRE) Committee will be presented.

Member Services - At staff’s recommendation, the CEO has approved a reallocation of \$72,600 within the Member Services Division’s budget as follows:

FROM:

GL Account No. - Name	Reason for Reallocation	Amount
9023 – Gross Salaries	Savings are anticipated due to the internal transfer of a Sr. Administrative Assistant to another division.	(\$72,600)
Total		(\$72,600)

TO:

GL Account No. - Name	Reason for Reallocation	Amount
9004 – Agency Temp	Funding is required to backfill the Senior Administrative Assistant position with an Agency Temporary employee until an exam can be promulgated.	\$72,600
Total		\$72,600

Systems Division - At staff's recommendation, the CEO has approved a reallocation of \$250,000 within the Systems Division's budget as follows:

FROM:

GL Account No. - Name	Reason for Reallocation	Amount
9574 – Knowledge & Document Management	Due to delays in implementation, it is anticipated that the full budget for this project will not be required in FY 2023-24.	(\$200,000)
9843- LAN Network Hardware	Savings have been identified to prioritize equipment in support of the hybrid remote workforce.	(\$50,000)
Total		(\$250,000)

TO:

GL Account No. - Name	Reason for Reallocation	Amount
9831 – LAN Software & Licenses - New	The new Information Security Officer has identified the need for an ITGRC Platform (\$60,000); Automated Directory audit tool (\$40,000); and an eDiscovery tool (\$100,000). These costs are estimates and solutions will be procured in accordance with LACERA's contracting and procurement policy and procedures.	\$200,000
9354 – Remote Workforce Equipment	Funding is required to provide appropriate and updated equipment for staff working	\$50,000

	remotely in support of LACERA's hybrid work environment.	
		\$250,000

RETIREE HEALTHCARE BENEFITS PROGRAM (RHCBP) BUDGET

In June, the Boards also adopted the RHCBP Budget totaling \$12,685,439. The RHCBP Budget is structured like the Administrative Budget and includes approximately \$5.7M for S&EB and \$6.9M for S&S. Staff and management have reviewed the current and projected expenditures as compared to the adopted budget and the CEO has authorized a reallocation of \$165,200 from within the S&EB account category as follows:

FROM:

GL Account No. - Name	Reason for Reallocation	Amount
9023 – Gross Salaries	Savings resulting from two vacant positions (Senior Typist Clerk and Retirement Benefits Specialist III)	(\$133,200)
9079 – Health Insurance - Temps	Savings resulting from two vacant positions (Senior Typist Clerk and Retirement Benefits Specialist III)	(\$32,000)
Total		(\$165,200)

TO:

GL Account No. - Name	Reason for Reallocation	Amount
9004 – Agency Temp	Funding will allow for temporary staff to support service to members.	\$165,000
Total		\$165,000

In addition, staff is monitoring outside legal expenditures associated with a potential Tier III currently being discussed and negotiated between the plan sponsor and labor representatives. Los Angeles County shall be responsible for all such legal expenditures as well as any other costs to LACERA to implement and administer the proposed new benefit.

BUDGET TO ACTUAL

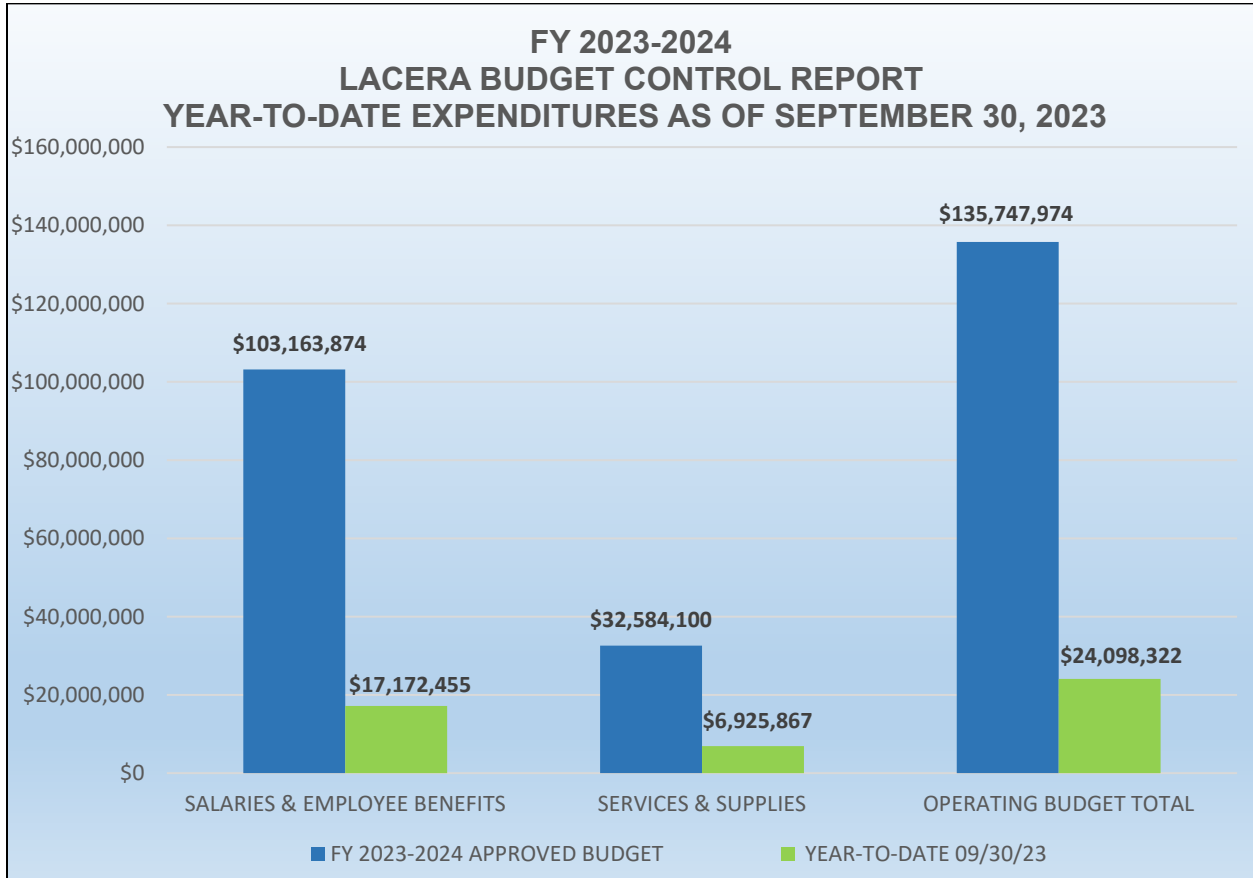
As part of its review and assessment of the FY 2023-24 Budget, Management reviewed actual expenditures through the first quarter of the fiscal year compared to the budget.

LACERA ADMINISTRATIVE BUDGET	FY 2023-2024 APPROVED BUDGET	YEAR-TO-DATE 09/30/23	OVER/(UNDER) BUDGET	% VARIANCE
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Each Trustee, Board of Retirement and Board of Investments
 Re: FY 2023-24 Mid-Year Budget Adjustments
 Page 7

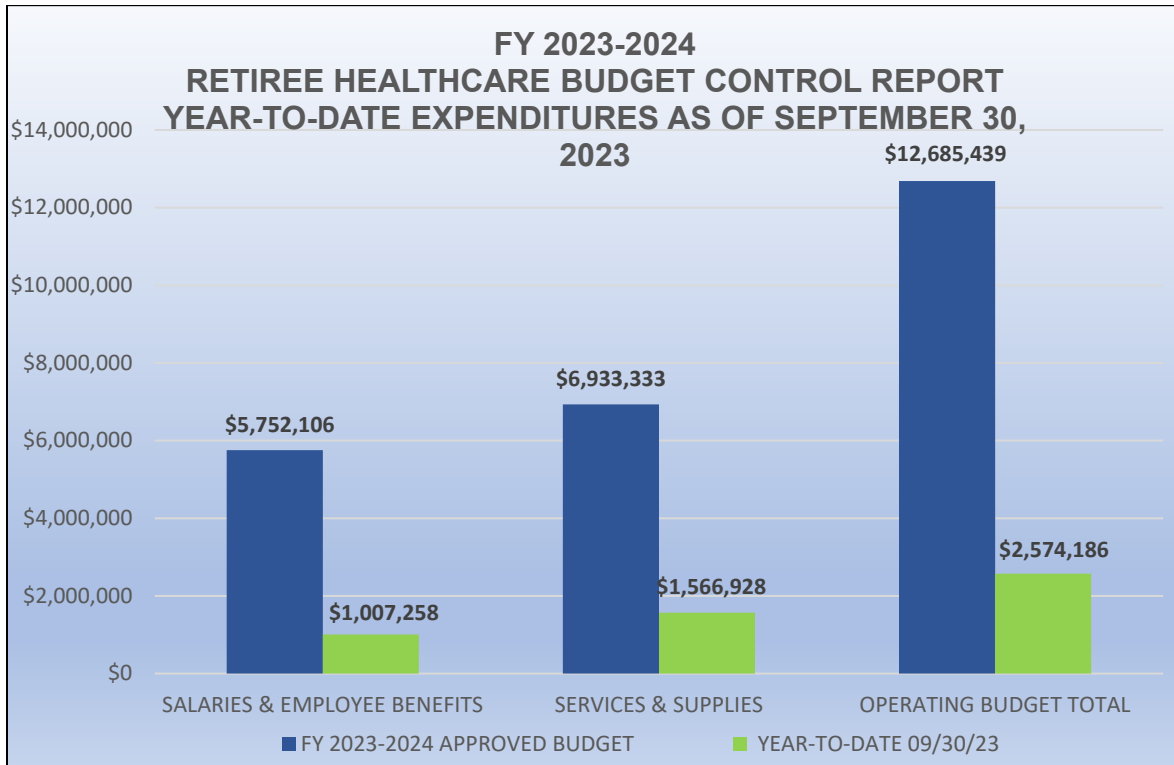
SALARIES & EMPLOYEE BENEFITS	\$103,163,874	\$17,172,455	(\$85,991,419)	(83.4%)
SERVICES & SUPPLIES	\$32,584,100	\$6,925,867	(\$25,658,233)	(78.7%)
OPERATING BUDGET TOTAL	\$135,747,974	\$24,098,322	(\$111,649,652)	(82.2%)

* All amounts rounded to the nearest dollar.



RETIREE HEALTHCARE ADMINISTRATIVE BUDGET	FY 2023-2024 APPROVED BUDGET	YEAR-TO-DATE 09/30/23	OVER/(UNDER) BUDGET	% VARIANCE
SALARIES & EMPLOYEE BENEFITS	\$5,752,106	\$1,007,258	(\$4,744,848)	(82.5%)
SERVICES & SUPPLIES	\$6,933,333	\$1,566,928	(\$5,366,405)	(77.4%)
OPERATING BUDGET TOTAL	\$12,685,439	\$2,574,186	(\$10,111,253)	(79.7%)

* All amounts rounded to the nearest dollar.



QUESTICA BUDGET TOOL

Staff is excited to share that staff and management used our new automated budget software tool, Questica Budget, to complete our analysis as well as to document and record our mid-year budget adjustments. This new system, which will be demonstrated to the Operations Oversight Committee in January, allows managers to see their budget to actual expenditures in near real time, with salaries delayed by one pay period and expenses from the day before. Managers were able to record their requests to reallocate funding using the system and staff was able to make necessary adjustments to reflect the CEO’s final decisions. Although no new appropriations or positions were required at this time, the system makes adjustments by the JOGC or the Boards easy for staff to implement.

Attachments

- CC: Santos H. Kreimann
- Luis Lugo
- JJ Popowich
- Steven P. Rice
- Ted Granger
- Roberta Van Nortrick
- Budget Unit

FY 2023-24 Mid Year Budget Review

Laura Guglielmo

AGENDA

- Review of Budget Policy
- Administrative Budget - Reallocations
- Retiree Healthcare Budget - Reallocations
- FY 2023/24 Budget to Actual Summary – 1st Quarter



Budget Policy

LACERA's Budget Policy (rev. 2023) requires annual review and anticipates the need for adjustments

CEO Authority

- Transfers of up to \$1M across major accounts (between S&EB and S&S)

JOGC Role

- Review & recommend action for BOR/BOI if required

BOR/BOI Role

- Must approve any transfers outside of CEO authority
- Must approve any position changes
- Must approve any additional appropriation within CERL limit



Administrative Budget Mid-Year Reallocations

Presented as information only as all actions fall within the CEO's authority



FY 2023-24 Administrative Budget Proposed Mid-Year Adjustment Summary

Administrative Budget	FY 2023-24 Approved Budget	Mid-Year Adjustment Amount	Proposed Amended Budget	% Change
Salaries & Employee Benefits	\$103,263,874	(\$92,000)	\$103,071,874	(0.1%)
Services & Supplies	\$32,584,100	\$92,000	32,676,100	0.3%
Operating Budget Total	\$135,747,974	\$0	\$135,747,974	0.0%



Summary of Reallocations

Establishment of a New Account Structure for a Compliance Unit

In support of the establishment of an Ethics and Compliance Unit within the Legal office, resources are required to fund the efforts of Legal Office staff and the staff Ethics and Compliance Committee in conducting the foundational work necessary for the development of LACERA's ethics and compliance program and the compliance and enterprise risk management pillar of the 2023 Board of Retirement's Strategic Plan. To support this activity, staff recommended, and the CEO authorized a new set of accounts for the Ethics and Compliance Unit to ensure proper allocation and reporting of compliance expenses from the other general expenses of the Legal Office. Staff further recommended and the CEO has approved reallocating \$182,700 from the Legal Office's administrative budget to the newly created Ethics and Compliance Unit as follows in order to ensure independence and segregation of its expenses associated with the ethics and compliance function from the other expenses of the Legal Office:

• Gross Salaries	\$90,700	• Mileage/Transportation	\$3,500
• Travel	\$8,000	• Outside Legal Counsel	\$20,000
• Memberships	\$8,000	• Registration Fees	\$7,500
• Educational Materials	\$45,000		

Summary of Reallocations



Administrative Services

- Savings in Cyber Liability Insurance (\$119,000) are reallocated as follows to reflect projected actual expenditures:
 - Special Order Auto \$22,000
 - Earthquake/Flood Insurance \$12,000
 - Shredding Service \$20,000
 - Postage Meter \$50,000
 - Offsite Storage \$15,000

Board of Investments

- Funds totaling \$54,000 are reallocated from Memberships (savings from Milken) to Trustee Registration Fees (Wharton Program) to allow for new Trustee education
- Funds totaling \$7,000 are reallocated from Off-site Board Meeting Expense to Food and Beverages to align with actual projected expenditures

Summary of Reallocations



Executive Office

- Funds totaling \$7,200 are reallocated from Gross Salaries to Transportation Allowance for the DCEO, eliminating the need to purchase a replacement vehicle

Member Services

- Funds totaling \$72,600 are reallocated from Gross Salaries to Agency Temp to backfill the Senior Administrative Assistant position until an exam can be promulgated.

Systems Division

- Funds totaling \$200,000 are reallocated from Knowledge & Document Management to Lan Software Licenses, New to support the recommendations of the Information Security Officer to address specific operational risks.
- Funds totaling \$50,000 are reallocated from LAN Network Hardware to Remote Workforce Equipment to better support the organizations hybrid work environment

Retiree Healthcare Benefits Program Budget – Mid-Year Reallocations

Presented as information only as all actions fall within the CEO's authority



Summary of Reallocations

Retiree Healthcare Benefits Program

Funds totaling \$165,000 are reallocated from Gross Salaries (\$133,200) and Health Insurance – Temps (\$32,000) to Agency Temp to allow for the use of temporary staff to backfill two vacant positions until eligibility lists can be promulgated



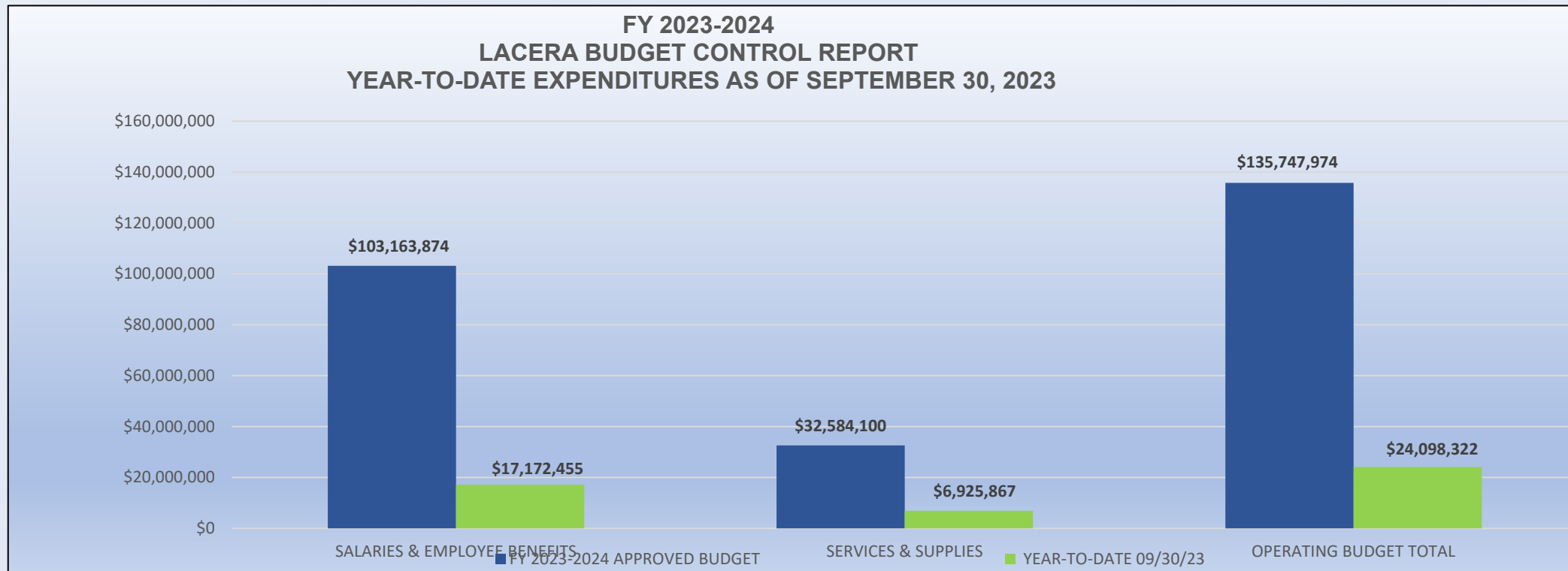
Budget to Actual Data First Quarter Year to Date



FY 2023-24 Budget to First Quarter Actual

Administrative Budget

ADMINISTRATIVE BUDGET	FY 2023-2024 APPROVED BUDGET	YEAR-TO-DATE 09/30/23	OVER/(UNDER) BUDGET	% VARIANCE
SALARIES & EMPLOYEE BENEFITS	\$103,163,874	\$17,172,455	(\$85,991,419)	(83.4%)
SERVICES & SUPPLIES	\$32,584,100	\$6,925,867	(\$25,658,233)	(78.7%)
OPERATING BUDGET TOTAL	\$135,747,974	\$24,098,322	(\$111,649,652)	(82.2%)





FY 2023-24 Budget to First Quarter Actual

Administrative Budget – Summary by Division

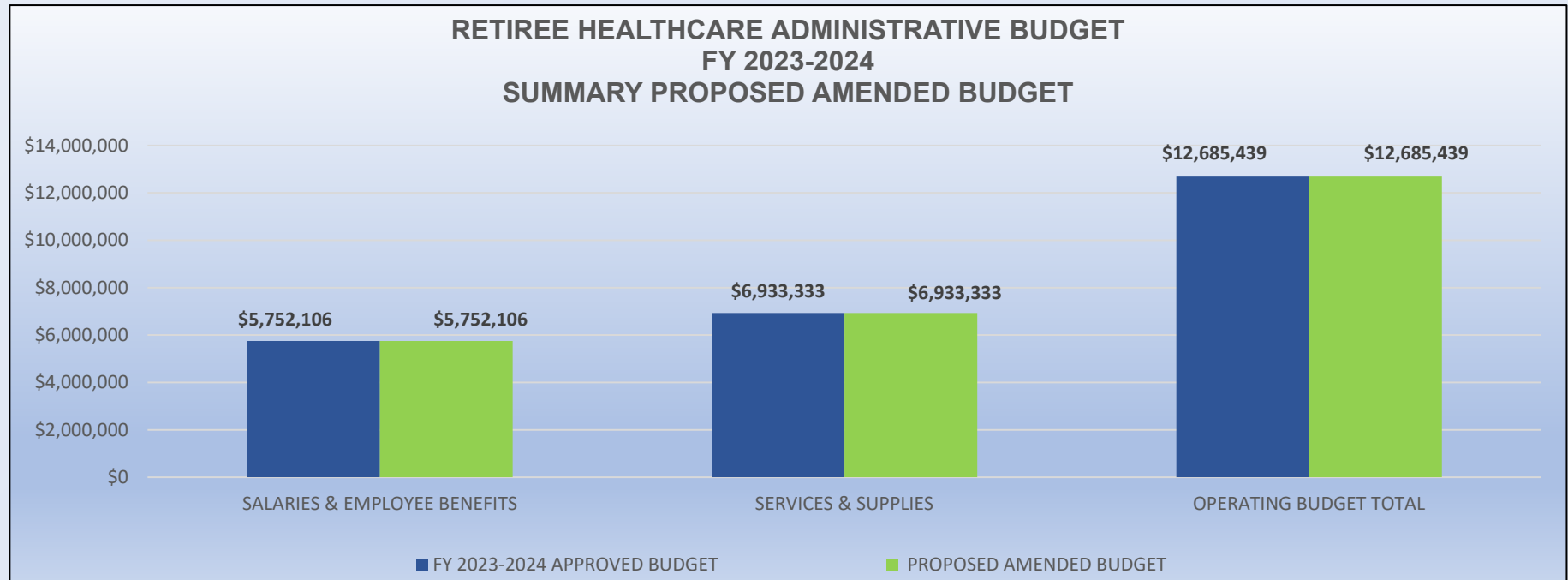
DIVISION	FY 2023-2024 APPROVED BUDGET	YEAR-TO-DATE 09/30/23	OVER/(UNDER) BUDGET	% VARIANCE
Administrative Services	\$16,108,407	\$3,990,466	(\$12,117,941)	(75.2%)
Benefits	12,449,402	2,444,200	(10,005,202)	(80.4%)
Board of Retirement	303,500	20,287	(283,213)	(93.3%)
Board of Investments	551,000	128,179	(422,821)	(76.7%)
Communications	4,117,688	647,923	(3,469,765)	(84.3%)
Disability Litigation	2,561,141	472,311	(2,088,830)	(81.6%)
Disability Retirement	11,797,093	1,921,960	(9,875,133)	(83.7%)
Executive Office	5,276,415	918,941	(4,357,474)	(82.6%)
Financial & Accounting Services	5,688,740	1,017,021	(4,671,719)	(82.1%)
Human Resources	6,743,591	865,178	(5,878,413)	(87.2%)
Internal Audit	3,613,148	577,442	(3,035,706)	(84.0%)
Investment Office	18,223,967	3,000,269	(15,223,698)	(83.5%)
Legal Services	9,997,732	1,361,424	(8,636,308)	(86.4%)
Member Services	11,063,296	1,976,772	(9,086,524)	(82.1%)
Quality Assurance	3,383,332	545,515	(2,837,817)	(83.9%)
Systems	23,869,522	4,210,435	(19,659,087)	(82.4%)
TOTAL	\$135,747,974	\$24,098,322	(\$111,649,652)	(82.2%)



FY 2023-24 Budget to First Quarter Actual

Retiree Healthcare Budget

RETIREE HEALTHCARE ADMINISTRATIVE BUDGET	FY 2023-2024 APPROVED BUDGET	MID-YEAR ADJUSTMENT AMOUNT	PROPOSED AMENDED BUDGET	% CHANGE
SALARIES & EMPLOYEE BENEFITS	\$5,752,106	\$0	\$5,752,106	0.0%
SERVICES & SUPPLIES	\$6,933,333	\$0	\$6,933,333	0.0%
OPERATING BUDGET TOTAL	\$12,685,439	\$0	\$12,685,439	0.0%



THANK YOU!



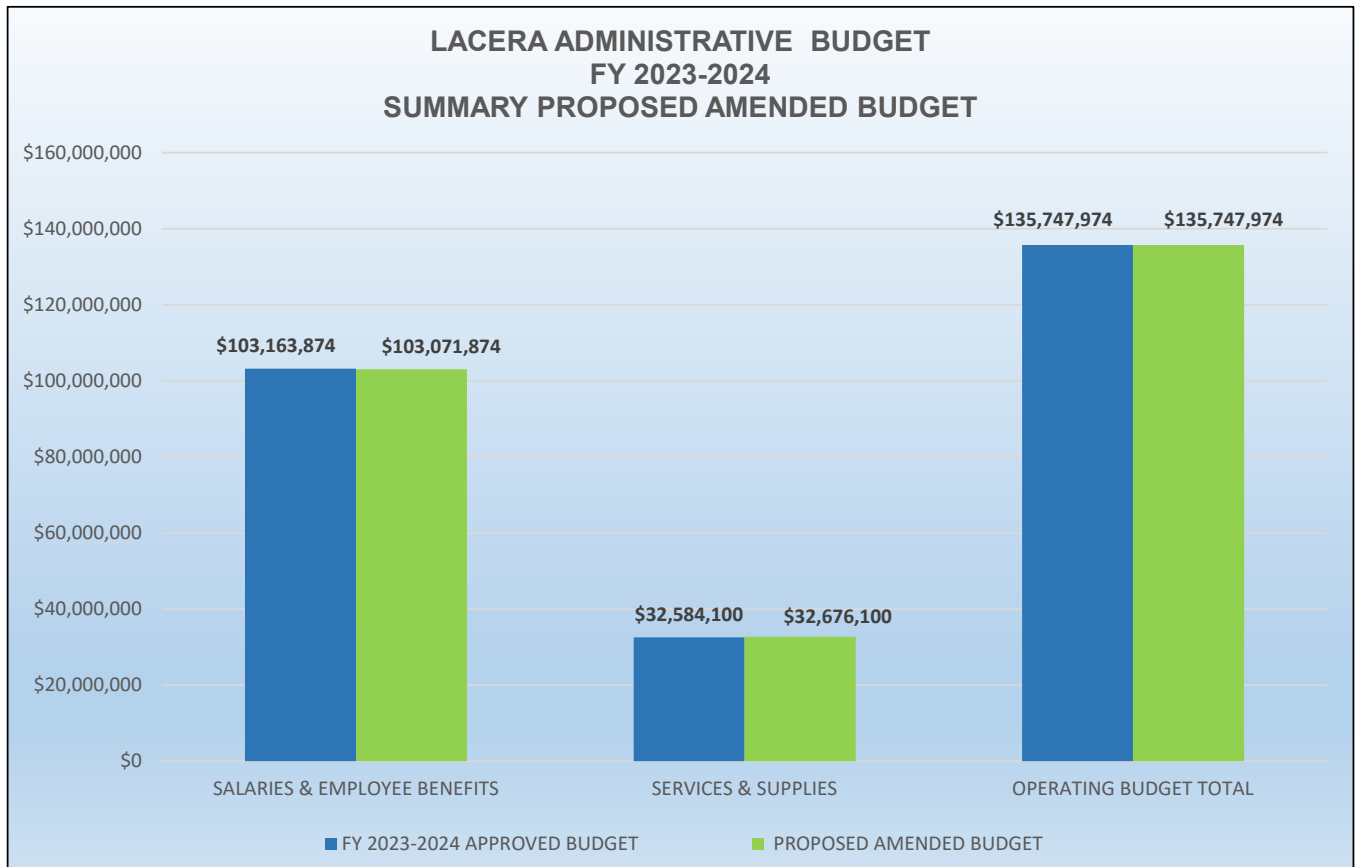
QUESTIONS

EXHIBIT A

**FY 2023-2024
LACERA PROPOSED MID-YEAR BUDGET AMENDMENT
FINANCIAL SUMMARIES**

ADMINISTRATIVE BUDGET	FY 2023-2024 APPROVED BUDGET	MID-YEAR ADJUSTMENT AMOUNT	PROPOSED AMENDED BUDGET	% CHANGE
SALARIES & EMPLOYEE BENEFITS	\$103,163,874	(\$92,000)	\$103,071,874	-0.1%
SERVICES & SUPPLIES	\$32,584,100	\$92,000	\$32,676,100	0.3%
OPERATING BUDGET TOTAL	\$135,747,974	\$0	\$135,747,974	0.0%

* All amounts rounded to the nearest dollar.



LACERA PROPOSED AMENDED BUDGET BY DIVISION

DIVISION	FY 2023-2024 APPROVED BUDGET	MID-YEAR ADJUSTMENT AMOUNT	PROPOSED AMENDED BUDGET	% CHANGE
Administrative Services	\$16,108,407	\$0	\$16,108,407	0.0%
Benefits	12,449,402	0	12,449,402	0.0%
Board of Retirement	303,500	0	303,500	0.0%
Board of Investments	551,000	0	551,000	0.0%
Communications	4,117,688	0	4,117,688	0.0%
Compliance Unit	0	182,700	182,700	0.0%
Disability Litigation	2,561,141	0	2,561,141	0.0%
Disability Retirement	11,797,093	0	11,797,093	0.0%
Executive Office	5,276,415	0	5,276,415	0.0%
Financial & Accounting Services	5,688,740	0	5,688,740	0.0%
Human Resources	6,743,591	0	6,743,591	0.0%
Internal Audit	3,613,148	0	3,613,148	0.0%
Investment Office	18,223,967	0	18,223,967	0.0%
Legal Services	9,997,732	(182,700)	9,815,031	-1.8%
Member Services	11,063,296	0	11,063,296	0.0%
Quality Assurance	3,383,332	0	3,383,332	0.0%
Systems	23,869,522	0	23,869,523	0.0%
TOTAL	\$135,747,974	\$0	\$135,747,974	0.0%

* All amounts rounded to the nearest dollar.

LACERA PROPOSED AMENDED BUDGET BY S&B CATEGORY

S&B CATEGORY	FY 2023-2024 APPROVED BUDGET	MID-YEAR ADJUSTMENT AMOUNT	PROPOSED AMENDED BUDGET	% CHANGE
<u>SALARIES & OTHER PAY</u>				
Permanent / County Temporary	\$55,994,827	(\$171,800)	\$55,823,027	-0.3%
Agency Temporary	5,611,100	72,600	5,683,700	1.3%
LACERA Intern Program	288,000	0	288,000	0.0%
Stipends	65,000	0	65,000	0.0%
Overtime	1,150,900	0	1,150,900	0.0%
Bilingual Bonus	22,800	0	22,800	0.0%
Transportation Allowance	21,600	7,200	28,800	33.3%
Rideshare Allowance	70,300	0	70,300	0.0%
Sickleave Buyback	68,800	0	68,800	0.0%
TOTAL SALARIES & OTHER PAY	\$63,293,327	(\$92,000)	\$63,201,327	-0.1%
<u>VARIABLE BENEFITS</u>				
Retirement	13,294,643	0	13,294,643	0.0%
FICA Contribution	1,060,984	0	1,060,984	0.0%
County Subsidy - Insurance	3,651,761	0	3,651,761	0.0%
Options Plan	4,515,725	0	4,515,725	0.0%
Life Insurance	22,003	0	22,003	0.0%
Health Insurance Temps	626,305	0	626,305	0.0%
Flexible Benefit Plan	18,805	0	18,805	0.0%
Thrift Plan / Horizons	2,251,401	0	2,251,401	0.0%
Savings Plan	1,527,203	0	1,527,203	0.0%
Pension Savings Plan	59,193	0	59,193	0.0%
Megaflex	7,264,514	0	7,264,514	0.0%
TOTAL VARIABLE BENEFITS	\$34,292,537	\$0	\$34,292,537	0.0%
OPEB CONTRIBUTION	\$1,989,009	\$0	\$1,989,009	0.0%
OTHER BENEFITS	\$3,589,000	\$0	\$3,589,000	0.0%
TOTAL EMPLOYEE BENEFITS	\$39,870,546	\$0	\$39,870,546	0.0%
TOTAL SALARIES & EMPLOYEE BENEFITS	\$103,163,874	(\$92,000)	\$103,071,874	-0.1%

* All amounts rounded to the nearest dollar.

LACERA PROPOSED AMENDED BUDGET BY S&S CATEGORY

S&S CATEGORY	FY 2023-2024 APPROVED BUDGET	MID-YEAR ADJUSTMENT AMOUNT	PROPOSED AMENDED BUDGET	% CHANGE
Auto Expenses	\$30,800	\$22,000	\$52,800	71.4%
Communications	570,000	0	570,000	0.0%
Transportation & Travel	807,200	11,500	818,700	1.4%
Postage	1,093,700	50,000	1,143,700	4.6%
Stationery & Forms	982,700	0	982,700	0.0%
Office Supplies & Equipment	1,053,900	50,000	1,103,900	4.7%
Insurance	1,481,700	(107,000)	1,374,700	-7.2%
Equipment Maintenance	733,300	0	733,300	0.0%
Equipment Rents & Leases	250,000	0	250,000	0.0%
Building Costs	7,800,000	0	7,800,000	0.0%
Parking Fees	482,000	0	482,000	0.0%
Professional & Specialized Services	4,665,600	(165,000)	4,500,600	-3.5%
Bank Services	200,000	0	200,000	0.0%
Legal Fees & Services	2,073,000	20,000	2,093,000	1.0%
Disability Fees & Services	3,090,300	0	3,090,300	0.0%
Computer Services & Support	5,129,600	150,000	5,279,600	2.9%
Educational Expenses	1,381,300	60,500	1,441,800	4.4%
Miscellaneous	759,000	0	759,000	0.0%
TOTAL	\$32,584,100	\$92,000	\$32,676,100	0.3%

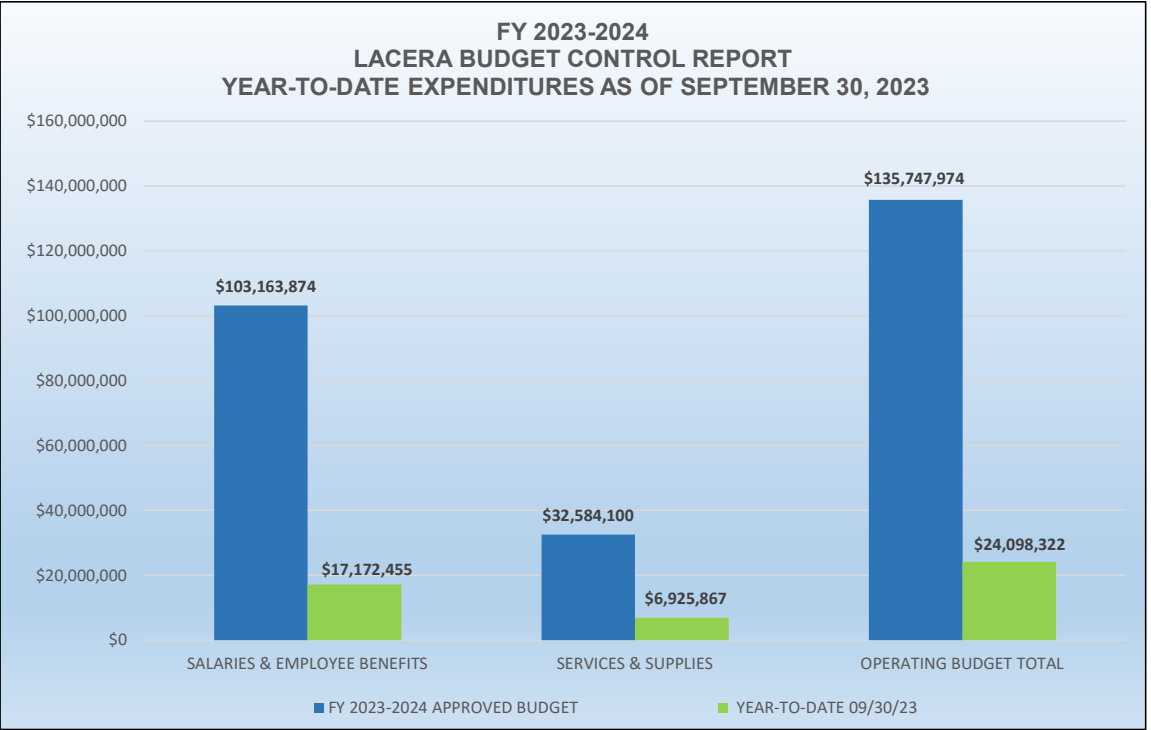
* All amounts rounded to the nearest dollar.

EXHIBIT B

**FY 2023-2024
LACERA BUDGET CONTROL REPORT
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023**

ADMINISTRATIVE BUDGET	FY 2023-2024 APPROVED BUDGET	YEAR-TO-DATE 09/30/23	OVER/(UNDER) BUDGET	% VARIANCE
SALARIES & EMPLOYEE BENEFITS	\$103,163,874	\$17,172,455	(\$85,991,419)	-83.4%
SERVICES & SUPPLIES	\$32,584,100	\$6,925,867	(\$25,658,233)	-78.7%
OPERATING BUDGET TOTAL	\$135,747,974	\$24,098,322	(\$111,649,652)	-82.2%

* All amounts rounded to the nearest dollar.



FY 2023-2024
LACERA BUDGET CONTROL REPORT
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023
SUMMARY BY DIVISION

DIVISION	FY 2023-2024 APPROVED BUDGET	YEAR-TO- DATE 09/30/23	OVER/(UNDER) BUDGET	% VARIANCE
Administrative Services	\$16,108,407	\$3,990,466	(\$12,117,941)	-75.2%
Benefits	12,449,402	2,444,200	(10,005,202)	-80.4%
Board of Retirement	303,500	20,287	(283,213)	-93.3%
Board of Investments	551,000	128,179	(422,821)	-76.7%
Communications	4,117,688	647,923	(3,469,765)	-84.3%
Disability Litigation	2,561,141	472,311	(2,088,830)	-81.6%
Disability Retirement	11,797,093	1,921,960	(9,875,133)	-83.7%
Executive Office	5,276,415	918,941	(4,357,474)	-82.6%
Financial & Accounting Services	5,688,740	1,017,021	(4,671,719)	-82.1%
Human Resources	6,743,591	865,178	(5,878,413)	-87.2%
Internal Audit	3,613,148	577,442	(3,035,706)	-84.0%
Investment Office	18,223,967	3,000,269	(15,223,698)	-83.5%
Legal Services	9,997,732	1,361,424	(8,636,308)	-86.4%
Member Services	11,063,296	1,976,772	(9,086,524)	-82.1%
Quality Assurance	3,383,332	545,515	(2,837,817)	-83.9%
Systems	23,869,522	4,210,435	(19,659,087)	-82.4%
TOTAL	\$135,747,974	\$24,098,322	(\$111,649,652)	-82.2%

* All amounts rounded to the nearest dollar.

FISCAL YEAR 2023-2024

LACERA BUDGET CONTROL REPORT

SUMMARY OF SALARIES AND EMPLOYEE BENEFITS
 BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023

	BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
SALARIES & OTHER PAYS			
PERMANENT / COUNTY TEMPORARY	\$55,994,827	\$9,778,811	(\$46,216,016)
AGENCY TEMPORARY	5,611,100	1,181,177	(4,429,923)
LACERA INTERN PROGRAM	288,000	6,016	(281,984)
STIPENDS	65,000	6,663	(58,337)
OVERTIME	1,150,900	380,414	(770,486)
BILINGUAL BONUS	22,800	2,750	(20,050)
TRANSPORTATION ALLOWANCE	21,600	7,500	(14,100)
RIDESHARE ALLOWANCE	70,300	850	(69,450)
SICKLEAVE BUYBACK	68,800	43,400	(25,400)
TOTAL SALARIES & OTHER PAYS	\$63,293,327	\$11,407,581	(\$51,885,746)
VARIABLE BENEFITS			
RETIREMENT	13,294,643	2,016,942	(11,277,701)
FICA CONTRIBUTION	1,060,984	161,210	(899,774)
COUNTY SUBSIDY - INSURANCE	3,651,761	362,089	(3,289,672)
OPTIONS PLAN	4,515,725	709,648	(3,806,077)
LIFE INSURANCE	22,003	3,885	(18,118)
HEALTH INSURANCE TEMPS	626,305	42,834	(583,471)
FLEXIBLE BENEFIT PLAN	18,805	2,378	(16,427)
THRIFT PLAN / HORIZONS	2,251,401	303,326	(1,948,075)
SAVINGS PLAN	1,527,203	196,163	(1,331,040)
PENSION SAVINGS PLAN	59,193	5,954	(53,239)
MEGAFLEX	7,264,514	791,842	(6,472,672)
TOTAL VARIABLE BENEFITS	\$34,292,537	\$4,596,271	(\$29,696,266)
OPEB CONTRIBUTION	1,989,009	518,980	(1,470,029)
OTHER BENEFITS	3,589,000	649,622	(2,939,378)
TOTAL EMPLOYEE BENEFITS	\$39,870,546	\$5,764,873	(\$34,105,673)
TOTAL SALARIES & EMPLOYEE BENEFITS	\$103,163,874	\$17,172,455	(\$85,991,419)

* All amounts rounded to the nearest dollar.

** Note: All Permanent Salaries and Employee Benefits include amounts through 09/15/23, except Agency Temporary which is through 09/30/23, and Rideshare Allowance is through 08/31/23.

FISCAL YEAR 2023-2024

LACERA BUDGET CONTROL REPORT

**SUMMARY OF SERVICES AND SUPPLIES
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023**

	BUDGET	YTD ACTUAL	OVER / (UNDER) BUDGET
AUTO EXPENSES	\$30,800	\$23,409	(\$7,391)
COMMUNICATIONS	570,000	94,766	(475,234)
TRANSPORTATION & TRAVEL	807,200	67,781	(739,419)
POSTAGE	1,093,700	396,474	(697,226)
STATIONERY & FORMS	982,700	172,635	(810,065)
OFFICE SUPPLIES & EQUIPMENT	1,053,900	97,616	(956,284)
INSURANCE	1,481,700	1,216,432	(265,268)
EQUIPMENT MAINTENANCE	733,300	77,081	(656,219)
EQUIPMENT RENTS & LEASES	250,000	69,125	(180,875)
BUILDING COSTS	7,800,000	1,485,528	(6,314,472)
PARKING FEES	482,000	135,097	(346,903)
PROFESSIONAL & SPECIALIZED SERVICES	4,665,600	661,787	(4,003,813)
BANK SERVICES	200,000	48,757	(151,243)
LEGAL FEES & SERVICES	2,073,000	163,255	(1,909,745)
DISABILITY FEES & SERVICES	3,090,300	412,181	(2,678,119)
COMPUTER SERVICES & SUPPORT	5,129,600	1,473,513	(3,656,087)
EDUCATIONAL EXPENSES	1,381,300	149,028	(1,232,272)
MISCELLANEOUS	759,000	181,401	(577,599)
TOTAL	\$32,584,100	\$6,925,867	(\$25,658,233)

* All amounts rounded to the nearest dollar.

FISCAL YEAR 2022-2023

BOARD OF RETIREMENT

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2022**

		BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
		<hr/>	<hr/>	<hr/>
TRANSPORTATION AND TRAVEL				
9181	TRANSPORTATION	\$11,000	\$469	(\$10,531)
9182	TRAVEL	82,500	5,617	(76,883)
	TOTAL	<hr/> 93,500	<hr/> 6,086	<hr/> (87,414)
EDUCATIONAL EXPENSES				
9961	MEMBERSHIPS	44,000	0	(44,000)
9962	REGISTRATION FEES	30,000	1,570	(28,430)
9963	EDUCATIONAL MATERIALS	12,000	1,324	(10,676)
	TOTAL	<hr/> 86,000	<hr/> 2,894	<hr/> (83,106)
MISCELLANEOUS				
9983	OFF-SITE BOARD MEETING EXPENSE	45,000	0	(45,000)
9984	FOOD/BEVERAGES	12,000	0	(12,000)
	TOTAL	<hr/> 57,000	<hr/> 0	<hr/> (57,000)
GRAND TOTAL		<hr/> \$236,500	<hr/> \$8,981	<hr/> (\$227,519)

* All amounts rounded to the nearest dollar.

