

**TOWN OF LOS GATOS  
TOWN PENSION AND OPEB TRUSTS OVERSIGHT COMMITTEE AGENDA  
DECEMBER 05, 2023  
110 EAST MAIN STREET  
TOWN COUNCIL CHAMBERS AND VIA TELECONFERENCE  
LOS GATOS, CA  
6:15 PM**

*Maria Ristow, Mayor  
Mary Badame, Vice Mayor  
Matthew Hudes, Council Member  
Rob Moore, Council Member  
Rob Rennie, Council Member*

**PARTICIPATION IN THE PUBLIC PROCESS**

How to participate: The Town of Los Gatos strongly encourages your active participation in the public process, which is the cornerstone of democracy. If you wish to speak to an item on the agenda, please follow the participation instructions on page 2 of this agenda. If you wish to speak to an item NOT on the agenda, you may do so during the “Verbal Communications” period, by following the participation instructions on page 2 of this agenda. The time allocated to speakers may change to better facilitate the Town Council meeting.

Effective Proceedings: The purpose of the Town Council meeting is to conduct the business of the community in an effective and efficient manner. For the benefit of the community, the Town of Los Gatos asks that you follow the Town’s meeting guidelines while attending Town Council meetings and treat everyone with respect and dignity. This is done by following meeting guidelines set forth in State law and in the Town Code. Disruptive conduct is not tolerated, including but not limited to: addressing the Town Council without first being recognized; interrupting speakers, Town Council or Town staff; continuing to speak after the allotted time has expired; failing to relinquish the podium when directed to do so; and repetitiously addressing the same subject.

Deadlines for Public Comment and Presentations are as follows:

- Persons wishing to make an audio/visual presentation on any agenda item must submit the presentation electronically, either in person or via email, to the Clerk’s Office no later than 3:00 p.m. on the day of the Council meeting.
- Persons wishing to submit written comments to be included in the materials provided to Town Council must provide the comments as follows:
  - For inclusion in the regular packet: by 11:00 a.m. the Thursday before the Council meeting
  - For inclusion in any Addendum: by 11:00 a.m. the Monday before the Council meeting
  - For inclusion in any Desk Item: by 11:00 a.m. on the day of the Council Meeting

***Town Council Meetings Broadcast Live on KCAT, Channel 15 (on Comcast) on the 1st and 3rd Tuesdays at 7:00 p.m.  
Rebroadcast of Town Council Meetings on the 2<sup>nd</sup> and 4<sup>th</sup> Tuesdays at 7:00 p.m.  
Live & Archived Council Meetings can be viewed by going to:  
[www.LosGatosCA.gov/TownYouTube](http://www.LosGatosCA.gov/TownYouTube)***

***IN COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT, IF YOU NEED SPECIAL ASSISTANCE TO PARTICIPATE IN THIS MEETING, PLEASE CONTACT THE CLERK DEPARTMENT AT (408) 354-6834. NOTIFICATION 48 HOURS BEFORE THE MEETING WILL ENABLE THE TOWN TO MAKE REASONABLE ARRANGEMENTS TO ENSURE ACCESSIBILITY TO THIS MEETING [28 CFR §35.102-35.104]***

**TOWN OF LOS GATOS  
TOWN PENSION AND OPEB TRUSTS OVERSIGHT COMMITTEE AGENDA  
DECEMBER 05, 2023  
110 EAST MAIN STREET  
TOWN COUNCIL CHAMBERS AND VIA TELECONFERENCE  
6:15 PM**

**IMPORTANT NOTICE**

This is a hybrid meeting and will be held in-person at the Town Council Chambers at 110 E. Main Street and virtually through the Zoom webinar application (log-in information provided below). Members of the public may provide public comments for agenda items in-person or virtually through the Zoom webinar by following the instructions listed below. The live stream of the meeting may be viewed on television and/or online at [www.LosGatosCA.gov/TownYouTube](http://www.LosGatosCA.gov/TownYouTube).

**PARTICIPATION**

To provide oral comments in real-time during the meeting:

- Zoom webinar: Join from a PC, Mac, iPad, iPhone or Android device: Please click this URL to join: <https://losgatosca.gov.zoom.us/j/89923688035?pwd=4DLU741YpgTh7gy4T5zlWuYMcG1iYg.GEABKyAWpMZvgM4O>  
Passcode: 991466 You can also type in 899 2368 8035 in the “Join a Meeting” page on the Zoom website at <https://zoom.us/join>.  
When the Mayor announces the item for which you wish to speak, click the “raise hand” feature in Zoom. If you are participating by phone on the Zoom app, press \*9 on your telephone keypad to raise your hand.
- Join by telephone: Join by Telephone: Dial: USA 877 411 9748 US Toll-free or 636 651 3128 US Toll. Conference code: 363432  
If you are participating by calling in, press #2 on your telephone keypad to raise your hand.
- In-Person: If you wish to speak during the meeting, please complete a “speaker’s card” located on the back of the chamber benches and return it to the Town Clerk. If you wish to speak to an item on the agenda, please list the item number. The time allocated to speakers may change to better facilitate the Town Council meeting.  
When called to speak, you may be asked to provide your full name and your town/city of residence. This identifying information is optional and not a requirement for participation. Please limit your comments to three (3) minutes, or such other time as the Mayor may decide, consistent with the time limit for speakers at a Council meeting.  
If you are unable to participate in real-time, you may email to [Clerk@losgatosca.gov](mailto:Clerk@losgatosca.gov) the subject line “Public Comment Item #\_\_” (insert the item number relevant to your comment). Comments received by 11:00 a.m. the day of the meeting will be reviewed and distributed before the meeting.

## MEETING CALL TO ORDER

## ROLL CALL

**APPROVE REMOTE PARTICIPATION** *(This item is listed on the agenda in the event there is an emergency circumstance requiring a Council Member to participate remotely under AB 2449 (Government Code 54953)).*

**CONSENT ITEMS** *(Items appearing on the Consent Items are considered routine Town business and may be approved by one motion. Any member of the Committee may request to have an item removed from the Consent Items for comment and action. Members of the public may provide input on any or multiple Consent Item(s) when the Mayor asks for public comments on the Consent Items. If you wish to comment, please follow the Participation Instructions contained on Page 2 of this agenda. If an item is removed, the Mayor has the sole discretion to determine when the item will be heard.)*

1. Approve Minutes of September 19, 2023 Town Pension and OPEB Trusts Oversight Committee Meeting.

**VERBAL COMMUNICATIONS** *(Members of the public are welcome to address the Committee only on matters listed on the agenda. To ensure all agenda items are heard and unless additional time is authorized by the Mayor, this portion of the agenda is limited to 30 minutes and no more than three (3) minutes per speaker.)*

**OTHER BUSINESS** *(Up to three minutes may be allotted to each speaker on any of the following items.)*

2. Receive the California Employer's Pension Prefunding Trust (CEPPT) Strategy 2 Market Value Summary Report for the Period Ending September 30, 2023 and Performance as of October 31, 2023.
3. Receive the California Employer's Retiree Benefit Trust (CERBT) Strategy 1 Market Value Summary Report for the Period Ending September 30, 2023 and the Performance Report as of October 31, 2023.
4. Receive the CalPERS Public Employees' Retirement Fund (PERF) Performance Report as of September 30, 2023.
5. Receive a Report of the CalPERS 2023 Annual Review of Funding Levels and Risks.

## ADJOURNMENT

*Writings related to an item on the Town Council meeting agenda distributed to members of the Council within 72 hours of the meeting are available for public inspection at the front desk of the Los Gatos Town Library, located at 100 Villa Avenue, and are also available for review on the official Town of Los Gatos website. Copies of desk items distributed to members of the Council at the meeting are available for review in the Town Council Chambers.*

*Note: The Town of Los Gatos has adopted the provisions of Code of Civil Procedure §1094.6; litigation challenging a decision of the Town Council must be brought within 90 days after the decision is announced unless a shorter time is required by State or Federal law.*



**TOWN OF LOS GATOS  
PENSION AND OPEB TRUSTS  
OVERSIGHT COMMITTEE  
REPORT**

MEETING DATE: 12/05/2023

ITEM NO: 1

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**DRAFT  
Minutes of the Pension and OPEB Trusts Oversight Committee Meeting  
September 19, 2023**

The Pension and OPEB Trusts Oversight Committee of the Town of Los Gatos conducted a regular meeting in-person and utilizing teleconferencing means on September 19, 2023, at 6:15 p.m.

**MEETING CALLED TO ORDER AT 6:15 P.M.**

**ROLL CALL**

Present: Mayor Maria Ristow, Vice Mayor Mary Badame, Council Member Matthew Hudes, Council Member Rob Moore, and Council Member Rob Rennie.

Absent: None.

**CONSENT ITEMS (TO BE ACTED UPON BY A SINGLE MOTION)**

1. Approve Minutes of the June 20, 2023, Pension and OPEB Trusts Oversight Committee Meeting.

**MOTION:** Motion by Vice Mayor Badame to approve the Consent Item 1. **Seconded** by Council Member Moore.

**VOTE:** Motion passed unanimously.

**VERBAL COMMUNICATIONS**

None.

**OTHER BUSINESS**

2. Receive the California Employer's Pension Prefunding Trust (CEPPT) Strategy Market Value Summary Report for the Period Ending June 30, 2023 and Performance as of July 31, 2023.

Gitta Ungvari, Finance Director, presented the staff report.

Opened public comment.

No one spoke.

Closed public comment.

Council discussed the item.

PAGE 2 OF 2

SUBJECT: Draft Minutes of the Pension and OPEB Trusts Oversight Committee Meeting of  
September 19, 2023

DATE: September 19, 2023

Council received the report, no action was taken.

3. Receive the California Employer's Retiree Benefit Trust (CERBT) Strategy 1 Market Value Summary Report for the Period Ending June 30, 2023 and the Performance Report as of July 31, 2023.

Gitta Ungvari, Finance Director, presented the staff report.

Opened public comment.

No one spoke.

Closed public comment.

Council discussed the item.

Council received the report, no action was taken.

4. Receive the CalPERS Actuarial Valuation Reports as of June 30, 2022.

Gitta Ungvari, Finance Director, presented the staff report.

Opened public comment.

No one spoke.

Closed public comment.

Council discussed the item.

Council received the report, no action was taken.

## **ADJOURNMENT**

The meeting adjourned at 6:28 p.m.

Respectfully Submitted:

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Jenna De Long, Deputy Town Clerk



**TOWN OF LOS GATOS**  
**TOWN PENSION AND OPEB TRUSTS**  
**OVERSIGHT COMMITTEE REPORT**

MEETING DATE: 12/05/2023

ITEM NO: 2

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DATE: November 27, 2023  
TO: Town Pension and OPEB Trusts Oversight Committee  
FROM: Laurel Prevetti, Town Manager  
SUBJECT: Receive the California Employer's Pension Prefunding Trust (CEPPT) Strategy 2 Market Value Summary Report for the Period Ending September 30, 2023 and Performance as of October 31, 2023

**RECOMMENDATION:**

Receive the California Employer's Pension Prefunding Trust (CEPPT) Strategy 2 Market Value Summary Report for the period ending September 30, 2023 and performance as of October 31, 2023.

**BACKGROUND:**

On November 5, 2019, the Town Council authorized the Town Manager to enter into an agreement with CalPERS for participation in the California Employers' Pension Prefunding Trust (CEPPT) program.

The CEPPT Fund is a Section 115 trust fund dedicated to prefunding employer contributions to defined benefit pension systems for eligible California public agencies. On March 3, 2020, the Town Pension and OPEB Trusts Oversight Committee adopted CEPPT Strategy 2 as the asset allocation for the Town's Section 115 Trust pension assets.

**DISCUSSION:**

On April 14, 2021, the remaining CEPPT balance at the time of approximately \$700,000 was liquidated for inclusion in a \$2,050,942 additional discretionary payment. The CEPPT account continues to be maintained by the Town (at no cost) to accommodate annual account distributions associated with the Town's General Fund Reserve Policy.