FISCAL YEAR 2023-2024

BOARD OF INVESTMENTS

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023**

		BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
TRANSPORTATION AND TRAVEL				
9181	TRANSPORTATION	\$26,000	\$1,344	(\$24,656)
9182	TRAVEL	220,000	30,426	(189,574)
	TOTAL	<u>246,000</u>	<u>31,770</u>	<u>(214,230)</u>
EDUCATIONAL EXPENSES				
9961	MEMBERSHIPS	135,000	14,499	(120,501)
9962	REGISTRATION FEES	60,000	10,560	(49,440)
9963	EDUCATIONAL MATERIALS	5,000	911	(4,089)
	TOTAL	<u>200,000</u>	<u>25,970</u>	<u>(174,030)</u>
MISCELLANEOUS				
9983	OFF-SITE BOARD MEETING EXPENSE	100,000	66,879	(33,121)
9984	FOOD/BEVERAGES	5,000	3,560	(1,440)
	TOTAL	<u>105,000</u>	<u>70,439</u>	<u>(34,561)</u>
	GRAND TOTAL	<u>\$551,000</u>	<u>\$128,179</u>	<u>(\$422,821)</u>

*All amounts rounded to the nearest dollar.

FISCAL YEAR 2023-2024

ADMINISTRATIVE SERVICES DIVISION

**SUMMARY OF SALARIES AND EMPLOYEE BENEFITS
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023**

	BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
SALARIES & OTHER PAYS			
PERMANENT / COUNTY TEMPORARY	\$2,813,145	\$394,309	(\$2,418,836)
AGENCY TEMPORARY	457,800	54,360	(403,440)
LACERA INTERN PROGRAM	0	0	0
STIPENDS	0	0	0
OVERTIME	35,700	1,354	(34,346)
BILINGUAL BONUS	0	0	0
TRANSPORTATION ALLOWANCE	0	0	0
RIDESHARE ALLOWANCE	6,900	850	(6,050)
SICKLEAVE BUYBACK	7,300	5,857	(1,443)
TOTAL SALARIES & OTHER PAYS	\$3,320,845	\$456,730	(\$2,864,115)
VARIABLE BENEFITS			
RETIREMENT	699,192	90,412	(608,780)
FICA CONTRIBUTION	49,858	6,301	(43,557)
COUNTY SUBSIDY - INSURANCE	171,387	8,984	(162,403)
OPTIONS PLAN	694,482	72,067	(622,415)
LIFE INSURANCE	1,614	284	(1,330)
HEALTH INSURANCE TEMPS	0	0	0
FLEXIBLE BENEFIT PLAN	11,598	0	(11,598)
THRIFT PLAN / HORIZONS	109,078	12,242	(96,836)
SAVINGS PLAN	34,019	3,041	(30,978)
PENSION SAVINGS PLAN	0	0	0
MEGAFLEX	139,998	15,934	(124,064)
TOTAL VARIABLE BENEFITS	\$1,911,226	\$209,265	(\$1,701,961)
OPEB CONTRIBUTION	99,927	26,072	(73,855)
OTHER BENEFITS	180,309	32,637	(147,672)
TOTAL EMPLOYEE BENEFITS	\$2,191,462	\$267,973	(\$1,923,489)
TOTAL SALARIES & EMPLOYEE BENEFITS	\$5,512,307	\$724,704	(\$4,787,604)

* All amounts rounded to the nearest dollar.

** Note: All Permanent Salaries and Employee Benefits include amounts through 09/15/23, except Agency Temporary which is through 09/30/23, and Rideshare Allowance is through 08/31/23.

FISCAL YEAR 2023-2024

ADMINISTRATIVE SERVICES DIVISION

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023**

		BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
AUTO EXPENSES				
9102	AUTO MAINTENANCE/REPAIR	\$10,000	(\$803)	(\$10,803)
9103	GAS	1,000	39	(961)
9105	LICENSE FEES	500	0	(500)
9106	SPECIAL ORDER - AUTOMOBILE	0	21,128	21,128
	TOTAL	<u>11,500</u>	<u>20,364</u>	<u>8,864</u>
TRANSPORTATION AND TRAVEL				
9181	TRANSPORTATION	2,300	0	(2,300)
9182	TRAVEL	15,300	0	(15,300)
	TOTAL	<u>17,600</u>	<u>0</u>	<u>(17,600)</u>
POSTAGE				
9201	POSTAGE METER	300,000	300,000	0
9204	CALLER BOX SERVICE ANNUAL FEE	1,500	1,670	170
	TOTAL	<u>301,500</u>	<u>301,670</u>	<u>170</u>
STATIONERY AND FORMS				
9264	MISC STATIONERY & FORMS	1,000	0	(1,000)
	TOTAL	<u>1,000</u>	<u>0</u>	<u>(1,000)</u>
OFFICE SUPPLIES AND EQUIPMENT				
9302	SPECIAL ORDERS/MINOR EQUIP	27,000	1,271	(25,729)
9305	SAFETY AND HEALTH SUPPLIES	40,000	1,653	(38,347)
9306	COMPUTER SUPPLIES	60,000	7,618	(52,382)
9307	STANDARD STOCK	110,000	13,619	(96,381)
9337	OFFICE FURNISHINGS	60,000	1,352	(58,648)
9352	ERGONOMIC ITEMS	1,000	0	(1,000)
	TOTAL	<u>298,000</u>	<u>25,512</u>	<u>(272,488)</u>
INSURANCE				
9381	FIDUCIARY INSURANCE	500,000	439,511	(60,489)
9382	UMBRELLA POLICY	27,000	16,592	(10,408)
9384	EARTHQUAKE/FLOOD	88,000	98,789	10,789
9386	CRIME INSURANCE POLICY	24,000	21,761	(2,239)
9387	BUSINESS PACKAGE	68,000	46,094	(21,906)
9388	EMPLOYMENT PRACTICE LIABILITY INSURANCE	245,000	222,111	(22,889)
9390	CYBER LIABILITY INSURANCE	520,000	363,280	(156,720)
9391	TERRORISM INSURANCE	9,700	8,293	(1,407)
	TOTAL	<u>1,481,700</u>	<u>1,216,432</u>	<u>(265,268)</u>

FISCAL YEAR 2023-2024

ADMINISTRATIVE SERVICES DIVISION

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023**

		BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
EQUIPMENT MAINTENANCE				
9401	FAX MACHINES	\$1,000	\$0	(\$1,000)
9423	TIME CLOCK MAINTENANCE	300	0	(300)
9426	SECURITY SYSTEM (PANIC BUTTONS)	2,000	225	(1,775)
	TOTAL	3,300	225	(3,075)
EQUIPMENT RENTS AND LEASES				
9452	MAILING EQUIPMENT	30,000	2,675	(27,325)
9463	PRODUCTION COPIERS - LEASES	220,000	66,449	(153,551)
	TOTAL	250,000	69,125	(180,875)
BUILDING COSTS				
9476	BUILDING OPERATIONAL COSTS	6,490,000	1,431,144	(5,058,856)
9477	OVERTIME HVAC/LIGHTING	135,000	16,817	(118,183)
9480	FACILITIES MAINTENANCE	175,000	14,032	(160,968)
9481	RENOVATION PROJECTS	1,000,000	23,534	(976,466)
	TOTAL	7,800,000	1,485,528	(6,314,472)
PROFESSIONAL AND SPECIALIZED SERVICES				
9552	BUSINESS CONTINUITY SERVICES	75,000	5,700	(69,300)
9553	ARCHIVE/ OFF-SITE STORAGE	75,000	13,551	(61,449)
9677	SHREDDING SERVICE	30,000	12,083	(17,917)
9685	COURIER SERVICE	25,000	1,451	(23,549)
9686	FURNITURE OFF-SITE STORAGE	21,000	8,179	(12,821)
9688	UNIVERSAL MAIL DELIVERY SERVICE	8,000	2,099	(5,901)
9689	NEXT DAY MAIL DELIVERY SERVICE	50,000	7,372	(42,628)
9723	BROKERAGE SERVICES FEE	110,000	94,000	(16,000)
	TOTAL	394,000	144,435	(249,565)
EDUCATIONAL EXPENSES				
9961	MEMBERSHIPS	5,000	347	(4,653)
9962	REGISTRATION FEES	20,000	0	(20,000)
9963	EDUCATIONAL MATERIALS	500	0	(500)
	TOTAL	25,500	347	(25,153)
MISCELLANEOUS				
9986	MISCELLANEOUS	10,000	2,124	(7,876)
9990	RIDESHARE	2,000	0	(2,000)
	TOTAL	12,000	2,124	(9,876)
GRAND TOTAL		\$10,596,100	\$3,265,762	(\$7,330,338)

*All amounts rounded to the nearest dollar.

FISCAL YEAR 2023-2024

BENEFITS DIVISION

**SUMMARY OF SALARIES AND EMPLOYEE BENEFITS
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023**

	BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
SALARIES & OTHER PAYS			
PERMANENT / COUNTY TEMPORARY	\$6,799,486	\$1,422,052	(\$5,377,434)
AGENCY TEMPORARY	62,200	3,615	(58,585)
LACERA INTERN PROGRAM	0	0	0
STIPENDS	0	0	0
OVERTIME	426,400	174,194	(252,206)
BILINGUAL BONUS	3,600	750	(2,850)
TRANSPORTATION ALLOWANCE	0	0	0
RIDESHARE ALLOWANCE	16,300	0	(16,300)
SICKLEAVE BUYBACK	12,000	10,982	(1,018)
TOTAL SALARIES & OTHER PAYS	\$7,319,986	\$1,611,593	(\$5,708,393)
VARIABLE BENEFITS			
RETIREMENT	\$1,890,248	\$306,711	(\$1,583,537)
FICA CONTRIBUTION	141,814	24,471	(117,343)
COUNTY SUBSIDY - INSURANCE	164,832	15,913	(148,919)
OPTIONS PLAN	1,343,816	232,815	(1,111,001)
LIFE INSURANCE	8,132	1,373	(6,759)
HEALTH INSURANCE TEMPS	233,571	23,981	(209,590)
FLEXIBLE BENEFIT PLAN	0	0	0
THRIFT PLAN / HORIZONS	297,861	45,639	(252,222)
SAVINGS PLAN	50,674	5,359	(45,315)
PENSION SAVINGS PLAN	27,320	2,922	(24,398)
MEGAFLEX	207,706	26,310	(181,396)
TOTAL VARIABLE BENEFITS	\$4,365,975	\$685,495	(\$3,680,480)
OPEB CONTRIBUTION	241,527	63,017	(178,510)
OTHER BENEFITS	435,814	78,884	(356,930)
TOTAL EMPLOYEE BENEFITS	\$5,043,315	\$827,396	(\$4,215,919)
TOTAL SALARIES & EMPLOYEE BENEFITS	\$12,363,302	\$2,438,989	(\$9,924,313)

* All amounts rounded to the nearest dollar.

** Note: All Permanent Salaries and Employee Benefits include amounts through 09/15/23, except Agency Temporary which is through 09/30/23, and Rideshare Allowance is through 08/31/23.

FISCAL YEAR 2023-2024

BENEFITS DIVISION

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023**

		<u>BUDGET</u>	<u>YTD ACTUAL</u>	<u>OVER/(UNDER) BUDGET</u>
TRANSPORTATION AND TRAVEL				
9181	TRANSPORTATION	\$2,100	\$0	(\$2,100)
9182	TRAVEL	5,200	0	(5,200)
	TOTAL	<u>7,300</u>	<u>0</u>	<u>(7,300)</u>
OFFICE SUPPLIES AND EQUIPMENT				
9302	SPECIAL ORDERS/MINOR EQUIP	3,400	22	(3,378)
	TOTAL	<u>3,400</u>	<u>22</u>	<u>(3,378)</u>
PROFESSIONAL AND SPECIALIZED SERVICES				
9516	RECORD SEARCHES	1,000	0	(1,000)
9572	PENSION BENEFIT INFORMATION	15,000	400	(14,600)
9674	MEMBER VERIFICATION	25,000	4,790	(20,210)
	TOTAL	<u>41,000</u>	<u>5,190</u>	<u>(35,810)</u>
EDUCATIONAL EXPENSES				
9961	MEMBERSHIPS	2,400	0	(2,400)
9962	REGISTRATION FEES	31,000	0	(31,000)
9963	EDUCATIONAL MATERIALS	200	0	(200)
	TOTAL	<u>33,600</u>	<u>0</u>	<u>(33,600)</u>
MISCELLANEOUS				
9986	MISCELLANEOUS	800	0	(800)
	TOTAL	<u>800</u>	<u>0</u>	<u>(800)</u>
GRAND TOTAL		<u>\$86,100</u>	<u>\$5,212</u>	<u>(\$80,888)</u>

*All amounts rounded to the nearest dollar.

FISCAL YEAR 2023-2024

COMMUNICATIONS

SUMMARY OF SALARIES AND EMPLOYEE BENEFITS
 BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023

	BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
SALARIES & OTHER PAYS			
PERMANENT / COUNTY TEMPORARY	\$1,263,940	\$210,923	(\$1,053,017)
AGENCY TEMPORARY	331,000	20,405	(310,595)
LACERA INTERN PROGRAM	0	0	0
STIPENDS	0	0	0
OVERTIME	4,500	78	(4,422)
BILINGUAL BONUS	0	0	0
TRANSPORTATION ALLOWANCE	0	0	0
RIDESHARE ALLOWANCE	1,000	0	(1,000)
SICKLEAVE BUYBACK	3,500	0	(3,500)
TOTAL SALARIES & OTHER PAYS	1,603,940	231,406	(1,372,534)
VARIABLE BENEFITS			
RETIREMENT	337,557	47,546	(290,011)
FICA CONTRIBUTION	23,928	3,233	(20,695)
COUNTY SUBSIDY - INSURANCE	113,214	8,420	(104,794)
OPTIONS PLAN	172,914	20,829	(152,085)
LIFE INSURANCE	215	61	(154)
HEALTH INSURANCE TEMPS	0	0	0
FLEXIBLE BENEFIT PLAN	0	0	0
THRIFT PLAN / HORIZONS	40,245	3,586	(36,659)
SAVINGS PLAN	32,536	3,333	(29,203)
PENSION SAVINGS PLAN	0	0	0
MEGAFLEX	149,730	13,686	(136,044)
TOTAL VARIABLE BENEFITS	870,339	100,693	(769,646)
OPEB CONTRIBUTION	44,897	11,714	(33,183)
OTHER BENEFITS	81,012	14,664	(66,348)
TOTAL EMPLOYEE BENEFITS	\$996,248	\$127,071	(\$869,177)
TOTAL SALARIES & EMPLOYEE BENEFITS	\$2,600,188	\$358,477	(\$2,241,711)

* All amounts rounded to the nearest dollar.

** Note: All Permanent Salaries and Employee Benefits include amounts through 09/15/23, except Agency Temporary which is through 09/30/23, and Rideshare Allowance is through 08/31/23.

FISCAL YEAR 2023-2024

COMMUNICATIONS

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023**

		BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
TRANSPORTATION AND TRAVEL				
9181	TRANSPORTATION	\$700	\$0	(\$700)
9182	TRAVEL	16,900	0	(16,900)
	TOTAL	<u>17,600</u>	<u>0</u>	<u>(17,600)</u>
POSTAGE				
9205	NEWSLETTER POSTAGE	215,000	56,664	(158,336)
9207	ANNUAL BENEFITS STATEMENT POSTAGE	97,200	18,640	(78,560)
9210	MISCELLANEOUS MAILINGS	30,000	19,500	(10,500)
	TOTAL	<u>342,200</u>	<u>94,804</u>	<u>(247,396)</u>
STATIONERY AND FORMS				
9233	DISABILITY RETIREMENT APPEAL	7,500	0	(7,500)
9235	PLANS BROCHURES	80,000	23,681	(56,319)
9237	SURVIVOR - BROCHURES	2,000	0	(2,000)
9239	WITHDRAWAL/RECIPROCITY - BROCHURES	10,000	0	(10,000)
9240	ANNUAL REPORT	55,000	70	(54,930)
9242	ANNUAL BENEFITS STATEMENT	150,000	16,311	(133,689)
9246	FORMS	25,000	0	(25,000)
9249	LACERA CALENDARS	10,000	0	(10,000)
9253	NEW MEMBER WELCOME PACKAGE	10,000	0	(10,000)
9255	PRE-RET GUIDE	35,000	14,942	(20,058)
9256	POSTSCRIPT PRINTING	140,000	31,176	(108,824)
9259	RETIREEES - INSERTS	3,500	0	(3,500)
9261	SPOTLIGHT PRINTING	120,000	57,614	(62,386)
9262	SURVEY	2,500	0	(2,500)
9263	UNANTICIPATED PROJECTS	36,000	6,948	(29,052)
9265	SPECIALIZED MAILINGS	60,000	692	(59,308)
9266	DIRECT DEPOSIT BROCHURES	3,000	0	(3,000)
9267	Q & A BROCHURES	8,000	0	(8,000)
9268	TRANSFER BROCHURES	5,000	0	(5,000)
9269	DISABILITY RETIREMENT PACKETS	15,000	0	(15,000)
9274	STATIONERY	50,000	18,980	(31,020)
9280	ANNUAL BENEFIT STATEMENT PDF/CD'S	16,000	2,222	(13,778)
9281	ESTIMATE PACKAGE	3,200	0	(3,200)
9282	NEW RETIREE PACKAGE	5,000	0	(5,000)
9283	POWER OF ATTORNEY	15,000	0	(15,000)
9285	RETIREMENT UNIVERSITY	85,000	0	(85,000)
9286	COMMUNITY PROPERTY GUIDE	5,000	0	(5,000)
9287	CASE MANAGEMENT	25,000	0	(25,000)
	TOTAL	<u>981,700</u>	<u>172,635</u>	<u>(809,065)</u>

FISCAL YEAR 2023-2024

COMMUNICATIONS

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023**

		BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
OFFICE SUPPLIES AND EQUIPMENT				
9302	SPECIAL ORDERS/MINOR EQUIP	\$6,000	\$422	(\$5,578)
	TOTAL	<u>6,000</u>	<u>422</u>	<u>(5,578)</u>
PROFESSIONAL AND SPECIALIZED SERVICES				
9627	NEWSLETTER MAILINGS	35,000	0	(35,000)
9628	HR CONFERENCE/FORUM	2,000	0	(2,000)
9719	CAMPAIGNS	70,000	7,990	(62,010)
9726	WIRE SERVICE	3,000	0	(3,000)
9727	MISCELLANEOUS VIDEO PRODUCTION	30,000	11,667	(18,333)
	TOTAL	<u>140,000</u>	<u>19,657</u>	<u>(120,343)</u>
EDUCATIONAL EXPENSES				
9961	MEMBERSHIPS	400	0	(400)
9962	REGISTRATION FEES	25,000	1,928	(23,072)
9963	EDUCATIONAL MATERIALS	4,000	0	(4,000)
	TOTAL	<u>29,400</u>	<u>1,928</u>	<u>(27,472)</u>
MISCELLANEOUS				
9986	MISCELLANEOUS	600	0	(600)
	TOTAL	<u>600</u>	<u>0</u>	<u>(600)</u>
	GRAND TOTAL	<u>\$1,517,500</u>	<u>\$289,446</u>	<u>(\$1,228,054)</u>

*All amounts rounded to the nearest dollar.

FISCAL YEAR 2023-2024

DISABILITY LITIGATION

**SUMMARY OF SALARIES AND EMPLOYEE BENEFITS
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023**

	BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
SALARIES & OTHER PAYS			
PERMANENT / COUNTY TEMPORARY	\$1,461,729	\$293,275	(\$1,168,454)
AGENCY TEMPORARY	0	0	0
LACERA INTERN PROGRAM	0	0	0
STIPENDS	0	0	0
OVERTIME	2,800	491	(2,309)
BILINGUAL BONUS	0	0	0
TRANSPORTATION ALLOWANCE	0	0	0
RIDESHARE ALLOWANCE	900	0	(900)
SICKLEAVE BUYBACK	0	0	0
TOTAL SALARIES & OTHER PAYS	\$1,465,429	\$293,766	(\$1,171,663)
VARIABLE BENEFITS			
RETIREMENT	360,153	64,118	(296,035)
FICA CONTRIBUTION	25,658	4,387	(21,271)
COUNTY SUBSIDY - INSURANCE	86,456	13,697	(72,759)
OPTIONS PLAN	0	0	0
LIFE INSURANCE	0	0	0
HEALTH INSURANCE TEMPS	0	0	0
FLEXIBLE BENEFIT PLAN	0	0	0
THRIFT PLAN / HORIZONS	62,028	10,795	(51,233)
SAVINGS PLAN	80,119	11,945	(68,174)
PENSION SAVINGS PLAN	0	0	0
MEGAFLEX	284,585	36,854	(247,731)
TOTAL VARIABLE BENEFITS	\$899,000	\$141,797	(\$757,203)
OPEB CONTRIBUTION	51,923	13,547	(38,376)
OTHER BENEFITS	93,690	16,958	(76,732)
TOTAL EMPLOYEE BENEFITS	\$1,044,612	\$172,302	(\$872,310)
TOTAL SALARIES & EMPLOYEE BENEFITS	\$2,510,041	\$466,068	(\$2,043,973)

* All amounts rounded to the nearest dollar.

** Note: All Permanent Salaries and Employee Benefits include amounts through 09/15/23, except Agency Temporary which is through 09/30/23, and Rideshare Allowance is through 08/31/23.

FISCAL YEAR 2023-2024

DISABILITY LITIGATION

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023**

		BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
AUTO EXPENSES				
9102	AUTO MAINTENANCE/REPAIR	\$1,000	\$0	(\$1,000)
9103	GAS	800	159	(641)
9105	LICENSE FEES	600	568	(32)
	TOTAL	<u>2,400</u>	<u>727</u>	<u>(1,673)</u>
TRANSPORTATION AND TRAVEL				
9181	TRANSPORTATION	1,000	0	(1,000)
9182	TRAVEL	6,100	0	(6,100)
	TOTAL	<u>7,100</u>	<u>0</u>	<u>(7,100)</u>
OFFICE SUPPLIES AND EQUIPMENT				
9302	SPECIAL ORDERS/MINOR EQUIP	1,800	0	(1,800)
	TOTAL	<u>1,800</u>	<u>0</u>	<u>(1,800)</u>
LEGAL FEES AND SERVICES				
9772	OUTSIDE LEGAL COUNSEL	2,500	0	(2,500)
9777	LITIGATION SUPPORT	500	0	(500)
	TOTAL	<u>3,000</u>	<u>0</u>	<u>(3,000)</u>
EDUCATIONAL EXPENSES				
9961	MEMBERSHIPS	3,500	0	(3,500)
9962	REGISTRATION FEES	3,000	0	(3,000)
9963	EDUCATIONAL MATERIALS	30,000	5,515	(24,485)
	TOTAL	<u>36,500</u>	<u>5,515</u>	<u>(30,985)</u>
MISCELLANEOUS				
9986	MISCELLANEOUS	300	0	(300)
	TOTAL	<u>300</u>	<u>0</u>	<u>(300)</u>
GRAND TOTAL		<u>\$51,100</u>	<u>\$6,242</u>	<u>(\$44,858)</u>

*All amounts rounded to the nearest dollar.

FISCAL YEAR 2023-2024

DISABILITY RETIREMENT

**SUMMARY OF SALARIES AND EMPLOYEE BENEFITS
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023**

	BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
SALARIES & OTHER PAYS			
PERMANENT / COUNTY TEMPORARY	\$4,579,337	\$839,934	(\$3,739,403)
AGENCY TEMPORARY	138,100	40,449	(97,651)
LACERA INTERN PROGRAM	0	0	0
STIPENDS	0	0	0
OVERTIME	103,600	36,111	(67,489)
BILINGUAL BONUS	0	0	0
TRANSPORTATION ALLOWANCE	0	0	0
RIDESHARE ALLOWANCE	4,500	0	(4,500)
SICKLEAVE BUYBACK	6,000	1,881	(4,119)
TOTAL SALARIES & OTHER PAYS	\$4,831,537	\$918,375	(\$3,913,162)
VARIABLE BENEFITS			
RETIREMENT	1,301,041	194,965	(1,106,076)
FICA CONTRIBUTION	88,146	13,891	(74,255)
COUNTY SUBSIDY - INSURANCE	445,646	59,961	(385,685)
OPTIONS PLAN	283,139	42,153	(240,986)
LIFE INSURANCE	1,952	236	(1,716)
HEALTH INSURANCE TEMPS	0	0	0
FLEXIBLE BENEFIT PLAN	0	0	0
THRIFT PLAN / HORIZONS	178,848	26,352	(152,496)
SAVINGS PLAN	125,714	19,841	(105,873)
PENSION SAVINGS PLAN	0	0	0
MEGAFLEX	715,890	91,079	(624,811)
TOTAL VARIABLE BENEFITS	\$3,140,378	\$448,478	(\$2,691,900)
OPEB CONTRIBUTION	162,664	42,441	(120,223)
OTHER BENEFITS	293,514	53,127	(240,387)
TOTAL EMPLOYEE BENEFITS	\$3,596,554	\$544,046	(\$3,052,508)
TOTAL SALARIES & EMPLOYEE BENEFITS	\$8,428,093	\$1,462,421	(\$6,965,672)

* All amounts rounded to the nearest dollar.

** Note: All Permanent Salaries and Employee Benefits include amounts through 09/15/23, except Agency Temporary which is through 09/30/23, and Rideshare Allowance is through 08/31/23.

FISCAL YEAR 2023-2024

DISABILITY RETIREMENT

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023**

		BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
TRANSPORTATION AND TRAVEL				
9181	TRANSPORTATION	\$1,500	\$0	(\$1,500)
9182	TRAVEL	6,200	252	(5,948)
	TOTAL	7,700	252	(7,448)
OFFICE SUPPLIES AND EQUIPMENT				
9302	SPECIAL ORDERS/MINOR EQUIP	5,000	0	(5,000)
	TOTAL	5,000	0	(5,000)
PROFESSIONAL AND SPECIALIZED SERVICES				
9673	PHOTOCOPIES OF DOCUMENTS	215,000	38,064	(176,936)
9695	JOB ANALYST	20,000	8,413	(11,588)
	TOTAL	235,000	46,476	(188,524)
LEGAL FEES AND SERVICES				
9772	OUTSIDE LEGAL COUNSEL	20,000	0	(20,000)
	TOTAL	20,000	0	(20,000)
DISABILITY FEES AND SERVICES				
9802	HEARING OFFICER FEES	120,000	5,060	(114,940)
9803	MEDICAL FEES	2,800,000	396,628	(2,403,372)
9804	COURT REPORTER	25,000	10,493	(14,507)
9805	INVESTIGATIVE SERVICES	20,000	0	(20,000)
9806	DATABASE SEARCHES	300	0	(300)
9807	MEDICAL ADVISOR	125,000	0	(125,000)
	TOTAL	3,090,300	412,181	(2,678,119)
EDUCATIONAL EXPENSES				
9961	MEMBERSHIPS	200	0	(200)
9962	REGISTRATION FEES	10,000	0	(10,000)
9963	EDUCATIONAL MATERIALS	500	0	(500)
	TOTAL	10,700	0	(10,700)
MISCELLANEOUS				
9986	MISCELLANEOUS	300	630	330
	TOTAL	300	630	330
GRAND TOTAL		\$3,369,000	\$459,539	(\$2,909,461)

*All amounts rounded to the nearest dollar.

FISCAL YEAR 2023-2024

EXECUTIVE OFFICE

**SUMMARY OF SALARIES AND EMPLOYEE BENEFITS
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023**

	BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
SALARIES & OTHER PAYS			
PERMANENT / COUNTY TEMPORARY	\$2,218,354	\$367,529	(\$1,850,825)
AGENCY TEMPORARY	645,200	189,873	(455,327)
LACERA INTERN PROGRAM	0	0	0
STIPENDS	65,000	6,663	(58,337)
OVERTIME	27,600	7,579	(20,021)
BILINGUAL BONUS	0	0	0
TRANSPORTATION ALLOWANCE	7,200	3,000	(4,200)
RIDESHARE ALLOWANCE	1,400	0	(1,400)
SICKLEAVE BUYBACK	0	0	0
TOTAL SALARIES & OTHER PAYS	\$2,964,754	\$574,644	(\$2,390,110)
VARIABLE BENEFITS			
RETIREMENT	503,234	74,731	(428,503)
FICA CONTRIBUTION	43,978	6,343	(37,635)
COUNTY SUBSIDY - INSURANCE	198,404	19,884	(178,520)
OPTIONS PLAN	0	0	0
LIFE INSURANCE	0	0	0
HEALTH INSURANCE TEMPS	0	0	0
FLEXIBLE BENEFIT PLAN	0	0	0
THRIFT PLAN / HORIZONS	80,890	11,140	(69,750)
SAVINGS PLAN	119,002	14,049	(104,953)
PENSION SAVINGS PLAN	0	0	0
MEGAFLEX	473,367	52,950	(420,417)
TOTAL VARIABLE BENEFITS	\$1,418,876	\$179,096	(\$1,239,780)
OPEB CONTRIBUTION	78,799	20,559	(58,240)
OTHER BENEFITS	142,186	25,736	(116,450)
TOTAL EMPLOYEE BENEFITS	\$1,639,860	\$225,392	(\$1,414,468)
TOTAL SALARIES & EMPLOYEE BENEFITS	\$4,604,615	\$800,036	(\$3,804,579)

* All amounts rounded to the nearest dollar.

** Note: All Permanent Salaries and Employee Benefits include amounts through 09/15/23, except Agency Temporary which is through 09/30/23, and Rideshare Allowance is through 08/31/23.

FISCAL YEAR 2023-2024

EXECUTIVE OFFICE

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023**

		BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
AUTO EXPENSES				
9102	AUTO MAINTENANCE/REPAIR	\$5,000	\$144	(\$4,856)
9103	GAS	6,500	845	(5,655)
9105	LICENSE FEES	1,500	446	(1,054)
	TOTAL	13,000	1,436	(11,564)
TRANSPORTATION AND TRAVEL				
9181	TRANSPORTATION	4,100	41	(4,059)
9182	TRAVEL	45,700	4,621	(41,079)
	TOTAL	49,800	4,662	(45,138)
OFFICE SUPPLIES AND EQUIPMENT				
9302	SPECIAL ORDERS/MINOR EQUIP	3,000	2,110	(890)
	TOTAL	3,000	2,110	(890)
PROFESSIONAL AND SPECIALIZED SERVICES				
9672	IMPROVEMENT PROJECTS	80,000	0	(80,000)
9714	SECURITY ASSESSMENT & MONITORING	100,000	0	(100,000)
9716	PUBLIC & MEDIA RELATIONS	250,000	97,272	(152,728)
9724	STRATEGIC PLANNING	25,000	0	(25,000)
9725	SOFTWARE SUBSCRIPTION SERVICES	62,000	0	(62,000)
	TOTAL	517,000	97,272	(419,728)
EDUCATIONAL EXPENSES				
9961	MEMBERSHIPS	25,000	6,011	(18,989)
9962	REGISTRATION FEES	43,500	4,345	(39,155)
9963	EDUCATIONAL MATERIALS	10,000	594	(9,406)
	TOTAL	78,500	10,950	(67,550)
MISCELLANEOUS				
9982	EMPLOYEE RECOGNITION PROGRAM	2,000	375	(1,625)
9984	FOOD/BEVERAGES	2,500	1,870	(630)
9986	MISCELLANEOUS	6,000	230	(5,770)
	TOTAL	10,500	2,475	(8,025)
GRAND TOTAL		\$671,800	\$118,905	(\$552,895)

*All amounts rounded to the nearest dollar.

FISCAL YEAR 2023-2024

FINANCIAL AND ACCOUNTING SERVICES DIVISION

**SUMMARY OF SALARIES AND EMPLOYEE BENEFITS
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023**

	BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
SALARIES & OTHER PAYS			
PERMANENT / COUNTY TEMPORARY	\$2,752,536	\$512,164	(\$2,240,372)
AGENCY TEMPORARY	776,700	151,227	(625,473)
LACERA INTERN PROGRAM	0	0	0
STIPENDS	0	0	0
OVERTIME	64,700	24,580	(40,120)
BILINGUAL BONUS	0	0	0
TRANSPORTATION ALLOWANCE	0	0	0
RIDESHARE ALLOWANCE	7,500	0	(7,500)
SICKLEAVE BUYBACK	12,000	4,214	(7,786)
TOTAL SALARIES & OTHER PAYS	\$3,613,436	\$692,186	(\$2,921,251)
VARIABLE BENEFITS			
RETIREMENT	653,775	103,123	(550,652)
FICA CONTRIBUTION	46,814	8,244	(38,570)
COUNTY SUBSIDY - INSURANCE	73,880	5,071	(68,809)
OPTIONS PLAN	555,358	74,264	(481,094)
LIFE INSURANCE	1,760	345	(1,415)
HEALTH INSURANCE TEMPS	0	0	0
FLEXIBLE BENEFIT PLAN	0	0	0
THRIFT PLAN / HORIZONS	120,470	16,499	(103,971)
SAVINGS PLAN	18,088	1,928	(16,160)
PENSION SAVINGS PLAN	0	0	0
MEGAFLEX	77,659	6,627	(71,032)
TOTAL VARIABLE BENEFITS	\$1,547,806	\$216,099	(\$1,331,707)
OPEB CONTRIBUTION	97,774	25,510	(72,264)
OTHER BENEFITS	176,424	31,933	(144,491)
TOTAL EMPLOYEE BENEFITS	\$1,822,002	\$273,543	(\$1,548,459)
TOTAL SALARIES & EMPLOYEE BENEFITS	\$5,435,440	\$965,729	(\$4,469,711)

* All amounts rounded to the nearest dollar.

** Note: All Permanent Salaries and Employee Benefits include amounts through 09/15/23, except Agency Temporary which is through 09/30/23, and Rideshare Allowance is through 08/31/23.

FISCAL YEAR 2023-2024

FINANCIAL AND ACCOUNTING SERVICES DIVISION

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023**

		BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
TRANSPORTATION AND TRAVEL				
9181	TRANSPORTATION	\$3,000	\$0	(\$3,000)
9182	TRAVEL	26,300	0	(26,300)
	TOTAL	<u>29,300</u>	<u>0</u>	<u>(29,300)</u>
OFFICE SUPPLIES AND EQUIPMENT				
9302	SPECIAL ORDERS/MINOR EQUIP	6,000	9	(5,991)
	TOTAL	<u>6,000</u>	<u>9</u>	<u>(5,991)</u>
BANK SERVICES				
9753	BANK CHARGES - STATE STREET	200,000	48,757	(151,243)
	TOTAL	<u>200,000</u>	<u>48,757</u>	<u>(151,243)</u>
EDUCATIONAL EXPENSES				
9961	MEMBERSHIPS	7,000	2,301	(4,699)
9962	REGISTRATION FEES	7,000	225	(6,775)
9963	EDUCATIONAL MATERIALS	2,000	0	(2,000)
	TOTAL	<u>16,000</u>	<u>2,526</u>	<u>(13,474)</u>
MISCELLANEOUS				
9986	MISCELLANEOUS	2,000	0	(2,000)
	TOTAL	<u>2,000</u>	<u>0</u>	<u>(2,000)</u>
	GRAND TOTAL	<u>\$253,300</u>	<u>\$51,292</u>	<u>(\$202,008)</u>

*All amounts rounded to the nearest dollar.

FISCAL YEAR 2023-2024

HUMAN RESOURCES

**SUMMARY OF SALARIES AND EMPLOYEE BENEFITS
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023**

	BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
SALARIES & OTHER PAYS			
PERMANENT / COUNTY TEMPORARY	\$2,200,574	\$255,137	(\$1,945,437)
AGENCY TEMPORARY	139,000	64,556	(74,444)
LACERA INTERN PROGRAM	288,000	6,016	(281,984)
STIPENDS	0	0	0
OVERTIME	4,700	4,543	(157)
BILINGUAL BONUS	0	0	0
TRANSPORTATION ALLOWANCE	0	0	0
RIDESHARE ALLOWANCE	1,700	0	(1,700)
SICKLEAVE BUYBACK	0	0	0
TOTAL SALARIES & OTHER PAYS	\$2,633,974	\$330,251	(\$2,303,723)
VARIABLE BENEFITS			
RETIREMENT	565,562	63,032	(502,530)
FICA CONTRIBUTION	38,599	4,083	(34,516)
COUNTY SUBSIDY - INSURANCE	291,356	20,617	(270,739)
OPTIONS PLAN	0	0	0
LIFE INSURANCE	0	0	0
HEALTH INSURANCE TEMPS	0	0	0
FLEXIBLE BENEFIT PLAN	0	0	0
THRIFT PLAN / HORIZONS	106,210	9,167	(97,043)
SAVINGS PLAN	104,110	9,544	(94,566)
PENSION SAVINGS PLAN	0	0	0
MEGAFLEX	444,965	32,324	(412,641)
TOTAL VARIABLE BENEFITS	\$1,550,803	\$138,767	(\$1,412,036)
OPEB CONTRIBUTION	78,167	20,395	(57,772)
OTHER BENEFITS	141,046	25,530	(115,516)
TOTAL EMPLOYEE BENEFITS	\$1,770,015	\$184,692	(\$1,585,323)
TOTAL SALARIES & EMPLOYEE BENEFITS	\$4,403,991	\$514,943	(\$3,889,048)

* All amounts rounded to the nearest dollar.

** Note: All Permanent Salaries and Employee Benefits include amounts through 09/15/23, except Agency Temporary which is through 09/30/23, and Rideshare Allowance is through 08/31/23.

FISCAL YEAR 2023-2024

HUMAN RESOURCES

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023**

		BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
TRANSPORTATION AND TRAVEL				
9181	TRANSPORTATION	\$1,200	\$0	(\$1,200)
9182	TRAVEL	9,600	0	(9,600)
	TOTAL	10,800	0	(10,800)
OFFICE SUPPLIES AND EQUIPMENT				
9302	SPECIAL ORDERS/MINOR EQUIP	3,000	207	(2,793)
	TOTAL	3,000	207	(2,793)
PARKING FEES				
9491	GATEWAY PLAZA	480,000	135,097	(344,903)
9492	MUSIC CENTER	2,000	0	(2,000)
	TOTAL	482,000	135,097	(346,903)
PROFESSIONAL AND SPECIALIZED SERVICES				
9504	PAYROLL SERVICES	205,000	(3,243)	(208,243)
9510	FINGERPRINTING SERVICES	3,500	1,077	(2,423)
9511	SECURITY SERVICES - SHERIFF	16,000	3,380	(12,620)
9512	PAYROLL ENV, DUPLICATE W2'S - AUD	300	45	(255)
9513	PERSONNEL SRVCS - HUMAN RESOURCES	62,000	6,511	(55,489)
9547	HUMAN RESOURCES CONSULTING	215,000	31,999	(183,001)
9694	BACKGROUND CHECKS	3,000	1,373	(1,627)
9700	OHS PHYSICALS	1,000	0	(1,000)
9711	REQUEST FOR ACCOMMODATIONS	35,000	4,844	(30,156)
9718	LEAVE CASE MANAGEMENT PROGRAM	47,500	6,604	(40,896)
9721	ORGANIZATIONAL PROGRAMS	200,000	0	(200,000)
	TOTAL	788,300	52,590	(735,710)
COMPUTER SERVICES & SUPPORT				
9838	MISC SOFTWARE PACKAGES	50,000	300	(49,700)
	TOTAL	50,000	300	(49,700)
EDUCATIONAL EXPENSES				
9961	MEMBERSHIPS	6,000	595	(5,405)
9962	REGISTRATION FEES	15,000	771	(14,229)
9963	EDUCATIONAL MATERIALS	6,000	0	(6,000)
9966	DEPARTMENTAL TRAINING	250,000	31,588	(218,413)
9967	TUITION REIMBURSEMENT PROGRAM	75,000	21,190	(53,810)
9968	MOU TRAINING ALLOCATION	100,000	6,387	(93,613)
9969	MENTORING PROGRAM	35,000	0	(35,000)
9970	FORUM	22,000	0	(22,000)
	TOTAL	509,000	60,531	(448,469)

FISCAL YEAR 2023-2024

HUMAN RESOURCES

DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023

			OVER/(UNDER)
	BUDGET	YTD ACTUAL	BUDGET
MISCELLANEOUS			
9981 RECRUITMENT	\$465,000	\$99,118	(\$365,882)
9986 MISCELLANEOUS	1,500	0	(1,500)
9989 WEB DAY	5,000	1,203	(3,797)
9991 MANAGEMENT OFFSITE	25,000	1,190	(23,810)
TOTAL	496,500	101,511	(394,989)
GRAND TOTAL	\$2,339,600	\$350,235	(\$1,989,365)

*All amounts rounded to the nearest dollar.

FISCAL YEAR 2023-2024

INTERNAL AUDIT SERVICES

**SUMMARY OF SALARIES AND EMPLOYEE BENEFITS
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023**

	BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
SALARIES & OTHER PAYS			
PERMANENT / COUNTY TEMPORARY	\$1,652,147	\$312,433	(\$1,339,714)
AGENCY TEMPORARY	0	0	0
LACERA INTERN PROGRAM	0	0	0
STIPENDS	0	0	0
OVERTIME	5,300	0	(5,300)
BILINGUAL BONUS	0	0	0
TRANSPORTATION ALLOWANCE	0	0	0
RIDESHARE ALLOWANCE	1,500	0	(1,500)
SICKLEAVE BUYBACK	0	0	0
TOTAL SALARIES & OTHER PAYS	\$1,658,947	\$312,433	(\$1,346,514)
VARIABLE BENEFITS			
RETIREMENT	451,454	69,907	(381,547)
FICA CONTRIBUTION	32,639	5,107	(27,532)
COUNTY SUBSIDY - INSURANCE	114,524	13,442	(101,082)
OPTIONS PLAN	0	0	0
LIFE INSURANCE	143	3	(140)
HEALTH INSURANCE TEMPS	0	0	0
FLEXIBLE BENEFIT PLAN	7,207	2,378	(4,829)
THRIFT PLAN / HORIZONS	64,658	10,302	(54,356)
SAVINGS PLAN	85,963	12,193	(73,770)
PENSION SAVINGS PLAN	0	0	0
MEGAFLEX	308,833	37,050	(271,783)
TOTAL VARIABLE BENEFITS	\$1,065,420	\$150,382	(\$915,038)
OPEB CONTRIBUTION	58,686	15,312	(43,374)
OTHER BENEFITS	105,895	19,167	(86,728)
TOTAL EMPLOYEE BENEFITS	\$1,230,002	\$184,862	(\$1,045,140)
TOTAL SALARIES & EMPLOYEE BENEFITS	\$2,888,948	\$497,294	(\$2,391,654)

* All amounts rounded to the nearest dollar.

** Note: All Permanent Salaries and Employee Benefits include amounts through 09/15/23, except Agency Temporary which is through 09/30/23, and Rideshare Allowance is through 08/31/23.

FISCAL YEAR 2023-2024

INTERNAL AUDIT SERVICES

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023**

		BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
TRANSPORTATION AND TRAVEL				
9181	TRANSPORTATION	\$2,000	\$307	(\$1,693)
9182	TRAVEL	15,000	3,967	(11,033)
	TOTAL	17,000	4,273	(12,727)
OFFICE SUPPLIES AND EQUIPMENT				
9302	SPECIAL ORDERS/MINOR EQUIP	1,200	129	(1,071)
	TOTAL	1,200	129	(1,071)
PROFESSIONAL AND SPECIALIZED SERVICES				
9541	AUDITS	650,000	68,475	(581,525)
9702	AUDIT COMMITTEE CONSULTANT	25,000	2,333	(22,667)
	TOTAL	675,000	70,808	(604,192)
EDUCATIONAL EXPENSES				
9961	MEMBERSHIPS	8,000	3,629	(4,371)
9962	REGISTRATION FEES	20,000	1,308	(18,692)
9963	EDUCATIONAL MATERIALS	2,500	0	(2,500)
	TOTAL	30,500	4,937	(25,563)
MISCELLANEOUS				
9986	MISCELLANEOUS	500	0	(500)
	TOTAL	500	0	(500)
GRAND TOTAL		\$724,200	\$80,148	(\$644,052)

*All amounts rounded to the nearest dollar.