**PREPARED BY:** Gitta Ungvari  
Finance Director

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Reviewed by: Town Manager, Assistant Town Manager, and Town Attorney

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DISCUSSION (continued):

Effective Fiscal Year (FY) 2015/16, Council determined that if sufficient General Fund year-end savings are available and targeted reserve levels for the Catastrophic Reserve and Budget Stabilization Reserve have been met, upon the final close of the fiscal year, a minimum of \$300,000 annually shall be deposited into the Pension/OPEB Reserve Fund. In addition, in 2018 the Council updated the General Fund Reserve Policy to provide for additional discretionary payments (ADPs) of \$390,000 per year to address the unfunded pension liability. Under the updated Policy, a 20-year amortization equivalence will be achieved.

The ending CEPPT 115 Trust account balance as of September 30, 2023, was \$1,351,903 (Attachment 1). As of October 31, 2023, the CEPPT Strategy 2 fund had a net return of negative 2.16% for the month and negative 5.54% for the Fiscal Year to Date (FYTD) (Attachment 2). Staff anticipates transferring an additional \$690,000 to the CEPPT Trust during FY 2023/24.

Per the March 2023 Pension/OPEB Oversight Committee action, the Town leaves the funds in the CEPPT Trust and continuously monitors and evaluates if an Additional Discretionary Payment should be made directly to CalPERS. This topic is tentatively scheduled for the January 2024 Finance Commission meeting with subsequent consideration by the Oversight Committee in early 2024.

The Finance Commission will receive this report at its December 11, 2023 regular meeting.

Attachments:

1. CEPPT Market Value Summary Report as of September 30, 2023
2. CEPPT Strategy 2 Performance October 31, 2023



**Market Value Summary:**

	QTD Current Period	Fiscal Year to Date
Beginning Balance	\$1,400,162.56	\$1,400,162.56
Contribution	0.00	0.00
Disbursement	0.00	0.00
Transfer In	0.00	0.00
Transfer Out	0.00	0.00
Investment Earnings	(47,456.90)	(47,456.90)
Administrative Expenses	(529.66)	(529.66)
Investment Expense	(273.34)	(273.34)
Other	0.00	0.00
Ending Balance	\$1,351,902.66	\$1,351,902.66
FY End Contribution Accrual	0.00	0.00
FY End Disbursement Accrual	0.00	0.00
Grand Total	\$1,351,902.66	\$1,351,902.66

**Unit Value Summary:**

	QTD Current Period	Fiscal Year to Date
Beginning Units	138,648.200	138,648.200
Unit Purchases from Contributions	0.000	0.000
Unit Sales for Withdrawals	0.000	0.000
Unit Transfer In	0.000	0.000
Unit Transfer Out	0.000	0.000
Ending Units	138,648.200	138,648.200
Period Beginning Unit Value	10.098671	10.098671
Period Ending Unit Value	9.750596	9.750596

Please note the Grand Total is your actual fund account balance at the end of the period, including accrued contribution and disbursements. Please review your statement promptly. All information contained in your statement will be considered true and accurate unless you contact us within 30 days of receipt of this statement. If you have questions about the validity of this information, please contact CEPPT4U@calpers.ca.gov.



Statement of Transaction Detail for the Quarter Ending 09/30/2023

Town of Los Gatos

Entity #: SKHE-4589482285-501P



Date	Description	Amount	Unit Value	Units	Check/Wire	Notes
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Client Contact:  
CEPPT4U@CalPERS.ca.gov

# CEPPT Strategy 2

October 31, 2023



## Objective

The CEPPT Strategy 2 portfolio seeks to provide capital appreciation and income consistent with its strategic asset allocation. There is no guarantee that the portfolio will achieve its investment objective.

## Strategy

The CEPPT Strategy 2 portfolio is invested in various asset classes that are passively managed to an index. CalPERS periodically adjusts the composition of the portfolio in order to match the target allocations. Generally, equities are intended to help build the value of the employer's portfolio over the long term while bonds are intended to help provide income and stability of principal. Also, strategies invested in a higher percentage of equities seek higher investment returns (but assume more risk) compared with strategies invested in a higher percentage of bonds.

Compared with CEPPT Strategy 1, this portfolio has a lower allocation to equities and a higher allocation to bonds. Historically, funds with a lower percentage of equities have displayed less price volatility and, therefore, this portfolio may experience comparatively less fluctuation of value. Employers that seek greater stability of value, in exchange for possible lower investment returns, may wish to consider this portfolio.

CalPERS Board may change the list of approved asset classes in composition as well as targeted allocation percentages and ranges at any time.

## Composition

### Asset Class Allocations and Benchmarks

The CEPPT Strategy 2 portfolio consists of the following asset classes and corresponding benchmarks:

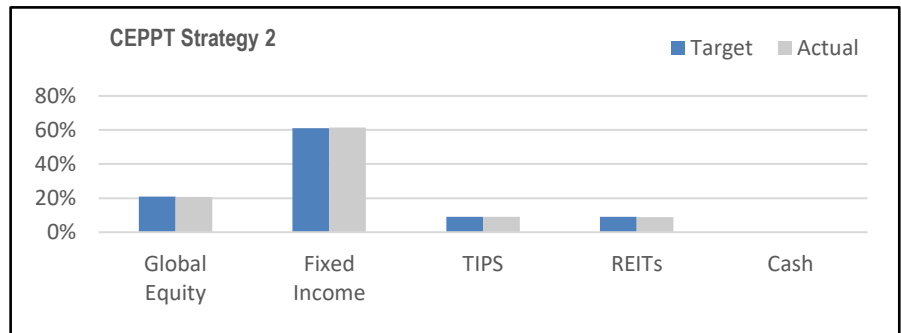
Asset Class	Target Allocation	Target Range	Benchmark
Global Equity	21%	± 5%	MSCI All Country World Index IMI (Net)
Fixed Income	61%	± 5%	Bloomberg US Aggregate Bond Index
Treasury Inflation-Protected Securities ("TIPS")	9%	± 3%	Bloomberg US TIPS Index, Series L
Real Estate Investment Trusts ("REITs")	9%	± 5%	FTSE EPRA/NAREIT Developed Index (Net)
Cash	-	+ 2%	91-Day Treasury Bill

### Portfolio Benchmark

The CEPPT Strategy 2 benchmark is a composite of underlying asset class market indices, each assigned the target weight for the asset class it represents.

### Target vs. Actual Asset Class Allocations

The following chart shows policy target allocations compared with actual asset allocations as of the specified reporting month-end. CalPERS may temporarily deviate from the target allocation for a particular asset class based on market, economic, or other considerations.



## Assets Under Management

As of the specified reporting month-end:

CEPPT Strategy 2	Annual Expense Ratio
\$44,233,100	0.25%

## CEPPT Strategy 2 Performance as of October 31, 2023

	1 Month	3 Months	Fiscal YTD	1 Year	3 Years*	5 Years*	10 Years*	Since Inception* (January 1, 2020)
Gross Return <sup>1,3</sup>	-2.14%	-6.51%	-5.46%	1.62%	-2.68%	-	-	-1.15%
Net Return <sup>2,3</sup>	-2.16%	-6.57%	-5.54%	1.38%	-2.90%	-	-	-1.37%
Benchmark Return	-2.16%	-6.57%	-5.53%	1.56%	-2.79%	-	-	-1.26%
Standard Deviation <sup>4</sup>	-	-	-	-	8.32%	-	-	8.05%

\* Returns for periods greater than one year are annualized.

<sup>1</sup> Gross returns are net of SSGA operating expenses.

<sup>2</sup> Net returns are net of SSGA operating expenses, investment management, administrative and recordkeeping fees.

<sup>3</sup> Expenses are described in more detail on page 2 of this document.

<sup>4</sup> Standard deviation is based on gross returns and is reported for periods greater than 3 years.

# CEPPT Strategy 2

October 31, 2023



## General Information

### Information Accessibility

The CEPPT Strategy 2 portfolio consists of assets managed internally by CalPERS and/or by external managers. Since it is not a mutual fund, a prospectus is not available and daily holdings are not published. CalPERS provides a quarterly statement of the employer's account and other information about the CEPPT. For total market value, detailed asset allocation, investment policy and performance information, please visit our website at [www.calpers.ca.gov](http://www.calpers.ca.gov).

### Portfolio Manager Information

The CalPERS Board, through its Investment Committee, directs the CEPPT investment strategy based on policies approved by the Board of Administration. State Street Global Advisors (SSGA) manages all underlying investments for CEPPT, which include: Global Equity, Fixed Income, Real Estate Investment Trusts, and Treasury Inflation-Protected Securities.

### Custodian and Record Keeper

State Street Bank serves as custodian for the CEPPT. Northeast Retirement Services serves as recordkeeper.

### Expenses

CEPPT is a self-funded trust in which participating employers pay for all administrative and investment expenses. Expenses reduce the gross investment return by the fee amount. The larger the expenses, the greater reduction of investment return. Currently, CEPPT expense ratios are 0.25%. This equates to \$2.50 per \$1,000 invested. The expenses consist of administrative expenses borne by CalPERS to administer and oversee the Trust assets, investment management and administrative fees paid to SSGA to manage all asset classes, and recordkeeping fees paid to Northeast Retirement Services to administer individual employer accounts. The expenses described herein are reflected in the net asset value per unit. The expense ratio is subject to change at any time and without prior notification due to factors such as changes to average fund assets or market conditions. CalPERS reviews the operating expenses annually and changes may be made as appropriate. Even if the portfolio loses money during a period, the expenses will still be charged.

## What Employers Own

Each employer invested in CEPPT Strategy 2 owns units of this portfolio, which invests in pooled asset classes managed by CalPERS and/or external advisors. Employers do not have direct ownership of the securities in the portfolio.

### Price

The value of the portfolio changes daily based upon the market value of the underlying securities. Just as prices of individual securities fluctuate, the portfolio's value also changes with market conditions.

## Principal Risks of the Portfolio

The CEPPT fund is a trust fund dedicated to prefunding employer contributions to defined benefit pension plans for eligible state and local agencies. CEPPT is not, however, a defined benefit plan. There is no guarantee that the portfolio will achieve its investment objectives or provide sufficient funding to meet employer obligations.

An investment in the portfolio is not a bank deposit, nor is it insured or guaranteed by the Federal Deposit Insurance Corporation (FDIC), CalPERS, the State of California or any other government agency.

There are risks associated with investing, including possible loss of principal. The portfolio's risk depends in part on the portfolio's asset class allocations and the selection, weighting and risks of the underlying investments. For more information about investment risks, please see the document entitled "CEPPT Principal Investment Risks" located at [www.calpers.ca.gov](http://www.calpers.ca.gov).

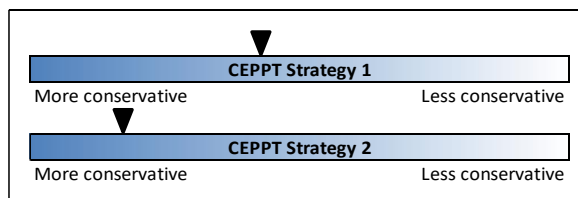
## Fund Performance

Performance data shown on page 1 represents past performance and is no guarantee of future results. The investment return and principal value of an investment will fluctuate so that an employer's units, when redeemed, may be worth more or less than their original cost. Current performance may be higher or lower than historical performance data shown. For current performance information, please visit [www.calpers.ca.gov](http://www.calpers.ca.gov) and follow the links to California Employers' Pension Prefunding Trust.

## CEPPT Strategy Risk Levels

CalPERS offers employers the choice of one of two investment strategies. Projected risk levels among risk strategies vary, depending upon the target asset class allocations. Generally, equities carry more risk than fixed income securities.

Asset Class Target Allocations	Strategy 1	Strategy 2
Global Equity	37%	21%
Fixed Income	44%	61%
Treasury-Inflation Protected Securities	5%	9%
Real Estate Investment Trusts	14%	9%





**TOWN OF LOS GATOS**  
**TOWN PENSION AND OPEB TRUSTS**  
**OVERSIGHT COMMITTEE REPORT**

MEETING DATE: 12/05/2023

ITEM NO: 3

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DATE: November 27, 2023  
TO: Town Pension and OPEB Trusts Oversight Committee  
FROM: Laurel Prevetti, Town Manager  
SUBJECT: Receive the California Employer's Retiree Benefit Trust (CERBT) Strategy 1 Market Value Summary Report for the Period Ending September 30, 2023 and the Performance Report as of October 31, 2023.