FISCAL YEAR 2023-2024

INVESTMENT OFFICE

**SUMMARY OF SALARIES AND EMPLOYEE BENEFITS
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023**

	BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
SALARIES & OTHER PAYS			
PERMANENT / COUNTY TEMPORARY	\$10,865,804	\$1,983,422	(\$8,882,382)
AGENCY TEMPORARY	0	0	0
LACERA INTERN PROGRAM	0	0	0
STIPENDS	0	0	0
OVERTIME	800	0	(800)
BILINGUAL BONUS	0	0	0
TRANSPORTATION ALLOWANCE	14,400	3,000	(11,400)
RIDESHARE ALLOWANCE	5,000	0	(5,000)
SICKLEAVE BUYBACK	0	0	0
TOTAL SALARIES & OTHER PAYS	\$10,886,004	\$1,986,422	(\$8,899,582)
VARIABLE BENEFITS			
RETIREMENT	1,849,349	303,027	(1,546,322)
FICA CONTRIBUTION	213,517	31,809	(181,708)
COUNTY SUBSIDY - INSURANCE	795,993	83,017	(712,976)
OPTIONS PLAN	0	0	0
LIFE INSURANCE	0	0	0
HEALTH INSURANCE TEMPS	0	0	0
FLEXIBLE BENEFIT PLAN	0	0	0
THRIFT PLAN / HORIZONS	387,097	49,798	(337,299)
SAVINGS PLAN	386,930	58,208	(328,722)
PENSION SAVINGS PLAN	0	0	0
MEGAFLEX	2,274,164	246,446	(2,027,718)
TOTAL VARIABLE BENEFITS	\$5,907,050	\$772,305	(\$5,134,745)
OPEB CONTRIBUTION	385,968	100,729	(285,239)
OTHER BENEFITS	696,446	126,059	(570,387)
TOTAL EMPLOYEE BENEFITS	\$6,989,464	\$999,093	(\$5,990,371)
TOTAL SALARIES & EMPLOYEE BENEFITS	\$17,875,467	\$2,985,515	(\$14,889,952)

* All amounts rounded to the nearest dollar.

** Note: All Permanent Salaries and Employee Benefits include amounts through 09/15/23, except Agency Temporary which is through 09/30/23, and Rideshare Allowance is through 08/31/23.

FISCAL YEAR 2023-2024

INVESTMENT OFFICE

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023**

		BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
TRANSPORTATION AND TRAVEL				
9181	TRANSPORTATION	\$33,000	\$785	(\$32,215)
9182	TRAVEL	186,000	6,579	(179,421)
	TOTAL	<u>219,000</u>	<u>7,364</u>	<u>(211,636)</u>
OFFICE SUPPLIES AND EQUIPMENT				
9302	SPECIAL ORDERS/MINOR EQUIP	3,500	0	(3,500)
	TOTAL	<u>3,500</u>	<u>0</u>	<u>(3,500)</u>
EDUCATIONAL EXPENSES				
9961	MEMBERSHIPS	85,000	1,123	(83,877)
9962	REGISTRATION FEES	20,000	2,117	(17,883)
9963	EDUCATIONAL MATERIALS	20,000	3,307	(16,693)
	TOTAL	<u>125,000</u>	<u>6,547</u>	<u>(118,453)</u>
MISCELLANEOUS				
9986	MISCELLANEOUS	1,000	843	(157)
	TOTAL	<u>1,000</u>	<u>843</u>	<u>(157)</u>
	GRAND TOTAL	<u>\$348,500</u>	<u>\$14,753</u>	<u>(\$333,747)</u>

*All amounts rounded to the nearest dollar.

FISCAL YEAR 2023-2024

LEGAL SERVICES

**SUMMARY OF SALARIES AND EMPLOYEE BENEFITS
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023**

	BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
SALARIES & OTHER PAYS			
PERMANENT / COUNTY TEMPORARY	\$4,320,931	\$601,415	(\$3,719,516)
AGENCY TEMPORARY	179,400	60,284	(119,116)
LACERA INTERN PROGRAM	0	0	0
STIPENDS	0	0	0
OVERTIME	19,900	5,078	(14,822)
BILINGUAL BONUS	2,400	0	(2,400)
TRANSPORTATION ALLOWANCE	0	0	0
RIDESHARE ALLOWANCE	2,500	0	(2,500)
SICKLEAVE BUYBACK	0	0	0
TOTAL SALARIES & OTHER PAYS	\$4,525,131	\$666,777	(\$3,858,354)
VARIABLE BENEFITS			
RETIREMENT	942,955	127,833	(815,122)
FICA CONTRIBUTION	75,861	10,316	(65,545)
COUNTY SUBSIDY - INSURANCE	477,719	47,867	(429,852)
OPTIONS PLAN	0	0	0
LIFE INSURANCE	0	0	0
HEALTH INSURANCE TEMPS	0	0	0
FLEXIBLE BENEFIT PLAN	0	0	0
THRIFT PLAN / HORIZONS	159,252	19,625	(139,627)
SAVINGS PLAN	167,914	21,454	(146,460)
PENSION SAVINGS PLAN	0	0	0
MEGAFLEX	745,163	83,931	(661,232)
TOTAL VARIABLE BENEFITS	\$2,568,864	\$311,026	(\$2,257,838)
OPEB CONTRIBUTION	153,485	40,046	(113,439)
OTHER BENEFITS	276,951	50,129	(226,822)
TOTAL EMPLOYEE BENEFITS	\$2,999,300	\$401,201	(\$2,598,099)
TOTAL SALARIES & EMPLOYEE BENEFITS	\$7,524,432	\$1,067,978	(\$6,456,454)

* All amounts rounded to the nearest dollar.

** Note: All Permanent Salaries and Employee Benefits include amounts through 09/15/23, except Agency Temporary which is through 09/30/23, and Rideshare Allowance is through 08/31/23.

FISCAL YEAR 2023-2024

LEGAL SERVICES

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023**

		BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
AUTO EXPENSES				
9102	AUTO MAINTENANCE/REPAIR	\$2,000	\$415	(\$1,585)
9103	GAS	1,500	468	(1,032)
9105	LICENSE FEES	400	0	(400)
	TOTAL	<u>3,900</u>	<u>883</u>	<u>(3,017)</u>
TRANSPORTATION AND TRAVEL				
9181	TRANSPORTATION	3,600	78	(3,522)
9182	TRAVEL	18,200	4,093	(14,107)
	TOTAL	<u>21,800</u>	<u>4,171</u>	<u>(17,629)</u>
OFFICE SUPPLIES AND EQUIPMENT				
9302	SPECIAL ORDERS/MINOR EQUIP	5,000	499	(4,501)
	TOTAL	<u>5,000</u>	<u>499</u>	<u>(4,501)</u>
PROFESSIONAL AND SPECIALIZED SERVICES				
9543	LEGISLATIVE CONSULTING	280,000	103,500	(176,500)
9673	PHOTOCOPIES OF DOCUMENTS	300	0	(300)
	TOTAL	<u>280,300</u>	<u>103,500</u>	<u>(176,800)</u>
LEGAL FEES AND SERVICES				
9771	ATTORNEY FEES AWARDS/SETTLEMENTS	40,000	0	(40,000)
9772	OUTSIDE LEGAL COUNSEL	2,000,000	163,255	(1,836,745)
9777	LITIGATION SUPPORT	10,000	0	(10,000)
	TOTAL	<u>2,050,000</u>	<u>163,255</u>	<u>(1,886,745)</u>
EDUCATIONAL EXPENSES				
9961	MEMBERSHIPS	18,000	3,800	(14,200)
9962	REGISTRATION FEES	18,000	1,384	(16,616)
9963	EDUCATIONAL MATERIALS	74,000	15,955	(58,045)
	TOTAL	<u>110,000</u>	<u>21,139</u>	<u>(88,861)</u>
MISCELLANEOUS				
9986	MISCELLANEOUS	2,300	0	(2,300)
	TOTAL	<u>2,300</u>	<u>0</u>	<u>(2,300)</u>
	GRAND TOTAL	<u>\$2,473,300</u>	<u>\$293,446</u>	<u>(\$2,179,854)</u>

*All amounts rounded to the nearest dollar.

FISCAL YEAR 2023-2024

MEMBER SERVICES

**SUMMARY OF SALARIES AND EMPLOYEE BENEFITS
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023**

	BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
SALARIES & OTHER PAYS			
PERMANENT / COUNTY TEMPORARY	\$6,231,376	\$1,195,500	(\$5,035,876)
AGENCY TEMPORARY	0	0	0
LACERA INTERN PROGRAM	0	0	0
STIPENDS	0	0	0
OVERTIME	214,200	73,936	(140,264)
BILINGUAL BONUS	16,800	2,000	(14,800)
TRANSPORTATION ALLOWANCE	0	0	0
RIDESHARE ALLOWANCE	10,000	0	(10,000)
SICKLEAVE BUYBACK	15,000	11,383	(3,617)
TOTAL SALARIES & OTHER PAYS	\$6,487,376	\$1,282,819	(\$5,204,557)
VARIABLE BENEFITS			
RETIREMENT	1,651,806	251,831	(1,399,975)
FICA CONTRIBUTION	120,670	19,871	(100,799)
COUNTY SUBSIDY - INSURANCE	183,369	10,109	(173,260)
OPTIONS PLAN	1,069,970	195,199	(874,771)
LIFE INSURANCE	5,532	1,097	(4,435)
HEALTH INSURANCE TEMPS	392,735	18,853	(373,882)
FLEXIBLE BENEFIT PLAN	0	0	0
THRIFT PLAN / HORIZONS	270,510	39,997	(230,513)
SAVINGS PLAN	36,920	2,559	(34,361)
PENSION SAVINGS PLAN	30,120	3,032	(27,088)
MEGAFLEX	164,342	16,078	(148,264)
TOTAL VARIABLE BENEFITS	\$3,925,972	\$558,626	(\$3,367,346)
OPEB CONTRIBUTION	221,347	57,752	(163,595)
OTHER BENEFITS	399,401	72,293	(327,108)
TOTAL EMPLOYEE BENEFITS	\$4,546,722	\$688,671	(\$3,858,051)
TOTAL SALARIES & EMPLOYEE BENEFITS	\$11,034,096	\$1,971,490	(\$9,062,606)

* All amounts rounded to the nearest dollar.

** Note: All Permanent Salaries and Employee Benefits include amounts through 09/15/23, except Agency Temporary which is through 09/30/23, and Rideshare Allowance is through 08/31/23.

FISCAL YEAR 2023-2024

MEMBER SERVICES

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023**

		<u>BUDGET</u>	<u>YTD ACTUAL</u>	<u>OVER/(UNDER) BUDGET</u>
TRANSPORTATION AND TRAVEL				
9181	TRANSPORTATION	\$4,300	(\$156)	(\$4,456)
9182	TRAVEL	7,200	(135)	(7,335)
	TOTAL	<u>11,500</u>	<u>(291)</u>	<u>(11,791)</u>
OFFICE SUPPLIES AND EQUIPMENT				
9302	SPECIAL ORDERS/MINOR EQUIP	4,000	1,824	(2,176)
	TOTAL	<u>4,000</u>	<u>1,824</u>	<u>(2,176)</u>
EDUCATIONAL EXPENSES				
9961	MEMBERSHIPS	1,000	0	(1,000)
9962	REGISTRATION FEES	10,000	2,499	(7,501)
9963	EDUCATIONAL MATERIALS	200	0	(200)
	TOTAL	<u>11,200</u>	<u>2,499</u>	<u>(8,701)</u>
MISCELLANEOUS				
9986	MISCELLANEOUS	1,500	0	(1,500)
9992	FACILITIES RENTAL	1,000	1,250	250
	TOTAL	<u>2,500</u>	<u>1,250</u>	<u>(1,250)</u>
	GRAND TOTAL	<u>\$29,200</u>	<u>\$5,282</u>	<u>(\$23,918)</u>

*All amounts rounded to the nearest dollar.

FISCAL YEAR 2023-2024

QUALITY ASSURANCE

**SUMMARY OF SALARIES AND EMPLOYEE BENEFITS
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023**

	BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
SALARIES & OTHER PAYS			
PERMANENT / COUNTY TEMPORARY	\$1,885,279	\$329,050	(\$1,556,229)
AGENCY TEMPORARY	0	0	0
LACERA INTERN PROGRAM	0	0	0
STIPENDS	0	0	0
OVERTIME	11,500	333	(11,167)
BILINGUAL BONUS	0	0	0
TRANSPORTATION ALLOWANCE	0	0	0
RIDESHARE ALLOWANCE	2,200	0	(2,200)
SICKLEAVE BUYBACK	1,000	0	(1,000)
TOTAL SALARIES & OTHER PAYS	\$1,899,979	\$329,383	(\$1,570,596)
VARIABLE BENEFITS			
RETIREMENT	525,245	78,117	(447,128)
FICA CONTRIBUTION	33,897	5,450	(28,447)
COUNTY SUBSIDY - INSURANCE	129,156	18,979	(110,177)
OPTIONS PLAN	27,420	2,083	(25,337)
LIFE INSURANCE	226	23	(203)
HEALTH INSURANCE TEMPS	0	0	0
FLEXIBLE BENEFIT PLAN	0	0	0
THRIFT PLAN / HORIZONS	69,668	11,767	(57,901)
SAVINGS PLAN	77,906	11,290	(66,616)
PENSION SAVINGS PLAN	0	0	0
MEGAFLEX	349,931	47,582	(302,349)
TOTAL VARIABLE BENEFITS	\$1,213,448	\$175,289	(\$1,038,159)
OPEB CONTRIBUTION	66,968	17,473	(49,495)
OTHER BENEFITS	120,837	21,872	(98,965)
TOTAL EMPLOYEE BENEFITS	\$1,401,254	\$214,634	(\$1,186,620)
TOTAL SALARIES & EMPLOYEE BENEFITS	\$3,301,232	\$544,017	(\$2,757,215)

* All amounts rounded to the nearest dollar.

** Note: All Permanent Salaries and Employee Benefits include amounts through 09/15/23, except Agency Temporary which is through 09/30/23, and Rideshare Allowance is through 08/31/23.

FISCAL YEAR 2023-2024

QUALITY ASSURANCE

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023**

		BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
TRANSPORTATION AND TRAVEL				
9181	TRANSPORTATION	\$1,200	\$0	(\$1,200)
9182	TRAVEL	8,400	0	(8,400)
	TOTAL	<u>9,600</u>	<u>0</u>	<u>(9,600)</u>
OFFICE SUPPLIES AND EQUIPMENT				
9302	SPECIAL ORDERS/MINOR EQUIP	1,000	22	(978)
	TOTAL	<u>1,000</u>	<u>22</u>	<u>(978)</u>
PROFESSIONAL AND SPECIALIZED SERVICES				
9715	COST EFFECTIVE MANAGEMENT (CEM)	55,000	0	(55,000)
	TOTAL	<u>55,000</u>	<u>0</u>	<u>(55,000)</u>
EDUCATIONAL EXPENSES				
9961	MEMBERSHIPS	6,000	280	(5,720)
9962	REGISTRATION FEES	10,000	1,195	(8,805)
9963	EDUCATIONAL MATERIALS	300	0	(300)
	TOTAL	<u>16,300</u>	<u>1,475</u>	<u>(14,825)</u>
MISCELLANEOUS				
9986	MISCELLANEOUS	200	0	(200)
	TOTAL	<u>200</u>	<u>0</u>	<u>(200)</u>
	GRAND TOTAL	<u>\$82,100</u>	<u>\$1,497</u>	<u>(\$80,603)</u>

*All amounts rounded to the nearest dollar.

FISCAL YEAR 2023-2024

SYSTEMS DIVISION

**SUMMARY OF SALARIES AND EMPLOYEE BENEFITS
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023**

	BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
SALARIES & OTHER PAYS			
PERMANENT / COUNTY TEMPORARY	\$6,950,188	\$1,061,668	(\$5,888,520)
AGENCY TEMPORARY	2,881,700	596,407	(2,285,293)
LACERA INTERN PROGRAM	0	0	0
STIPENDS	0	0	0
OVERTIME	229,200	52,137	(177,063)
BILINGUAL BONUS	0	0	0
TRANSPORTATION ALLOWANCE	0	1,500	1,500
RIDESHARE ALLOWANCE	8,900	0	(8,900)
SICKLEAVE BUYBACK	12,000	9,084	(2,916)
TOTAL SALARIES & OTHER PAYS	\$10,081,988	\$1,720,796	(\$8,361,192)
VARIABLE BENEFITS			
RETIREMENT	1,563,070	241,589	(1,321,481)
FICA CONTRIBUTION	125,607	17,704	(107,903)
COUNTY SUBSIDY - INSURANCE	405,824	36,128	(369,696)
OPTIONS PLAN	368,626	70,238	(298,388)
LIFE INSURANCE	2,429	465	(1,964)
HEALTH INSURANCE TEMPS	0	0	0
FLEXIBLE BENEFIT PLAN	0	0	0
THRIFT PLAN / HORIZONS	304,585	36,419	(268,166)
SAVINGS PLAN	207,307	21,418	(185,889)
PENSION SAVINGS PLAN	1,753	0	(1,753)
MEGAFLEX	928,181	84,990	(843,191)
TOTAL VARIABLE BENEFITS	\$3,907,381	\$508,952	(\$3,398,429)
OPEB CONTRIBUTION	246,880	64,414	(182,466)
OTHER BENEFITS	445,474	80,632	(364,842)
TOTAL EMPLOYEE BENEFITS	\$4,599,736	\$653,997	(\$3,945,739)
TOTAL SALARIES & EMPLOYEE BENEFITS	\$14,681,722	\$2,374,794	(\$12,306,928)

* All amounts rounded to the nearest dollar.

** Note: All Permanent Salaries and Employee Benefits include amounts through 09/15/23, except Agency Temporary which is through 09/30/23, and Rideshare Allowance is through 08/31/23.

FISCAL YEAR 2023-2024

SYSTEMS DIVISION

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023**

		BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
COMMUNICATIONS				
9121	MOBILE DEVICES SERVICE & EQUIPMENT	\$160,000	\$23,392	(\$136,608)
9124	ENTERPRISE INTERNET CONNECTION	165,000	32,703	(132,297)
9125	TELEPHONE CONNECTION	150,000	29,339	(120,661)
9133	TELEPHONE SYSTEM SUPPLIES & MODIFICATIONS	15,000	8,852	(6,148)
9135	TELEPHONE SYSTEM MAINTENANCE	80,000	480	(79,520)
	TOTAL	<hr/> 570,000	94,766	(475,234)
TRANSPORTATION AND TRAVEL				
9181	TRANSPORTATION	2,000	0	(2,000)
9182	TRAVEL	39,600	0	(39,600)
	TOTAL	<hr/> 41,600	0	(41,600)
POSTAGE				
9208	MONTHLY RETIREE CHECK MAILING	450,000	0	(450,000)
	TOTAL	<hr/> 450,000	0	(450,000)
OFFICE SUPPLIES AND EQUIPMENT				
9302	SPECIAL ORDERS/MINOR EQUIP	15,000	853	(14,147)
9332	COMPUTER MONITORS	30,000	0	(30,000)
9336	COMPUTER PRINTER	10,000	9,146	(854)
9344	COMPUTER ACCESSORIES	13,000	10,562	(2,438)
9345	COMPUTER PERIPHERALS	30,000	2,863	(27,137)
9347	STORAGE MEDIA	5,000	0	(5,000)
9348	BOARD MEMBER TECH SUPPORT	25,000	2,820	(22,180)
9353	DIVISIONAL IT SUPPLIES/EQUIPMENT	455,000	0	(455,000)
9354	REMOTE WORKFORCE EQUIPMENT	130,000	40,616	(89,384)
	TOTAL	<hr/> 713,000	66,860	(646,140)
EQUIPMENT MAINTENANCE				
9411	AUDIOVISUAL MAINTENANCE	40,000	36,825	(3,175)
9412	KEY CARD SECURITY SYSTEM (DAS)	125,000	20,977	(104,023)
9414	LAN HARDWARE MAINTENANCE	75,000	18,265	(56,735)
9419	ON-SITE PRINTER MAINTENANCE	20,000	0	(20,000)
9424	EQUIP MAINT - UPS - SERVER ROOM	170,000	0	(170,000)
9436	EQUIP MAINT - AIR CONDITIONING	30,000	0	(30,000)
9438	AUDIOVISUAL ENHANCEMENTS	250,000	789	(249,211)
9439	SURVEILLANCE SYSTEM	5,000	0	(5,000)
9442	FIRE SUPPRESSION SYSTEM	5,000	0	(5,000)
9443	GENERATOR SYSTEM	10,000	0	(10,000)
	TOTAL	<hr/> 730,000	76,856	(653,144)

FISCAL YEAR 2023-2024

SYSTEMS DIVISION

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023**

	BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
PROFESSIONAL AND SPECIALIZED SERVICES			
9502 EDP CHARGES - ISD	\$300,000	\$9,265	(\$290,735)
9509 AUDITOR CONTROLLER - PAYROLL SERVICES	110,000	0	(110,000)
9550 ADVANCED WORKFLOW CONCEPTS	140,000	0	(140,000)
9574 KNOWLEDGE & DOC MGMT PROJECTS	300,000	0	(300,000)
9680 IRON MOUNTAIN MEDIA STORAGE	30,000	7,201	(22,799)
9681 RETIREE PAYROLL PRINTING	180,000	87,972	(92,028)
9692 HOTSITE SERVICES	20,000	1,221	(18,779)
9717 CLOUD MIGRATION	300,000	16,200	(283,800)
9722 MAINFRAME SERVICES	160,000	0	(160,000)
TOTAL	<u>1,540,000</u>	<u>121,859</u>	<u>(1,418,141)</u>
COMPUTER SERVICES & SUPPORT			
9831 LAN SOFTWARE & LIC - NEW	1,365,000	79,775	(1,285,225)
9832 LAN SOFTWARE & LIC - EXISTING	1,954,600	1,073,445	(881,155)
9833 MAINFRAME SOFTWARE & LIC - EXISTING	1,100,000	297,800	(802,200)
9843 LAN NETWORK HARDWARE - NEW	100,000	0	(100,000)
9879 CO-LOCATION	180,000	18,321	(161,679)
9882 BOARDROOM OPERATION MGMT SYSTEMS (I & II)	100,000	3,872	(96,128)
9923 PUBLIC BROADCAST AND/OR STREAMING	30,000	0	(30,000)
9930 TELEPHONE SYSTEM UPDATES	250,000	0	(250,000)
TOTAL	<u>5,079,600</u>	<u>1,473,213</u>	<u>(3,606,387)</u>
EDUCATIONAL EXPENSES			
9961 MEMBERSHIPS	1,500	0	(1,500)
9962 REGISTRATION FEES	56,600	1,510	(55,090)
9963 EDUCATIONAL MATERIALS	5,000	576	(4,424)
TOTAL	<u>63,100</u>	<u>2,086</u>	<u>(61,014)</u>
MISCELLANEOUS			
9986 MISCELLANEOUS	500	0	(500)
TOTAL	<u>500</u>	<u>0</u>	<u>(500)</u>
GRAND TOTAL	<u><u>\$9,187,800</u></u>	<u><u>\$1,835,642</u></u>	<u><u>(\$7,352,158)</u></u>

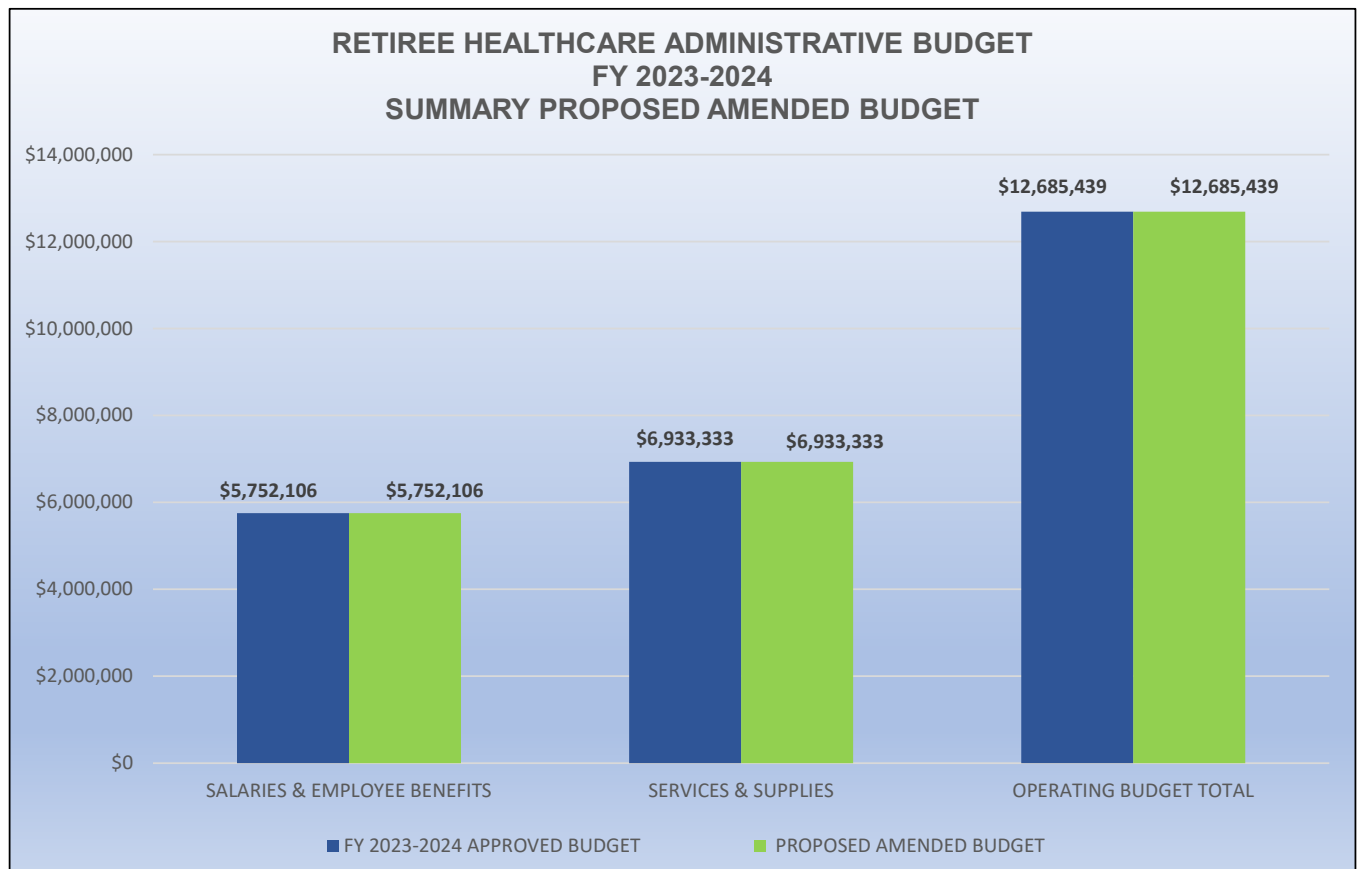
*All amounts rounded to the nearest dollar.

EXHIBIT C

**FY 2023-2024
RETIREE HEALTHCARE PROPOSED MID-YEAR BUDGET AMENDMENT
FINANCIAL SUMMARIES**

RETIREE HEALTHCARE ADMINISTRATIVE BUDGET	FY 2023-2024 APPROVED BUDGET	MID-YEAR ADJUSTMENT AMOUNT	PROPOSED AMENDED BUDGET	% CHANGE
SALARIES & EMPLOYEE BENEFITS	\$5,752,106	\$0	\$5,752,106	0.0%
SERVICES & SUPPLIES	\$6,933,333	\$0	\$6,933,333	0.0%
OPERATING BUDGET TOTAL	\$12,685,439	\$0	\$12,685,439	0.0%

* All amounts rounded to the nearest dollar.



RETIREE HEALTHCARE PROPOSED AMENDED BUDGET BY S&B CATEGORY

S&B CATEGORY	FY 2023-2024 APPROVED BUDGET	MID-YEAR ADJUSTMENT AMOUNT	PROPOSED AMENDED BUDGET	% CHANGE
<u>SALARIES & OTHER PAY</u>				
Permanent / County Temporary	\$3,349,841	(\$133,200)	\$3,216,641	-4.0%
Agency Temporary	0	165,200	165,200	0.0%
LACERA Intern Program	0	0	0	0.0%
Stipends	0	0	0	0.0%
Overtime	134,900	0	134,900	0.0%
Bilingual Bonus	4,800	0	4,800	0.0%
Transportation Allowance	0	0	0	0.0%
Rideshare Allowance	3,600	0	3,600	0.0%
Sickleave Buyback	10,000	0	10,000	0.0%
TOTAL SALARIES & OTHER PAY	\$3,503,141	\$32,000	\$3,535,141	0.9%
<u>VARIABLE BENEFITS</u>				
Retirement	887,973	0	887,973	0.0%
FICA Contribution	59,853	0	59,853	0.0%
County Subsidy - Insurance	66,649	0	66,649	0.0%
Options Plan	518,505	0	518,505	0.0%
Life Insurance	2,425	0	2,425	0.0%
Health Insurance Temps	214,608	(32,000)	182,608	-14.9%
Flexible Benefit Plan	0	0	0	0.0%
Thrift Plan / Horizons	138,369	0	138,369	0.0%
Savings Plan	42,576	0	42,576	0.0%
Pension Savings Plan	20,179	0	20,179	0.0%
Megaflex	178,836	0	178,836	0.0%
TOTAL VARIABLE BENEFITS	\$2,129,974	(\$32,000)	\$2,097,974	-1.5%
OPEB CONTRIBUTION	\$118,991	\$0	\$118,991	0.0%
OTHER BENEFITS	\$0	\$0	\$0	0.0%
TOTAL EMPLOYEE BENEFITS	\$2,248,965	(\$32,000)	\$2,216,965	-1.4%
TOTAL SALARIES & EMPLOYEE BENEFITS	\$5,752,106	\$0	\$5,752,106	0.0%

* All amounts rounded to the nearest dollar.

RETIREE HEALTHCARE PROPOSED AMENDED BUDGET BY S&S CATEGORY

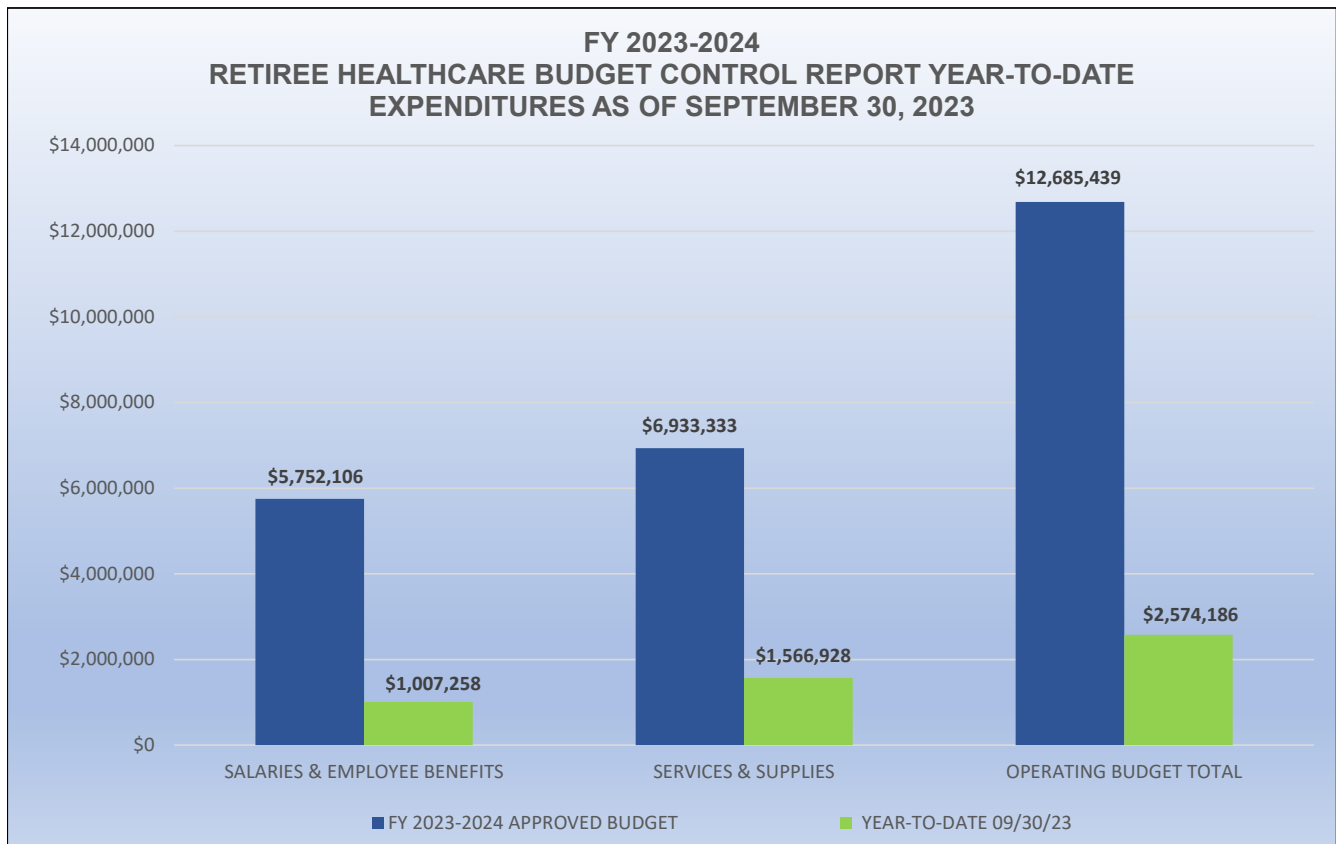
S&S CATEGORY	FY 2023-2024 APPROVED BUDGET	MID-YEAR ADJUSTMENT AMOUNT	PROPOSED AMENDED BUDGET	% CHANGE
Transportation & Travel	\$24,700	\$0	\$24,700	0.0%
Postage	300,000	0	300,000	0.0%
Office Supplies & Equipment	5,000	0	5,000	0.0%
Operational Costs	5,006,533	0	5,006,533	0.0%
Professional and Specialized Services	1,556,500	0	1,556,500	0.0%
Bank Services	21,500	0	21,500	0.0%
Legal Fees and Services	0	0	0	0.0%
Educational Expenses	18,800	0	18,800	0.0%
Miscellaneous	300	0	300	0.0%
TOTAL	\$6,933,333	\$0	\$6,933,333	0.0%

* All amounts rounded to the nearest dollar.

**FY 2023-2024
RETIREE HEALTHCARE BUDGET CONTROL REPORT
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023**

ADMINISTRATIVE BUDGET	FY 2023-2024 APPROVED BUDGET	YEAR-TO-DATE 09/30/23	OVER/(UNDER) BUDGET	% VARIANCE
SALARIES & EMPLOYEE BENEFITS	\$5,752,106	\$1,007,258	(\$4,744,848)	-82.5%
SERVICES & SUPPLIES	\$6,933,333	\$1,566,928	(\$5,366,405)	-77.4%
OPERATING BUDGET TOTAL	\$12,685,439	\$2,574,186	(\$10,111,253)	-79.7%

* All amounts rounded to the nearest dollar.



FISCAL YEAR 2023-2024

RETIREE HEALTH CARE BNEEFITS PROGRAM

**SUMMARY OF SALARIES AND EMPLOYEE BENEFITS
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023**

	BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
SALARIES & OTHER PAYS			
PERMANENT / COUNTY TEMPORARY	\$3,349,841	\$656,524	(\$2,693,317)
AGENCY TEMPORARY	0	29,366	29,366
LACERA INTERN PROGRAM	0	0	0
STIPENDS	0	0	0
OVERTIME	134,900	572	(134,328)
BILINGUAL BONUS	4,800	750	(4,050)
TRANSPORTATION ALLOWANCE	0	0	0
RIDESHARE ALLOWANCE	3,600	0	(3,600)
SICKLEAVE BUYBACK	10,000	4,080	(5,920)
TOTAL SALARIES & OTHER PAYS	\$3,503,141	\$691,292	(\$2,811,849)
VARIABLE BENEFITS			
RETIREMENT	887,973	126,467	(761,506)
FICA CONTRIBUTION	59,853	8,770	(51,083)
COUNTY SUBSIDY - INSURANCE	66,649	7,131	(59,518)
OPTIONS PLAN	518,505	75,189	(443,316)
LIFE INSURANCE	2,425	473	(1,952)
HEALTH INSURANCE TEMPS	214,608	19,684	(194,924)
FLEXIBLE BENEFIT PLAN	0	0	0
THRIFT PLAN / HORIZONS	138,369	16,941	(121,428)
SAVINGS PLAN	42,576	5,672	(36,904)
PENSION SAVINGS PLAN	20,179	2,282	(17,897)
MEGAFLEX	178,836	22,336	(156,500)
TOTAL VARIABLE BENEFITS	\$2,129,974	\$284,945	(\$1,845,029)
OPEB CONTRIBUTION	118,991	31,020	(87,971)
OTHER BENEFITS	0	0	0
TOTAL EMPLOYEE BENEFITS	\$2,248,964	\$315,965	(\$1,932,999)
TOTAL SALARIES & EMPLOYEE BENEFITS	\$5,752,106	\$1,007,258	(\$4,744,848)

* All amounts rounded to the nearest dollar.

** Note: All Permanent Salaries and Employee Benefits include amounts through 09/15/23, except Agency Temporary which is through 09/30/23, and Rideshare Allowance is through 08/31/23.

FISCAL YEAR 2023-2024

RETIREE HEALTH CARE BENEFITS PROGRAM

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023**

		BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
	TRANSPORTATION AND TRAVEL			
9181	TRANSPORTATION	\$1,500	\$38	(\$1,462)
9182	TRAVEL	23,200	5,118	(18,082)
	TOTAL	<u>24,700</u>	<u>5,157</u>	<u>(19,543)</u>
	POSTAGE			
9212	SPECIAL RETIREE MAILINGS	300,000	0	(300,000)
	TOTAL	<u>300,000</u>	<u>0</u>	<u>(300,000)</u>
	OFFICE SUPPLIES AND EQUIPMENT			
9302	SPECIAL ORDERS/MINOR EQUIP	5,000	247	(4,754)
	TOTAL	<u>5,000</u>	<u>247</u>	<u>(4,754)</u>
	OPERATIONAL COSTS			
9482	RENT	211,200	52,037	(159,163)
9483	DEPARTMENTAL OVERHEAD	4,795,333	1,198,833	(3,596,500)
	TOTAL	<u>5,006,533</u>	<u>1,250,871</u>	<u>(3,755,662)</u>
	PROFESSIONAL AND SPECIALIZED SERVICES			
9541	AUDITS	348,000	27,150	(320,850)
9545	HEALTH CARE CONSULTING	750,000	185,400	(564,600)
9573	OPEB VALUATION	458,500	88,602	(369,899)
	TOTAL	<u>1,556,500</u>	<u>301,152</u>	<u>(1,255,349)</u>
	BANK SERVICES			
9753	BANK CHARGES - STATE STREET	21,500	4,661	(16,839)
	TOTAL	<u>21,500</u>	<u>4,661</u>	<u>(16,839)</u>
	LEGAL FEES AND SERVICES			
9772	OUTSIDE LEGAL COUNSEL	0	4,020	4,020
	TOTAL	<u>0</u>	<u>4,020</u>	<u>4,020</u>
	EDUCATIONAL EXPENSES			
9961	MEMBERSHIPS	3,500	200	(3,300)
9962	REGISTRATION FEES	15,000	623	(14,378)
9963	EDUCATIONAL MATERIALS	300	0	(300)
	TOTAL	<u>18,800</u>	<u>823</u>	<u>(17,978)</u>

FISCAL YEAR 2023-2024

RETIREE HEALTH CARE BENEFITS PROGRAM

DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF SEPTEMBER 30, 2023

			<u>BUDGET</u>	<u>YTD ACTUAL</u>	<u>OVER/(UNDER) BUDGET</u>
	MISCELLANEOUS				
9986	MISCELLANEOUS		\$300	\$0	(\$300)
		TOTAL	<u>300</u>	<u>0</u>	<u>(300)</u>
	GRAND TOTAL		<u>\$6,933,333</u>	<u>\$1,566,928</u>	<u>(\$5,366,405)</u>

*All amounts rounded to the nearest dollar.

LACERA BUDGET POLICY

Responsible Manager: Laura Guglielmo, Assistant Executive Officer

Original Effective Date: 05/20/2009

Last Updated: 06/01/2023

Mandatory Review: June 2024 (Annually)

Approval Level: Board of Retirement and Board of Investments

1. PURPOSE

This document sets forth the fiscal policy to ensure LACERA's budgeting practices are in accordance with prudent fiscal management for the allocation and utilization of resources to meet the organization's Mission and Vision and to support the goals of LACERA's Board of Retirement Strategic Plan and Board of Investments Strategic Plan. The policy also serves to increase the transparency of the budgeting process, which ensures stakeholders and members have insight into how LACERA manages their funds and meet fiduciary obligations.

LACERA's budget encompasses three components: The Administrative Budget, the Retiree Healthcare (RHC) Budget, and the Other Post-Employment Benefits (OPEB) Trust.

The objective of this policy is to set out the budgeting principles and timeline for the preparation of the budget and the process and responsibilities for the review, approval, and implementation of all three components of the budget.

2. LEGAL AUTHORITY

[Government Code Section 31580.2](#) of the County Employees Retirement Law (CERL) requires a budget covering the entire expense for the administration of the retirement system, shall be adopted by the Boards annually, and shall be charged against the earnings of the retirement fund. The expense incurred in any year may not exceed twenty-one hundredths of one percent (0.21%) of the accrued actuarial liability of the retirement system.

[Government Code Section 31596.1](#) provides that the expenses of investing its moneys, securing custodial bank services, securing actuarial services for the annual valuation and triennial experience study, and securing attorney services to assist with investment matters shall not be considered a cost of administering the system. As

2. LEGAL AUTHORITY (Continued)

such, these costs are not included in the Administrative Budget and are identified as “non-administrative expenses.”

Section 31596.1 also provides that the cost of internal legal representation secured by the Board of Retirement and Board of Investments under Government Code Section 31529.1 for services previously performed by County Counsel are not administrative costs and under Government Code Section 31607 for services to assist the Board of Investments in carrying out its investment powers and duties. [Section 31529.1](#) provides that legal representation within its scope is limited to one-hundredth of 1 percent of system assets in any budget year; investment legal expenses under [Section 31607](#) are not limited.

Government Code Section 31580.2(b) provides that expenditures for computer software, computer hardware, and computer technology consulting services in support of these computer products.

Government Code [Sections 31691](#) and [31694](#) provide that the expenses of administering the RHCBP program and OPEB Trust may not be made from assets of the retirement fund. Therefore, such costs should not be part of the pension system’s administrative budget.

3. SCOPE

This Policy applies to the development, preparation, and implementation of all three components of LACERA’s budget in accordance with County Employees Retirement Law (CERL).

Any exceptions to this Policy must be approved by the Board of Retirement and Board of Investments.

4. DEFINITIONS

Administrative Budget: LACERA’s annual Administrative Budget consists of two components: Salaries and Employee Benefits, and Services and Supplies.

Appropriation: Funds set aside for specific purposes outlined in the Adopted Budget.

Budget: The annual financial plan that outlines the resources and revenue needed to achieve LACERA’s work plan to meet its Mission and Vision and LACERA’s Board of Retirement Strategic Plan and Board of Investments Strategic Plan.

4. DEFINITIONS (Continued)

Fiscal Year: LACERA's fiscal year begins on July 1st and concludes on June 30th. LACERA shall follow a naming convention referencing the fiscal year ending date, for example, FY23 for the fiscal year ending June 30, 2023.

Information Technology Coordination Council (ITCC): Oversight body responsible for significant technology and system recommendations for incorporation into the Proposed Budget. Established to ensure the efficient and effective use of technology, collaboration across the organization, and to ensure that strategic plan goals are achieved.