**RECOMMENDATION:**

Receive California Employer's Retiree Benefit Trust (CERBT) Strategy 1 Market Value Summary Report for the Period Ending September 30, 2023 and the Performance Report as of October 31, 2023.

**BACKGROUND:**

In 2009, the Council approved participating in the CERBT Fund. The CERBT Fund is an IRS Section 115 trust fund dedicated to the prefunding of other post-employment benefits ("OPEB"). The CERBT Strategy 1 is the single investment vehicle for the Town's OPEB Plan ("OPEB Plan").

**DISCUSSION:**

The ending OPEB 115 Trust account balance as of September 30, 2023, was \$23,366,797 compared to \$24,318,330 as of June 30, 2023 (Attachment 1). As of July 31, 2023, the CERBT Strategy 1 fund had a net return of negative 3.38% for the month and negative 7.16% as of October 31, 2023 (Attachment 2).

The Finance Commission will receive this report at its December 11, 2023 regular meeting.

**PREPARED BY:** Gitta Ungvari  
Finance Director

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Reviewed by: Town Manager, Assistant Town Manager, and Town Attorney

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PAGE 2 OF 2

SUBJECT: CERBT

DATE: November 27, 2023

Attachments:

1. OPEB 115 Trust Market Value Report as of September 30, 2023
2. CERBT Performance Report October 31, 2023



**Market Value Summary:**

	QTD Current Period	Fiscal Year to Date
Beginning Balance	\$24,318,329.86	\$24,318,329.86
Contribution	0.00	0.00
Disbursement	0.00	0.00
Transfer In	0.00	0.00
Transfer Out	0.00	0.00
Investment Earnings	(946,348.02)	(946,348.02)
Administrative Expenses	(2,995.20)	(2,995.20)
Investment Expense	(2,190.01)	(2,190.01)
Other	0.00	0.00
Ending Balance	\$23,366,796.63	\$23,366,796.63
FY End Contrib per GASB 74 Para 22	0.00	0.00
FY End Disbursement Accrual	0.00	0.00
Grand Total	\$23,366,796.63	\$23,366,796.63

**Unit Value Summary:**

	QTD Current Period	Fiscal Year to Date
Beginning Units	1,188,552.988	1,188,552.988
Unit Purchases from Contributions	0.000	0.000
Unit Sales for Withdrawals	0.000	0.000
Unit Transfer In	0.000	0.000
Unit Transfer Out	0.000	0.000
Ending Units	1,188,552.988	1,188,552.988
Period Beginning Unit Value	20.460451	20.460451
Period Ending Unit Value	19.659870	19.659870

Please note the Grand Total is your actual fund account balance at the end of the period, including all contributions per GASB 74 paragraph 22 and accrued disbursements. Please review your statement promptly. All information contained in your statement will be considered true and accurate unless you contact us within 30 days of receipt of this statement. If you have questions about the validity of this information, please contact CERBT4U@calpers.ca.gov.

Statement of Transaction Detail for the Quarter Ending 09/30/2023

Town of Los Gatos

Entity #: SKB0-4589482285



Date	Description	Amount	Unit Value	Units	Check/Wire	Notes
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# CERBT Strategy 1

October 31, 2023



## Objective

The CERBT Strategy 1 portfolio seeks to provide capital appreciation and income consistent with its strategic asset allocation. There is no guarantee that the portfolio will achieve its investment objective.

## Strategy

The CERBT Strategy 1 portfolio is invested in various asset classes. CalPERS periodically adjusts the composition of the portfolio in order to match the target allocations. Generally, equities are intended to help build the value of the employer's portfolio over the long term while bonds are intended to help provide income and stability of principal. Also, strategies invested in a higher percentage of equities seek higher investment returns (but assume more risk) compared with strategies invested in a higher percentage of bonds.

Compared with CERBT Strategy 2 and Strategy 3, this portfolio has a higher allocation to equities than bonds and other assets. Historically, equities have displayed greater price volatility and, therefore, this portfolio may experience greater fluctuation of value. Employers that seek higher investment returns, and are able to accept greater risk and tolerate more fluctuation in returns, may wish to consider this portfolio.

CalPERS Board may change the list of approved asset classes in composition as well as targeted allocation percentages and ranges at any time.

## Assets Under Management

As of the specified reporting month-end:

CERBT Strategy 1	Annual Operating Ratio
\$14,356,407,949	0.10%

## Composition

### Asset Class Allocations and Benchmarks

The CERBT Strategy 1 portfolio consists of the following asset classes and corresponding benchmarks:

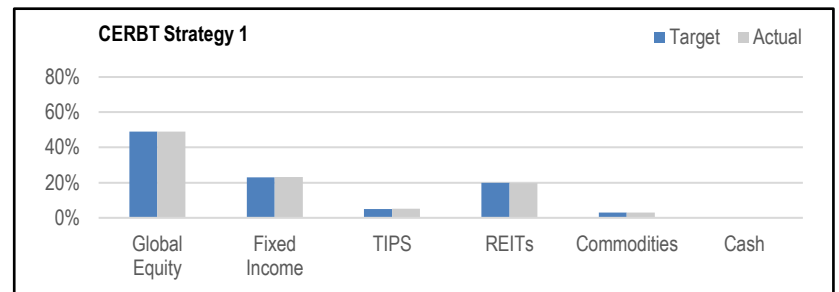
Asset Class	Target Allocation	Target Range	Benchmark
Global Equity	49%	± 5%	MSCI All Country World Index IMI (Net)
Fixed Income	23%	± 5%	Bloomberg Long Liability Index
Treasury Inflation-Protected Securities ("TIPS")	5%	± 3%	Bloomberg US TIPS Index, Series L
Real Estate Investment Trusts ("REITs")	20%	± 5%	FTSE EPRA/NAREIT Developed Index (Net)
Commodities	3%	± 3%	S&P GSCI Total Return Index
Cash	-	+ 2%	91-Day Treasury Bill

## Portfolio Benchmark

The CERBT Strategy 1 benchmark is a composite of underlying asset class market indices, each assigned the target weight for the asset class it represents.

## Target vs. Actual Asset Class Allocations

The following chart shows policy target allocations compared with actual asset allocations as of the specified reporting month-end. CalPERS may temporarily deviate from the target allocation to a particular asset class based on market, economic, or other considerations.



## CERBT Strategy 1 Performance as of October 31, 2023

	1 Month	3 Months	Fiscal YTD	1 Year	3 Years*	5 Years*	10 Years*	Since Inception* (June 1, 2007)
Gross Return <sup>1,3</sup>	-3.38%	-9.69%	-7.14%	3.18%	1.83%	4.50%	4.65%	4.38%
Net Return <sup>2,3</sup>	-3.38%	-9.71%	-7.16%	3.09%	1.75%	4.42%	4.55%	4.30%
Benchmark Returns	-3.38%	-9.74%	-7.19%	2.93%	1.63%	4.26%	4.30%	3.99%
Standard Deviation <sup>4</sup>	-	-	-	-	14.09%	13.79%	10.93%	12.98%

\* Returns for periods greater than one year are annualized.

<sup>1</sup> Gross returns are net of SSGA operating expenses.

<sup>2</sup> Net returns are net of SSGA operating expenses, investment management, administrative and recordkeeping fees.

<sup>3</sup> Expenses are described in more detail on page 2 of this document.

<sup>4</sup> Deviation is based on gross returns and is reported for periods greater than 3 years.



# CERBT Strategy 1

October 31, 2023



## General Information

### Information Accessibility

The CERBT Strategy 1 portfolio consists of assets managed internally by CalPERS and/or by external advisors. Since it is not a mutual fund, a prospectus is not available and daily holdings are not published. CalPERS provides a quarterly statement of the employer's account and other information about the CERBT. For total market value, detailed asset allocation, investment policy and current performance information, please visit our website at: [www.calpers.ca.gov](http://www.calpers.ca.gov).

### Portfolio Manager Information

The CalPERS Board, through its Investment Committee, directs the CERBT investment strategy based on policies approved by the Board of Administration. State Street Global Advisors (SSGA) manages all underlying investments for CERBT, which include: Global Equity, Fixed Income, Real Estate Investment Trusts, Treasury Inflation-Protected Securities, and Commodities.<sup>1</sup>

### Custodian and Record Keeper

State Street Bank serves as custodian for the CERBT. Northeast Retirement Services serves as recordkeeper.

### Expenses

CERBT is a self-funded trust in which participating employers pay for all administrative and investment expenses. Expenses reduce the gross investment return by the fee amount. The larger the expenses, the greater the reduction of investment return. Currently, CERBT expenses are 0.10% which consist of administrative expenses borne by CalPERS to administer and oversee the Trust assets, investment management and administrative fees paid to SSGA to manage all asset classes, and recordkeeping fees paid to Northeast Retirement Services to administer individual employer accounts. The expenses described herein are reflected in the net asset value per unit. The expense ratio is subject to change at any time and without prior notification due to factors such as changes to average fund assets or market conditions. CalPERS reviews the operating expenses annually and changes may be made as appropriate. Even if the portfolio loses money during a period, the expenses will still be charged.

## What Employers Own

Each employer invested in CERBT Strategy 1 owns units of this portfolio, which invests in pooled asset classes managed by CalPERS and/or external advisors. Employers do not have direct ownership of the securities in the portfolio.

### Price

The value of the portfolio changes daily based upon the market value of the underlying securities. Just as prices of individual securities fluctuate, the portfolio's value also changes with market conditions.

## Principal Risks of the Portfolio

The CalPERS CERBT Fund provides California government employers with a trust through which they may prefund retiree medical costs and other post-employment benefits (OPEB). CERBT is not, however, a defined benefit plan. There is no guarantee that the portfolio will achieve its investment objectives or provide sufficient funding to meet employer obligations. Further, CalPERS will not make up the difference between an employer's CERBT assets and the actual cost of OPEB provided to an employer's plan members.

An investment in the portfolio is not a bank deposit, nor is it insured or guaranteed by the Federal Deposit Insurance Corporation (FDIC), CalPERS, the State of California or any other government agency.

There are risks associated with investing, including possible loss of principal. The portfolio's risk depends in part on the portfolio's asset class allocations and the selection, weighting and risks of the underlying investments. For more information about investment risks, please see the document entitled "CERBT Principal Investment Risks" located at [www.calpers.ca.gov](http://www.calpers.ca.gov).

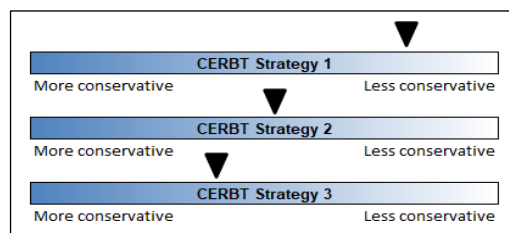
## Fund Performance

Performance data shown on page 1 represents past performance and is no guarantee of future results. The investment return and principal value of an investment will fluctuate so that an employer's units, when redeemed, may be worth more or less than their original cost. Current performance may be higher or lower than historical performance data shown. For current performance information, please visit [www.calpers.ca.gov](http://www.calpers.ca.gov) and follow the links to California Employers' Retiree Benefit Trust.

## CERBT Strategy Risk Levels

CalPERS offers employers the choice of one of three investment strategies. Projected risk levels among strategies vary, depending upon the target asset class allocations. Generally, equities carry more risk than fixed income securities.

Asset Class Target Allocations	Strategy 1	Strategy 2	Strategy 3
Global Equity	49%	34%	23%
Fixed Income	23%	41%	51%
Treasury Inflation-Protected Securities	5%	5%	9%
Real Estate Investment Trusts	20%	17%	14%
Commodities	3%	3%	3%



<sup>1</sup> Since June 2018, SSGA has passively managed all CERBT asset classes. Previously, Fixed Income, TIPS and Commodity asset classes were managed internally by CalPERS.