Non-Administrative Expenses: Expenses excluded from the Administrative Budget as specified in Government Code Section 31596.1.

Other Post-Employment Benefits (OPEB) Trust: Trust funds established by Los Angeles County, LACERA and the Superior Court to pre-fund their Retiree Healthcare Benefit Program.

Retiree Healthcare Benefits Program (RHCBP) Budget: The RHCBP Budget reflects the resources and revenue required to administer retiree healthcare benefits to eligible members. These costs are funded through a monthly administrative fee via healthcare premiums, charged to program participants, or the plan sponsor if the member's benefit is fully subsidized.

Statutory Appropriation Limit: The limit of the Boards' authority to appropriate funds to administer the retirement system established by Government Code Section 31580.2. currently twenty-one hundredths (.21) of one percent, of the Actuarial Accrued Liability of the retirement fund.

Unallocated Statutory Appropriation Balance: The difference between the funds appropriated to meet the organization's operational needs and the statutory appropriation limit established by Government Code Section 31580.2.

5. POLICY STATEMENT

This document sets forth the fiscal policy for the administration of LACERA's budget to ensure that the budgeting practices of the organization maintain a fiscally sustainable balanced budget that recognizes the fiduciary duty owed to LACERA's members. LACERA's budget encompasses three components: The Administrative Budget, the Retiree Healthcare (RHC) Program Budget and the Other Post-Employment Benefits (OPEB) Trust.

5. POLICY STATEMENT (Continued)

The objective of this policy is to set out the principles and timeline for the preparation of the budget and the process and responsibilities for the preparation, review, approval, and implementation of all three components of the budget.

5.1 Administrative Budget

The Administrative Budget reflects the resources needed to achieve the organization's work plan, each Board's Strategic Plan and goals, and operational activities in support of pension administration and investment of plan assets required to deliver retirement benefits for LACERA members and beneficiaries. It consists of two primary components: Salaries and Employee Benefits (S&EB) and Services and Supplies (S&S).

S&EB costs consist of ongoing personnel costs for the organization, including salaries for permanent and temporary staff, overtime, and variable benefits. Variable benefits include retirement costs (pension, 457, and 401K plan costs), health insurance, OPEB contributions and other employee benefits.

S&S costs reflect the daily operational needs of the organization. Some examples include building expenses (rent, maintenance, insurance), information technology needs, professional and specialized services, legal fees, office supplies and equipment, education, travel, and insurance.

5.2 Retiree Healthcare (RHC) Benefits Program Budget

The Retiree Healthcare Benefits Program provides health care benefits to LACERA membership on behalf of the fund's Plan Sponsors. The insurance premiums are born solely by the participants of the plan, or the Plan Sponsor if the employee is eligible for such benefit. LACERA trust funds are not used for premium payments or for the administration of the Program. The direct costs and variable overhead costs associated with the administration of the RHC Benefits Program are charged to the plan sponsors and participating members via an administrative fee. These administrative fees are added to the monthly premium costs and are not included in the Administrative Budget.

There are four categories of expenses for the RHC Benefits Program:

- Direct Costs of Salaries and Employee Benefits
- Direct Services and Supplies
- Indirect Salaries and Employee Benefits
- Indirect Services and Supplies.

5. POLICY STATEMENT (Continued)

Indirect Salaries and Employee Benefits and Indirect Services and Supplies reflect the program's pro-rata share of internal LACERA support functions such as Administrative Services, Information Technology and Human Resources.

5.3 Other Post-Employment Benefits (OPEB) Trust Budget

The County of Los Angeles (County), LACERA, and the Superior Court (Court) utilize an OPEB Trust to pre-fund the Retiree Healthcare Program benefits. In FY 2012-2013, the County and LACERA established a trust to fund their program and the Court established its trust in FY 2016-17. Each agency's trust funds are reported separately in their financial statements. The Board of Investments of LACERA serves as the trustee and investment manager for the trusts.

The Trust Agreements stipulate that *"... the Trustee (LACERA) shall be entitled to payment or reimbursement of all of its reasonable and appropriate expenses incurred in administering or investing the Trust..."* As such, LACERA seeks payment directly from the County and the Court to fund the OPEB Trust. To avoid the OPEB Trust assets being co-mingled with retirement fund assets, LACERA maintains separate accounting of the costs associated with administering the OPEB Trust. The costs of the OPEB Trusts are not part of LACERA's Administrative Budget.

There are four categories of expenses of the OPEB Trust: Direct Costs of Salaries and Employee Benefits; Direct Services and Supplies; Indirect Salaries and Employee Benefits; and Indirect Services and Supplies. These expenses are allocated between the County, LACERA and the Court based on an agreed upon methodology. At the close of each fiscal year, actual costs are reconciled, and variances are credited or debited to each entity.

6. PROCESS

The budget process consists of activities that encompass the development, implementation, and evaluation of the annual financial plan for the allocation of resources to support and accomplish goals and strategic initiatives.

6.1 Budget Preparation and Development

It is the responsibility of LACERA management to develop and prepare an annual budget in accordance with responsible fiscal management for the

6. PROCESS (Continued)

allocation and utilization of resources to meet the organization’s Mission, Vision, and Values and each Board’s Strategic Plan.

6.2 Criteria

LACERA Management develops the annual proposed budget reflecting the enterprise priorities established through each Board’s Strategic Plan. Criteria used by the organization to prioritize resources for the budget include, but are not limited to:

- Alignment with each Board’s Strategic Plan
- Mitigating risk
- Compliance with legally mandated requirements
- Technological advancements to support staff and improve service and offerings to LACERA’s members
- Identifying opportunities for cost efficiencies
- Identifying opportunities to improve service to members
- Staff development and succession planning
- Direction of the LACERA Board of Retirement and/or Board of Investments

6.3 Alignment with Each Board’s Strategic Plan

The first step in developing a budget is to consider what the organization expects to achieve in the upcoming fiscal year. Each Board’s Strategic Plan lays out its strategic goals, objectives, and action plans toward achieving the LACERA’s Mission, Vision, and Values. Those goals and objectives identify responsibilities, timelines, and the metrics that will be used to determine if the goal or objective has been met. As part of the budget development process, it is the responsibility of LACERA Trustees and Management to ensure that the organization’s budget, or financial plan, allocates the appropriate resources to achieve its strategic goals and objectives within the specified time frame.

6.4 Annual Budget Development and Approval Calendar

<i>Date</i>	<i>Activity</i>
By November 30	<ul style="list-style-type: none">• Executive Office and Management will review each Board’s Strategic Plan initiatives for alignment with the upcoming Fiscal Year budget development cycle.

	<ul style="list-style-type: none"> Administrative Services Division will provide each Division Manager a budget package with instructions for completing their proposed budget for the upcoming fiscal year, a budget preparation timetable with specific deadlines, and a schedule of meeting dates with the Budget Unit and a schedule of meeting dates with the Executive Office.
December	The Budget Unit with a representative from Human Resources, meets with Division Managers to provide guidance in the development of their budget requests.
By January 15	Division Managers will submit their proposed budget to the Budget Unit.
By February 15	The Executive Office will meet with each Division Manager to discuss the Division's needs and provide direction to the Division Managers and Budget Unit.
February	Audit Committee review of Internal Audit Proposed Budget
By Mid-April	The Budget Unit will prepare and distribute the preliminary Administrative, RHC, and OPEB Trust Budgets to all Trustees and Division Managers.
April and May	Present preliminary budget to JOGC for review and input
By June 30	Board of Retirement and Board of Investment approve final budget

6.5 Budget Adoption

The Board of Retirement and Board of Investment ("Boards") have the joint responsibility to approve the enterprise-wide budget and resource allocations for all funds by June 30. The Boards have created the Joint Organizational Governance Committee (JOGC), to provide oversight over the budget preparation and planning. The Preliminary Budget is presented to the JOGC in April for its review. Staff incorporates direction from the JOGC and the JOGC's recommendations are presented to both Boards during annual Budget Hearings in May. Staff incorporates additional Board direction into a Proposed Budget. The Boards independently take action to approve and adopt a Final Adopted Budget by June 30th.

6.6 Budget Appropriation

The Final Adopted Budget reflects the funds appropriated, or set aside, for specific purposes. For LACERA, funds are appropriated for two primary purposes, Salaries and Employee Benefits, and Services and Supplies.

6. PROCESS (Continued)

Government Code Section 31580.2 states the annual budget for administrative expenses of a retirement system established under CERL may not exceed twenty-one hundredths (.21) of one percent of the Actuarial Accrued Liability (AAL) of the retirement system. Each year, LACERA's statutory appropriation limit is identified in the Adopted Budget.

To the extent funding appropriated as part of the budget is less than the statutory appropriations limit, the Boards may, take specific action at any point during the fiscal year, to appropriate additional funds, not to exceed the maximum amount established by statute. LACERA's budgeting process includes a Mid-Year Budget Adjustment proposal to facilitate changes in priorities, goals, or economic conditions. The difference between the funds appropriated to meet the organization's operational needs and the statutory appropriation limit shall be referred to as the "Unallocated Statutory Appropriation Balance."

6.7 Budget Monitoring and Reporting

Budget Unit staff monitor and analyze Division and enterprise-wide expenditures throughout the year, consult with Division Managers to identify planned expenditures and project full year under/over expenditures by Division and compare those estimates against the Adopted Budget. Significant budgetary variances are discussed and explained.

Budget Control Reports are prepared and provided to all Trustees and Management Staff on an outlined schedule within the fiscal year. These reports include year to date expenditures and projected expenditures compared to the budget. Budget adjustments impacting staffing levels or exceeding the CEO's authority shall be approved by the Boards.

This budget monitoring and control activity occurs concurrently while the Proposed Budget for the upcoming fiscal year is being developed.

6.8 Mid-Year Budget Review

By December 1, LACERA Executive Management will assess and evaluate the adequacy of the personnel and other resources included in the Final Adopted Budget and make recommendations to the JOGC for adjustments, if necessary. JOGC recommendations shall be considered for approval by the Boards. Executive Management may also, as part of the mid-year budget

6. PROCESS (Continued)

review, address the progress and status of achieving the Boards' respective Strategic Plan.

6.9 Mid-Year and Year-End Adjustments Within the Administrative Budget

As part of LACERA's budget monitoring and reporting activities, it may become necessary to amend the Final Adopted Budget. Amendments may take the form of transferring appropriations between line items within a major account, transferring appropriations between major accounts, or increasing total appropriations within the statutory limits established by Government.

6.10 Transferring Appropriations

LACERA's Administrative Budget has two major accounts, Salaries and Employee Benefits (S&EB), and Services and Supplies (S&S).

Within each major account are several line items with individual appropriations. The CEO has the authority to transfer appropriations not to exceed \$1 million across major accounts and has full discretion and authority to transfer appropriations between line items within each major account. The CEO shall notify all Trustees of such actions at the next meeting of the Board and as part of the routine Budget Control Reporting.

6.11 Pre-funding OPEB with Budgetary Savings

LACERA participates in the OPEB Trust as a "contributing employer" and funds its employees' program benefits on a pay-as-you-go basis, funding actual monthly premium costs. It also makes a quarterly contribution to paydown the future OPEB liability at a rate equal to that of Los Angeles County. It is LACERA's objective to fund these program benefits within the working lifetime of the program beneficiaries so as to maintain intergenerational equity. To achieve intergenerational equity more quickly, some or all year-end budgetary savings may, at the discretion of the LACERA CEO, be used to make an additional OPEB contribution by June 30 of the year in which the funds were budgeted. Such additional OPEB contributions may be up to but may not exceed that year's budgeted OPEB contribution.

6. PROCESS (Continued)

6.12 Increasing Total Appropriations

Should unanticipated expenditures be required during the fiscal year beyond the total Adopted Budget amount, the Unappropriated Statutory Appropriation Balance is available. This balance represents the difference between the total statutory appropriation limit established under CERL and the Final Adopted Budget. To utilize these unappropriated funds, both Boards must approve a budget amendment, increasing the total annual appropriation.

7. Audit Committee Oversight of Internal Audit

LACERA's Internal Audit Division provides independent and objective assurance services and consulting services to assist the organization to achieve its Mission, Vision, and Values and each Board's Strategic Plan by improving LACERA's effectiveness of governance, risk management and control processes. To protect its independence, the Internal Audit Division reports to the Audit Committee of the Boards with functional reporting to the Chief Executive Officer. The Audit Committee reviews and approves Internal Audit's Proposed Budget in February, which is then incorporated into LACERA's Administrative Proposed Budget reviewed by the JOGC in April.

8. HISTORY (Update will follow approval)

8.1 Approvals

- 8.1.1 Updated and approved by the Board of Retirement and Board of Investments on June 7, 2023 and June 14, 2023, respectively. Prior versions are superseded and of no effect as of the stated approval date.

8.2 Current Status

Annual review scheduled for June 2024.

8.3 Versions

- 8.3.1 This policy was last updated on June 1, 2023
- 8.3.2 This policy was previously approved by the Board of Retirement on June 1, 2022 and Board of Investments on June 9, 2022



November 17, 2023

TO: Each Trustee
Board of Retirement
Board of Investments

FROM: Joint Organizational Governance Committee
Herman B. Santos (BOI) Chair
David Green (BOI) Vice Chair
Gina Sanchez (BOI)
Onyx Jones (BOI)
Shawn Kehoe (BOR)
Alan Bernstein (BOR)
Elizabeth Greenwood (BOR)
Ronald Okum (BOR)

FOR: December 6, 2023 Board of Retirement Meeting
December 13, 2023 Board of Investments Meeting

SUBJECT: **FY 2022-2023 Final Budget Control Report**

Attached is a copy of the Final Budget Control Report for the LACERA Administrative, Retiree Health Care Benefits Program (RHCBP), and Other-Post Employment Benefits (OPEB) Trust Budget for FY 2022-2023.

LACERA ADMINISTRATIVE BUDGET

The total operating expenses were \$112,149,673. This represents an under expenditure of \$15,617,187 or 12.2% compared to LACERA's operating budget of \$127,766,860.

Contributing factors to the under expenditure include, but not limited to:

- Recruitment delays and unplanned vacancies had a direct impact on lower than anticipated variable benefits.
- Late bills and expenses were not received and captured prior to the FYE accrual deadline.
- The KPMG Operational Due Diligence (ODD) Engagement was not completed until September 2023, so the final payment was made against the FY 2023-2024 budget. This resulted in an under expenditure for this FY 2022-2023.
- Multiple in-person training and conference cancellations, postponements, or meetings that transitioned to virtual meetings resulting in reduced registration fees, and the Transportation & Travel and Educational Expenses categories were under budget.

The attached FY 2022-2023 Final Budget Control Report provides further details on the major factors contributing to the variances noted above.

RETIREE HEALTH CARE BENEFITS PROGRAM (RHCBP) BUDGET

The total operating expenses were \$10,893,125. This represents an under expenditure of \$420,497 or 3.7% compared to the RHCBP operating budget of \$11,313,622.

OTHER POST-EMPLOYMENT BENEFITS (OPEB) TRUST BUDGET

The total operating expenses were \$941,610. This represents an over expenditure of \$269,762 or 40.2% compared to the OPEB Trust operating budget \$671,847. The over expenditure is attributable to higher than anticipated staff costs for special projects such as the unitization structure of the OPEB Master Trust and the Public Markets OPEB request for proposals (RFP) as well as late invoices received for audit services from FY 2021-2022.

SIGNIFICANT ACTIVITIES AND ACCOMPLISHMENTS

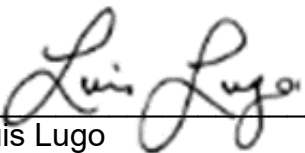
Recruitment Activities

Although staff vacancies continued to be a challenge in FY 2022-23, LACERA invested in expanding our recruitment outreach and utilized specialized outside recruiters to help us identify, attract and onboard several highly specialized key positions, expending nearly \$500,000 in such efforts. Between outside recruiters and our own Human Resources staff, LACERA decreased our vacancy rate from 23% to 20%, onboarding 44 new hires and making 34 promotions for a total of 78 hiring actions.

Information Technology Projects

LACERA management and staff are committed to continuously improving our operating efficiency and service to our members. In support of that commitment LACERA made significant progress on several key projects, including the first phase of our member case management system (SOL), our budget management solution (Questica Budget), our Information Technology Service Management tool (Service Now), our Hardware Asset Management System (HAM), and our automated accounts payable and purchasing system (Certify), expending \$1,335,366 or 97.8% of the \$1,365,000 budget for new software licenses.

REVIEWED AND APPROVED:



Luis Lugo
Deputy Chief Executive Officer

Attachment

c: Santos H. Kreimann JJ Popowich Jonathan Grabel
 Roberta Van Nortrick Ted Granger Steven P. Rice



FISCAL YEAR 2022-2023

FINAL BUDGET CONTROL REPORT

BASED ON EXPENDITURES AS OF JUNE 30, 2023

ADMINISTRATIVE BUDGET

RETIREE HEALTHCARE BENEFITS PROGRAM (RHCBP) BUDGET

OTHER POST-EMPLOYMENT BENEFITS (OPEB) TRUST BUDGET

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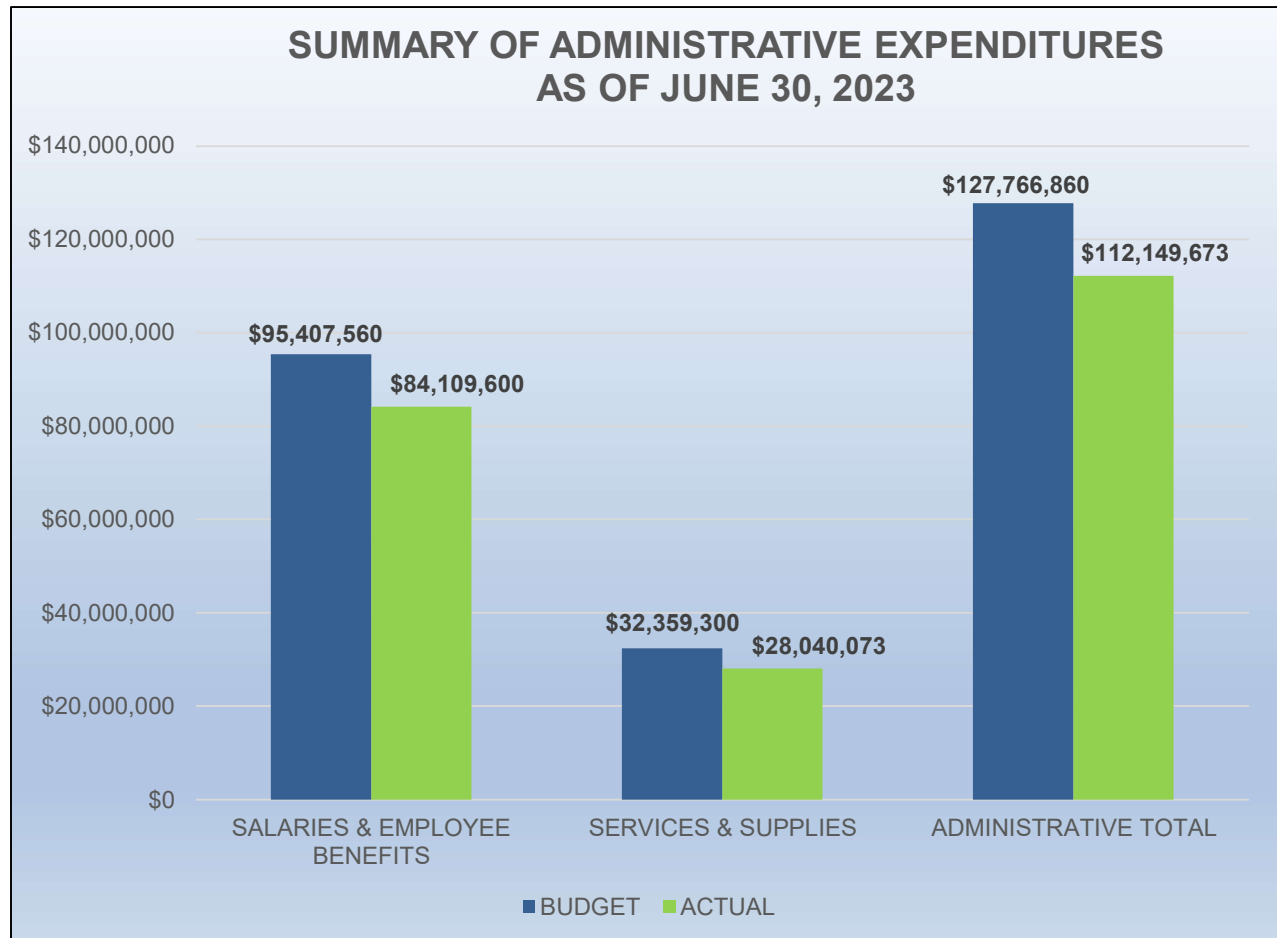
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SECTION I - ADMINISTRATIVE BUDGET SUMMARY

LACERA’s Fiscal Year 2022-2023 ended June 30, 2023, with actual administrative expenses of \$112,149,673 or 87.8% of the \$127,766,860 administrative approved budget. This represents an under expenditure of \$15,617,187 or 12.2% of the \$127,766,860 administrative approved budget.

SUMMARY OF ADMINISTRATIVE EXPENDITURES AS OF JUNE 30, 2023					
ADMINISTRATIVE EXPENSES	BUDGET	ACTUAL	OVER/(UNDER) BUDGET	% UTILIZED	% OVER/ (UNUTILIZED)
SALARIES & EMPLOYEE BENEFITS	\$95,407,560	\$84,109,600	(\$11,297,960)	88.2%	(11.8%)
SERVICES & SUPPLIES	\$32,359,300	\$28,040,073	(\$4,319,227)	86.7%	(13.3%)
ADMINISTRATIVE TOTAL	\$127,766,860	\$112,149,673	(\$15,617,187)	87.8%	(12.2%)

* All amounts rounded to the nearest dollar.



Salaries and Employee Benefits (S&EB)

Salaries and Employee Benefits (S&EB) costs incurred as of June 30, 2023, were \$84,109,600 or 88.2% of the \$95,407,560 approved budget. This represents an under expenditure of \$11,297,960 or 11.8% of the \$95,407,560 administrative approved budget for this category. A summary of all S&EB expenses and explanations of significant variances are provided below.

SUMMARY OF SALARIES AND EMPLOYEE BENEFITS BASED ON EXPENDITURES FOR AS OF JUNE 30, 2023					
	BUDGET	ACTUAL	OVER/(UNDER) BUDGET	% UTILIZED	% OVER/ (UNUTILIZED)
<u>SALARIES & OTHER PAY</u>					
Permanent / County Temporary	\$49,928,206	\$46,926,075	(\$3,002,131)	94.0%	(6.0%)
Agency Temporary	7,685,300	5,244,040	(2,441,260)	68.2%	(31.8%)
LACERA Intern Program	288,000	7,646	(280,354)	2.7%	(97.3%)
Stipends	65,000	47,574	(17,426)	73.2%	(26.8%)
Overtime	1,088,800	1,303,073	214,273	119.7%	19.7%
Bilingual Bonus	22,800	13,100	(9,700)	57.5%	(42.5%)
Transportation Allowance	7,200	22,800	15,600	316.7%	216.7%
Rideshare Allowance	70,300	4,620	(65,680)	6.6%	(93.4%)
Sickleave Buyback	68,800	65,713	(3,087)	95.5%	(4.5%)
TOTAL SALARIES & OTHER PAY	\$59,224,406	\$53,634,641	(\$5,589,765)	90.6%	(9.4%)
<u>VARIABLE BENEFITS</u>					
Retirement	12,027,511	9,785,886	(2,241,625)	81.4%	(18.6%)
FICA Contribution	892,955	759,458	(133,497)	85.0%	(15.0%)
County Subsidy - Insurance	3,309,795	2,129,919	(1,179,876)	64.4%	(35.6%)
Options Plan	4,736,909	3,905,326	(831,583)	82.4%	(17.6%)
Life Insurance	22,679	20,916	(1,763)	92.2%	(7.8%)
Health Insurance Temps	325,317	180,439	(144,878)	55.5%	(44.5%)
Flexible Benefit Plan	10,868	16,179	5,311	148.9%	48.9%
Thrift Plan / Horizons	2,021,290	1,436,310	(584,980)	71.1%	(28.9%)
Savings Plan	1,519,048	974,947	(544,101)	64.2%	(35.8%)
Pension Savings Plan	36,645	22,040	(14,605)	60.1%	(39.9%)
Megaflex	6,159,991	4,671,336	(1,488,655)	75.8%	(24.2%)
TOTAL VARIABLE BENEFITS	\$31,063,007	\$23,902,757	(\$7,160,250)	76.9%	(23.1%)
OPEB CONTRIBUTION	\$1,775,147	\$1,763,717	(\$11,430)	99.4%	(0.6%)
OPEB CONTRIBUTION (BUDGET SURPLUS)	\$0	\$1,775,147	\$1,775,147	N/A	N/A
OTHER BENEFITS	\$3,345,000	\$3,033,339	(\$311,661)	90.7%	(9.3%)
TOTAL EMPLOYEE BENEFITS	\$36,183,155	\$30,474,959	(\$5,708,196)	84.2%	(15.8%)
TOTAL SALARIES & EMPLOYEE BENEFITS	\$95,407,560	\$84,109,600	(\$11,297,960)	88.2%	(11.8%)

* All amounts rounded to the nearest dollar.

Permanent Salaries & Variable Benefits

Permanent Salaries expenditures were \$46,926,075 or 94.0% of the approved Permanent Salaries budget of \$49,928,206. This represents an under expenditure of \$3,002,131. This variance is the result of recruitment delays, hiring plan changes and unplanned vacancies.

Variable Benefit expenditures were \$23,902,757 or 76.9% of the approved Variable Benefits budget of \$31,063,007. This represents an under expenditure of \$7,160,250. These expenditures were lower than anticipated due to vacancies that correlate to reduced benefit costs.

At the end of the year, the status of vacant positions is reflected in the difference between budget and actual S&EB. Vacant positions are budgeted at the first step and the estimated time of the year the position will be filled. Salary savings are calculated by reducing the salary cost by the number of months it takes to hire against the position beyond what was budgeted. Vacancies are budgeted at six months unless otherwise specified. Positions are hired at various stages or remain vacant for the entire year. This is reflected in the gap between budget and actual S&EB.

See table on page 4 for details related to vacant positions.

Other Variances

Agency Temporary

Agency Temporary staff expenditures were \$5,244,040 or 68.2% of the adopted budget of \$7,685,300. This represents an under expenditure of \$2,441,260. The majority of this variance relates to the delay and challenges in recruiting for agency temporary staff because the agencies do not have a wide selection/candidate pool. In addition, a few divisions were able to fill some permanent positions during the year, therefore there are lower than anticipated costs for this category.

Overtime

Overtime expenditures were \$1,303,073 or 119.7% of the approved budget of \$1,088,800. This represents an over expenditure of \$214,273. Overtime was used to support ongoing systems maintenance and upgrades conducted after business hours, as well as extended weekday and weekend hours to support member-facing operations. These included March Rush, and critical projects such as the COLA accumulation correction, the Alameda Court Decision projects and Superior Court Pay Code Update Project.

LACERA Intern Program

LACERA Intern Program expenditures were \$7,646 or 2.7% of the approved budget of \$288,000. This represents an under expenditure of \$280,354. There was a total of six interns who were recruited during this fiscal year. Three of the six interns were funded by

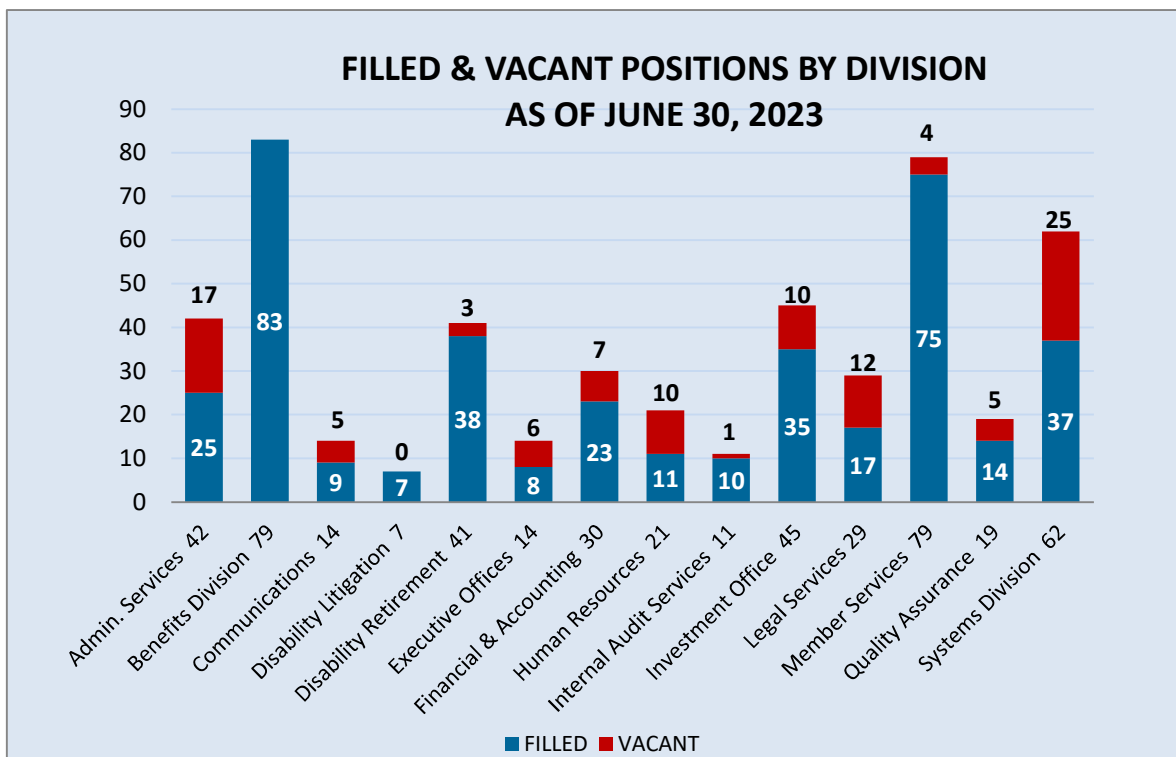
LACERA, whereas the other three were funded by outside agencies which resulted in this program being 97.3% under budget. Although the recruitment occurred in the fourth quarter of FY 2022-2023, the majority of the time worked occurred in FY 2023-2024.

OPEB Contribution (Budget Surplus)

OPEB Contribution (Budget Surplus) of \$1,775,147 against the budget of \$0 was due to the adoption of LACERA’s revised Budget Policy by the Board of Retirement and Board of Investments in June 2022. The revised policy allows LACERA’s Chief Executive Officer (CEO), at his discretion, to utilize budgetary savings to prefund or make additional OPEB contributions to LACERA’s OPEB Trust by June 30 of the year in which the funds were budgeted. Such additional OPEB contributions may be up to but not exceed that year’s budgeted OPEB contribution.

Vacancies

The LACERA Management Team is dedicated and committed to filling every vacant position. To address this critical need, LACERA greatly expanded outreach and utilized outside recruiters to fill specialized vacancies primarily in the Investments Division, expending \$471,883 on recruitment. We began the fiscal year with 117 staff vacancies out of 493 budgeted positions for a vacancy rate of 23.7%. Great strides were made throughout the year with hiring staff. However, the cumulative impact of resignations, retirements, and recruitment delays minimized the effect of improving the vacancy rate. LACERA ended the fiscal year as of June 30, 2023, with 101 vacancies and a resulting vacancy rate of 20.5%.



Services and Supplies (S&S)

Services and Supplies (S&S) costs incurred as of June 30, 2023, were \$28,040,073 or 86.7% of the \$32,359,300 administrative approved budget representing an under expenditure of \$4,319,227 or 13.3% for this category. A summary of all S&S expenses and explanations of significant variances are provided below.

SUMMARY OF SERVICES AND SUPPLIES BASED ON EXPENDITURES FOR AS OF JUNE 30, 2023					
S&S CATEGORY	BUDGET	ACTUAL	OVER/(UNDER) BUDGET	% UTILIZED	% OVER/ (UNUTILIZED)
Auto Expenses	\$133,500	(\$38,449)	(\$171,949)	(28.8%)	(128.8%)
Communications	535,000	507,934	(27,066)	94.9%	(5.1%)
Transportation & Travel	656,200	391,723	(264,477)	59.7%	(40.3%)
Postage	1,069,400	708,909	(360,491)	66.3%	(33.7%)
Stationery & Forms	808,300	664,082	(144,218)	82.2%	(17.8%)
Office Supplies & Equipment	845,700	999,020	153,320	118.1%	18.1%
Insurance	1,120,600	976,329	(144,271)	87.1%	(12.9%)
Equipment Maintenance	408,300	417,659	9,359	102.3%	2.3%
Equipment Rents & Leases	287,000	199,499	(87,501)	69.5%	(30.5%)
Building Costs	7,961,300	6,124,765	(1,836,535)	76.9%	(23.1%)
Parking Fees	437,000	456,055	19,055	104.4%	4.4%
Professional & Specialized Services	4,531,500	3,453,051	(1,078,449)	76.2%	(23.8%)
Bank Services	200,500	177,789	(22,711)	88.7%	(11.3%)
Legal Fees & Services	3,071,000	3,555,309	484,309	115.8%	15.8%
Disability Fees & Services	3,145,300	3,052,189	(93,111)	97.0%	(3.0%)
Computer Services & Support	5,118,600	5,072,012	(46,588)	99.1%	(0.9%)
Educational Expenses	1,253,000	655,891	(597,109)	52.3%	(47.7%)
Miscellaneous	777,100	666,304	(110,796)	85.7%	(14.3%)
TOTAL	\$32,359,300	\$28,040,073	(\$4,319,227)	86.7%	(13.3%)

* All amounts rounded to the nearest dollar.

- Building Costs expenditures were \$6,124,765 or 76.9% of the annual budget of \$7,961,300. This under expenditure of \$1,836,535 or 23.1% of the approved budget is primarily due to lower than anticipated expenditures for Renovation Projects due to supply chain issues and construction delays for the 7th floor project, pushing approximately 67.3% of the costs, or \$1,008,861, into FY 2023-2024.
- Professional & Specialized Services expenditures were \$3,453,051 or 76.2% of the annual budget in this category of \$4,531,500. This under expenditure of \$1,078,449 or 23.8% of the approved budget. Significant variances in this category are outlined below:
 - Under expenditure of \$218,386 for Audits because the KPMG Operational Due Diligence (ODD) Engagement was not completed until September 2023, so the final payment was made against the FY 2023-2024 budget resulting in an under expenditure for FY 2022-2023.

- Under expenditure of \$172,035 for Organizational Programs due to the cancellation of required COVID-testing during this fiscal year.
 - Over expenditure of \$170,087 for Retiree Payroll Printing for monthly retiree check mailing allocated to retiree payroll printing.
 - Under expenditure of \$120,456 for Software Subscriptions. The Information Security Office (ISO) uses various software tools and monitoring services to keep LACERA cyber secure. In FY 2022-2023, the ISO assessed a number of new tools and was able to utilize new strategies to deploy these tools resulting in reduced costs for software subscriptions.
- Educational Expenses were \$655,891 or 52.3% of the annual budget of \$1,253,000. This under expenditure of \$597,109 is mainly due to lower than anticipated costs for registration fees, and departmental training. The COVID-19 pandemic and travel restrictions in place throughout much of the year resulted in multiple in-person seminar/training/conference cancellations, postponements, or virtual events, resulting in one-time budgetary savings.
 - Legal Fees & Services expenditures were \$3,555,309 or 115.8% of the annual budget of \$3,071,000. This over expenditure of \$484,309 is due to higher than anticipated costs for outside legal consulting related to litigation, investigations, and tax matters.
 - Postage expenditures were \$708,909 or 66.3% of the annual budget of \$1,069,400. This under expenditure of \$360,491 or 33.7% is mainly due to the allocation of the monthly retiree check mailing to retiree payroll printing and the vendor covers the costs for both postage and printing services, resulting in an over expenditure in retiree payroll printing. Combined, the cost to print and mail retiree payroll checks came in at \$414,087 or approximately \$220,000 below budget.
 - Transportation & Travel expenditures were \$391,723 or 59.7% of the annual budget of \$656,200. This under expenditure of \$264,477 or 40.3 is mainly due to reduced travel costs as a result of multiple in-person training and conferences cancellations, postponements, or transitioned to virtual meetings.

Information Technology Projects

LACERA management and staff are committed to continuously improving our operating efficiency and service to our members. In support of that commitment LACERA made significant progress on several key projects, including the first phase of our member case management system (SOL), our budget management solution (Questica Budget), our Information Technology Service Management tool (Service Now), our Hardware Asset Management System (HAM), and our automated accounts payable and purchasing system (Certify), expending \$1,335,366 or 97.8% of the \$1,365,000 budget for new software licenses.

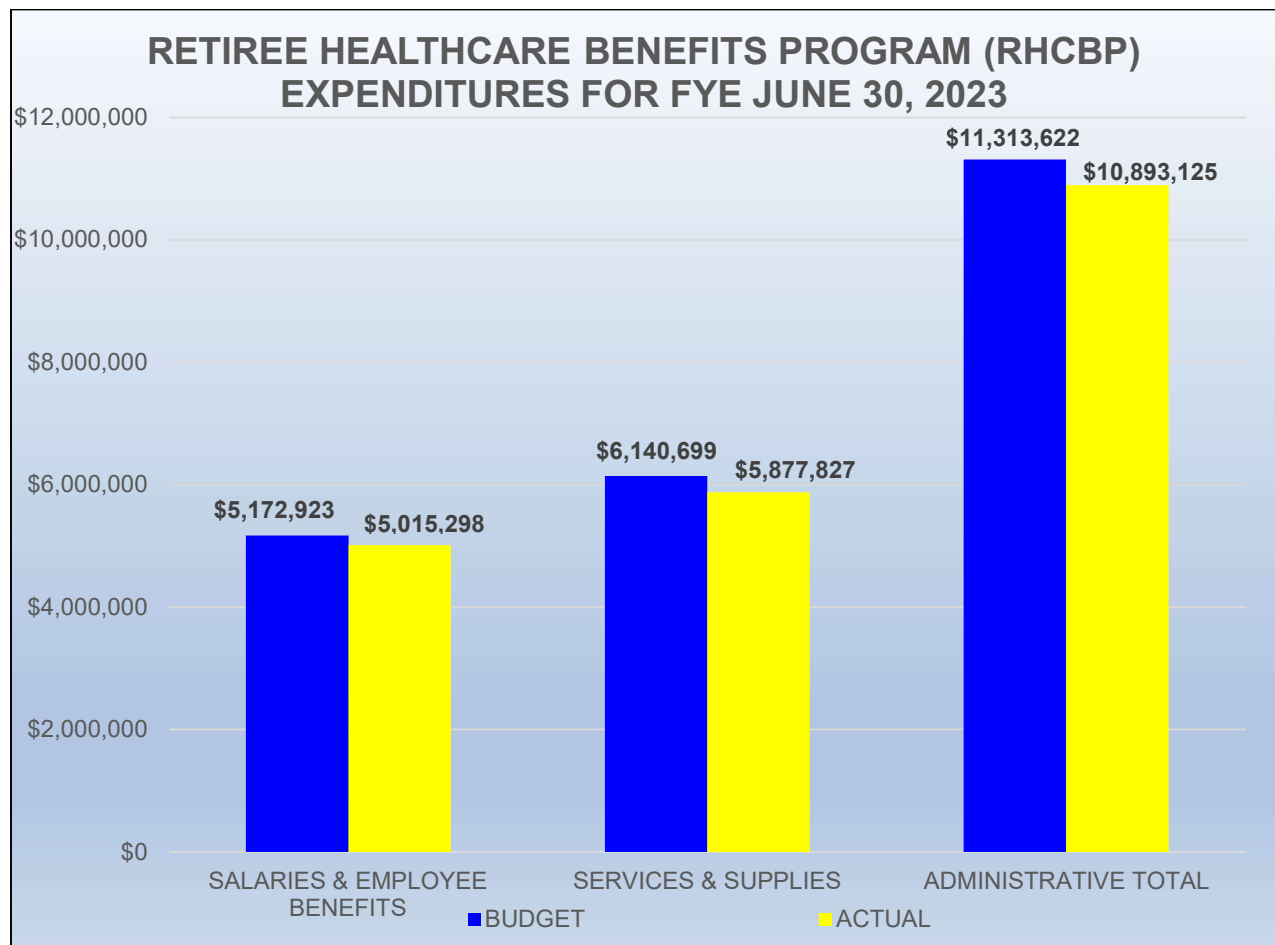
For additional details on LACERA expenses see Appendix A.

SECTION II - RETIREE HEALTHCARE BENEFITS BUDGET SUMMARY

Following is a summary of the Retiree Healthcare Benefits Program Final Budget Control Report for Fiscal Year 2022-2023 for the period ending June 30, 2023. The total program administrative expenses were \$10,893,125 or 96.3% of the \$11,313,622 approved administrative budget. This represents an under expenditure of \$420,497 or 3.7% of the approved budget.

RETIREE HEALTHCARE BENEFITS PROGRAM (RHCBP) SUMMARY OF ADMINISTRATIVE EXPENDITURES AS OF JUNE 30, 2023					
RHCBP	BUDGET	ACTUAL	OVER/(UNDER) BUDGET	% UTILIZED	% OVER/ (UNUTILIZED)
SALARIES & EMPLOYEE BENEFITS	\$5,172,923	\$5,015,298	(\$157,625)	97.0%	(3.0%)
SERVICES & SUPPLIES	\$6,140,699	\$5,877,827	(\$262,872)	95.7%	(4.3%)
ADMINISTRATIVE TOTAL	\$11,313,622	\$10,893,125	(\$420,497)	96.3%	(3.7%)

*All amounts rounded to the nearest dollar.



Salaries & Employee Benefits (S&EB):

Salaries & Employee Benefits costs were \$5,015,298 or 97.0% of the \$5,172,923 approved administrative budget. This represents an under expenditure of \$157,625 or 3.0% of the approved budget. This variance is primarily attributed to lower than anticipated costs for variable benefits.

Services & Supplies (S&S):

Services & Supplies costs were \$5,877,827 or 95.7% of the \$6,140,699 approved administrative budget. This represents an under expenditure of \$262,872 or 4.3% of the \$6,140,699 approved budget and is primarily due to the following factors:

- Operational Costs of \$4,358,739 results in an under expenditure of \$182,260 or 4.2% of the approved budget of \$4,540,999. This is due to lower than anticipated costs for Departmental Overhead. The overhead amount represents costs incurred by other LACERA Divisions to support the RHC mission. For FY 2022-2023, the RHC Departmental Overhead cost was lower than anticipated and is directly related to LACERA's overall under-expenditures in both S&EB and S&S.
- Professional & Specialized Services costs of \$1,148,352 results in an under expenditure of \$81,048 or 6.6% of the approved budget of \$1,229,400 and is due to lower than anticipated costs for Audits of \$51,475, an under expenditure of \$89,625 or 63.5% under the approved budget of \$141,100. This is due to late invoices/bills and expenses that were not received and captured prior to the accrual deadline.
- Legal Fees and Services of \$15,684 is an over expenditure of \$15,684 for outside legal counsel services related to a potential Tier 3. RHC did not anticipate the need for any legal services for FY 2022-2023.
- Transportation & Travel of \$39,409 includes an over expenditure of \$14,709 for higher than anticipated costs for transportation and travel for staff to attend conferences and training.

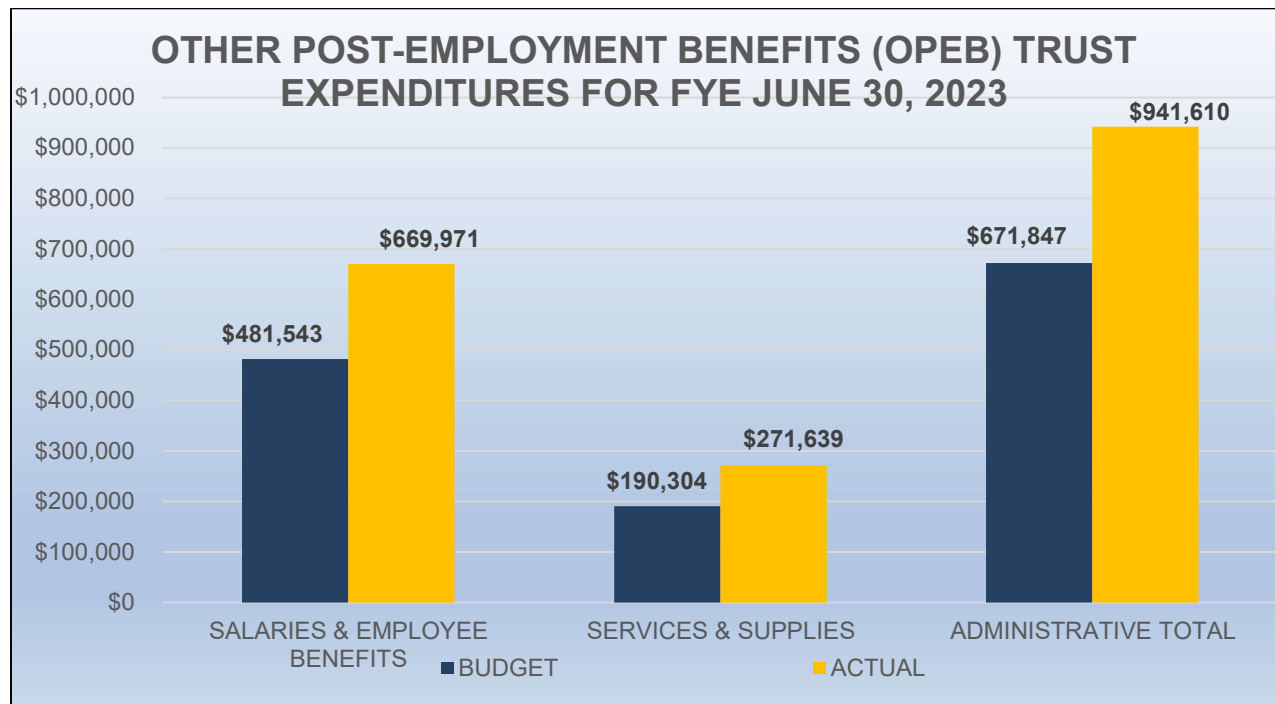
For additional details on RHCBP expenses see Appendix B.

SECTION III - OTHER POST-EMPLOYMENT BENEFITS BUDGET SUMMARY

Following is a summary of the Final Budget Control Report for Other Post-Employment Benefits (OPEB) Trust for the period ending June 30, 2023. The total OPEB Trust administrative expenses were \$941,610 or 140.2% of the \$671,847 approved administrative budget. This represents an over expenditure of \$269,762 or 40.2% of the approved budget.

OTHER POST-EMPLOYMENT BENEFITS (OPEB) TRUST SUMMARY OF ADMINISTRATIVE EXPENDITURES AS OF JUNE 30, 2023					
OPEB TRUST	BUDGET	ACTUAL	OVER/(UNDER) BUDGET	% UTILIZED	% OVER/ (UNUTILIZED)
SALARIES & EMPLOYEE BENEFITS	\$481,543	\$669,971	\$188,427	139.1%	39.1%
SERVICES & SUPPLIES	\$190,304	\$271,639	\$81,335	142.7%	42.7%
ADMINISTRATIVE TOTAL	\$671,847	\$941,610	\$269,762	140.2%	40.2%

* All amounts rounded to the nearest dollar.



- The over expenditure is attributed to higher than anticipated costs for salaries and employee benefits for additional staff and time needed for special projects (e.g., The change in the unitization structure of the OPEB Master Trust, Public Markets OPEB search conducted as an RFP, SOC RFP, etc.), and late invoices received for audit services from previous years for fiscal year ending June 30, 2022.

For additional details on OPEB Trust expenses see Appendix C.

APPENDIX A

FISCAL YEAR 2022-2023

**LOS ANGELES COUNTY EMPLOYEES RETIREMENT ASSOCIATION
(LACERA)**

BUDGET CONTROL REPORT

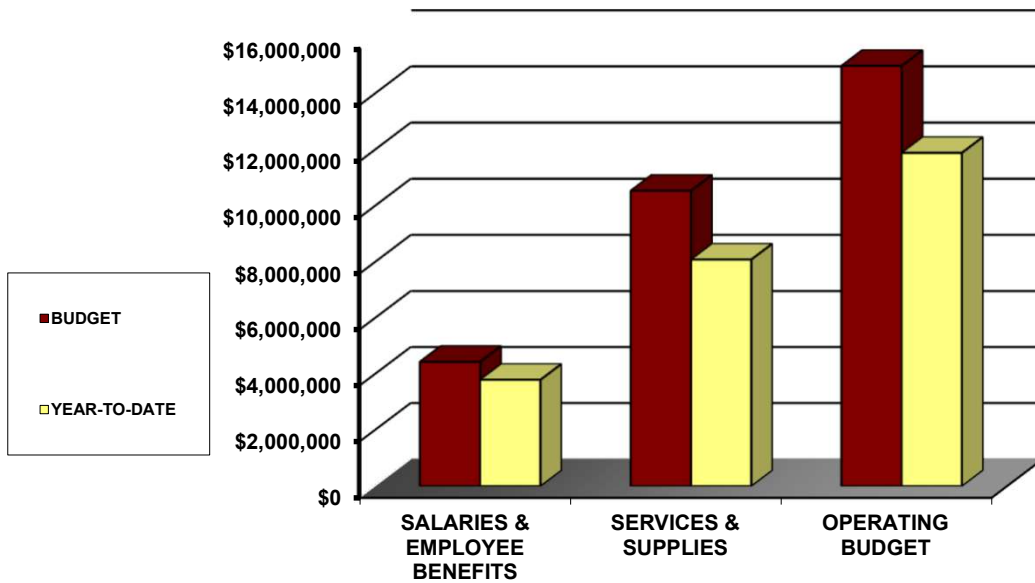
**BASED ON EXPENDITURES AS OF
JUNE 30, 2023**

ADMINISTRATIVE SERVICES

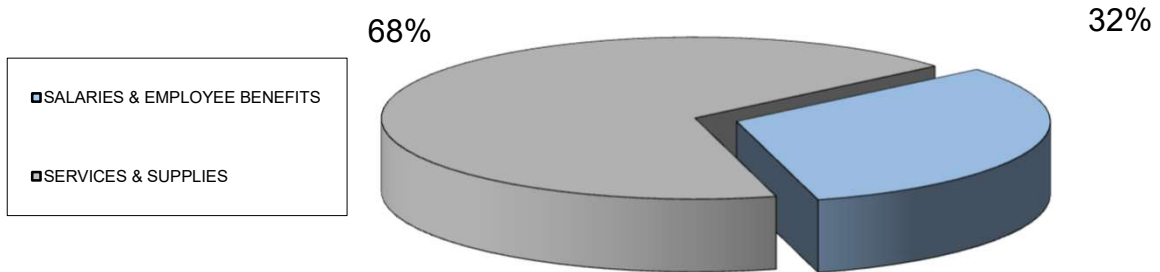
BUDGET CONTROL REPORT - FISCAL YEAR 2022-2023 BASED ON EXPENDITURES AS OF JUNE 30, 2023

<u>CATEGORY</u>	<u>BUDGET</u>	<u>YEAR-TO-DATE</u>	<u>OVER / (UNDER) BUDGET</u>
SALARIES & EMPLOYEE BENEFITS	\$4,442,976	\$3,799,576	(\$643,400)
SERVICES & SUPPLIES	\$10,546,900	\$8,094,760	(\$2,452,140)
OPERATING BUDGET	\$14,989,876	\$11,894,337	(\$3,095,539)

Budgeted Positions 42
Filled Positions 25



Total Expenditures by Category



FISCAL YEAR 2022-2023

ADMINISTRATIVE SERVICES

SUMMARY OF SALARIES AND EMPLOYEE BENEFITS
BASED ON EXPENDITURES AS OF JUNE 30, 2023

	BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
SALARIES & OTHER PAYS			
PERMANENT / COUNTY TEMPORARY	\$2,223,984	\$2,030,036	(\$193,948)
AGENCY TEMPORARY	473,400	282,409	(190,991)
LACERA INTERN PROGRAM	0	0	0
STIPENDS	0	0	0
OVERTIME	49,400	9,935	(39,465)
BILINGUAL BONUS	0	0	0
PAY IN LIEU OF SALARY REDUCTION	0	0	0
TRANSPORTATION ALLOWANCE	0	0	0
RIDESHARE ALLOWANCE	6,900	4,540	(2,360)
SICKLEAVE BUYBACK	7,300	7,799	499
RESERVE FOR REMUNERATION	0	0	0
TOTAL SALARIES & OTHER PAYS	\$2,760,984	\$2,334,719	(\$426,265)
VARIABLE BENEFITS			
RETIREMENT	524,174	451,530	(72,644)
FICA CONTRIBUTION	35,822	31,468	(4,354)
COUNTY SUBSIDY - INSURANCE	74,378	55,315	(19,063)
OPTIONS PLAN	621,131	444,105	(177,026)
LIFE INSURANCE	1,702	1,435	(267)
HEALTH INSURANCE TEMPS	0	0	0
FLEXIBLE BENEFIT PLAN	10,868	5,580	(5,288)
THRIFT PLAN / HORIZONS	75,146	57,480	(17,666)
SAVINGS PLAN	23,899	17,249	(6,650)
PENSION SAVINGS PLAN	0	0	0
MEGAFLEX	59,605	73,337	13,732
TOTAL VARIABLE BENEFITS	\$1,426,725	\$1,137,500	(\$289,225)
OPEB CONTRIBUTION	88,501	87,935	(566)
OPEB CONTRIBUTION (BUDGET SURPLUS)	0	88,501	88,501
OTHER BENEFITS	166,766	150,922	(15,844)
TOTAL EMPLOYEE BENEFITS	\$1,681,992	\$1,464,858	(\$217,134)
TOTAL SALARIES & EMPLOYEE BENEFITS	\$4,442,976	\$3,799,576	(\$643,400)

*All amounts rounded to the nearest dollar.

FISCAL YEAR 2022-2023

ADMINISTRATIVE SERVICES DIVISION

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF JUNE 30, 2023**

	BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
AUTO EXPENSES			
9102 AUTO MAINTENANCE/REPAIR	\$10,000	\$4,886	(\$5,114)
9103 GAS	1,000	954	(46)
9105 LICENSE FEES	500	23	(477)
9106 SPECIAL ORDER - AUTOMOBILE	100,000	(53,767)	(153,767)
TOTAL	<u>111,500</u>	<u>(47,904)</u>	<u>(159,404)</u>
TRANSPORTATION AND TRAVEL			
9181 TRANSPORTATION	1,100	128	(972)
9182 TRAVEL	6,900	2,240	(4,660)
TOTAL	<u>8,000</u>	<u>2,369</u>	<u>(5,631)</u>
POSTAGE			
9201 POSTAGE METER	330,000	330,000	0
9204 CALLER BOX SERVICE ANNUAL FEE	1,400	1,423	23
TOTAL	<u>331,400</u>	<u>331,423</u>	<u>23</u>
STATIONERY AND FORMS			
9264 MISC STATIONERY & FORMS	3,800	0	(3,800)
TOTAL	<u>3,800</u>	<u>0</u>	<u>(3,800)</u>
OFFICE SUPPLIES AND EQUIPMENT			
9302 SPECIAL ORDERS/MINOR EQUIP	26,000	22,107	(3,893)
9305 SAFETY AND HEALTH SUPPLIES	50,000	6,873	(43,127)
9306 COMPUTER SUPPLIES	75,000	73,085	(1,915)
9307 STANDARD STOCK	125,000	48,487	(76,513)
9337 OFFICE FURNISHINGS	50,000	26,120	(23,880)
9352 ERGONOMIC ITEMS	1,000	1,232	232
TOTAL	<u>327,000</u>	<u>177,905</u>	<u>(149,095)</u>
INSURANCE			
9381 FIDUCIARY INSURANCE	396,800	287,704	(109,096)
9382 UMBRELLA POLICY	16,200	16,106	(94)
9384 EARTHQUAKE/FLOOD	76,300	76,204	(96)
9386 CRIME INSURANCE POLICY	21,800	16,244	(5,557)
9387 BUSINESS PACKAGE	51,700	54,828	3,128
9388 EMPLOYMENT PRACTICE LIABILITY INSURANCE	149,800	222,213	72,413
9390 CYBER LIABILITY INSURANCE	399,500	295,058	(104,442)
9391 TERRORISM INSURANCE	8,500	7,973	(527)
TOTAL	<u>1,120,600</u>	<u>976,329</u>	<u>(144,271)</u>

FISCAL YEAR 2022-2023

ADMINISTRATIVE SERVICES DIVISION

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF JUNE 30, 2023**

	BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
EQUIPMENT MAINTENANCE			
9401 FAX MACHINES	\$1,000	\$1,543	\$543
9423 TIME CLOCK MAINTENANCE	300	0	(300)
9426 SECURITY SYSTEM (PANIC BUTTONS)	2,000	900	(1,100)
TOTAL	<u>3,300</u>	<u>2,443</u>	<u>(857)</u>
EQUIPMENT RENTS AND LEASES			
9452 MAILING EQUIPMENT	42,000	38,209	(3,791)
9463 PRODUCTION COPIERS - LEASES	245,000	161,290	(83,710)
TOTAL	<u>287,000</u>	<u>199,499</u>	<u>(87,501)</u>
BUILDING COSTS			
9476 BUILDING OPERATIONAL COSTS	6,151,300	5,485,152	(666,148)
9477 OVERTIME HVAC/LIGHTING	135,000	73,531	(61,469)
9480 FACILITIES MAINTENANCE	175,000	74,944	(100,056)
9481 RENOVATION PROJECTS	1,500,000	491,139	(1,008,861)
TOTAL	<u>7,961,300</u>	<u>6,124,765</u>	<u>(1,836,535)</u>
PROFESSIONAL AND SPECIALIZED SERVICES			
9552 BUSINESS CONTINUITY SERVICES	50,000	17,100	(32,900)
9553 ARCHIVE/ OFF-SITE STORAGE	50,000	77,984	27,984
9677 SHREDDING SERVICE	25,000	45,478	20,478
9685 COURIER SERVICE	25,000	10,189	(14,811)
9686 FURNITURE OFF-SITE STORAGE	18,000	28,167	10,167
9688 UNIVERSAL MAIL DELIVERY SERVICE	8,000	8,668	668
9689 NEXT DAY MAIL DELIVERY SERVICE	65,000	28,740	(36,260)
9723 BROKERAGE SERVICES FEE	125,000	92,000	(33,000)
TOTAL	<u>366,000</u>	<u>308,326</u>	<u>(57,674)</u>
EDUCATIONAL EXPENSES			
9961 MEMBERSHIPS	3,000	3,084	84
9962 REGISTRATION FEES	10,000	5,226	(4,774)
9963 EDUCATIONAL MATERIALS	500	248	(252)
TOTAL	<u>13,500</u>	<u>8,558</u>	<u>(4,942)</u>
MISCELLANEOUS			
9986 MISCELLANEOUS	10,000	11,047	1,047
9990 RIDESHARE	3,500	0	(3,500)
TOTAL	<u>13,500</u>	<u>11,047</u>	<u>(2,453)</u>
GRAND TOTAL	<u>\$10,546,900</u>	<u>\$8,094,760</u>	<u>(\$2,452,140)</u>

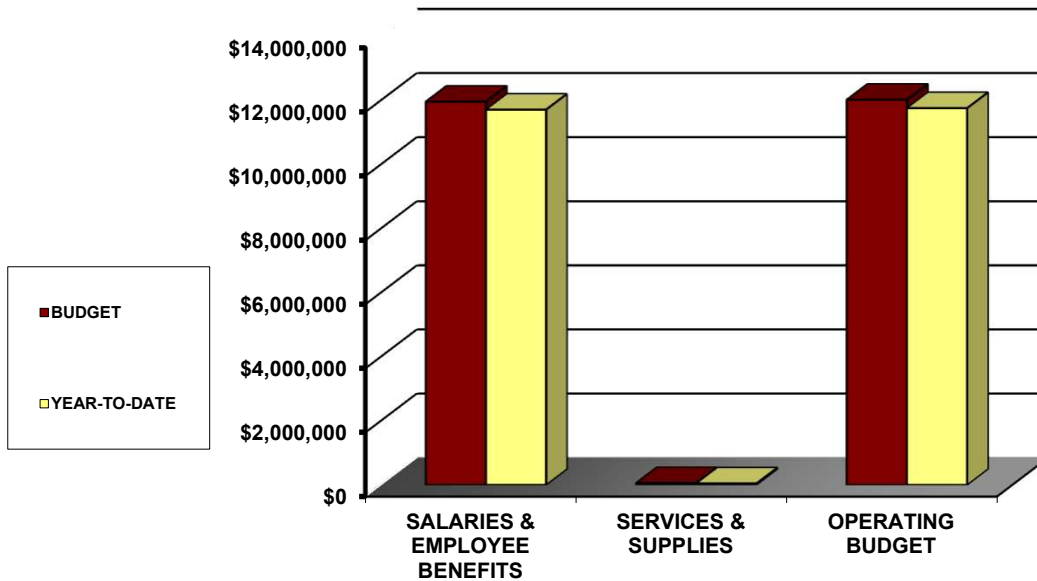
*All amounts rounded to the nearest dollar.

BENEFITS DIVISION

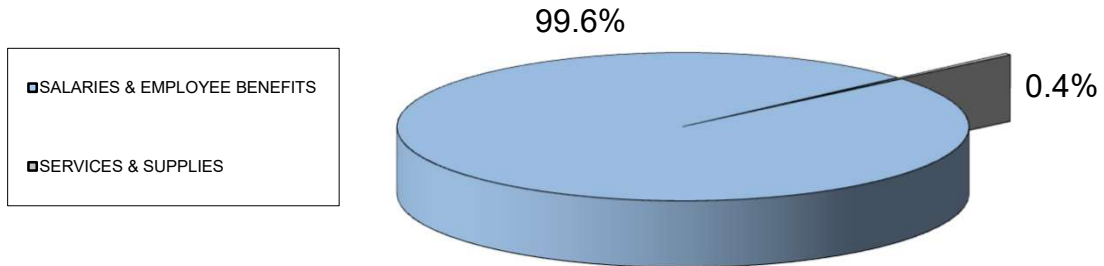
BUDGET CONTROL REPORT - FISCAL YEAR 2022-2023 BASED ON EXPENDITURES AS OF JUNE 30, 2023

<u>CATEGORY</u>	<u>BUDGET</u>	<u>YEAR-TO-DATE</u>	<u>OVER / (UNDER) BUDGET</u>
SALARIES & EMPLOYEE BENEFITS	\$11,960,086	\$11,710,642	(\$249,444)
SERVICES & SUPPLIES	\$59,300	\$47,401	(\$11,899)
OPERATING BUDGET	\$12,019,386	\$11,758,043	(\$261,343)

Budgeted Positions 79
Filled Positions 83



Total Expenditures by Category



FISCAL YEAR 2022-2023

BENEFITS DIVISION

**SUMMARY OF SALARIES AND EMPLOYEE BENEFITS
BASED ON EXPENDITURES AS OF JUNE 30, 2023**

	BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
SALARIES & OTHER PAYS			
PERMANENT / COUNTY TEMPORARY	\$6,706,995	\$6,787,742	\$80,747
AGENCY TEMPORARY	154,900	92,043	(62,857)
LACERA INTERN PROGRAM	0	0	0
STIPENDS	0	0	0
OVERTIME	398,100	580,501	182,401
BILINGUAL BONUS	3,600	3,600	0
PAY IN LIEU OF SALARY REDUCTION	0	0	0
TRANSPORTATION ALLOWANCE	0	0	0
RIDESHARE ALLOWANCE	16,300	0	(16,300)
SICKLEAVE BUYBACK	12,000	12,891	891
RESERVE FOR REMUNERATION	0	0	0
TOTAL SALARIES & OTHER PAYS	\$7,291,895	\$7,476,777	\$184,882
VARIABLE BENEFITS			
RETIREMENT	1,642,863	\$1,449,020	(\$193,843)
FICA CONTRIBUTION	115,549	112,373	(3,176)
COUNTY SUBSIDY - INSURANCE	170,239	96,807	(73,432)
OPTIONS PLAN	1,396,465	1,272,033	(124,432)
LIFE INSURANCE	8,257	7,927	(330)
HEALTH INSURANCE TEMPS	175,669	83,681	(91,988)
FLEXIBLE BENEFIT PLAN	0	0	0
THRIFT PLAN / HORIZONS	241,475	214,891	(26,584)
SAVINGS PLAN	49,184	27,491	(21,693)
PENSION SAVINGS PLAN	18,302	10,191	(8,111)
MEGAFLEX	201,319	121,897	(79,422)
TOTAL VARIABLE BENEFITS	\$4,019,322	\$3,396,311	(\$623,011)
OPEB CONTRIBUTION	224,962	223,523	(1,439)
OPEB CONTRIBUTION (BUDGET SURPLUS)	0	224,962	224,962
OTHER BENEFITS	423,908	389,069	(34,839)
TOTAL EMPLOYEE BENEFITS	\$4,668,192	\$4,233,866	(\$434,326)
TOTAL SALARIES & EMPLOYEE BENEFITS	\$11,960,086	\$11,710,642	(\$249,444)

*All amounts rounded to the nearest dollar.

FISCAL YEAR 2022-2023

BENEFITS DIVISION

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF JUNE 30, 2023**

		BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
TRANSPORTATION AND TRAVEL				
9181	TRANSPORTATION	\$1,300	\$794	(\$506)
9182	TRAVEL	5,200	4,706	(494)
	TOTAL	6,500	5,501	(999)
OFFICE SUPPLIES AND EQUIPMENT				
9302	SPECIAL ORDERS/MINOR EQUIP	3,400	1,881	(1,519)
	TOTAL	3,400	1,881	(1,519)
PROFESSIONAL AND SPECIALIZED SERVICES				
9516	RECORD SEARCHES	1,000	0	(1,000)
9572	PENSION BENEFIT INFORMATION	15,000	11,048	(3,952)
9674	MEMBER VERIFICATION	25,000	20,826	(4,174)
	TOTAL	41,000	31,874	(9,126)
EDUCATIONAL EXPENSES				
9961	MEMBERSHIPS	2,400	620	(1,780)
9962	REGISTRATION FEES	5,000	6,725	1,725
9963	EDUCATIONAL MATERIALS	200	0	(200)
	TOTAL	7,600	7,345	(255)
MISCELLANEOUS				
9986	MISCELLANEOUS	800	800	0
	TOTAL	800	800	0
GRAND TOTAL		\$59,300	\$47,401	(\$11,899)

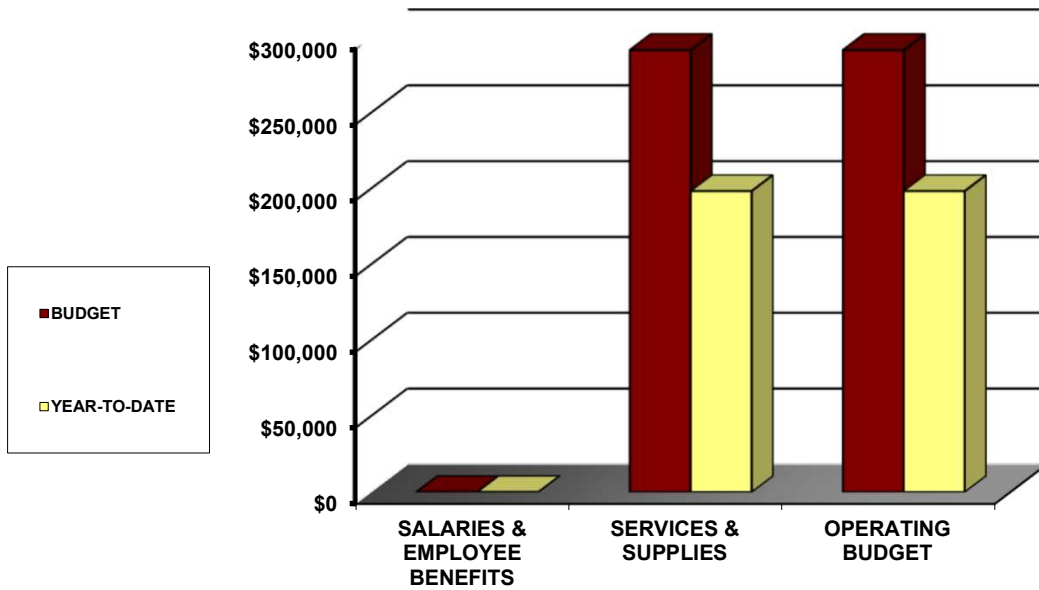
*All amounts rounded to the nearest dollar.

BOARD OF RETIREMENT

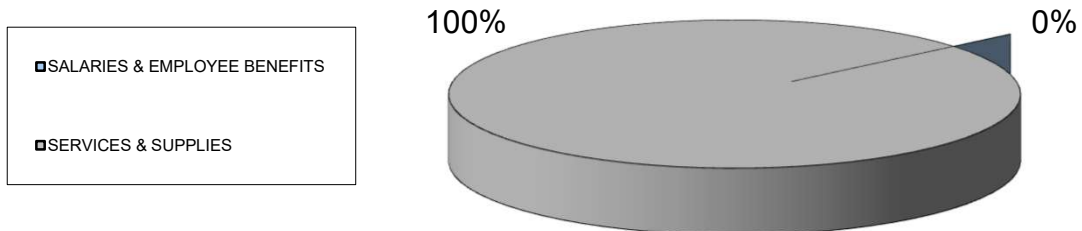
BUDGET CONTROL REPORT - FISCAL YEAR 2022-2023 BASED ON EXPENDITURES AS OF JUNE 30, 2023

<u>CATEGORY</u>	<u>BUDGET</u>	<u>YEAR-TO-DATE</u>	<u>OVER / (UNDER) BUDGET</u>
SALARIES & EMPLOYEE BENEFITS	\$0	\$0	\$0
SERVICES & SUPPLIES	\$291,500	\$198,496	(\$93,004)
OPERATING BUDGET	\$291,500	\$198,496	(\$93,004)

Board of Retirement 12



Total Expenditures by Category



FISCAL YEAR 2022-2023

BOARD OF RETIREMENT

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF JUNE 30, 2023**

		BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
TRANSPORTATION AND TRAVEL				
9181	TRANSPORTATION	\$11,000	\$6,621	(\$4,379)
9182	TRAVEL	82,500	45,499	(37,001)
	TOTAL	<u>93,500</u>	<u>52,121</u>	<u>(41,379)</u>
EDUCATIONAL EXPENSES				
9961	MEMBERSHIPS	44,000	35,495	(8,505)
9962	REGISTRATION FEES	30,000	11,991	(18,009)
9963	EDUCATIONAL MATERIALS	12,000	10,503	(1,497)
	TOTAL	<u>86,000</u>	<u>57,989</u>	<u>(28,011)</u>
MISCELLANEOUS				
9983	OFF-SITE BOARD MEETING EXPENSE	100,000	82,897	(17,103)
9984	FOOD/BEVERAGES	12,000	5,489	(6,511)
	TOTAL	<u>112,000</u>	<u>88,386</u>	<u>(23,614)</u>
GRAND TOTAL		<u>\$291,500</u>	<u>\$198,496</u>	<u>(\$93,004)</u>

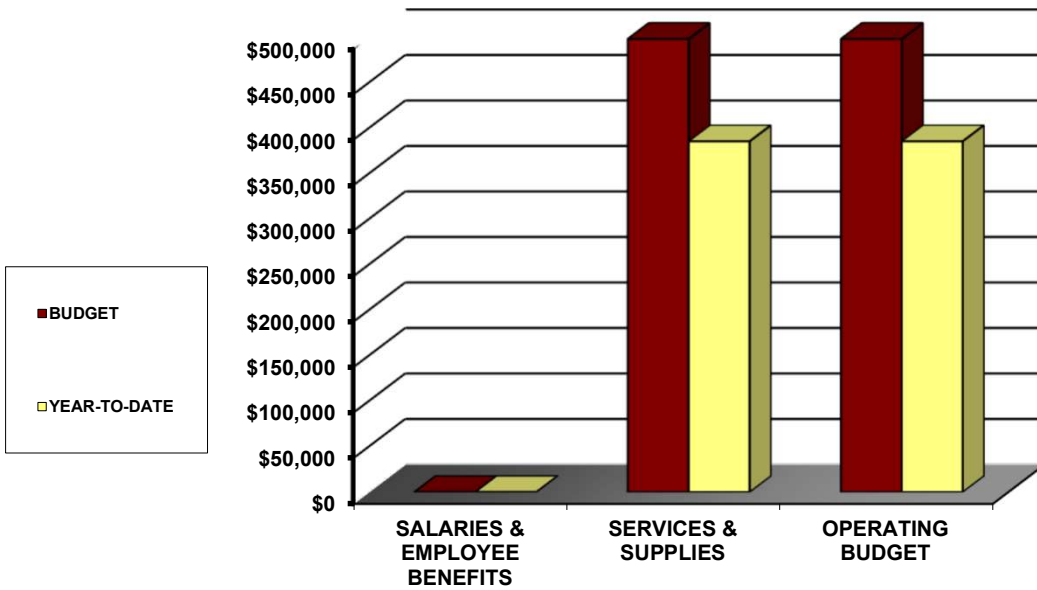
*All amounts rounded to the nearest dollar.

BOARD OF INVESTMENTS

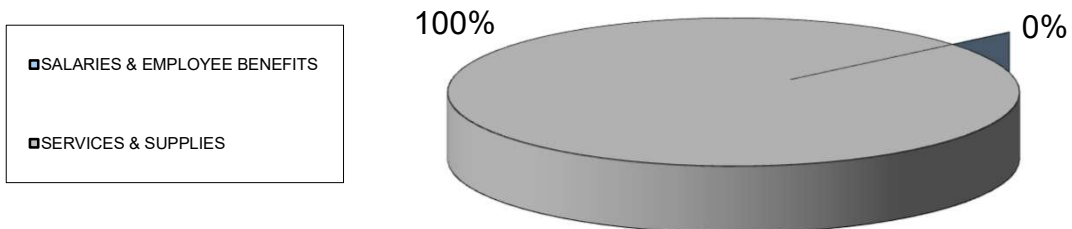
BUDGET CONTROL REPORT - FISCAL YEAR 2022-2023 BASED ON EXPENDITURES AS OF JUNE 30, 2023

<u>CATEGORY</u>	<u>BUDGET</u>	<u>YEAR-TO-DATE</u>	<u>OVER / (UNDER) BUDGET</u>
SALARIES & EMPLOYEE BENEFITS	\$0	\$0	\$0
SERVICES & SUPPLIES	\$498,000	\$385,504	(\$112,496)
OPERATING BUDGET	\$498,000	\$385,504	(\$112,496)

Board of Investment 10



Total Expenditures by Category



FISCAL YEAR 2022-2023

BOARD OF INVESTMENTS

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF JUNE 30, 2023**

		<u>BUDGET</u>	<u>YTD ACTUAL</u>	<u>OVER/(UNDER) BUDGET</u>
TRANSPORTATION AND TRAVEL				
9181	TRANSPORTATION	\$22,000	\$10,890	-\$11,110
9182	TRAVEL	220,000	147,417	(72,583)
	TOTAL	<u>242,000</u>	<u>158,306</u>	<u>(83,694)</u>
EDUCATIONAL EXPENSES				
9961	MEMBERSHIPS	85,000	55,420	(29,580)
9962	REGISTRATION FEES	60,000	88,343	28,343
9963	EDUCATIONAL MATERIALS	5,000	3,356	(1,644)
	TOTAL	<u>150,000</u>	<u>147,119</u>	<u>(2,881)</u>
MISCELLANEOUS				
9983	OFF-SITE BOARD MEETING EXPENSE	100,000	76,594	(23,406)
9984	FOOD/BEVERAGES	6,000	3,485	(2,515)
	TOTAL	<u>106,000</u>	<u>80,079</u>	<u>(25,921)</u>
GRAND TOTAL		<u>\$498,000</u>	<u>\$385,504</u>	<u>(\$112,496)</u>

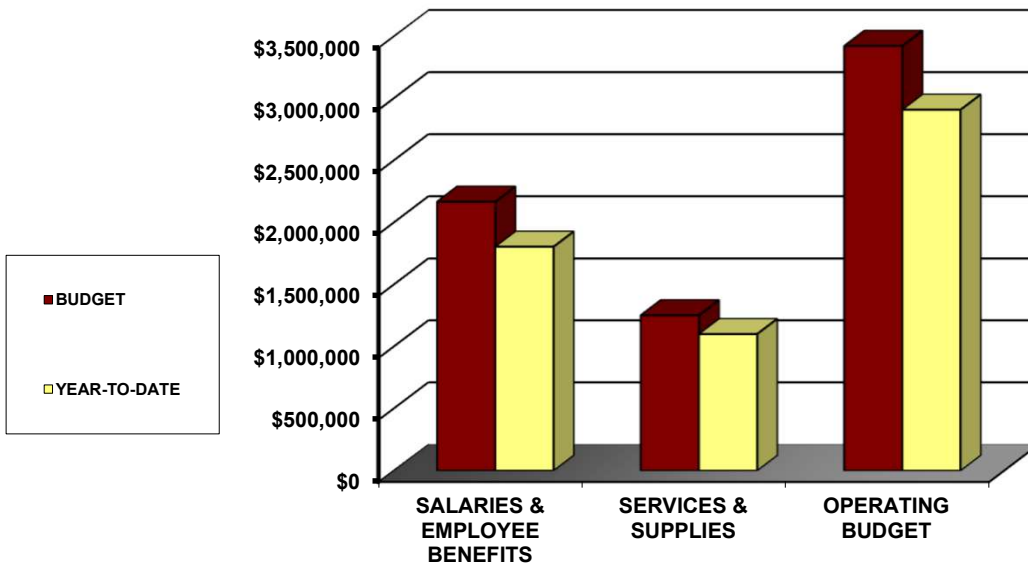
*All amounts rounded to the nearest dollar.

COMMUNICATIONS

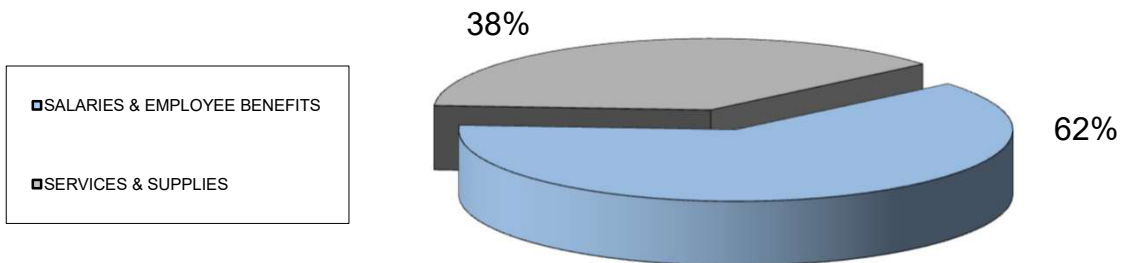
BUDGET CONTROL REPORT - FISCAL YEAR 2022-2023 BASED ON EXPENDITURES AS OF JUNE 30, 2023

<u>CATEGORY</u>	<u>BUDGET</u>	<u>YEAR-TO-DATE</u>	<u>OVER / (UNDER) BUDGET</u>
SALARIES & EMPLOYEE BENEFITS	\$2,168,975	\$1,806,645	(\$362,330)
SERVICES & SUPPLIES	\$1,254,000	\$1,102,728	(\$151,272)
OPERATING BUDGET	\$3,422,975	\$2,909,373	(\$513,602)

Budgeted Positions 14
Filled Positions 9



Total Expenditures by Category



FISCAL YEAR 2022-2023

COMMUNICATIONS

SUMMARY OF SALARIES AND EMPLOYEE BENEFITS
BASED ON EXPENDITURES AS OF JUNE 30, 2023

	BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
SALARIES & OTHER PAYS			
PERMANENT / COUNTY TEMPORARY	\$1,242,896	\$1,057,213	(\$185,683)
AGENCY TEMPORARY	56,200	41,983	(14,217)
LACERA INTERN PROGRAM	0	0	0
STIPENDS	0	0	0
OVERTIME	4,800	2,721	(2,079)
BILINGUAL BONUS	0	0	0
PAY IN LIEU OF SALARY REDUCTION	0	0	0
TRANSPORTATION ALLOWANCE	0	0	0
RIDESHARE ALLOWANCE	1,000	0	(1,000)
SICKLEAVE BUYBACK	3,500	1,207	(2,293)
RESERVE FOR REMUNERATION	0	0	0
TOTAL SALARIES & OTHER PAYS	\$1,308,396	\$1,103,124	(\$205,272)
VARIABLE BENEFITS			
RETIREMENT	311,053	231,308	(79,745)
FICA CONTRIBUTION	19,751	16,220	(3,531)
COUNTY SUBSIDY - INSURANCE	88,526	49,815	(38,711)
OPTIONS PLAN	140,031	131,570	(8,461)
LIFE INSURANCE	190	279	89
HEALTH INSURANCE TEMPS	0	0	0
FLEXIBLE BENEFIT PLAN	0	0	0
THRIFT PLAN / HORIZONS	37,263	19,571	(17,692)
SAVINGS PLAN	26,079	16,152	(9,927)
PENSION SAVINGS PLAN	0	0	0
MEGAFLEX	117,440	84,145	(33,295)
TOTAL VARIABLE BENEFITS	\$740,334	\$549,060	(\$191,274)
OPEB CONTRIBUTION	41,689	41,422	(267)
OPEB CONTRIBUTION (BUDGET SURPLUS)	0	41,689	41,689
OTHER BENEFITS	78,556	71,350	(7,206)
TOTAL EMPLOYEE BENEFITS	\$860,578	\$703,521	(\$157,057)
TOTAL SALARIES & EMPLOYEE BENEFITS	\$2,168,975	\$1,806,645	(\$362,330)

*All amounts rounded to the nearest dollar.

FISCAL YEAR 2022-2023

COMMUNICATIONS

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF JUNE 30, 2023**

		BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
		<hr/>	<hr/>	<hr/>
TRANSPORTATION AND TRAVEL				
9181	TRANSPORTATION	\$500	\$593	\$93
9182	TRAVEL	4,000	2,459	(1,541)
	TOTAL	<hr/> 4,500	<hr/> 3,053	<hr/> (1,447)
POSTAGE				
9205	NEWSLETTER POSTAGE	185,000	210,312	25,312
9207	ANNUAL BENEFITS STATEMENT POSTAGE	90,000	97,262	7,262
9210	MISCELLANEOUS MAILINGS	73,000	69,912	(3,088)
	TOTAL	<hr/> 348,000	<hr/> 377,486	<hr/> 29,486
STATIONERY AND FORMS				
9233	DISABILITY RETIREMENT APPEAL	5,000	0	(5,000)
9235	PLANS BROCHURES	80,000	16,059	(63,941)
9237	SURVIVOR - BROCHURES	2,500	0	(2,500)
9239	WITHDRAWAL/RECIPROCITY - BROCHURES	3,500	9,371	5,871
9240	ANNUAL REPORT	55,000	52,938	(2,062)
9242	ANNUAL BENEFITS STATEMENT	110,000	97,726	(12,274)
9246	FORMS	25,000	36,850	11,850
9249	LACERA CALENDARS	8,000	8,820	820
9253	NEW MEMBER WELCOME PACKAGE	10,000	14,994	4,994
9255	PRE-RET GUIDE	25,000	25,462	462
9256	POSTSCRIPT PRINTING	80,000	128,199	48,199
9259	RETIREEES - INSERTS	6,000	6,703	703
9261	SPOTLIGHT PRINTING	90,000	83,401	(6,599)
9262	SURVEY	1,500	0	(1,500)
9263	UNANTICIPATED PROJECTS	36,000	34,423	(1,577)
9265	SPECIALIZED MAILINGS	68,000	50,017	(17,984)
9266	DIRECT DEPOSIT BROCHURES	3,000	3,249	249
9267	Q & A BROCHURES	7,000	12,548	5,548
9268	TRANSFER BROCHURES	3,000	0	(3,000)
9269	DISABILITY RETIREMENT PACKETS	15,000	0	(15,000)
9274	STATIONERY	40,000	56,803	16,803
9280	ANNUAL BENEFIT STATEMENT PDF/CD'S	16,000	14,484	(1,516)
9281	ESTIMATE PACKAGE	2,000	0	(2,000)
9282	NEW RETIREE PACKAGE	3,000	4,300	1,300
9283	POWER OF ATTORNEY	15,000	5,417	(9,583)
9285	RETIREMENT UNIVERSITY	90,000	1,500	(88,500)
9286	COMMUNITY PROPERTY GUIDE	5,000	819	(4,181)
	TOTAL	<hr/> 804,500	<hr/> 664,082	<hr/> (140,418)

FISCAL YEAR 2022-2023

COMMUNICATIONS

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF JUNE 30, 2023**

		BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
OFFICE SUPPLIES AND EQUIPMENT				
9302	SPECIAL ORDERS/MINOR EQUIP	\$6,000	\$14,465	\$8,465
	TOTAL	<u>6,000</u>	<u>14,465</u>	<u>8,465</u>
PROFESSIONAL AND SPECIALIZED SERVICES				
9627	NEWSLETTER MAILINGS	30,000	27,156	(2,844)
9628	HR CONFERENCE/FORUM	2,000	0	(2,000)
9719	CAMPAIGNS	10,000	6,190	(3,810)
9720	REBRANDING	5,000	0	(5,000)
	TOTAL	<u>47,000</u>	<u>33,346</u>	<u>(13,654)</u>
COMPUTER SERVICES & SUPPORT				
9837	MACINTOSH CONSULTING & SUPPORT	2,500	670	(1,830)
9840	MACINTOSH SOFTWARE PACKAGE	1,500	2,400	900
9855	MACINTOSH EQUIPMENT	10,000	4,262	(5,738)
	TOTAL	<u>14,000</u>	<u>7,331</u>	<u>(6,669)</u>
EDUCATIONAL EXPENSES				
9961	MEMBERSHIPS	400	0	(400)
9962	REGISTRATION FEES	25,000	1,939	(23,061)
9963	EDUCATIONAL MATERIALS	4,000	600	(3,400)
	TOTAL	<u>29,400</u>	<u>2,539</u>	<u>(26,861)</u>
MISCELLANEOUS				
9986	MISCELLANEOUS	600	426	(174)
	TOTAL	<u>600</u>	<u>426</u>	<u>(174)</u>
	GRAND TOTAL	<u>\$1,254,000</u>	<u>\$1,102,728</u>	<u>(\$151,272)</u>

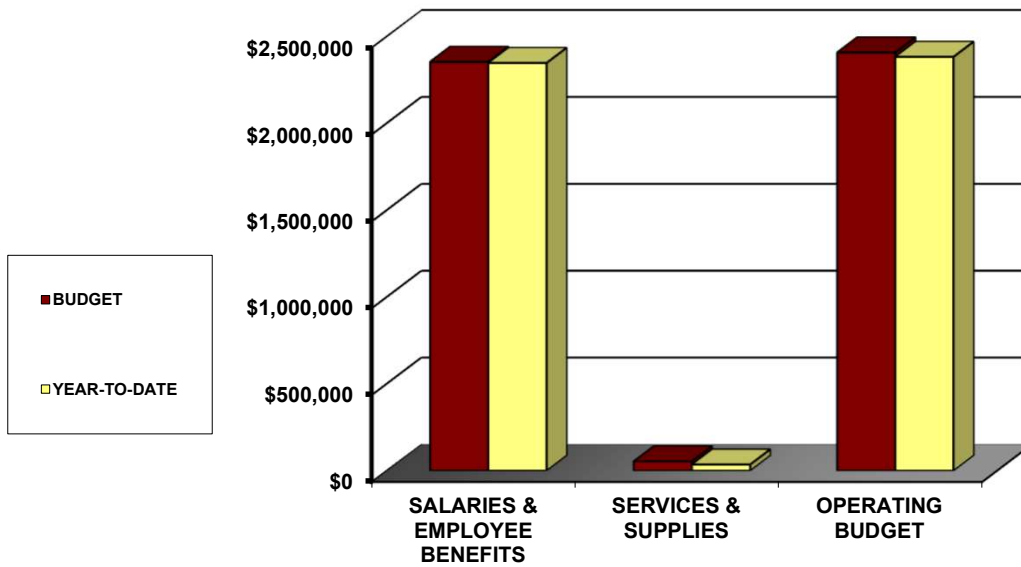
*All amounts rounded to the nearest dollar.