**TOWN OF LOS GATOS**  
**TOWN PENSION AND OPEB TRUSTS**  
**OVERSIGHT COMMITTEE REPORT**

MEETING DATE: 12/05/2023

ITEM NO: 4

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DATE: November 27, 2023  
TO: Town Pension and OPEB Trusts Oversight Committee  
FROM: Laurel Prevetti, Town Manager  
SUBJECT: Receive the CalPERS Public Employees' Retirement Fund (PERF) Performance Report as of September 30, 2023

**RECOMMENDATION:**

Receive the CalPERS Public Employees' Retirement Fund (PERF) Performance Report as of September 30, 2023.

**DISCUSSION:**

Attachment 1 contains the CalPERS PERF Performance Report as of September 30, 2023. As of September 30, 2023, the fund had a net return of negative 2.5%.

The Finance Commission will receive this report at its December 11, 2023 regular meeting.

**Attachment:**

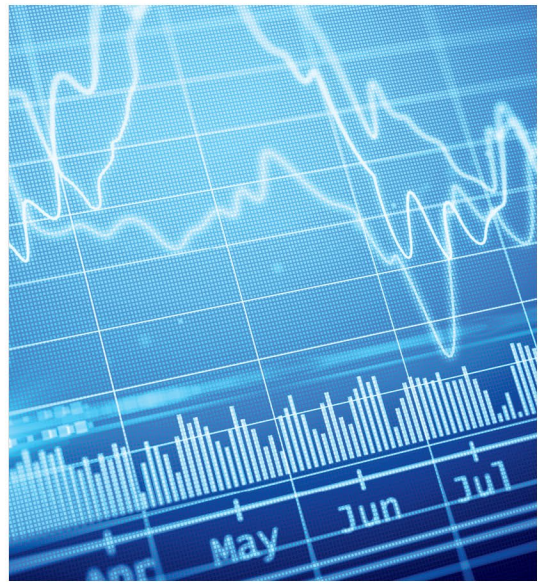
1. PERF Performance as of September 30, 2023

**PREPARED BY:** Gitta Ungvari  
Finance Director

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Reviewed by: Town Manager, Assistant Town Manager, and Town Attorney

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# Trust Level Review

As of September 30, 2023

# Contents

Section	Page
I. Highlights	3
II. Performance Tables	4
III. Markets and Economy	10
IV. PERF Allocation	11
V. PERF Risk Detail	12
Appendices	
Appendix 1: PERF Benchmarks	14
Appendix 2: Definitions	15

# Section I. Highlights

## Public Employees' Retirement Fund (PERF) Metrics

As of September 30, 2023

**\$452.3bn**

Assets Under  
Management

**6.3%**

10-Yr  
Total Return

**(2.5)%**

Fiscal Year-to-Date  
Total Return

**\$1.8bn**

5-Yr Cumulative  
Value Added

**\$(1.7)bn**

Fiscal Year to-Date  
Value Added

**13.5%**

Forecasted  
Volatility

**16 bps**

Forecasted  
Actionable  
Tracking Error

**31.8%**

Allocation to  
Private Assets

**2.3x**

Tier 1 Liquidity  
Coverage

**\$67.9bn**

Outstanding  
Committed Capital

## Quarter-End Highlights

### Capital Markets

- Global public equity markets retreated in Q3 2023 as investors assessed the likelihood of “higher for longer” interest rates, concerns about slowing global growth, and soaring oil prices
- Global Public Equity portfolio returned (3.13)% which outperformed the benchmark return of (3.27)%
- Global Fixed Income portfolio returned (4.6)% which was equal to the benchmark return

### Private Markets

- All applicable Private Market asset classes have positive returns for the 5-, 10-, and 20-Year periods
- The repricing of Real Estate continued to weigh on Real Asset absolute returns whilst relative returns outperformed benchmark
- Private Equity 1-Year relative returns are a function of differences in public and private valuation approaches with a strong recovery in public equities following an earlier drawdown

### Total Fund Risk

- Portfolio risk metrics remain within expected ranges
- Actionable tracking error (allocation and public market strategies) at 16 bps is within the 100 bps Policy limit
- Outstanding committed capital to private assets is provisioned for with excess liquidity in public assets
- The plan maintains adequate liquidity with 2.3x coverage in 30-day stress scenario

### Investment Process

- The recruitment process for the Chief Investment Officer position has started
- Team members initiated five 2023-24 Strategic Initiatives, focused on Pension Resiliency, Sustainable Investing, Stakeholder Engagement, Operational Excellence, and People and Culture

# Section II. Performance Tables

## PERF Returns As of September 30, 2023

PERF returned (2.5)% fiscal year-to-date and 8.7% for the trailing 1-Yr

- Equity 1-Yr returns were strong at 18.7% while Income returns were lower at 1.4%
- 1-Yr Private return were mixed, with Real Assets delivering negative absolute return (7.1%) but strong relative outperformance, whilst Private Debt and Private Equity delivered positive absolute but negative relative returns. Overall PERF returns over longer periods have fallen below the current 6.8% discount rate