DISABILITY LITIGATION

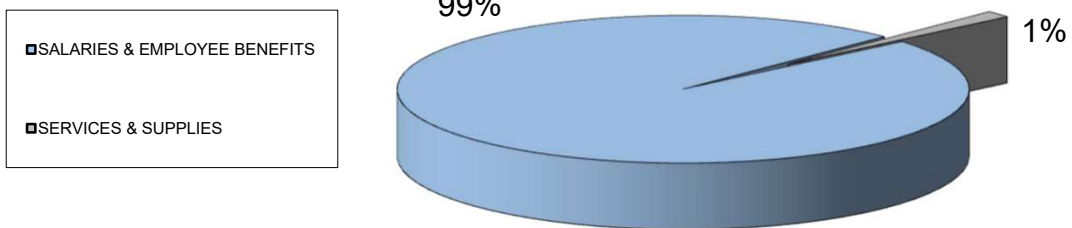
BUDGET CONTROL REPORT - FISCAL YEAR 2022-2023 BASED ON EXPENDITURES AS OF JUNE 30, 2023

<u>CATEGORY</u>	<u>BUDGET</u>	<u>YEAR-TO-DATE</u>	<u>OVER / (UNDER) BUDGET</u>
SALARIES & EMPLOYEE BENEFITS	\$2,353,917	\$2,347,003	(\$6,914)
SERVICES & SUPPLIES	\$53,900	\$35,245	(\$18,655)
OPERATING BUDGET	\$2,407,817	\$2,382,248	(\$25,569)

Budgeted Positions 7
Filled Positions 7



Total Expenditures by Category



FISCAL YEAR 2022-2023

DISABILITY LITIGATION

SUMMARY OF SALARIES AND EMPLOYEE BENEFITS
 BASED ON EXPENDITURES AS OF JUNE 30, 2023

	BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
SALARIES & OTHER PAYS			
PERMANENT / COUNTY TEMPORARY	\$1,371,867	\$1,433,087	\$61,220
AGENCY TEMPORARY	9,800	\$0	(\$9,800)
LACERA INTERN PROGRAM	0	\$0	\$0
STIPENDS	0	\$0	\$0
OVERTIME	6,600	1,058	(5,542)
BILINGUAL BONUS	0	\$0	\$0
PAY IN LIEU OF SALARY REDUCTION	0	\$0	\$0
TRANSPORTATION ALLOWANCE	0	\$0	\$0
RIDESHARE ALLOWANCE	900	\$0	(\$900)
SICKLEAVE BUYBACK	0	\$0	\$0
RESERVE FOR REMUNERATION	0	\$0	\$0
TOTAL SALARIES & OTHER PAYS	\$1,389,167	\$1,434,145	\$44,978
VARIABLE BENEFITS			
RETIREMENT	335,810	\$303,993	(\$31,817)
FICA CONTRIBUTION	22,636	21,528	(1,108)
COUNTY SUBSIDY - INSURANCE	96,904	81,102	(15,802)
OPTIONS PLAN	0	0	0
LIFE INSURANCE	0	0	0
HEALTH INSURANCE TEMPS	0	0	0
FLEXIBLE BENEFIT PLAN	0	0	0
THRIFT PLAN / HORIZONS	67,188	47,861	(19,327)
SAVINGS PLAN	74,414	61,116	(13,298)
PENSION SAVINGS PLAN	0	0	0
MEGAFLEX	235,076	227,307	(7,769)
TOTAL VARIABLE BENEFITS	\$832,028	\$742,907	(\$89,121)
OPEB CONTRIBUTION	46,014	45,720	(294)
OPEB CONTRIBUTION (BUDGET SURPLUS)	0	46,014	46,014
OTHER BENEFITS	86,707	78,217	(8,490)
TOTAL EMPLOYEE BENEFITS	\$964,749	\$912,858	(\$51,891)
TOTAL SALARIES & EMPLOYEE BENEFITS	\$2,353,917	\$2,347,003	(\$6,914)

*All amounts rounded to the nearest dollar.

FISCAL YEAR 2022-2023

DISABILITY LITIGATION

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF JUNE 30, 2023**

		<u>BUDGET</u>	<u>YTD ACTUAL</u>	<u>OVER/(UNDER) BUDGET</u>
AUTO EXPENSES				
9102	AUTO MAINTENANCE/REPAIR	\$1,100	\$108	(\$992)
9103	GAS	1,500	467	(1,033)
9105	LICENSE FEES	300	0	(300)
	TOTAL	<u>2,900</u>	<u>575</u>	<u>(2,325)</u>
TRANSPORTATION AND TRAVEL				
9181	TRANSPORTATION	1,100	107	(994)
9182	TRAVEL	5,400	1,919	(3,481)
	TOTAL	<u>6,500</u>	<u>2,026</u>	<u>(4,474)</u>
OFFICE SUPPLIES AND EQUIPMENT				
9302	SPECIAL ORDERS/MINOR EQUIP	2,000	351	(1,649)
	TOTAL	<u>2,000</u>	<u>351</u>	<u>(1,649)</u>
LEGAL FEES AND SERVICES				
9772	OUTSIDE LEGAL COUNSEL	5,000	0	(5,000)
9777	LITIGATION SUPPORT	500	0	(500)
	TOTAL	<u>5,500</u>	<u>0</u>	<u>(5,500)</u>
EDUCATIONAL EXPENSES				
9961	MEMBERSHIPS	3,500	2,248	(1,252)
9962	REGISTRATION FEES	3,000	4,759	1,759
9963	EDUCATIONAL MATERIALS	30,000	25,286	(4,714)
	TOTAL	<u>36,500</u>	<u>32,293</u>	<u>(4,207)</u>
MISCELLANEOUS				
9986	MISCELLANEOUS	500	0	(500)
	TOTAL	<u>500</u>	<u>0</u>	<u>(500)</u>
	GRAND TOTAL	<u>\$53,900</u>	<u>\$35,245</u>	<u>(\$18,655)</u>

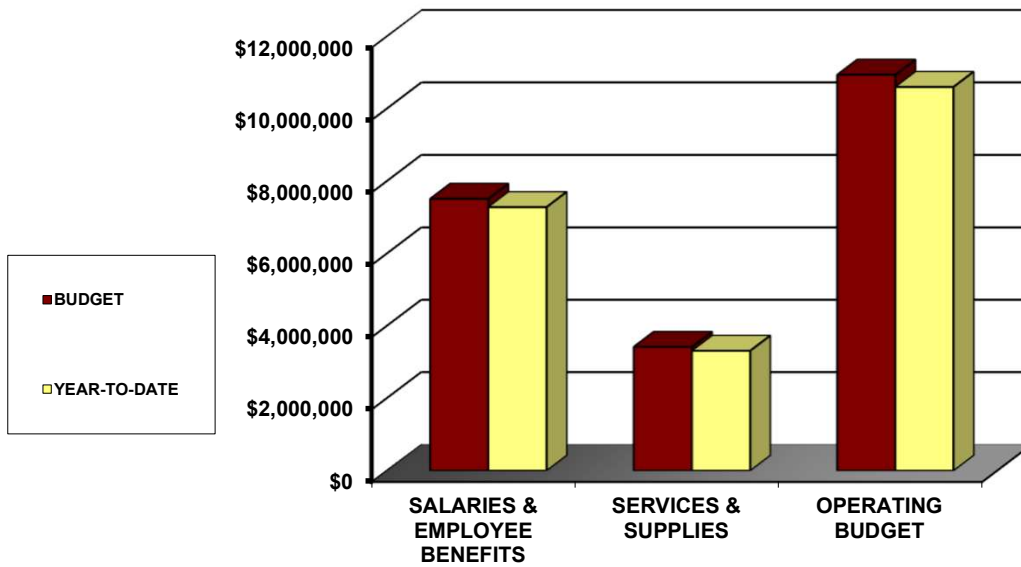
*All amounts rounded to the nearest dollar.

DISABILITY RETIREMENT

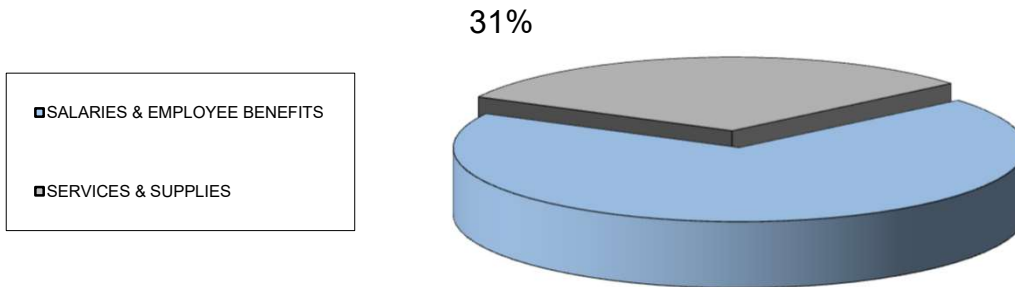
BUDGET CONTROL REPORT - FISCAL YEAR 2022-2023 BASED ON EXPENDITURES AS OF JUNE 30, 2023

<u>CATEGORY</u>	<u>BUDGET</u>	<u>YEAR-TO-DATE</u>	<u>OVER / (UNDER) BUDGET</u>
SALARIES & EMPLOYEE BENEFITS	\$7,514,693	\$7,289,456	(\$225,237)
SERVICES & SUPPLIES	\$3,425,100	\$3,316,352	(\$108,748)
OPERATING BUDGET	\$10,939,793	\$10,605,809	(\$333,984)

Budgeted Positions 41
Filled Positions 38



Total Expenditures by Category



FISCAL YEAR 2022-2023

DISABILITY RETIREMENT

SUMMARY OF SALARIES AND EMPLOYEE BENEFITS
BASED ON EXPENDITURES AS OF JUNE 30, 2023

	BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
SALARIES & OTHER PAYS			
PERMANENT / COUNTY TEMPORARY	\$4,134,839	\$4,223,905	\$89,066
AGENCY TEMPORARY	129,000	52,858	(76,142)
LACERA INTERN PROGRAM	0	0	0
STIPENDS	0	0	0
OVERTIME	165,300	120,189	(45,111)
BILINGUAL BONUS	0	0	0
PAY IN LIEU OF SALARY REDUCTION	0	0	0
TRANSPORTATION ALLOWANCE	0	0	0
RIDESHARE ALLOWANCE	4,500	0	(4,500)
SICKLEAVE BUYBACK	6,000	2,810	(3,190)
RESERVE FOR REMUNERATION	0	0	0
TOTAL SALARIES & OTHER PAYS	\$4,439,639	\$4,399,763	(\$39,876)
VARIABLE BENEFITS			
RETIREMENT	1,104,267	955,486	(148,781)
FICA CONTRIBUTION	69,674	68,166	(1,508)
COUNTY SUBSIDY - INSURANCE	443,933	344,717	(99,216)
OPTIONS PLAN	290,522	245,407	(45,115)
LIFE INSURANCE	1,504	1,257	(247)
HEALTH INSURANCE TEMPS	0	0	0
FLEXIBLE BENEFIT PLAN	0	0	0
THRIFT PLAN / HORIZONS	136,789	120,181	(16,608)
SAVINGS PLAN	106,042	94,516	(11,526)
PENSION SAVINGS PLAN	0	0	0
MEGAFLEX	522,297	546,753	24,456
TOTAL VARIABLE BENEFITS	\$2,675,028	\$2,376,485	(\$298,543)
OPEB CONTRIBUTION	138,688	137,801	(887)
OPEB CONTRIBUTION (BUDGET SURPLUS)	0	138,688	138,688
OTHER BENEFITS	261,338	236,719	(24,619)
TOTAL EMPLOYEE BENEFITS	\$3,075,054	\$2,889,693	(\$185,361)
TOTAL SALARIES & EMPLOYEE BENEFITS	\$7,514,693	\$7,289,456	(\$225,237)

*All amounts rounded to the nearest dollar.

FISCAL YEAR 2022-2023

DISABILITY RETIREMENT

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF JUNE 30, 2023**

		BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
TRANSPORTATION AND TRAVEL				
9181	TRANSPORTATION	\$1,500	\$477	(\$1,023)
9182	TRAVEL	6,500	4,633	(1,867)
	TOTAL	<u>8,000</u>	<u>5,110</u>	<u>(2,890)</u>
OFFICE SUPPLIES AND EQUIPMENT				
9302	SPECIAL ORDERS/MINOR EQUIP	5,800	580	(5,220)
	TOTAL	<u>5,800</u>	<u>580</u>	<u>(5,220)</u>
PROFESSIONAL AND SPECIALIZED SERVICES				
9673	PHOTOCOPIES OF DOCUMENTS	215,000	226,206	11,206
9695	JOB ANALYST	15,000	24,478	9,478
	TOTAL	<u>230,000</u>	<u>250,684</u>	<u>20,684</u>
LEGAL FEES AND SERVICES				
9772	OUTSIDE LEGAL COUNSEL	25,000	5,260	(19,740)
	TOTAL	<u>25,000</u>	<u>5,260</u>	<u>(19,740)</u>
DISABILITY FEES AND SERVICES				
9802	HEARING OFFICER FEES	150,000	87,624	(62,376)
9803	MEDICAL FEES	2,800,000	2,943,049	143,049
9804	COURT REPORTER	25,000	14,750	(10,250)
9805	INVESTIGATIVE SERVICES	20,000	6,286	(13,714)
9806	DATABASE SEARCHES	300	480	180
9807	MEDICAL ADVISOR	150,000	0	(150,000)
	TOTAL	<u>3,145,300</u>	<u>3,052,189</u>	<u>(93,111)</u>
EDUCATIONAL EXPENSES				
9961	MEMBERSHIPS	200	0	(200)
9962	REGISTRATION FEES	10,000	1,905	(8,095)
9963	EDUCATIONAL MATERIALS	500	100	(400)
	TOTAL	<u>10,700</u>	<u>2,005</u>	<u>(8,695)</u>
MISCELLANEOUS				
9986	MISCELLANEOUS	300	525	225
	TOTAL	<u>300</u>	<u>525</u>	<u>225</u>
	GRAND TOTAL	<u>\$3,425,100</u>	<u>\$3,316,352</u>	<u>(\$108,748)</u>

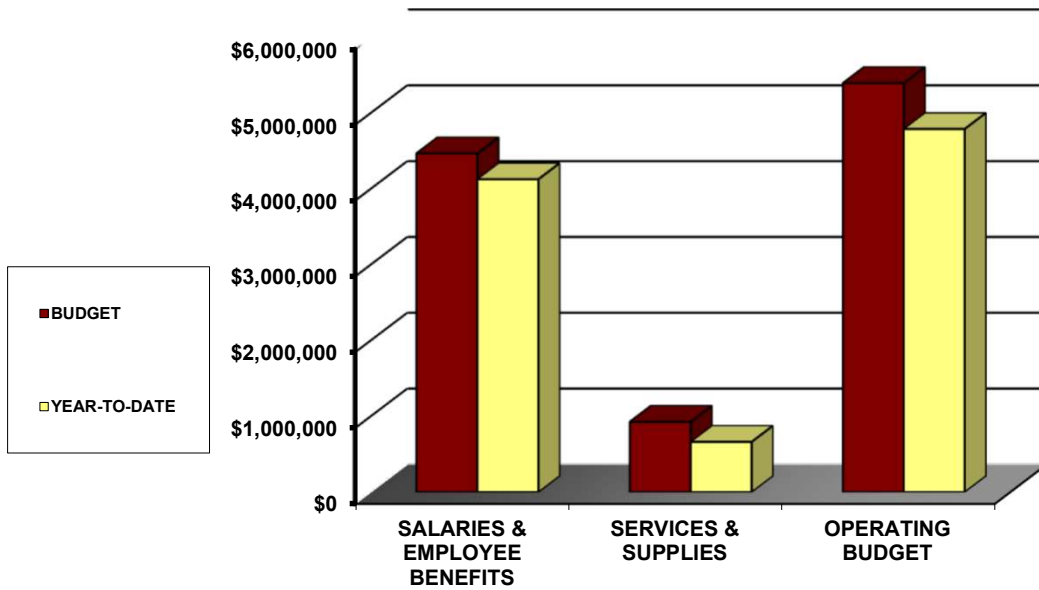
*All amounts rounded to the nearest dollar.

EXECUTIVE OFFICE

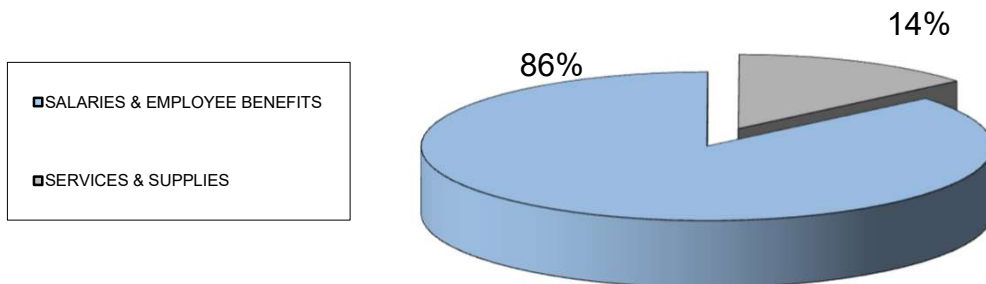
BUDGET CONTROL REPORT - FISCAL YEAR 2022-2023 BASED ON EXPENDITURES AS OF JUNE 30, 2023

<u>CATEGORY</u>	<u>BUDGET</u>	<u>YEAR-TO-DATE</u>	<u>OVER / (UNDER) BUDGET</u>
SALARIES & EMPLOYEE BENEFITS	\$4,467,051	\$4,126,195	(\$340,856)
SERVICES & SUPPLIES	\$927,100	\$662,537	(\$264,563)
OPERATING BUDGET	\$5,394,151	\$4,788,732	(\$605,419)

Budgeted Positions 14
Filled Positions 8



Total Expenditures by Category



FISCAL YEAR 2022-2023

EXECUTIVE OFFICE

SUMMARY OF SALARIES AND EMPLOYEE BENEFITS
 BASED ON EXPENDITURES AS OF JUNE 30, 2023

	BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
SALARIES & OTHER PAYS			
PERMANENT / COUNTY TEMPORARY	\$1,939,134	\$1,757,755	(\$181,379)
AGENCY TEMPORARY	1,129,700	1,077,533	(52,168)
LACERA INTERN PROGRAM	0	0	0
STIPENDS	65,000	47,574	(17,426)
OVERTIME	25,600	17,850	(7,751)
BILINGUAL BONUS	0	0	0
PAY IN LIEU OF SALARY REDUCTION	0	0	0
TRANSPORTATION ALLOWANCE	0	15,600	15,600
RIDESHARE ALLOWANCE	1,400	0	(1,400)
SICKLEAVE BUYBACK	0	0	0
RESERVE FOR REMUNERATION	0	0	0
TOTAL SALARIES & OTHER PAYS	\$3,160,834	\$2,916,311	(\$244,523)
VARIABLE BENEFITS			
RETIREMENT	415,591	369,341	(46,250)
FICA CONTRIBUTION	34,729	30,094	(4,635)
COUNTY SUBSIDY - INSURANCE	170,297	120,858	(49,439)
OPTIONS PLAN	0	0	0
LIFE INSURANCE	0	0	0
HEALTH INSURANCE TEMPS	0	0	0
FLEXIBLE BENEFIT PLAN	0	0	0
THRIFT PLAN / HORIZONS	57,178	51,252	(5,926)
SAVINGS PLAN	80,965	69,163	(11,802)
PENSION SAVINGS PLAN	0	0	0
MEGAFLEX	347,599	313,257	(34,342)
TOTAL VARIABLE BENEFITS	\$1,106,359	\$953,964	(\$152,395)
OPEB CONTRIBUTION	69,290	68,847	(443)
OPEB CONTRIBUTION (BUDGET SURPLUS)	0	69,290	69,290
OTHER BENEFITS	130,567	117,782	(12,785)
TOTAL EMPLOYEE BENEFITS	\$1,306,216	\$1,209,884	(\$96,332)
TOTAL SALARIES & EMPLOYEE BENEFITS	\$4,467,051	\$4,126,195	(\$340,856)

*All amounts rounded to the nearest dollar.

FISCAL YEAR 2022-2023

EXECUTIVE OFFICE

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF JUNE 30, 2023**

	BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
AUTO EXPENSES			
9102 AUTO MAINTENANCE/REPAIR	\$4,000	\$1,887	(\$2,113)
9103 GAS	6,500	4,617	(1,883)
9105 LICENSE FEES	1,800	1,308	(492)
TOTAL	<u>12,300</u>	<u>7,813</u>	<u>(4,487)</u>
TRANSPORTATION AND TRAVEL			
9181 TRANSPORTATION	3,000	1,235	(1,765)
9182 TRAVEL	19,000	8,857	(10,143)
TOTAL	<u>22,000</u>	<u>10,093</u>	<u>(11,907)</u>
OFFICE SUPPLIES AND EQUIPMENT			
9302 SPECIAL ORDERS/MINOR EQUIP	3,500	782	(2,718)
TOTAL	<u>3,500</u>	<u>782</u>	<u>(2,718)</u>
PROFESSIONAL AND SPECIALIZED SERVICES			
9672 IMPROVEMENT PROJECTS	80,000	0	(80,000)
9714 SECURITY ASSESSMENT & MONITORING	98,800	98,800	0
9716 PUBLIC & MEDIA RELATIONS	125,000	45,253	(79,747)
9724 STRATEGIC PLANNING	321,000	360,003	39,003
9725 SOFTWARE SUBSCRIPTION SERVICES	210,000	89,544	(120,456)
TOTAL	<u>834,800</u>	<u>593,599</u>	<u>(241,201)</u>
EDUCATIONAL EXPENSES			
9961 MEMBERSHIPS	15,000	19,227	4,227
9962 REGISTRATION FEES	24,000	16,872	(7,128)
9963 EDUCATIONAL MATERIALS	5,000	8,850	3,850
TOTAL	<u>44,000</u>	<u>44,949</u>	<u>949</u>
MISCELLANEOUS			
9982 EMPLOYEE RECOGNITION PROGRAM	2,000	1,600	(400)
9984 FOOD/BEVERAGES	2,500	2,956	456
9986 MISCELLANEOUS	6,000	745	(5,255)
TOTAL	<u>10,500</u>	<u>5,301</u>	<u>(5,199)</u>
GRAND TOTAL	<u>\$927,100</u>	<u>\$662,537</u>	<u>(\$264,563)</u>

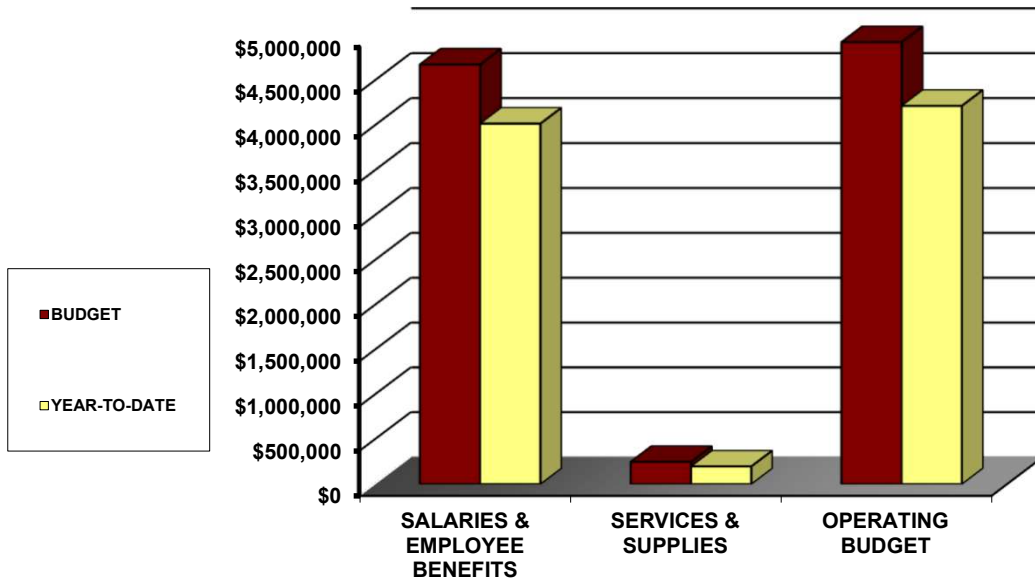
*All amounts rounded to the nearest dollar.

FINANCIAL AND ACCOUNTING SERVICES

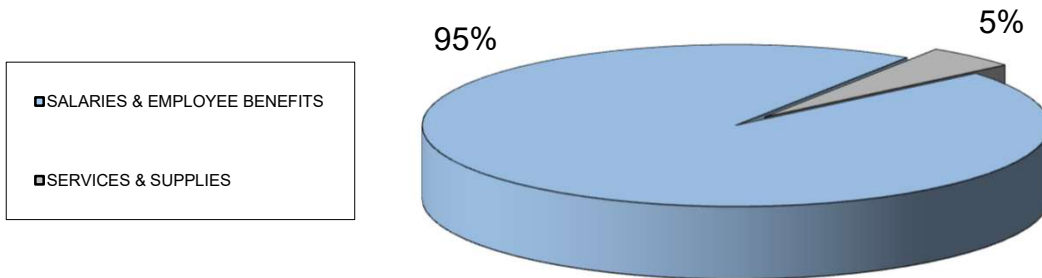
BUDGET CONTROL REPORT - FISCAL YEAR 2022-2023 BASED ON EXPENDITURES AS OF JUNE 30, 2023

<u>CATEGORY</u>	<u>BUDGET</u>	<u>YEAR-TO-DATE</u>	<u>OVER / (UNDER) BUDGET</u>
SALARIES & EMPLOYEE BENEFITS	\$4,677,178	\$4,019,988	(\$657,190)
SERVICES & SUPPLIES	\$249,300	\$197,806	(\$51,494)
OPERATING BUDGET	\$4,926,478	\$4,217,794	(\$708,684)

Budgeted Positions 30
Filled Positions 23



Total Expenditures by Category



FISCAL YEAR 2022-2023

FINANCIAL AND ACCOUNTING SERVICES DIVISION

SUMMARY OF SALARIES AND EMPLOYEE BENEFITS
BASED ON EXPENDITURES AS OF JUNE 30, 2023

	BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
SALARIES & OTHER PAYS			
PERMANENT / COUNTY TEMPORARY	\$2,220,717	\$2,113,087	(\$107,630)
AGENCY TEMPORARY	778,100	485,257	(292,843)
LACERA INTERN PROGRAM	0	0	0
STIPENDS	0	0	0
OVERTIME	65,300	45,783	(19,517)
BILINGUAL BONUS	0	0	0
PAY IN LIEU OF SALARY REDUCTION	0	0	0
TRANSPORTATION ALLOWANCE	0	0	0
RIDESHARE ALLOWANCE	7,500	80	(7,420)
SICKLEAVE BUYBACK	12,000	6,200	(5,800)
RESERVE FOR REMUNERATION	0	0	0
TOTAL SALARIES & OTHER PAYS	\$3,083,617	\$2,650,407	(\$433,210)
VARIABLE BENEFITS			
RETIREMENT	543,238	478,454	(64,784)
FICA CONTRIBUTION	39,435	32,802	(6,633)
COUNTY SUBSIDY - INSURANCE	52,826	29,262	(23,564)
OPTIONS PLAN	537,138	415,314	(121,824)
LIFE INSURANCE	1,841	1,596	(245)
HEALTH INSURANCE TEMPS	0	0	0
FLEXIBLE BENEFIT PLAN	0	0	0
THRIFT PLAN / HORIZONS	117,405	74,444	(42,961)
SAVINGS PLAN	16,009	9,667	(6,342)
PENSION SAVINGS PLAN	0	0	0
MEGAFLEX	58,642	35,654	(22,988)
TOTAL VARIABLE BENEFITS	\$1,366,535	\$1,077,192	(\$289,343)
OPEB CONTRIBUTION	78,710	78,207	(503)
OPEB CONTRIBUTION (BUDGET SURPLUS)	0	78,710	78,710
OTHER BENEFITS	148,317	135,473	(12,844)
TOTAL EMPLOYEE BENEFITS	\$1,593,561	\$1,369,581	(\$223,980)
TOTAL SALARIES & EMPLOYEE BENEFITS	\$4,677,178	\$4,019,988	(\$657,190)

*All amounts rounded to the nearest dollar.

FISCAL YEAR 2022-2023

FINANCIAL AND ACCOUNTING SERVICES DIVISION

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF JUNE 30, 2023**

	BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
TRANSPORTATION AND TRAVEL			
9181	\$3,200	\$591	(\$2,609)
9182	18,600	6,883	(11,717)
TOTAL	<u>21,800</u>	<u>\$7,473</u>	<u>(\$14,327)</u>
OFFICE SUPPLIES AND EQUIPMENT			
9302	5,000	2,338	(2,662)
TOTAL	<u>5,000</u>	<u>\$2,338</u>	<u>(\$2,662)</u>
BANK SERVICES			
9753	200,500	177,789	(22,711)
TOTAL	<u>200,500</u>	<u>\$177,789</u>	<u>(\$22,711)</u>
EDUCATIONAL EXPENSES			
9961	6,500	6,205	(295)
9962	10,000	3,180	(6,820)
9963	2,500	820	(1,680)
TOTAL	<u>19,000</u>	<u>10,205</u>	<u>(8,795)</u>
MISCELLANEOUS			
9986	3,000	0	(3,000)
TOTAL	<u>3,000</u>	<u>0</u>	<u>(3,000)</u>
GRAND TOTAL	<u>\$249,300</u>	<u>\$197,806</u>	<u>(\$51,494)</u>

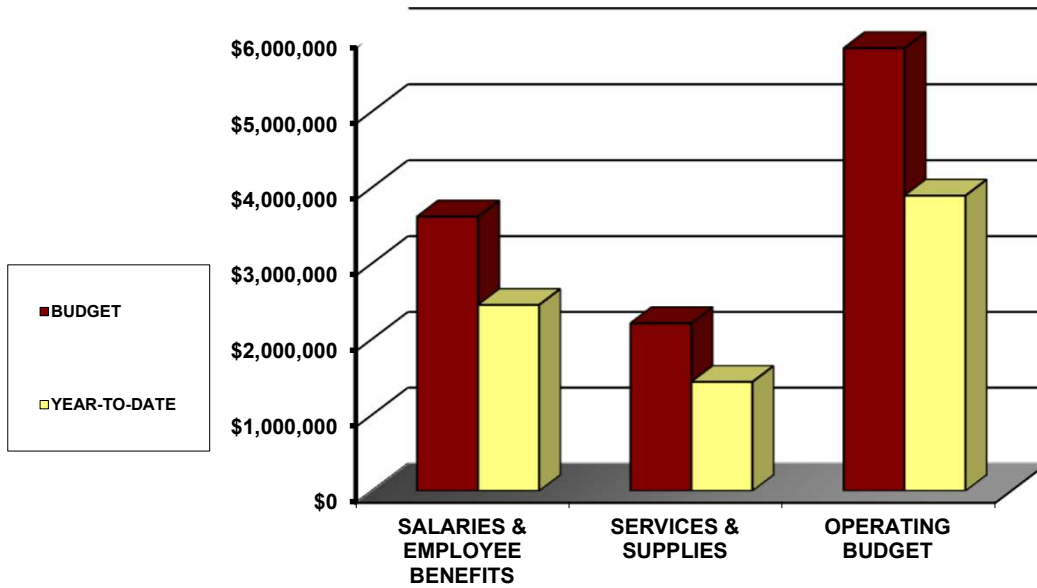
*All amounts rounded to the nearest dollar.

HUMAN RESOURCES

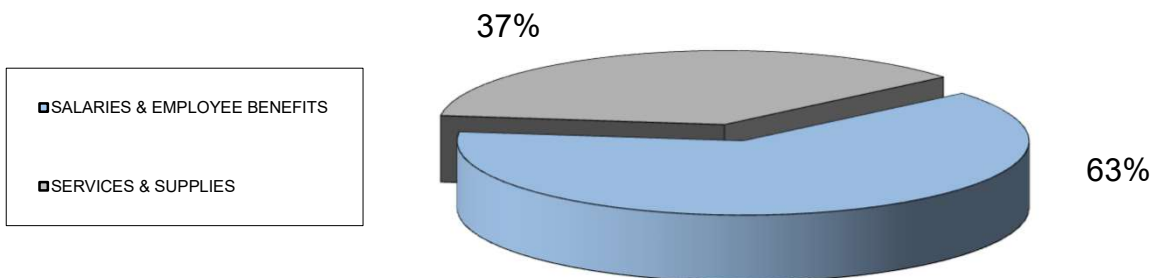
BUDGET CONTROL REPORT - FISCAL YEAR 2022-2023 BASED ON EXPENDITURES AS OF JUNE 30, 2023

<u>CATEGORY</u>	<u>BUDGET</u>	<u>YEAR-TO-DATE</u>	<u>OVER / (UNDER) BUDGET</u>
SALARIES & EMPLOYEE BENEFITS	\$3,623,337	\$2,457,988	(\$1,165,349)
SERVICES & SUPPLIES	\$2,216,200	\$1,440,287	(\$775,913)
OPERATING BUDGET	\$5,839,537	\$3,898,275	(\$1,941,263)

Budgeted Positions 21
Filled Positions 11



Total Expenditures by Category



FISCAL YEAR 2022-2023

HUMAN RESOURCES

SUMMARY OF SALARIES AND EMPLOYEE BENEFITS
 BASED ON EXPENDITURES AS OF JUNE 30, 2023

	BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
SALARIES & OTHER PAYS			
PERMANENT / COUNTY TEMPORARY	\$1,797,569	\$1,268,276	(\$529,293)
AGENCY TEMPORARY	144,300	137,617	(6,683)
LACERA INTERN PROGRAM	288,000	7,646	(280,354)
STIPENDS	0	0	0
OVERTIME	3,800	18,840	15,040
BILINGUAL BONUS	0	0	0
PAY IN LIEU OF SALARY REDUCTION	0	0	0
TRANSPORTATION ALLOWANCE	0	0	0
RIDESHARE ALLOWANCE	1,700	0	(1,700)
SICKLEAVE BUYBACK	0	0	0
RESERVE FOR REMUNERATION	0	0	0
TOTAL SALARIES & OTHER PAYS	\$2,235,369	\$1,432,379	(\$802,990)
VARIABLE BENEFITS			
RETIREMENT	464,031	331,800	(132,231)
FICA CONTRIBUTION	28,920	20,495	(8,425)
COUNTY SUBSIDY - INSURANCE	195,116	122,694	(72,422)
OPTIONS PLAN	0	1,066	1,066
LIFE INSURANCE	0	0	0
HEALTH INSURANCE TEMPS	0	0	0
FLEXIBLE BENEFIT PLAN	0	0	0
THRIFT PLAN / HORIZONS	65,927	43,866	(22,061)
SAVINGS PLAN	82,964	49,393	(33,571)
PENSION SAVINGS PLAN	0	0	0
MEGAFLEX	362,517	214,929	(147,588)
TOTAL VARIABLE BENEFITS	\$1,199,476	\$784,243	(\$415,233)
OPEB CONTRIBUTION	65,350	64,932	(418)
OPEB CONTRIBUTION (BUDGET SURPLUS)	0	65,350	65,350
OTHER BENEFITS	123,142	111,084	(12,058)
TOTAL EMPLOYEE BENEFITS	\$1,387,967	\$1,025,609	(\$362,358)
TOTAL SALARIES & EMPLOYEE BENEFITS	\$3,623,337	\$2,457,988	(\$1,165,349)

*All amounts rounded to the nearest dollar.

FISCAL YEAR 2022-2023

HUMAN RESOURCES

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF JUNE 30, 2023**

		BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
TRANSPORTATION AND TRAVEL				
9181	TRANSPORTATION	\$1,200	\$790	(\$410)
9182	TRAVEL	8,200	5,231	(2,969)
	TOTAL	<u>9,400</u>	<u>6,021</u>	<u>(3,379)</u>
OFFICE SUPPLIES AND EQUIPMENT				
9302	SPECIAL ORDERS/MINOR EQUIP	7,000	3,533	(3,467)
	TOTAL	<u>7,000</u>	<u>3,533</u>	<u>(3,467)</u>
PARKING FEES				
9491	GATEWAY PLAZA	435,000	456,055	21,055
9492	MUSIC CENTER	2,000	0	(2,000)
	TOTAL	<u>437,000</u>	<u>456,055</u>	<u>19,055</u>
PROFESSIONAL AND SPECIALIZED SERVICES				
9504	PAYROLL SERVICES	200,000	147,673	(52,327)
9510	FINGERPRINTING SERVICES	3,000	4,765	1,765
9511	SECURITY SERVICES - SHERIFF	16,000	8,057	(7,943)
9512	PAYROLL ENV, DUPLICATE W2'S - AUD	300	10,029	9,729
9513	PERSONNEL SRVCS - HUMAN RESOURCES	45,000	30,660	(14,340)
9547	HUMAN RESOURCES CONSULTING	125,000	48,715	(76,285)
9694	BACKGROUND CHECKS	3,000	7,103	4,103
9700	OHS PHYSICALS	1,000	0	(1,000)
9711	REQUEST FOR ACCOMMODATIONS	35,000	23,551	(11,449)
9718	LEAVE CASE MANAGEMENT PROGRAM	47,500	20,720	(26,780)
9721	ORGANIZATIONAL PROGRAMS	200,000	27,965	(172,035)
	TOTAL	<u>675,800</u>	<u>329,238</u>	<u>(346,562)</u>
COMPUTER SERVICES & SUPPORT				
9838	MISC SOFTWARE PACKAGES	55,000	75,175	20,175
	TOTAL	<u>55,000</u>	<u>75,175</u>	<u>20,175</u>
EDUCATIONAL EXPENSES				
9961	MEMBERSHIPS	6,000	10,031	4,031
9962	REGISTRATION FEES	15,000	9,838	(5,162)
9963	EDUCATIONAL MATERIALS	6,000	1,311	(4,689)
9966	DEPARTMENTAL TRAINING	250,000	(840)	(250,840)
9967	TUITION REIMBURSEMENT PROGRAM	75,000	47,480	(27,520)
9968	MOU TRAINING ALLOCATION	100,000	11,271	(88,729)
9969	MENTORING PROGRAM	35,000	16,929	(18,072)
9970	FORUM	22,000	0	(22,000)
	TOTAL	<u>509,000</u>	<u>96,019</u>	<u>(412,981)</u>

FISCAL YEAR 2022-2023

HUMAN RESOURCES

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF JUNE 30, 2023**

		BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
MISCELLANEOUS				
9981	RECRUITMENT	\$490,000	\$471,883	(\$18,117)
9986	MISCELLANEOUS	2,500	55	(2,445)
9989	WEB DAY	5,500	2,307	(3,193)
9991	MANAGEMENT OFFSITE	25,000	0	(25,000)
	TOTAL	<u>523,000</u>	<u>474,245</u>	<u>(48,755)</u>
GRAND TOTAL		<u>\$2,216,200</u>	<u>\$1,440,287</u>	<u>(\$775,913)</u>

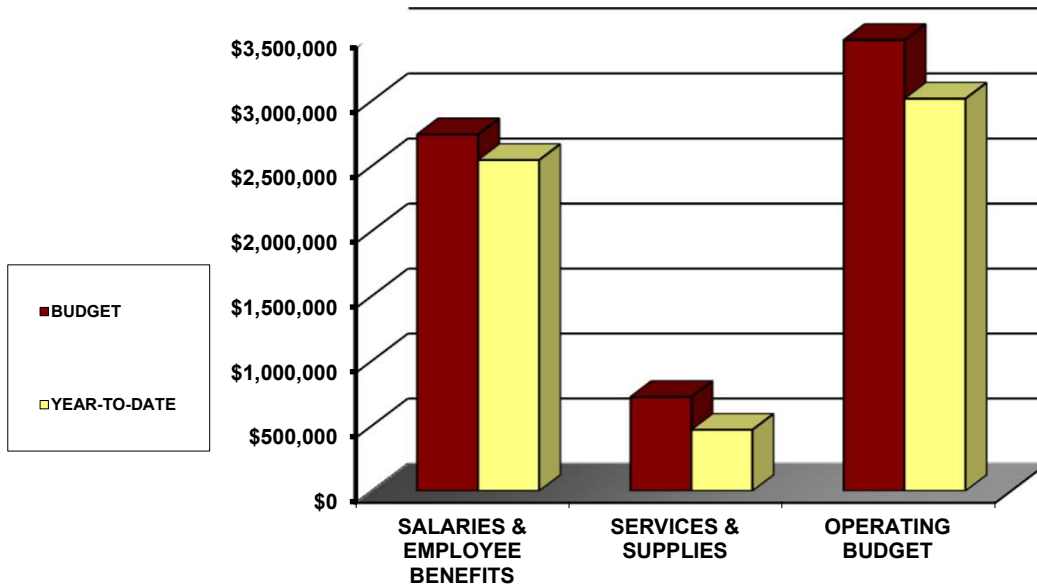
*All amounts rounded to the nearest dollar.

INTERNAL AUDIT SERVICES

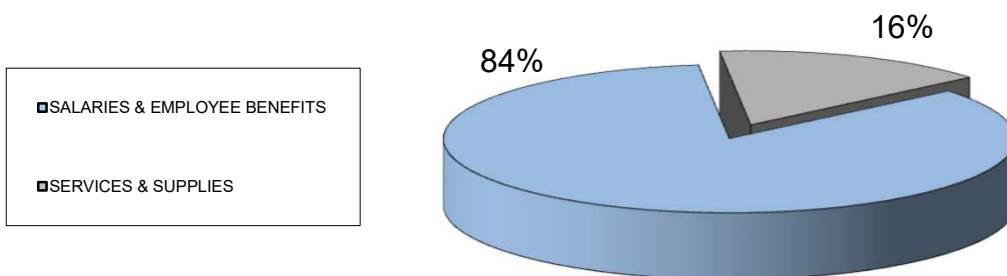
BUDGET CONTROL REPORT - FISCAL YEAR 2022-2023 BASED ON EXPENDITURES AS OF JUNE 30, 2023

<u>CATEGORY</u>	<u>BUDGET</u>	<u>YEAR-TO-DATE</u>	<u>OVER / (UNDER) BUDGET</u>
SALARIES & EMPLOYEE BENEFITS	\$2,743,995	\$2,547,148	(\$196,847)
SERVICES & SUPPLIES	\$724,500	\$471,312	(\$253,188)
OPERATING BUDGET	\$3,468,495	\$3,018,459	(\$450,036)

Budgeted Positions 11
Filled Positions 10



Total Expenditures by Category



FISCAL YEAR 2022-2023

INTERNAL AUDIT SERVICES

SUMMARY OF SALARIES AND EMPLOYEE BENEFITS
 BASED ON EXPENDITURES AS OF JUNE 30, 2023

	BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
SALARIES & OTHER PAYS			
PERMANENT / COUNTY TEMPORARY	\$1,590,417	\$1,529,699	(\$60,718)
AGENCY TEMPORARY	0	0	0
LACERA INTERN PROGRAM	0	0	0
STIPENDS	0	0	0
OVERTIME	5,000	928	(4,072)
BILINGUAL BONUS	0	0	0
PAY IN LIEU OF SALARY REDUCTION	0	0	0
TRANSPORTATION ALLOWANCE	0	0	0
RIDESHARE ALLOWANCE	1,500	0	(1,500)
SICKLEAVE BUYBACK	0	0	0
RESERVE FOR REMUNERATION	0	0	0
TOTAL SALARIES & OTHER PAYS	\$1,596,917	\$1,530,626	(\$66,291)
VARIABLE BENEFITS			
RETIREMENT	393,629	357,582	(36,047)
FICA CONTRIBUTION	27,771	26,054	(1,717)
COUNTY SUBSIDY - INSURANCE	114,657	89,803	(24,854)
OPTIONS PLAN	0	0	0
LIFE INSURANCE	0	9	9
HEALTH INSURANCE TEMPS	0	0	0
FLEXIBLE BENEFIT PLAN	0	10,599	10,599
THRIFT PLAN / HORIZONS	80,799	49,669	(31,130)
SAVINGS PLAN	82,887	61,146	(21,741)
PENSION SAVINGS PLAN	0	0	0
MEGAFLEX	303,510	237,489	(66,021)
TOTAL VARIABLE BENEFITS	\$1,003,252	\$832,350	(\$170,902)
OPEB CONTRIBUTION	49,864	49,546	(318)
OPEB CONTRIBUTION (BUDGET SURPLUS)	0	49,864	49,864
OTHER BENEFITS	93,962	84,761	(9,201)
TOTAL EMPLOYEE BENEFITS	\$1,147,079	\$1,016,521	(\$130,558)
TOTAL SALARIES & EMPLOYEE BENEFITS	\$2,743,995	\$2,547,148	(\$196,847)

*All amounts rounded to the nearest dollar.

FISCAL YEAR 2022-2023

INTERNAL AUDIT SERVICES

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF JUNE 30, 2023**

		BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
	TRANSPORTATION AND TRAVEL			
9181	TRANSPORTATION	\$2,000	\$769	(\$1,231)
9182	TRAVEL	15,000	4,990	(10,010)
	TOTAL	<u>17,000</u>	<u>\$5,759</u>	<u>(\$11,241)</u>
	OFFICE SUPPLIES AND EQUIPMENT			
9302	SPECIAL ORDERS/MINOR EQUIP	1,500	388	(1,112)
	TOTAL	<u>1,500</u>	<u>\$388</u>	<u>(\$1,112)</u>
	PROFESSIONAL AND SPECIALIZED SERVICES			
9541	AUDITS	650,000	431,614	(218,386)
9702	AUDIT COMMITTEE CONSULTANT	25,000	7,367	(17,633)
	TOTAL	<u>675,000</u>	<u>\$438,980</u>	<u>(\$236,020)</u>
	EDUCATIONAL EXPENSES			
9961	MEMBERSHIPS	8,000	4,509	(3,491)
9962	REGISTRATION FEES	20,000	20,382	382
9963	EDUCATIONAL MATERIALS	2,500	1,294	(1,206)
	TOTAL	<u>30,500</u>	<u>\$26,185</u>	<u>(\$4,315)</u>
	MISCELLANEOUS			
9986	MISCELLANEOUS	500	0	(500)
	TOTAL	<u>500</u>	<u>0</u>	<u>(500)</u>
	GRAND TOTAL	<u>\$724,500</u>	<u>\$471,312</u>	<u>(\$253,188)</u>

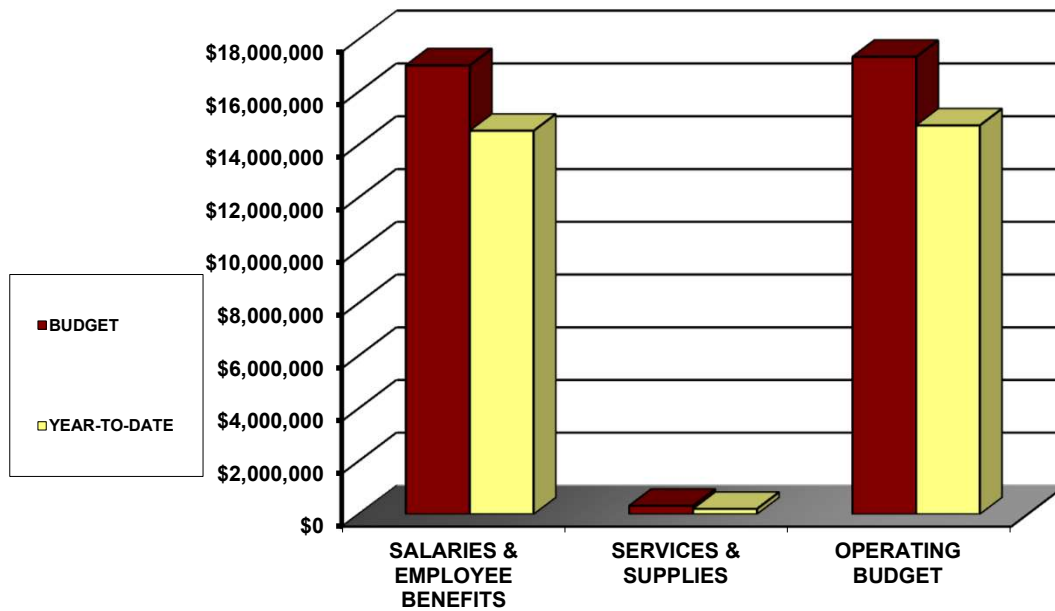
*All amounts rounded to the nearest dollar.

INVESTMENT OFFICE

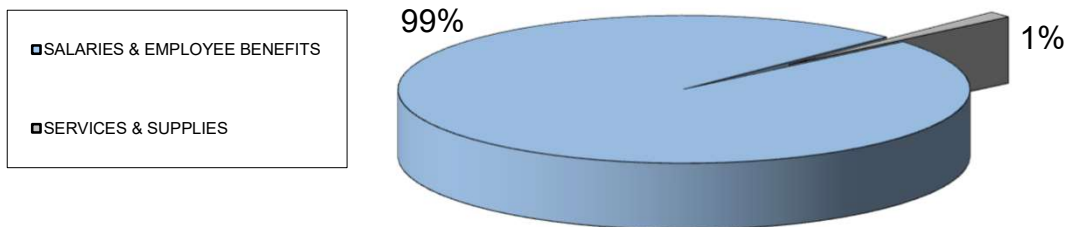
BUDGET CONTROL REPORT - FISCAL YEAR 2022-2023 BASED ON EXPENDITURES AS OF JUNE 30, 2023

<u>CATEGORY</u>	<u>BUDGET</u>	<u>YEAR-TO-DATE</u>	<u>OVER / (UNDER) BUDGET</u>
SALARIES & EMPLOYEE BENEFITS	\$17,020,288	\$14,543,556	(\$2,476,732)
SERVICES & SUPPLIES	\$321,900	\$203,177	(\$118,723)
OPERATING BUDGET	\$17,342,188	\$14,746,733	(\$2,595,455)

Budgeted Positions 45
Filled Positions 35



Total Expenditures by Category



FISCAL YEAR 2022-2023

INVESTMENT OFFICE

SUMMARY OF SALARIES AND EMPLOYEE BENEFITS
 BASED ON EXPENDITURES AS OF JUNE 30, 2023

	BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
SALARIES & OTHER PAYS			
PERMANENT / COUNTY TEMPORARY	\$9,730,713	\$9,126,350	(\$604,363)
AGENCY TEMPORARY	0	0	0
LACERA INTERN PROGRAM	0	0	0
STIPENDS	0	0	0
OVERTIME	1,000	0	(1,000)
BILINGUAL BONUS	0	0	0
PAY IN LIEU OF SALARY REDUCTION	0	0	0
TRANSPORTATION ALLOWANCE	7,200	7,200	0
RIDESHARE ALLOWANCE	5,000	0	(5,000)
SICKLEAVE BUYBACK	0	0	0
RESERVE FOR REMUNERATION	0	0	0
TOTAL SALARIES & OTHER PAYS	\$9,743,913	\$9,133,550	(\$610,363)
VARIABLE BENEFITS			
RETIREMENT	2,075,582	1,521,645	(553,937)
FICA CONTRIBUTION	199,181	148,201	(50,980)
COUNTY SUBSIDY - INSURANCE	840,614	460,322	(380,292)
OPTIONS PLAN	0	0	0
LIFE INSURANCE	0	0	0
HEALTH INSURANCE TEMPS	0	0	0
FLEXIBLE BENEFIT PLAN	0	0	0
THRIFT PLAN / HORIZONS	444,680	266,187	(178,493)
SAVINGS PLAN	569,072	282,746	(286,326)
PENSION SAVINGS PLAN	0	0	0
MEGAFLEX	2,148,346	1,451,882	(696,464)
TOTAL VARIABLE BENEFITS	\$6,277,477	\$4,130,984	(\$2,146,493)
OPEB CONTRIBUTION	346,317	344,025	(2,292)
OPEB CONTRIBUTION (BUDGET SURPLUS)	0	346,317	346,317
OTHER BENEFITS	652,582	588,681	(63,901)
TOTAL EMPLOYEE BENEFITS	\$7,276,374	\$5,410,006	(\$1,866,368)
TOTAL SALARIES & EMPLOYEE BENEFITS	\$17,020,288	\$14,543,556	(\$2,476,732)

*All amounts rounded to the nearest dollar.

FISCAL YEAR 2022-2023

INVESTMENT OFFICE

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF JUNE 30, 2023**

		BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
AUTO EXPENSES				
9102	AUTO MAINTENANCE/REPAIR	\$1,000	\$0	(\$1,000)
9103	GAS	1,000	0	(1,000)
9105	LICENSE FEES	400	0	(400)
	TOTAL	<u>2,400</u>	<u>0</u>	<u>(2,400)</u>
TRANSPORTATION AND TRAVEL				
9181	TRANSPORTATION	23,000	15,752	(7,248)
9182	TRAVEL	152,000	90,028	(61,972)
	TOTAL	<u>175,000</u>	<u>105,780</u>	<u>(69,220)</u>
OFFICE SUPPLIES AND EQUIPMENT				
9302	SPECIAL ORDERS/MINOR EQUIP	3,500	159	(3,341)
	TOTAL	<u>3,500</u>	<u>159</u>	<u>(3,341)</u>
EDUCATIONAL EXPENSES				
9961	MEMBERSHIPS	100,000	74,564	(25,436)
9962	REGISTRATION FEES	20,000	6,008	(13,992)
9963	EDUCATIONAL MATERIALS	20,000	13,041	(6,959)
	TOTAL	<u>140,000</u>	<u>93,613</u>	<u>(46,387)</u>
MISCELLANEOUS				
9986	MISCELLANEOUS	1,000	3,625	2,625
	TOTAL	<u>1,000</u>	<u>3,625</u>	<u>2,625</u>
	GRAND TOTAL	<u>\$321,900</u>	<u>\$203,177</u>	<u>(\$118,723)</u>

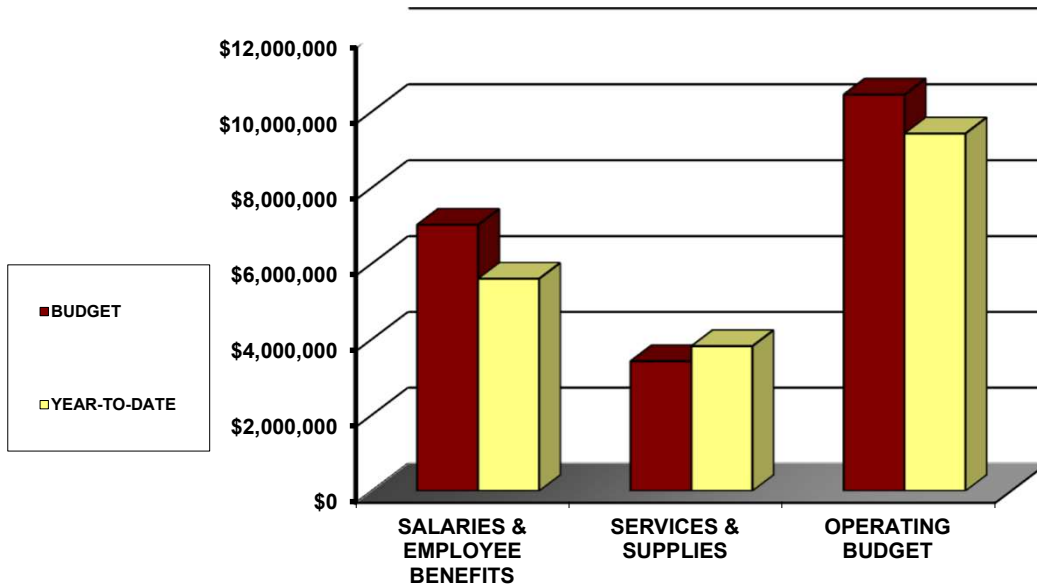
*All amounts rounded to the nearest dollar.

LEGAL SERVICES

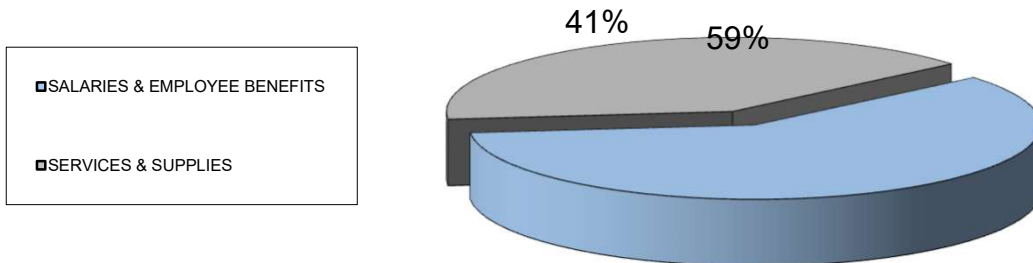
BUDGET CONTROL REPORT - FISCAL YEAR 2022-2023 BASED ON EXPENDITURES AS OF JUNE 30, 2023

<u>CATEGORY</u>	<u>BUDGET</u>	<u>YEAR-TO-DATE</u>	<u>OVER / (UNDER) BUDGET</u>
SALARIES & EMPLOYEE BENEFITS	\$7,029,695	\$5,605,930	(\$1,423,765)
SERVICES & SUPPLIES	\$3,427,500	\$3,826,054	\$398,554
OPERATING BUDGET	\$10,457,195	\$9,431,984	(\$1,025,211)

Budgeted Positions 29
Filled Positions 17



Total Expenditures by Category



FISCAL YEAR 2022-2023

LEGAL SERVICES

SUMMARY OF SALARIES AND EMPLOYEE BENEFITS
 BASED ON EXPENDITURES AS OF JUNE 30, 2023

	BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
SALARIES & OTHER PAYS			
PERMANENT / COUNTY TEMPORARY	\$3,853,589	\$3,233,961	(\$619,628)
AGENCY TEMPORARY	196,600	132,911	(63,689)
LACERA INTERN PROGRAM	0	0	0
STIPENDS	0	0	0
OVERTIME	18,400	20,668	2,268
BILINGUAL BONUS	2,400	0	(2,400)
PAY IN LIEU OF SALARY REDUCTION	0	0	0
TRANSPORTATION ALLOWANCE	0	0	0
RIDESHARE ALLOWANCE	2,500	0	(2,500)
SICKLEAVE BUYBACK	0	0	0
RESERVE FOR REMUNERATION	0	0	0
TOTAL SALARIES & OTHER PAYS	\$4,073,489	\$3,387,540	(\$685,949)
VARIABLE BENEFITS			
RETIREMENT	917,046	671,622	(245,424)
FICA CONTRIBUTION	70,332	51,884	(18,448)
COUNTY SUBSIDY - INSURANCE	514,522	290,846	(223,676)
OPTIONS PLAN	0	0	0
LIFE INSURANCE	0	0	0
HEALTH INSURANCE TEMPS	0	0	0
FLEXIBLE BENEFIT PLAN	0	0	0
THRIFT PLAN / HORIZONS	147,579	94,174	(53,405)
SAVINGS PLAN	155,063	100,615	(54,448)
PENSION SAVINGS PLAN	0	0	0
MEGAFLEX	750,759	495,884	(254,875)
TOTAL VARIABLE BENEFITS	\$2,555,301	\$1,705,027	(\$850,274)
OPEB CONTRIBUTION	138,993	138,104	(889)
OPEB CONTRIBUTION (BUDGET SURPLUS)	0	138,993	138,993
OTHER BENEFITS	261,912	236,266	(25,646)
TOTAL EMPLOYEE BENEFITS	\$2,956,206	\$2,218,390	(\$737,816)
TOTAL SALARIES & EMPLOYEE BENEFITS	\$7,029,695	\$5,605,930	(\$1,423,765)

*All amounts rounded to the nearest dollar.

FISCAL YEAR 2022-2023

LEGAL SERVICES

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF JUNE 30, 2023**

		BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
AUTO EXPENSES				
9102	AUTO MAINTENANCE/REPAIR	\$2,000	\$0	(\$2,000)
9103	GAS	2,000	1,067	(933)
9105	LICENSE FEES	400	0	(400)
	TOTAL	<u>4,400</u>	<u>1,067</u>	<u>(3,333)</u>
TRANSPORTATION AND TRAVEL				
9181	TRANSPORTATION	4,800	2,133	(2,667)
9182	TRAVEL	13,000	8,970	(4,030)
	TOTAL	<u>17,800</u>	<u>11,103</u>	<u>(6,697)</u>
OFFICE SUPPLIES AND EQUIPMENT				
9302	SPECIAL ORDERS/MINOR EQUIP	6,000	1,772	(4,228)
	TOTAL	<u>6,000</u>	<u>1,772</u>	<u>(4,228)</u>
PROFESSIONAL AND SPECIALIZED SERVICES				
9543	LEGISLATIVE CONSULTING	252,000	156,500	(95,500)
9673	PHOTOCOPIES OF DOCUMENTS	300	229	(71)
	TOTAL	<u>252,300</u>	<u>156,729</u>	<u>(95,571)</u>
LEGAL FEES AND SERVICES				
9771	ATTORNEY FEES AWARDS/SETTLEMENTS	40,000	1,202	(38,798)
9772	OUTSIDE LEGAL COUNSEL	3,000,000	3,548,847	548,847
9777	LITIGATION SUPPORT	500	0	(500)
	TOTAL	<u>3,040,500</u>	<u>3,550,049</u>	<u>509,549</u>
EDUCATIONAL EXPENSES				
9961	MEMBERSHIPS	15,000	14,516	(484)
9962	REGISTRATION FEES	19,000	20,176	1,176
9963	EDUCATIONAL MATERIALS	70,500	69,885	(615)
	TOTAL	<u>104,500</u>	<u>104,577</u>	<u>77</u>
MISCELLANEOUS				
9986	MISCELLANEOUS	2,000	756	(1,244)
	TOTAL	<u>2,000</u>	<u>756</u>	<u>(1,244)</u>
	GRAND TOTAL	<u>\$3,427,500</u>	<u>\$3,826,054</u>	<u>\$398,554</u>

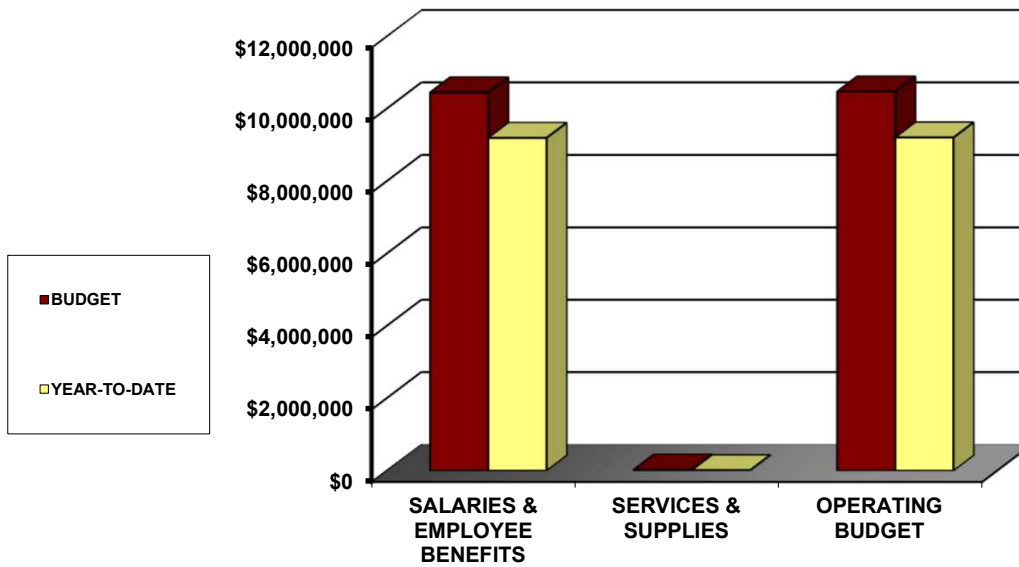
*All amounts rounded to the nearest dollar.

MEMBER SERVICES

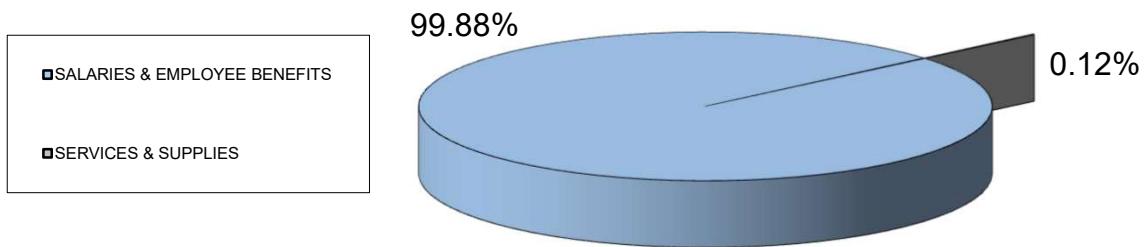
BUDGET CONTROL REPORT - FISCAL YEAR 2022-2023 BASED ON EXPENDITURES AS OF JUNE 30, 2023

<u>CATEGORY</u>	<u>BUDGET</u>	<u>YEAR-TO-DATE</u>	<u>OVER / (UNDER) BUDGET</u>
SALARIES & EMPLOYEE BENEFITS	\$10,452,614	\$9,197,120	(\$1,255,494)
SERVICES & SUPPLIES	\$26,800	\$11,441	(\$15,359)
OPERATING BUDGET	\$10,479,414	\$9,208,561	(\$1,270,853)

Budgeted Positions 79
Filled Positions 75



Total Expenditures by Category



FISCAL YEAR 2022-2023

MEMBER SERVICES

**SUMMARY OF SALARIES AND EMPLOYEE BENEFITS
BASED ON EXPENDITURES AS OF JUNE 30, 2023**

	BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
SALARIES & OTHER PAYS			
PERMANENT / COUNTY TEMPORARY	\$5,973,287	\$5,442,189	(\$531,098)
AGENCY TEMPORARY	37,000	0	(37,000)
LACERA INTERN PROGRAM	0	0	0
STIPENDS	0	0	0
OVERTIME	174,000	268,449	94,449
BILINGUAL BONUS	16,800	9,500	(7,300)
PAY IN LIEU OF SALARY REDUCTION	0	0	0
TRANSPORTATION ALLOWANCE	0	0	0
RIDESHARE ALLOWANCE	10,000	0	(10,000)
SICKLEAVE BUYBACK	15,000	17,636	2,636
RESERVE FOR REMUNERATION	0	0	0
TOTAL SALARIES & OTHER PAYS	\$6,226,087	\$5,737,774	(\$488,313)
VARIABLE BENEFITS			
RETIREMENT	1,567,673	1,172,852	(394,821)
FICA CONTRIBUTION	101,702	87,334	(14,368)
COUNTY SUBSIDY - INSURANCE	102,742	56,815	(45,927)
OPTIONS PLAN	1,288,795	995,687	(293,108)
LIFE INSURANCE	6,956	5,778	(1,178)
HEALTH INSURANCE TEMPS	149,648	96,758	(52,890)
FLEXIBLE BENEFIT PLAN	0	0	0
THRIFT PLAN / HORIZONS	258,956	171,232	(87,724)
SAVINGS PLAN	29,635	19,343	(10,292)
PENSION SAVINGS PLAN	16,628	7,044	(9,584)
MEGAFLEX	117,164	90,219	(26,945)
TOTAL VARIABLE BENEFITS	\$3,639,900	\$2,703,061	(\$936,839)
OPEB CONTRIBUTION	203,383	202,082	(1,301)
OPEB CONTRIBUTION (BUDGET SURPLUS)	0	203,383	203,383
OTHER BENEFITS	383,245	350,820	(32,425)
TOTAL EMPLOYEE BENEFITS	\$4,226,527	\$3,459,346	(\$767,181)
TOTAL SALARIES & EMPLOYEE BENEFITS	\$10,452,614	\$9,197,120	(\$1,255,494)

*All amounts rounded to the nearest dollar.

FISCAL YEAR 2022-2023

MEMBER SERVICES

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF JUNE 30, 2023**

		BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
TRANSPORTATION AND TRAVEL				
9181	TRANSPORTATION	\$3,500	\$1,576	(\$1,924)
9182	TRAVEL	4,500	5,957	1,457
	TOTAL	<u>8,000</u>	<u>\$7,533</u>	<u>(\$467)</u>
OFFICE SUPPLIES AND EQUIPMENT				
9302	SPECIAL ORDERS/MINOR EQUIP	5,000	\$1,650	(\$3,350)
	TOTAL	<u>5,000</u>	<u>\$1,650</u>	<u>(\$3,350)</u>
EDUCATIONAL EXPENSES				
9961	MEMBERSHIPS	1,200	\$0	(\$1,200)
9962	REGISTRATION FEES	10,000	\$1,365	(\$8,635)
9963	EDUCATIONAL MATERIALS	100	\$0	(\$100)
	TOTAL	<u>11,300</u>	<u>\$1,365</u>	<u>(\$9,935)</u>
MISCELLANEOUS				
9986	MISCELLANEOUS	1,500	\$893	(\$607)
9992	FACILITIES RENTAL	1,000	\$0	(\$1,000)
	TOTAL	<u>2,500</u>	<u>\$893</u>	<u>(\$1,607)</u>
	GRAND TOTAL	<u>\$26,800</u>	<u>\$11,441</u>	<u>(\$15,359)</u>

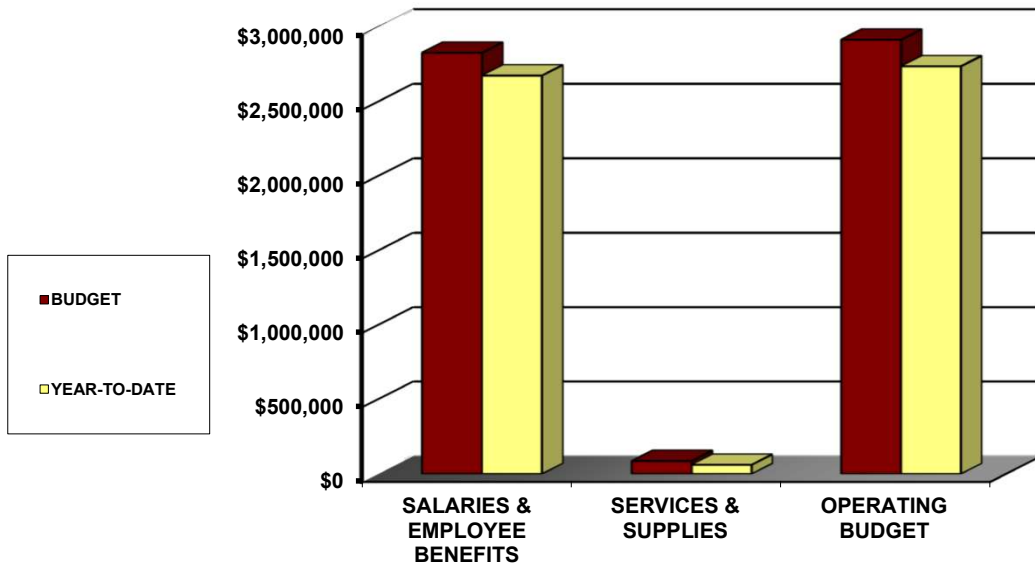
*All amounts rounded to the nearest dollar.

QUALITY ASSURANCE

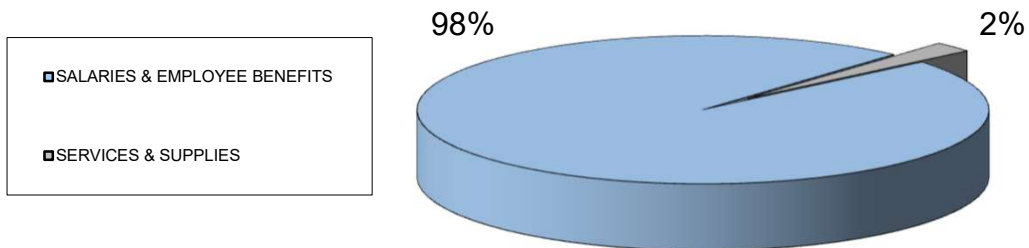
BUDGET CONTROL REPORT - FISCAL YEAR 2022-2023 BASED ON EXPENDITURES AS OF JUNE 30, 2023

<u>CATEGORY</u>	<u>BUDGET</u>	<u>YEAR-TO-DATE</u>	<u>OVER / (UNDER) BUDGET</u>
SALARIES & EMPLOYEE BENEFITS	\$2,830,468	\$2,677,444	(\$153,024)
SERVICES & SUPPLIES	\$87,900	\$62,072	(\$25,828)
OPERATING BUDGET	\$2,918,368	\$2,739,515	(\$178,853)

Budgeted Positions 19
Filled Positions 14



Total Expenditures by Category



FISCAL YEAR 2022-2023

QUALITY ASSURANCE

SUMMARY OF SALARIES AND EMPLOYEE BENEFITS
 BASED ON EXPENDITURES AS OF JUNE 30, 2023

	BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
SALARIES & OTHER PAYS			
PERMANENT / COUNTY TEMPORARY	\$1,607,869	\$1,548,769	(\$59,100)
AGENCY TEMPORARY	0	0	0
LACERA INTERN PROGRAM	0	0	0
STIPENDS	0	0	0
OVERTIME	21,500	803	(20,697)
BILINGUAL BONUS	0	0	0
PAY IN LIEU OF SALARY REDUCTION	0	0	0
TRANSPORTATION ALLOWANCE	0	0	0
RIDESHARE ALLOWANCE	2,200	0	(2,200)
SICKLEAVE BUYBACK	1,000	0	(1,000)
RESERVE FOR REMUNERATION	0	0	0
TOTAL SALARIES & OTHER PAYS	\$1,632,569	\$1,549,572	(\$82,997)
VARIABLE BENEFITS			
RETIREMENT	420,715	380,050	(40,665)
FICA CONTRIBUTION	30,085	25,004	(5,081)
COUNTY SUBSIDY - INSURANCE	105,493	107,254	1,761
OPTIONS PLAN	26,858	7,317	(19,541)
LIFE INSURANCE	222	125	(97)
HEALTH INSURANCE TEMPS	0	0	0
FLEXIBLE BENEFIT PLAN	0	0	0
THRIFT PLAN / HORIZONS	58,081	46,886	(11,195)
SAVINGS PLAN	60,977	56,306	(4,671)
PENSION SAVINGS PLAN	0	0	0
MEGAFLEX	306,586	263,064	(43,522)
TOTAL VARIABLE BENEFITS	\$1,009,017	\$886,007	(\$123,010)
OPEB CONTRIBUTION	65,485	65,066	(419)
OPEB CONTRIBUTION (BUDGET SURPLUS)	0	65,485	65,485
OTHER BENEFITS	123,397	111,314	(12,084)
TOTAL EMPLOYEE BENEFITS	\$1,197,899	\$1,127,872	(\$70,027)
TOTAL SALARIES & EMPLOYEE BENEFITS	\$2,830,468	\$2,677,444	(\$153,024)

FISCAL YEAR 2022-2023

QUALITY ASSURANCE

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF JUNE 30, 2023**

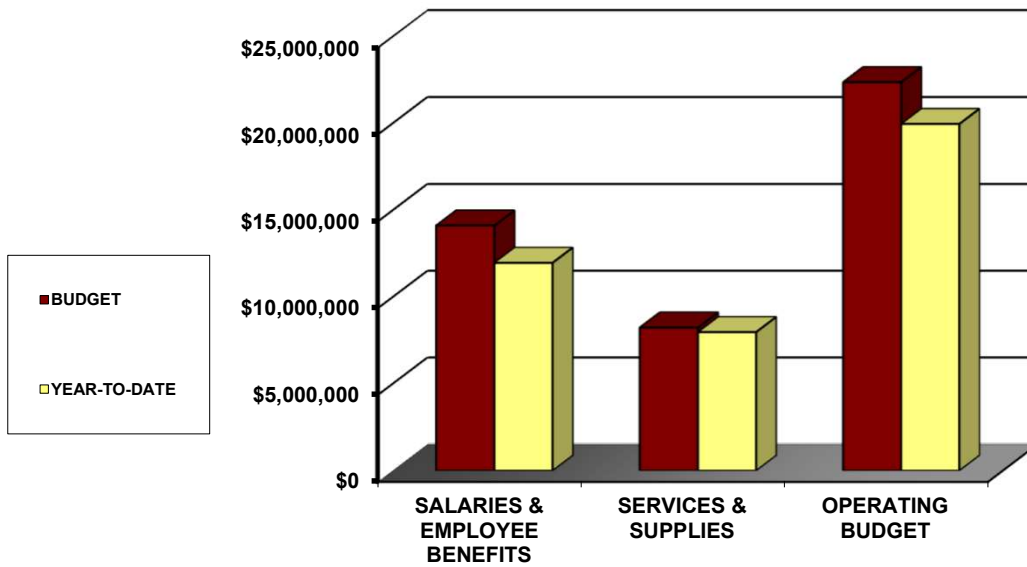
		BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
TRANSPORTATION AND TRAVEL				
9181	TRANSPORTATION	\$2,500	\$262	(\$2,238)
9182	TRAVEL	9,500	1,755	(7,745)
	TOTAL	<u>12,000</u>	<u>2,017</u>	<u>(9,983)</u>
OFFICE SUPPLIES AND EQUIPMENT				
9302	SPECIAL ORDERS/MINOR EQUIP	1,000	268	(732)
	TOTAL	<u>1,000</u>	<u>268</u>	<u>(732)</u>
PROFESSIONAL AND SPECIALIZED SERVICES				
9715	COST EFFECTIVE MANAGEMENT (CEM)	50,000	55,000	5,000
	TOTAL	<u>50,000</u>	<u>55,000</u>	<u>5,000</u>
EDUCATIONAL EXPENSES				
9961	MEMBERSHIPS	9,000	2,895	(6,105)
9962	REGISTRATION FEES	15,000	1,892	(13,108)
9963	EDUCATIONAL MATERIALS	500	0	(500)
	TOTAL	<u>24,500</u>	<u>4,787</u>	<u>(19,713)</u>
MISCELLANEOUS				
9986	MISCELLANEOUS	400	0	(400)
	TOTAL	<u>400</u>	<u>0</u>	<u>(400)</u>
	GRAND TOTAL	<u>\$87,900</u>	<u>\$62,072</u>	<u>(\$25,828)</u>

SYSTEMS DIVISION

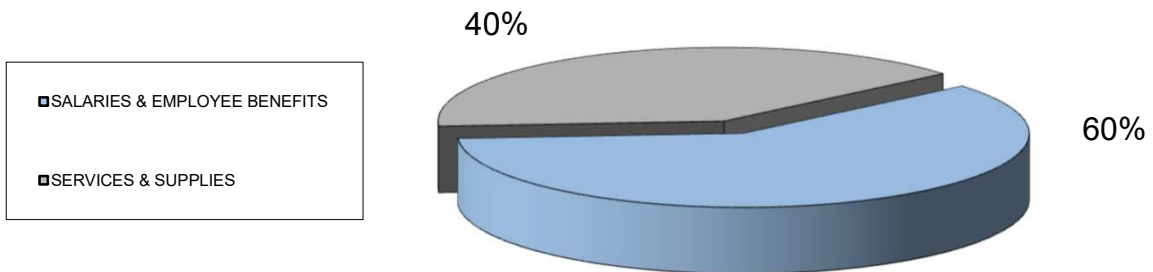
BUDGET CONTROL REPORT - FISCAL YEAR 2022-2023 BASED ON EXPENDITURES AS OF JUNE 30, 2023

<u>CATEGORY</u>	<u>BUDGET</u>	<u>YEAR-TO-DATE</u>	<u>OVER / (UNDER) BUDGET</u>
SALARIES & EMPLOYEE BENEFITS	\$14,122,286	\$11,980,909	(\$2,141,377)
SERVICES & SUPPLIES	\$8,249,400	\$7,984,901	(\$264,499)
OPERATING BUDGET	\$22,371,686	\$19,965,810	(\$2,405,876)

Budgeted Positions 62
Filled Positions 37



Total Expenditures by Category



FISCAL YEAR 2022-2023

SYSTEMS DIVISION

SUMMARY OF SALARIES AND EMPLOYEE BENEFITS
 BASED ON EXPENDITURES AS OF JUNE 30, 2023

	BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
SALARIES & OTHER PAYS			
PERMANENT / COUNTY TEMPORARY	\$5,534,330	\$5,374,005	(\$160,325)
AGENCY TEMPORARY	4,576,300	2,941,429	(1,634,871)
LACERA INTERN PROGRAM	0	0	0
STIPENDS	0	0	0
OVERTIME	150,000	215,349	65,349
BILINGUAL BONUS	0	0	0
PAY IN LIEU OF SALARY REDUCTION	0	0	0
TRANSPORTATION ALLOWANCE	0	0	0
RIDESHARE ALLOWANCE	8,900	0	(8,900)
SICKLEAVE BUYBACK	12,000	17,170	5,170
RESERVE FOR REMUNERATION	0	0	0
TOTAL SALARIES & OTHER PAYS	\$10,281,530	\$8,547,954	(\$1,733,576)
VARIABLE BENEFITS			
RETIREMENT	1,311,836	1,111,203	(200,633)
FICA CONTRIBUTION	97,367	87,836	(9,531)
COUNTY SUBSIDY - INSURANCE	339,549	224,308	(115,241)
OPTIONS PLAN	435,969	392,827	(43,142)
LIFE INSURANCE	2,007	2,509	502
HEALTH INSURANCE TEMPS	0	0	0
FLEXIBLE BENEFIT PLAN	0	0	0
THRIFT PLAN / HORIZONS	232,823	178,615	(54,208)
SAVINGS PLAN	161,857	110,044	(51,813)
PENSION SAVINGS PLAN	1,715	4,806	3,091
MEGAFLEX	629,129	515,519	(113,610)
TOTAL VARIABLE BENEFITS	\$3,212,254	\$2,627,666	(\$584,588)
OPEB CONTRIBUTION	217,901	216,507	(1,394)
OPEB CONTRIBUTION (BUDGET SURPLUS)	0	217,901	217,901
OTHER BENEFITS	410,601	370,881	(39,720)
TOTAL EMPLOYEE BENEFITS	\$3,840,754	\$3,432,955	(\$407,799)
TOTAL SALARIES & EMPLOYEE BENEFITS	\$14,122,286	\$11,980,909	(\$2,141,377)

*All amounts rounded to the nearest dollar.

FISCAL YEAR 2022-2023

SYSTEMS DIVISION

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF JUNE 30, 2023**

		BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
COMMUNICATIONS				
9121	MOBILE DEVICES SERVICE & EQUIPMENT	\$150,000	\$143,573	(\$6,427)
9124	ENTERPRISE INTERNET CONNECTION	165,000	120,592	(44,408)
9125	TELEPHONE CONNECTION	120,000	164,831	44,831
9130	REMOTE SUPPORT	15,000	0	(15,000)
9133	TELEPHONE SYSTEM SUPPLIES & MODIFICATION	15,000	2,863	(12,137)
9135	TELEPHONE SYSTEM MAINTENANCE	70,000	76,075	6,075
	TOTAL	<u>535,000</u>	<u>507,934</u>	<u>(27,066)</u>
TRANSPORTATION AND TRAVEL				
9181	TRANSPORTATION	1,600	1,139	(461)
9182	TRAVEL	2,600	6,320	3,720
	TOTAL	<u>4,200</u>	<u>7,459</u>	<u>3,259</u>
POSTAGE				
9208	MONTHLY RETIREE CHECK MAILING	390,000	0	(390,000)
	TOTAL	<u>390,000</u>	<u>0</u>	<u>(390,000)</u>
OFFICE SUPPLIES AND EQUIPMENT				
9302	SPECIAL ORDERS/MINOR EQUIP	11,000	13,692	2,692
9332	COMPUTER MONITORS	80,000	58,397	(21,603)
9336	COMPUTER PRINTER	10,000	8,731	(1,269)
9344	COMPUTER ACCESSORIES	13,000	12,229	(771)
9345	COMPUTER PERIPHERALS	30,000	30,080	80
9347	STORAGE MEDIA	15,000	17,735	2,735
9348	BOARD MEMBER TECH SUPPORT	50,000	50,820	820
9353	DIVISIONAL IT SUPPLIES/EQUIPMENT	130,000	116,699	(13,301)
9354	REMOTE WORKFORCE EQUIPMENT	130,000	484,566	354,566
	TOTAL	<u>469,000</u>	<u>792,949</u>	<u>323,949</u>
EQUIPMENT MAINTENANCE				
9411	AUDIOVISUAL MAINTENANCE	40,000	78,185	38,185
9412	KEY CARD SECURITY SYSTEM (DAS)	25,000	24,334	(667)
9414	LAN HARDWARE MAINTENANCE	75,000	85,737	10,737
9419	ON-SITE PRINTER MAINTENANCE	20,000	6,992	(13,008)
9424	EQUIP MAINT - UPS - SERVER ROOM	170,000	127,086	(42,914)
9436	EQUIP MAINT - AIR CONDITIONING	30,000	42,451	12,451
9438	AUDIOVISUAL ENHANCEMENTS	25,000	26,653	1,653
9439	SURVEILLANCE SYSTEM	5,000	0	(5,000)
9442	FIRE SUPPRESSION SYSTEM	5,000	0	(5,000)
9443	GENERATOR SYSTEM	10,000	23,777	13,777
	TOTAL	<u>405,000</u>	<u>415,215</u>	<u>10,215</u>

FISCAL YEAR 2022-2023

SYSTEMS DIVISION

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF JUNE 30, 2023**

		BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
PROFESSIONAL AND SPECIALIZED SERVICES				
9502	EDP CHARGES - ISD	\$199,500	\$214,273	\$14,773
9509	AUDITOR CONTROLLER - PAYROLL SERVICES	106,100	42,000	(64,100)
9550	ADVANCED WORKFLOW CONCEPTS	140,000	79,329	(60,671)
9574	KNOWLEDGE & DOC MGMT PROJECTS	300,000	215,700	(84,300)
9680	IRON MOUNTAIN MEDIA STORAGE	30,000	23,591	(6,409)
9681	RETIREE PAYROLL PRINTING	244,000	414,087	170,087
9692	HOTSITE SERVICES	20,000	20,701	701
9717	CLOUD MIGRATION	200,000	123,608	(76,392)
9722	MAINFRAME SERVICES	120,000	121,986	1,986
	TOTAL	1,359,600	1,255,275	(104,325)
COMPUTER SERVICES & SUPPORT				
9831	LAN SOFTWARE & LIC - NEW	1,365,000	1,335,366	(29,634)
9832	LAN SOFTWARE & LIC - EXISTING	1,854,600	2,136,675	282,075
9833	MAINFRAME SOFTWARE & LIC - EXISTING	1,100,000	1,058,490	(41,510)
9843	LAN NETWORK HARDWARE - NEW	150,000	148,961	(1,039)
9879	CO-LOCATION	200,000	97,520	(102,480)
9882	BOARDROOM OPERATION MGMT SYSTEMS (I & II)	100,000	73,726	(26,274)
9923	PUBLIC BROADCAST AND/OR STREAMING	30,000	25,987	(4,013)
9930	TELEPHONE SYSTEM UPDATES	250,000	112,782	(137,218)
	TOTAL	5,049,600	4,989,506	(60,094)
EDUCATIONAL EXPENSES				
9961	MEMBERSHIPS	1,500	150	(1,350)
9962	REGISTRATION FEES	30,000	11,362	(18,639)
9963	EDUCATIONAL MATERIALS	5,000	4,830	(170)
	TOTAL	36,500	16,342	(20,159)
MISCELLANEOUS				
9986	MISCELLANEOUS	500	221	(279)
	TOTAL	500	221	(279)
GRAND TOTAL		\$8,249,400	\$7,984,901	(\$264,499)

*All amounts rounded to the nearest dollar.

APPENDIX B

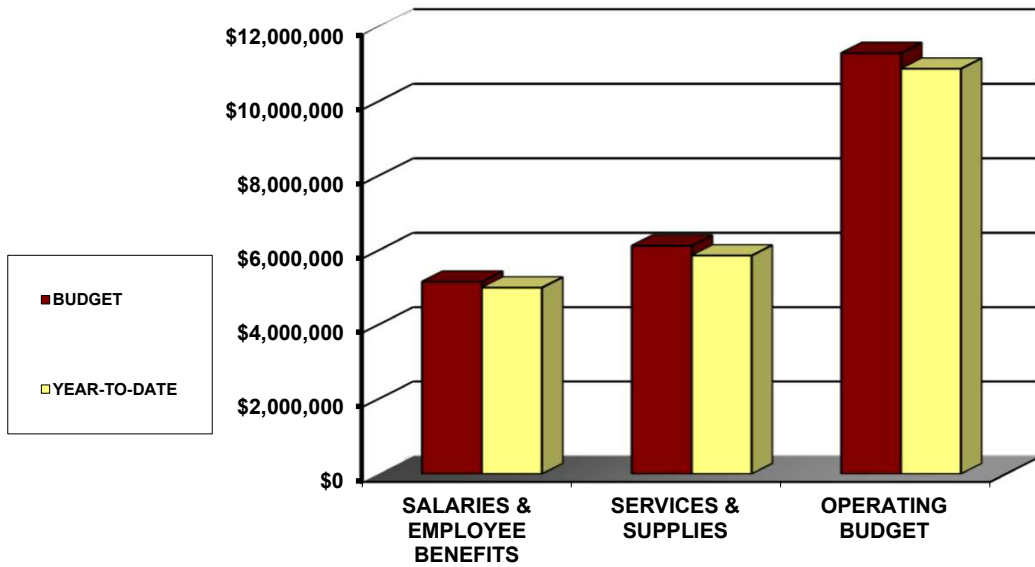
**FISCAL YEAR 2022-2023
RETIREE HEALTHCARE BENEFITS PROGRAM
BUDGET CONTROL REPORT
BASED ON EXPENDITURES AS OF
JUNE 30, 2023**

RETIREE HEALTHCARE BENEFITS PROGRAM

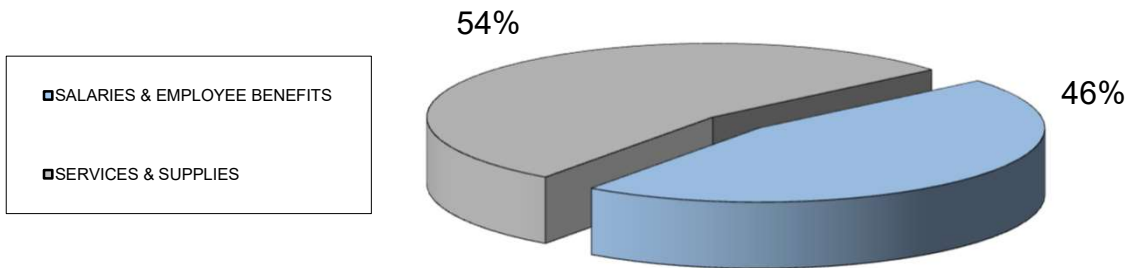
BUDGET CONTROL REPORT - FISCAL YEAR 2022-2023 BASED ON EXPENDITURES AS OF JUNE 30, 2023

<u>CATEGORY</u>	<u>BUDGET</u>	<u>YEAR-TO-DATE</u>	<u>OVER / (UNDER) BUDGET</u>
SALARIES & EMPLOYEE BENEFITS	\$5,172,923	\$5,015,298	(\$157,625)
SERVICES & SUPPLIES	\$6,140,699	\$5,877,827	(\$262,872)
OPERATING BUDGET	\$11,313,622	\$10,893,125	(\$420,497)

Budgeted Positions 37
Filled Positions 34



Total Expenditures by Category



FISCAL YEAR 2022-2023

RETIREE HEALTH CARE BENEFITS PROGRAM

SUMMARY OF SALARIES AND EMPLOYEE BENEFITS
BASED ON EXPENDITURES AS OF JUNE 30, 2023

	BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
SALARIES & OTHER PAYS			
PERMANENT / COUNTY TEMPORARY	\$3,006,805	\$3,040,866	\$34,061
AGENCY TEMPORARY	149,800	155,507	5,707
LACERA INTERN PROGRAM	0	0	0
STIPENDS	0	0	0
OVERTIME	121,800	140,072	18,272
BILINGUAL BONUS	4,800	3,600	(1,200)
PAY IN LIEU OF SALARY REDUCTION	0	0	0
TRANSPORTATION ALLOWANCE	0	0	0
RIDESHARE ALLOWANCE	3,600	0	(3,600)
SICKLEAVE BUYBACK	10,000	10,163	163
RESERVE FOR REMUNERATION	0	0	0
TOTAL SALARIES & OTHER PAYS	\$3,296,805	\$3,350,208	\$53,403
VARIABLE BENEFITS			
RETIREMENT	702,460	621,778	(80,682)
FICA CONTRIBUTION	42,868	42,719	(149)
COUNTY SUBSIDY - INSURANCE	77,259	40,891	(36,368)
OPTIONS PLAN	480,282	457,083	(23,199)
LIFE INSURANCE	1,571	2,180	609
HEALTH INSURANCE TEMPS	121,229	50,061	(71,168)
FLEXIBLE BENEFIT PLAN	0	0	0
THRIFT PLAN / HORIZONS	111,791	87,640	(24,151)
SAVINGS PLAN	43,690	28,292	(15,398)
PENSION SAVINGS PLAN	47,226	7,747	(39,479)
MEGAFLEX	146,891	125,564	(21,327)
TOTAL VARIABLE BENEFITS	\$1,775,266	\$1,463,955	(\$311,311)
OPEB CONTRIBUTION	100,853	100,283	(570)
OPEB CONTRIBUTION (BUDGET SURPLUS)	0	100,853	100,853
OTHER BENEFITS	0	0	0
TOTAL EMPLOYEE BENEFITS	\$1,876,120	\$1,665,091	(\$211,029)
TOTAL SALARIES & EMPLOYEE BENEFITS	\$5,172,923	\$5,015,298	(\$157,625)

*All amounts rounded to the nearest dollar.

FISCAL YEAR 2022-2023

RETIREE HEALTH CARE BENEFITS PROGRAM

**DETAIL OF SERVICES AND SUPPLIES ACCOUNTS
BASED ON EXPENDITURES AS OF JUNE 30, 2023**

		BUDGET	YTD ACTUAL	OVER/(UNDER) BUDGET
TRANSPORTATION AND TRAVEL				
9181	TRANSPORTATION	\$1,500	\$2,086	\$586
9182	TRAVEL	23,200	37,324	14,124
	TOTAL	<u>24,700</u>	<u>\$39,409</u>	<u>\$14,709</u>
POSTAGE				
9212	SPECIAL RETIREE MAILINGS	300,000	269,969	(30,031)
	TOTAL	<u>300,000</u>	<u>269,969</u>	<u>(30,031)</u>
OFFICE SUPPLIES AND EQUIPMENT				
9302	SPECIAL ORDERS/MINOR EQUIP	4,500	836	(3,664)
	TOTAL	<u>4,500</u>	<u>836</u>	<u>(3,664)</u>
OPERATIONAL COSTS				
9482	RENT	203,800	205,113	1,313
9483	DEPARTMENTAL OVERHEAD	4,337,199	4,153,627	(183,572)
	TOTAL	<u>4,540,999</u>	<u>4,358,739</u>	<u>(182,260)</u>
PROFESSIONAL AND SPECIALIZED SERVICES				
9541	AUDITS	141,100	51,475	(89,625)
9545	HEALTH CARE CONSULTING	750,000	741,600	(8,400)
9573	OPEB VALUATION	338,300	355,277	16,977
	TOTAL	<u>1,229,400</u>	<u>1,148,352</u>	<u>(81,048)</u>
BANK SERVICES				
9753	BANK CHARGES - STATE STREET	21,500	18,021	(3,479)
	TOTAL	<u>21,500</u>	<u>18,021</u>	<u>(3,479)</u>
LEGAL FEES AND SERVICES				
9772	OUTSIDE LEGAL COUNSEL	0	15,684	15,684
	TOTAL	<u>0</u>	<u>15,684</u>	<u>15,684</u>
EDUCATIONAL EXPENSES				
9961	MEMBERSHIPS	4,000	1,801	(2,199)
9962	REGISTRATION FEES	15,000	25,015	10,015
9963	EDUCATIONAL MATERIALS	300	0	(300)
	TOTAL	<u>19,300</u>	<u>26,816</u>	<u>7,516</u>
MISCELLANEOUS				
9986	MISCELLANEOUS	300	0	(300)
	TOTAL	<u>300</u>	<u>0</u>	<u>(300)</u>
	GRAND TOTAL	<u>\$6,140,699</u>	<u>\$5,877,827</u>	<u>(\$262,872)</u>

*All amounts rounded to the nearest dollar.

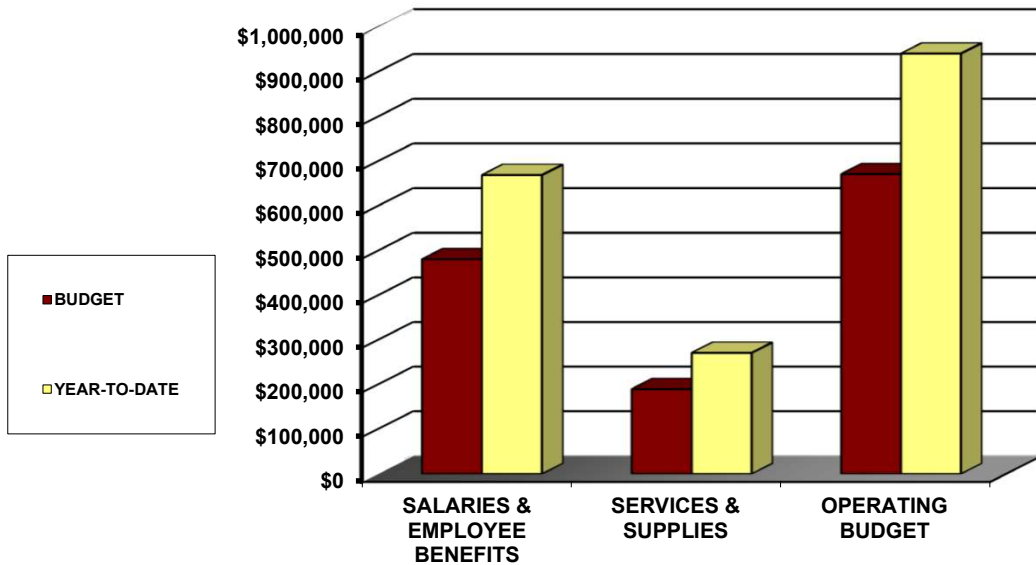
APPENDIX C

**FISCAL YEAR 2022-2023
OTHER POST-EMPLOYMENT BENEFITS (OPEB) TRUST
BUDGET CONTROL REPORT
BASED ON EXPENDITURES AS OF
JUNE 30, 2023**

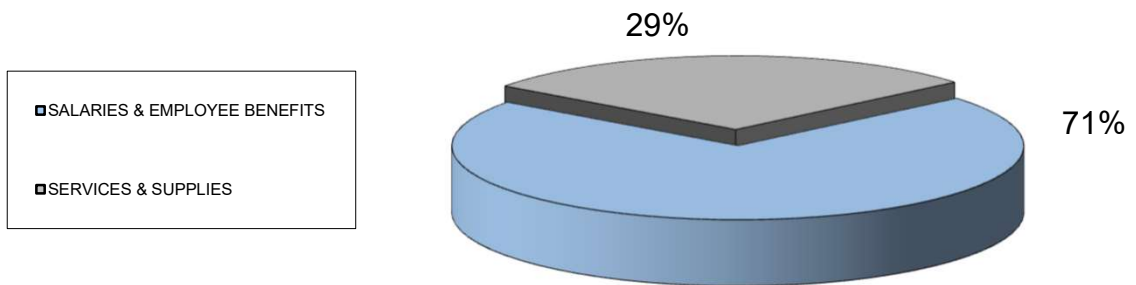
OTHER POST-EMPLOYMENT BENEFITS TRUST

BUDGET CONTROL REPORT - FISCAL YEAR 2022-2023 BASED ON EXPENDITURES AS OF JUNE 30, 2023

<u>CATEGORY</u>	<u>BUDGET</u>	<u>YEAR-TO-DATE</u>	<u>OVER / (UNDER) BUDGET</u>
SALARIES & EMPLOYEE BENEFITS	\$481,543	\$669,971	\$188,428
SERVICES & SUPPLIES	\$190,304	\$271,639	\$81,335
OPERATING BUDGET	\$671,847	\$941,610	\$269,763



Total Expenditures by Category



FOR INFORMATION ONLY

December 6, 2023

TO: Each Trustee,
Board of Investments

FROM: Steven P. Rice, *SPR*
Chief Counsel

FOR: December 13, 2023 Board of Investments Meeting

SUBJECT: FPPC Formal Advice Letter

Joy Higa is a proposed appointee by the Board of Supervisors (Supervisor Mitchell) to LACERA's Board of Investments. Ms. Higa is currently Chief Compliance Officer and Senior Vice President, Regulatory Affairs at UnitedHealth Group. She has held various positions at UnitedHealth for over 17 years; she served on the CalSTRS Board for over eight years.

UnitedHealth is a provider of retiree healthcare services to retired LACERA members through the County's Other Post-Employment Benefits (OPEB) program (Program). The Program is administered by LACERA and overseen by the Board of Retirement, including actuarial valuations and assumption setting. The Board of Investments oversees investment and management of the OPEB Trust established by the County, the Superior Court, and LACERA and approves selection of Program actuaries. The OPEB Trust exists to prefund premiums to Program carriers, such as UnitedHealth, and other expenses of the Program; the Trust is available for payment of current costs, if needed.

LACERA's Chief Counsel and fiduciary counsel Ashley Dunning discussed the Board of Investments' roles and responsibilities for the OPEB Trust and potential conflict of interest issues with Ms. Higa and counsel from UnitedHealth. We believe conflicts, if any, likely may be avoided through recusal on items relating to the OPEB Trust. Counsel and Ms. Higa agree that the conflict issues, if any, and the means to avoid them should be confirmed in a Fair Political Practices Commission (FPPC) formal advice letter.

A request for formal advice will be submitted soon to the FPPC on behalf of LACERA, the Board, and Ms. Higa.

c: Santos H. Kreimann
Luis Lugo
Jonathan Grabel

FOR INFORMATION ONLY

December 5, 2023

TO: Trustees,
Board of Investments

FROM: Christine Roseland *CR*
Senior Staff Counsel

FOR: December 13, 2023 Board of Investments Meeting

SUBJECT: **Legal Projects**

Attached is the monthly report on the status of Board-directed investment-related projects handled by the Legal Division as of December 5, 2023.

Attachment

c: Santos H. Kreimann
Luis A. Lugo
Jonathan Gabel
Esmeralda Del Bosque
Vache Mahseredjian
Jude Perez
Jim Rice
Christopher Wagner
Scott Zdrazil
Steven Rice
John Harrington
Lisa Garcia



LACERA Legal Division
Board of Investments Projects
Monthly Status Report - Pending as of December 5, 2023



	Project/ Investment	Description	Amount	Board Approval Date	Completion Status	% Complete	Notes
EQUITIES	Leading Edge Investment Advisors (LEIA)	Investment Management Agreement for Global Equity Emerging Manager Program	\$500,000,000	October 12, 2022	Completed	100%	Completed.
	New Alpha Asset Management (New Alpha)	Investment Management Agreement for Global Equity Emerging Manager Program	\$500,000,000	October 12, 2022	Completed	100%	Completed.
OPEB	BlackRock Institutional Trust Company, N.A.	Investment Management Agreement Amendment for Public Markets Passive Investment Management Services	\$2,000,000,000	June 14, 2023	In Progress	90%	Legal negotiations in process.
PORTFOLIO ANALYTICS	State Street Bank and Trust Co.	Global Custody and Commercial Banking Services Agreement for LACERA's Pension Plan and OPEB Master Trust	\$72,000,000,000	August 10, 2022	In Progress	80%	Legal negotiations in process.

**FOR INFORMATION ONLY**

November 21, 2023

TO: Each Trustee
Board of Retirement
Board of Investments

FROM: Ted Granger *TG*
Interim Chief Financial Officer

FOR: December 6, 2023 Board of Retirement Meeting
December 13, 2023 Board of Investments Meeting

SUBJECT : MONTHLY TRUSTEE TRAVEL & EDUCATION REPORT – OCTOBER 2023

Attached for your review is the Trustee Travel & Education Report. This report includes all events (i.e., attended and canceled) from the beginning of the fiscal year through October 2023.

Trustees attend monthly Board and Committee meetings at LACERA's office which are considered administrative meetings per the Trustee Travel Policy. In order to streamline report volume and information, these regular meetings are excluded from the monthly travel reports but are included in the quarterly travel expenditure reports.

Staff travel and education reports are provided to the Chief Executive Officer monthly and to the Boards quarterly.

REVIEWED AND APPROVED:

Santos H. Kreimann
Chief Executive Officer

TG/EW/SC/SE/gj

Attachments

c: L. Lugo
J. Popowich
L. Guglielmo
J. Grabel
S. Rice
R. Contreras

TRUSTEE TRAVEL AND EDUCATION REPORT
FOR FISCAL YEAR 2023 - 2024
OCTOBER 2023

Attendee	Purpose of Travel - Location	Event Dates	Travel Status
Alan Bernstein			
A	1 Edu - PREA's 33rd Annual Institutional Investor Conference - Boston MA	10/18/2023 - 10/20/2023	Attended
B	- Edu - NACD DE&I Deep Dive: A Road Map for Becoming an Inclusion-Focused Board - Laguna Beach CA	08/22/2023 - 08/23/2023	Attended
Vivian Gray			
A	1 Edu - Prosper Africa U.S. Institutional Investors Delegation Trip & GEBF Thought Leadership Conference - Johannesburg and Cape Town South Africa	09/30/2023 - 10/06/2023	Attended
B	- Admin - SACRS Board of Directors and Committee Meeting - San Mateo CA	08/07/2023 - 08/08/2023	Attended
	- Admin - RELAC Annual Luncheon - Alhambra CA	08/10/2023 - 08/10/2023	Attended
	- Edu - Kayne Anderson 2023 Investor Conference - Beverly Hills CA	10/25/2023 - 10/26/2023	Attended
	- Admin - TLF Trustee Peer Coaching Program - Boston MA	10/26/2023 - 10/27/2023	Attended
Jason Green			
B	- Edu - CII 2023 Fall Conference Next Frontier in Governance - Long Beach CA	09/11/2023 - 09/13/2023	Attended
James Harris			
B	- Admin - RELAC Annual Luncheon - Alhambra CA	08/10/2023 - 08/10/2023	Attended
Patrick Jones			
A	1 Edu - 2023 Investment Diversity Advisory Council (IDAC) Global Summit - Chicago IL	09/19/2023 - 09/20/2023	Attended
	2 Edu - NCPERS 2023 Fall Conference - Las Vegas NV	10/21/2023 - 10/25/2023	Attended
B	- Edu - PPI 2023 Summer Roundtable - San Francisco CA	07/19/2023 - 07/21/2023	Attended
Onyx Jones			
X	- Edu - NCPERS 2023 Fall Conference - Las Vegas NV	10/21/2023 - 10/25/2023	Canceled
Keith Knox			
A	1 Edu - 2023 PPI Executive Seminar and Asia Roundtable - Tokyo Japan	10/22/2023 - 10/27/2023	Attended
B	- Admin - RELAC Annual Luncheon - Alhambra CA	08/10/2023 - 08/10/2023	Attended
Les Robbins			
B	- Admin - RELAC Annual Luncheon - Alhambra CA	08/10/2023 - 08/10/2023	Attended
Gina Sanchez			
A	1 Edu - 2023 Investment Diversity Advisory Council (IDAC) Global Summit - Chicago IL	09/19/2023 - 09/20/2023	Attended
	2 Edu - Midwest and West Coast Investor Insight Summit - Chicago IL	10/05/2023 - 10/06/2023	Attended
	3 Edu - 2023 LAVCA Week Conference - New York City NY	10/10/2023 - 10/13/2023	Attended
	4 Edu - 2023 PPI Executive Seminar and Asia Roundtable - Tokyo Japan	10/22/2023 - 10/27/2023	Attended
B	- Edu - PPI 2023 Summer Roundtable - San Francisco CA	07/19/2023 - 07/21/2023	Attended



TRUSTEE TRAVEL AND EDUCATION REPORT
FOR FISCAL YEAR 2023 - 2024
OCTOBER 2023

Attendee	Purpose of Travel - Location	Event Dates	Travel Status
Herman Santos			
A	1 Edu - 2023 LAVCA Week Conference - New York City NY	10/10/2023 - 10/13/2023	Attended
	2 Edu - 2023 PPI Executive Seminar and Asia Roundtable - Tokyo Japan	10/22/2023 - 10/27/2023	Attended
B	- Admin - RELAC Annual Luncheon - Alhambra CA	08/10/2023 - 08/10/2023	Attended

Category Legend:

A - Pre-Approved/Board Approved Educational Conferences

B - 1) Board Approved Administrative Meetings and 2) Pre-Approved Educational Conferences in CA where total cost is no more than \$3,000 provided that a Trustee may not incur over \$15,000 for all expenses of attending all such Educational Conferences and Administrative Meetings in a fiscal year per Trustee Travel Policy Section III.A

C - Second of two conferences and/or meetings counted as one conference per Trustee Education Policy Section IV.C.2 and Trustee Travel Policy Section IV.

V - Virtual Event

X - Canceled events for which expenses have been incurred.



Documents not attached are exempt from disclosure under the California Public Records Act and other legal authority.

**For further information, contact:
LACERA
Attention: Public Records Act Requests
300 N. Lake Ave., Suite 620
Pasadena, CA 91101**

**FOR INFORMATION ONLY**

November 21, 2023

TO: Trustees
Board of Retirement
Board of Investments

FROM: Ted Granger *TG*
Interim Chief Financial Officer

FOR: December 6, 2023 Board of Retirement Meeting
December 13, 2023 Board of Investments Meeting

SUBJECT: **FY 23-24 1ST QUARTER STAFF TRAVEL REPORT**

Attached for your information for trips between July 1, 2023 to September 30, 2023 (1) Staff Travel Report and (2) Q3 (Calendar Year) FPPC Form 801 Travel and Other Payments Paid by Third Parties.

REVIEWED AND APPROVED:



Santos H. Kreimann
Chief Executive Officer

TG/EW/SC/SE/gj

Attachments

c: L. Lugo
J. Popowich
L. Guglielmo
J. Grabel
S. Rice
R. Contreras

**STAFF TRAVEL REPORT
FOR FISCAL YEAR 2023 - 2024
SEPTEMBER 2023**

Attendee		Purpose of Travel - Location	Event Dates	Travel Status
Executive Offices				
Santos Kreimann	1	Admin - RELAC Annual Luncheon - Alhambra CA	08/10/2023 - 08/10/2023	Attended
	2	Admin/Edu - CALAPRS Administrators Institute 2023 - Carmel CA	09/27/2023 - 09/29/2023	Attended
Luis Lugo	1	Admin - Anthem Blue Cross Due Diligence - Rancho Cardova CA	09/28/2023 - 09/28/2023	Attended
Internal Audit				
Leisha Collins	1	Edu - Invest in Yourself SACRS Public Pension Investment Management Program - Berkeley CA	07/16/2023 - 07/19/2023	Attended
Christina Logan	1	Edu - Invest in Yourself SACRS Public Pension Investment Management Program - Berkeley CA	07/16/2023 - 07/19/2023	Attended
Investments				
Didier Acevedo	1	Admin - Conduct onsite with Innovation Endeavors - Palo Alto CA	07/26/2023 - 07/26/2023	Attended
	2	Admin - Attend Great Hill Partners AGM - Boston MA	09/26/2023 - 09/27/2023	Attended
Amit Aggarwal	1	Admin - Due diligence meetings for Commercial Broker RFP's - Los Angeles CA	09/15/2023 - 09/19/2023	Attended
Noah Damsky	1	Admin - Conduct due diligence on Blackstone open ended fund - Long Beach CA	08/16/2023 - 08/16/2023	Attended
	2	Admin - Conduct due diligence on Copenhagen Infrastructure Partners - Los Angeles CA	08/17/2023 - 08/17/2023	Attended
Jon Grabel	1	Admin - National Institute of Public Finance 2023 - Los Angeles CA	07/18/2023 - 07/18/2023	Attended
	2	Admin - NASP CIO Roundtable - Philadelphia PA	07/25/2023 - 07/25/2023	Attended
	3	Admin - 2nd Annual GWI Partners SoCal Regional Summer Social - Los Angeles CA	08/01/2023 - 08/01/2023	Attended
	4	Admin - CII 2023 Fall Conference Next Frontier in Governance - Long Beach CA	09/11/2023 - 09/13/2023	Attended
	5	Admin - Fiduciary Investors Symposium - Stanford CA	09/19/2023 - 09/21/2023	Attended
Daniel Joye	1	Admin - Institutional Investor Public Funds Roundtable - Newport RI	07/25/2023 - 07/27/2023	Attended
	2	Admin - Conduct due diligence on Blackstone open ended fund - Long Beach CA	08/16/2023 - 08/16/2023	Attended
	3	Admin - Conduct due diligence on Copenhagen Infrastructure Partners - Los Angeles CA	08/17/2023 - 08/17/2023	Attended
Derek Kong	1	Edu - Attend the TIDE Spark 2023 - Dana Point CA	07/13/2023 - 07/13/2023	Canceled
Cheryl Lu	1	Admin - China Consulate General to apply for Visa to conduct LACERA business in The Republic of China - Los Angeles CA	07/18/2023 - 07/18/2023	Attended
	2	Admin - Attend Accel-KKR AGM and LPAC - Menlo	09/19/2023 - 09/20/2023	Attended

Park CA

Jim Rice	1	Admin - Due diligence meetings for Commercial Broker RFP's - Los Angeles CA	09/15/2023 - 09/19/2023	Attended
Michael Romero	1	Admin - Due diligence meetings for Commercial Broker RFP's - Los Angeles CA	09/15/2023 - 09/19/2023	Attended
Kathryn Ton	1	Edu - Invest in Yourself SACRS Public Pension Investment Management Program - Berkeley CA	07/16/2023 - 07/19/2023	Canceled
Mel Tsao	1	Admin - ILPA Legal Document Course - Chicago IL	07/16/2023 - 07/19/2023	Attended
Scott Zdrazil	1	Edu - CII 2023 Fall Conference Next Frontier in Governance - Long Beach CA	09/11/2023 - 09/13/2023	Attended

Legal Services

Jasmine Bath	1	Edu - CALAPRS Management Leadership Academy 2023 - Pasadena CA	07/17/2023 - 07/19/2023	Attended
Elaine Salon	1	Edu - CALAPRS Management Leadership Academy 2023 - Pasadena CA	07/17/2023 - 07/19/2023	Attended

Member Services

Fabio Ramirez	1	Edu - CALAPRS Management Leadership Academy 2023 - Pasadena CA	07/17/2023 - 07/19/2023	Attended
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Retiree Healthcare

Janet Chan	1	Admin - Anthem Blue Cross Due Diligence - Rancho Cardova CA	09/28/2023 - 09/28/2023	Attended
Leilani Ignacio	1	Admin - Anthem Blue Cross Due Diligence - Rancho Cardova CA	09/28/2023 - 09/28/2023	Attended
Kathy Migita	1	Edu - CVS Health 2023 Care Management Client Summit - Greensboro NC	09/19/2023 - 09/21/2023	Attended
	2	Admin - Anthem Blue Cross Due Diligence - Rancho Cardova CA	09/28/2023 - 09/28/2023	Attended
Cassandra Smith	1	Edu - CVS Health 2023 Care Management Client Summit - Greensboro NC	09/19/2023 - 09/21/2023	Attended
	2	Admin - Anthem Blue Cross Due Diligence - Rancho Cardova CA	09/28/2023 - 09/28/2023	Attended

Systems

Lynn Francisco	1	Edu - IBM TechXchange Conference 2023 - Las Vegas NV	09/12/2023 - 09/14/2023	Attended
Sandy Pang	1	Edu - IBM TechXchange Conference 2023 - Las Vegas NV	09/12/2023 - 09/14/2023	Attended
Gina Shaferman	1	Edu - IBM TechXchange Conference 2023 - Las Vegas NV	09/12/2023 - 09/14/2023	Attended


CY 2023 Q3 FPPC FORM 801 STAFF TRAVEL EXPENSES

CY 2023 Q3 FPPC FORM 801 STAFF TRAVEL EXPENSES																			
2. Donor Name and Address				3. Payment Information															
Name				3.1(a) Travel Payment										3.2 Payment Description		3.3 Officials who used payment in Section 3.1			
Individual	Other	Entity's Business Activity	Address	Location	Dates	Transportation Provider	Type	Name of Lodging Facility	Lodging Expenses	Meal Expenses	Transportation Expenses	Other Expenses	Total Expenses		Last Name	First Name	Position/Title	Department/Division	
1	N/A	Accel-KKR Capital Partners VII Limited Partnership	Private equity fund sponsor	2180 Sand Hill Road, Suite 300 Menlo Park, CA 94025	Menlo Park, CA	September 19-20, 2023	Southwest Airlines, Uber	Air, Auto	Rosewood Sand Hill Road	\$758.03	\$525.00	\$442.33	\$0.00	\$1,725.36	Payment is for travel to attend Accel-KKR Capital Partners' Advisory Board meeting. Per LACERA's contract with Accel-KKR Capital Partners, all travel expenses related to Advisory Board meetings will be covered by the fund.	Lu	Cheryl	Investment Officer	Investments

**FOR INFORMATION ONLY**

November 21, 2023

TO: Trustees
Board of Retirement
Board of Investments

FROM: Ted Granger 
Interim Chief Financial Officer

FOR: December 6, 2023 Board of Retirement Meeting
December 13, 2023 Board of Investments Meeting

SUBJECT: **FY 23-24 1ST QUARTER TRUSTEE TRAVEL & EDUCATION
EXPENDITURE REPORTS**

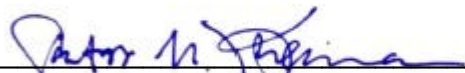
Attached for your review:

(1) Trustee Travel & Education Expenditure Report which includes reimbursement for events between July 1, 2023 to September 30, 2023 excluding Regular Board and Committee Meetings.

(2) Regular Board and Committee Meetings Expenditure Report for accumulated lodging and mileage reimbursed for events between July 1, 2023 and September 30, 2023.

(3) The Trustee Cancellation & Credit Expenditures Report which includes credits and expenses associated with trip cancellations for Fiscal Years 2020-2021 and 2021-2022. No credits remain for FY 22-23. No cancellations or credits reported for the 1st Quarter of FY 23-24.

REVIEWED AND APPROVED:



Santos H. Kreimann
Chief Executive Officer

TG/EW/SC/SE/gj

Attachments

c: L. Lugo
J. Popowich
L. Guglielmo
J. Grabel
S. Rice
R. Contreras



**1ST QUARTER TRUSTEE
TRAVEL AND EDUCATION EXPENDITURE REPORT
FOR FISCAL YEAR 2024
FOR EVENTS DURING JULY 2023 - SEPTEMBER 2023**

Cat	Purpose of Travel - Location - Travel Dates	Travel Status	Total Expense	Registration	Lodging	Airfare	Ground Transp.	Mileage	Porterage	Parking	Meals	Per Diem	Misc.
Alan Bernstein													
B -	Edu - NACD DE&I Deep Dive: A Road Map for Becoming an Inclusion-Focused Board - Laguna Beach CA - 08/22/2023 - 08/23/2023	Attended	\$784.14	\$0.00	\$549.65	\$0.00	\$0.00	\$0.00	\$0.00	\$25.00	\$0.00	\$199.49	\$10.00
Totals for Alan Bernstein:			\$784.14	\$0.00	\$549.65	\$0.00	\$0.00	\$0.00	\$0.00	\$25.00	\$0.00	\$199.49	\$10.00
Vivian Gray													
B -	Admin - SACRS Board of Directors and Committee Meeting - San Mateo CA - 08/07/2023 - 08/08/2023	Attended	\$1,758.96	\$0.00	\$820.68	\$547.96	\$0.00	\$0.00	\$0.00	\$45.00	\$0.00	\$126.00	\$20.00
-	Admin - RELAC Annual Luncheon - Alhambra CA - 08/10/2023 - 08/10/2023	Attended	\$26.20	\$0.00	\$0.00	\$0.00	\$0.00	\$26.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Totals for Vivian Gray:			\$1,785.16	\$0.00	\$820.68	\$547.96	\$199.32	\$26.20	\$0.00	\$45.00	\$0.00	\$126.00	\$20.00
Jason Green													
B -	Edu - CII 2023 Fall Conference Next Frontier in Governance - Long Beach CA - 09/11/2023 - 09/13/2023	Attended	\$616.55	\$0.00	\$578.55	\$0.00	\$0.00	\$0.00	\$0.00	\$38.00	\$0.00	\$0.00	\$0.00
Totals for Jason Green:			\$616.55	\$0.00	\$578.55	\$0.00	\$0.00	\$0.00	\$0.00	\$38.00	\$0.00	\$0.00	\$0.00
Patrick Jones													
A	1 Edu - 2023 Investment Diversity Advisory Council (IDAC) Global Summit - Chicago IL - 09/19/2023 - 09/20/2023	Attended	\$4,396.95	\$2,500.00	\$982.56	\$501.80	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$92.00	\$15.00
B -	Edu - PPI 2023 Summer Roundtable - San Francisco CA - 07/19/2023 - 07/21/2023	Attended	\$2,021.18	\$1,200.00	\$214.00	\$322.80	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$18.00	\$5.00
Totals for Patrick Jones:			\$6,418.13	\$3,700.00	\$1,196.56	\$824.60	\$566.97	\$0.00	\$0.00	\$0.00	\$0.00	\$110.00	\$20.00



**1ST QUARTER TRUSTEE
TRAVEL AND EDUCATION EXPENDITURE REPORT
FOR FISCAL YEAR 2024
FOR EVENTS DURING JULY 2023 - SEPTEMBER 2023**

Cat	Purpose of Travel - Location - Travel Dates	Travel Status	Total Expense	Registration	Lodging	Airfare	Ground Transp.	Mileage	Porterage	Parking	Meals	Per Diem	Misc.
Gina Sanchez													
A	1 Edu - 2023 Investment Diversity Advisory Council (IDAC) Global Summit - Chicago IL - 09/19/2023 - 09/20/2023	Attended	\$3,563.72	\$2,500.00	\$725.92	\$337.80	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
B	- Edu - PPI 2023 Summer Roundtable - San Francisco CA - 07/19/2023 - 07/21/2023	Attended	\$2,474.47	\$1,200.00	\$806.30	\$316.75	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$38.00	\$5.00
Totals for Gina Sanchez:			\$6,038.19	\$3,700.00	\$1,532.22	\$654.55	\$108.42	\$0.00	\$0.00	\$0.00	\$0.00	\$38.00	\$5.00
Cnt: 2	Grand Totals:		\$15,642.17	\$7,400.00	\$4,677.66	\$2,027.11	\$874.71	\$26.20	\$0.00	\$108.00	\$0.00	\$473.49	\$55.00

Category Legend:

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- B - 1) Board Approved Administrative Meetings and 2) Pre-Approved Educational Conferences in CA where total cost is no more than \$3,000 provided that a Trustee may not incur over \$15,000 for all expenses of attending all such Educational Conferences and Administrative Meetings in a fiscal year per Trustee Travel Policy Section III.A
- C - Second of two conferences and/or meetings counted as one conference per Trustee Education Policy Section IV.C.2 and Trustee Travel Policy Section IV.
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- X - Canceled events for which expenses have been incurred.



1ST QUARTER TRUSTEE
TRAVEL AND EDUCATION EXPENDITURE REPORT
FOR FISCAL YEAR 2024
FOR EVENTS DURING JULY 2023 - SEPTEMBER 2023

Cat	Purpose of Travel - Location - Travel Dates	Travel Status	Total Expense	Registration	Lodging	Airfare	Ground Transp.	Mileage	Porterage	Parking	Meals	Per Diem	Misc.
Alan Bernstein													
	FYTD Lodging/Mileage (M):				\$0.00			\$62.88					
Vivian Gray													
	FYTD Lodging/Mileage (M):				\$0.00			\$104.80					
Patrick Jones													
	FYTD Lodging/Mileage (M):				\$0.00			\$0.00					
Shawn Kehoe													
	FYTD Lodging/Mileage (M):				\$650.97			\$0.00					
Herman Santos													
	FYTD Lodging/Mileage (M):				\$1,636.38			\$0.00					
Total of FYTD Lodging/Mileage (M):					\$2,287.35			\$167.68					

Category Legend:

M - Regular Board and Committee Meetings



**TRUSTEE CANCELLATION AND CREDIT EXPENDITURES
REPORT FOR FISCAL YEAR 2021
FOR TRAVEL DURING JULY 2020 - JUNE 2021**

Purpose of Travel - Location - Date - Travel Status	Category	Total Expense	Registration (Reg.)	Lodging	Airfare	Other Misc. Travel Exp.	Chair Pardon	Reg. Credit	Reg. Credit Expiration Date	Airfare Credit	Airfare Credit Expiration Date	Refund Pending
Alan Bernstein												
Edu - IFEBP 66th Annual Employee Benefits Conference - Honolulu HI - 11/15/2020 - 11/18/2020 - Host Canceled	Z	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00		\$0.00		\$0.00
Attendee Totals:		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00		\$0.00		\$0.00
Vivian Gray												
Edu - CII & NYU Corporate Governance Bootcamp - VIRTUAL -9/23/2020 - 9/25/2020 - Canceled	Z	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00		\$0.00		\$0.00
Attendee Totals:		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00		\$0.00		\$0.00
Shawn Kehoe												
Edu - IFEBP 66th Annual Employee Benefits Conference - Honolulu HI - 11/15/2020 - 11/18/2020 - Host Canceled	Z	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00		\$0.00		\$0.00
Attendee Totals:		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00		\$0.00		\$0.00
Les Robbins												
Edu - IFEBP 66th Annual Employee Benefits Conference - Honolulu HI - 11/15/2020 - 11/18/2020 - Host Canceled	X	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$2,125.00	12/31/2023	\$0.00		\$0.00
Edu- 2020 SACRS Fall Virtual Conference -VIRTUAL - 11/10/2020 - 11/13/2020 - Canceled	Z	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00		\$0.00		\$0.00
Attendee Totals:		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$2,125.00		\$0.00		\$0.00
Grand Totals:		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$2,125.00		\$0.00		\$0.00

Category Legend:

X - Canceled events for which expenses have been incurred.
Z - Trip was Canceled - Balance of \$0.00



**TRUSTEE CANCELLATION AND CREDIT EXPENDITURES REPORT
FOR FISCAL YEAR 2022
FOR EVENTS DURING JULY 2021 - JUNE 2022**

Purpose of Travel - Location - Date - Travel Status	Category	Total Expense	Registration (Reg.)	Lodging	Airfare	Other Misc. Travel Exp.	Chair Pardon	Reg. Credit	Reg. Credit Expiration Date	Airfare Credit	Airfare Credit Expiration Date	Refund Pending
Alan Bernstein												
Edu - SuperReturn International Berlin - Berlin, Germany - 11/09/2021 - 11/12/2021 - Canceled	X	\$375.02	\$375.02	\$0.00	\$0.00	\$0.00	Yes	\$0.00		\$0.00		\$0.00
Attendee Totals:		\$375.02	\$375.02	\$0.00	\$0.00	\$0.00		\$0.00		\$0.00		\$0.00
David Green												
Edu - 2021 CII Fall Conference - Chicago IL - 09/22/2021 - 09/24/2021 - Host Canceled	X	\$387.13	\$0.00	\$0.00	\$387.13	\$0.00	Yes	\$0.00		\$0.00		\$0.00
Attendee Totals:		\$387.13	\$0.00	\$0.00	\$387.13	\$0.00		\$0.00		\$0.00		\$0.00
Patrick Jones												
Edu - Duke University Executive Education Program - Corporate Social Responsibility - Durham NC - 09/23/2021 - 09/25/2021 - Host Canceled	X	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00		\$616.80	12/31/2023	\$0.00
Attendee Totals:		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00		\$616.80		\$0.00
Shawn Kehoe												
Edu - 2021 Milken Institute Global Conference - Los Angeles CA - 10/17/2021 - 10/20/2021 - Canceled	X	\$23.96	\$0.00	\$23.96	\$0.00	\$0.00	Yes	\$0.00		\$0.00		\$0.00
Edu - SACRS Fall Conference - Los Angeles CA - 11/09/2021 - 11/12/2021 - Canceled	X	\$120.00	\$120.00	\$0.00	\$0.00	\$0.00	Yes	\$0.00		\$0.00		\$0.00
Attendee Totals:		\$143.96	\$120.00	\$23.96	\$0.00	\$0.00		\$0.00		\$0.00		\$0.00
Joseph Kelly												
Edu - Global Investors Annual Meeting - New York NY - 12/13/2021 - 12/14/2021 - Canceled	Z	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00		\$0.00		\$0.00
Attendee Totals:		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00		\$0.00		\$0.00
Keith Knox												
Edu - 2022 Milken Institute Global Conference - Los Angeles CA - 05/01/2022 - 05/04/2022 - Canceled	X	\$1,646.94	\$0.00	\$1,646.94	\$0.00	\$0.00	Yes	\$0.00		\$0.00		\$0.00
Attendee Totals:		\$1,646.94	\$0.00	\$1,646.94	\$0.00	\$0.00		\$0.00		\$0.00		\$0.00
Les Robbins												
Edu - AHIP Health Conference - Las Vegas NV - 06/21/2022 - 06/23/2022 - Canceled	X	\$919.28	\$400.00	\$519.28	\$0.00	\$0.00	Yes	\$0.00		\$97.96	12/31/2040	\$0.00
Attendee Totals:		\$919.28	\$400.00	\$519.28	\$0.00	\$0.00		\$0.00		\$97.96		\$0.00

Purpose of Travel - Location - Date - Travel Status	Category	Total Expense	Registration (Reg.)	Lodging	Airfare	Other Misc. Travel Exp.	Chair Pardon	Reg. Credit	Reg. Credit Expiration Date	Airfare Credit	Airfare Credit Expiration Date	Refund Pending
Gina Sanchez												
Edu - 2021 CII Fall Conference - Chicago IL - 09/22/2021 - 09/24/2021 - Host Canceled	X	\$282.80	\$0.00	\$0.00	\$282.80	\$0.00		\$0.00		\$0.00		\$0.00
Attendee Totals:		\$282.80	\$0.00	\$0.00	\$282.80	\$0.00		\$0.00		\$0.00		\$0.00
Herman Santos												
Edu - Global Investors Annual Meeting - New York NY - 12/13/2021 - 12/14/2021 - Canceled	X	\$4.99	\$4.99	\$0.00	\$0.00	\$0.00		\$0.00		\$0.00		\$0.00
Edu - NASP Southern California "Day of Education in Private Equity Conference" - Los Angeles CA - 03/23/2022 - 03/24/2022 - Cancelled	Z	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00		\$0.00		\$0.00
Attendee Totals:		\$4.99	\$4.99	\$0.00	\$0.00	\$0.00		\$0.00		\$0.00		\$0.00
Grand Totals:		\$3,760.12	\$900.01	\$2,190.18	\$669.93	\$0.00		\$0.00		\$714.76		\$0.00

Category Legend:

X - Canceled events for which expenses have been incurred.
Z - Trip was Canceled - Balance of \$0.00



Documents not attached are exempt from disclosure under the California Public Records Act and other legal authority.

**For further information, contact:
LACERA
Attention: Public Records Act Requests
300 N. Lake Ave., Suite 620
Pasadena, CA 91101**



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