	End Value (bn)	20-Yr	10-Yr	5-Yr	1-Yr	FYTD	1-Qtr
<b>Total PERF</b>	<b>\$ 452.3</b>	<b>6.7%</b>	<b>6.3%</b>	<b>5.1%</b>	<b>8.7%</b>	<b>(2.5)%</b>	<b>(2.5)%</b>
Benchmark		7.2%	6.3%	5.0%	9.7%	(2.2)%	(2.2)%
Excess		(42) bps	(4) bps	7 bps	(105) bps	(36) bps	(36) bps
Cumulative Value Added (bn)	\$	(15.1)	\$ (0.3)	\$ 1.8	\$ (4.5)	\$ (1.7)	\$ (1.7)
<b>Public Equity</b>	<b>\$ 198.1</b>	<b>7.8%</b>	<b>7.6%</b>	<b>6.0%</b>	<b>18.7%</b>	<b>(3.1)%</b>	<b>(3.1)%</b>
Benchmark		7.9%	7.6%	5.9%	18.6%	(3.3)%	(3.3)%
Excess		(13) bps	6 bps	11 bps	13 bps	14 bps	14 bps
Cumulative Value Added (bn)	\$	(0.5)	\$ 1.1	\$ 1.2	\$ 0.2	\$ 0.3	\$ 0.3
<b>Private Equity</b>	<b>\$ 63.5</b>	<b>12.2%</b>	<b>11.6%</b>	<b>11.3%</b>	<b>6.4%</b>	<b>2.2%</b>	<b>2.2%</b>
Benchmark		13.1%	11.9%	9.8%	18.5%	6.6%	6.6%
Excess		(89) bps	(36) bps	149 bps	(1,211) bps	(438) bps	(438) bps
Cumulative Value Added (bn)	\$	(8.9)	\$ (3.4)	\$ 0.1	\$ (7.2)	\$ (2.7)	\$ (2.7)
<b>Income</b>	<b>\$ 121.1</b>	<b>4.2%</b>	<b>1.9%</b>	<b>0.2%</b>	<b>1.4%</b>	<b>(4.6)%</b>	<b>(4.6)%</b>
Benchmark		3.6%	1.4%	(0.0)%	1.5%	(4.6)%	(4.6)%
Excess		60 bps	46 bps	20 bps	(6) bps	1 bps	1 bps
Cumulative Value Added (bn)	\$	5.5	\$ 3.0	\$ 1.1	\$ (0.0)	\$ 0.0	\$ 0.0
<b>Real Assets</b>	<b>\$ 69.3</b>	<b>5.5%</b>	<b>7.3%</b>	<b>5.5%</b>	<b>(7.3)%</b>	<b>(1.7)%</b>	<b>(1.7)%</b>
Benchmark		8.2%	7.4%	5.5%	(10.7)%	(2.8)%	(2.8)%
Excess		(268) bps	(6) bps	(4) bps	334 bps	103 bps	103 bps
Cumulative Value Added (bn)	\$	(13.0)	\$ (1.2)	\$ (1.0)	\$ 2.4	\$ 0.7	\$ 0.7
<b>Private Debt</b>	<b>\$ 10.9</b>	-	-	-	<b>10.7%</b>	<b>3.9%</b>	<b>3.9%</b>
Benchmark		-	-	-	13.1%	3.6%	3.6%
Excess		-	-	-	(249) bps	24 bps	24 bps
Cumulative Value Added (bn)		-	-	-	\$ (0.2)	\$ 0.0	\$ 0.0
<b>Net Financing</b>	<b>\$ (24.8)</b>	-	-	-	-	-	-
<b>Other Trust Level</b>	<b>\$ 14.2</b>	-	-	-	-	-	-

Exhibit 2.1

All performance reported net of investment expenses and annualized for periods greater than 1-Yr unless noted as cumulative.

# Section II. Performance Tables

## PERF Capital Market Returns As of September 30, 2023

All Capital Market segments except High Yield started the fiscal year with negative returns; all segments positive over 10-Yr period

- Rising rates continue to challenge Income segment returns

	End Value (bn)	20-Yr	10-Yr	5-Yr	1-Yr	FYTD	1-Qtr
<b>Cap Weighted</b>	<b>\$ 144.2</b>	<b>8.0%</b>	<b>8.0%</b>	<b>6.8%</b>	<b>21.2%</b>	<b>(3.1)%</b>	<b>(3.1)%</b>
Benchmark		8.1%	7.9%	6.7%	21.0%	(3.2)%	(3.2)%
Excess		(13) bps	7 bps	13 bps	18 bps	18 bps	18 bps
Cumulative Value Added (bn)		\$ (0.8)	\$ 0.9	\$ 0.9	\$ 0.2	\$ 0.3	\$ 0.3
<b>Factor Weighted</b>	<b>\$ 53.9</b>	-	-	<b>4.3%</b>	<b>11.9%</b>	<b>(3.3)%</b>	<b>(3.3)%</b>
Benchmark		-	-	4.3%	11.9%	(3.3)%	(3.3)%
Excess		-	-	2 bps	2 bps	3 bps	3 bps
Cumulative Value Added (bn)		-	-	\$ 0.1	\$ 0.0	\$ 0.0	\$ 0.0
<b>Treasury</b>	<b>\$ 22.3</b>	-	<b>0.3%</b>	<b>(2.3)%</b>	<b>(6.7)%</b>	<b>(9.3)%</b>	<b>(9.3)%</b>
Benchmark		-	0.3%	(2.2)%	(6.7)%	(9.3)%	(9.3)%
Excess		-	(0) bps	(8) bps	0 bps	0 bps	0 bps
Cumulative Value Added (bn)		-	\$ (0.2)	\$ (0.2)	\$ 0.0	\$ 0.0	\$ 0.0
<b>MBS</b>	<b>\$ 23.1</b>	<b>3.3%</b>	<b>1.5%</b>	<b>(0.5)%</b>	<b>0.1%</b>	<b>(3.9)%</b>	<b>(3.9)%</b>
Benchmark		2.7%	0.7%	(0.6)%	(0.0)%	(3.8)%	(3.8)%
Excess		61 bps	80 bps	15 bps	15 bps	(5) bps	(5) bps
Cumulative Value Added (bn)		\$ 1.1	\$ 0.9	\$ 0.2	\$ 0.0	\$ (0.0)	\$ (0.0)
<b>IG Corporates</b>	<b>\$ 29.7</b>	<b>5.0%</b>	<b>3.0%</b>	<b>0.4%</b>	<b>2.2%</b>	<b>(6.0)%</b>	<b>(6.0)%</b>
Benchmark		4.4%	2.5%	0.2%	2.8%	(6.0)%	(6.0)%
Excess		56 bps	43 bps	28 bps	(68) bps	(4) bps	(4) bps
Cumulative Value Added (bn)		\$ 0.3	\$ 0.3	\$ 0.3	\$ (0.2)	\$ (0.0)	\$ (0.0)
<b>High Yield</b>	<b>\$ 21.2</b>	-	-	<b>2.7%</b>	<b>9.8%</b>	<b>0.1%</b>	<b>0.1%</b>
Benchmark		-	-	2.6%	9.6%	0.1%	0.1%
Excess		-	-	9 bps	19 bps	0 bps	0 bps
Cumulative Value Added (bn)		-	-	\$ 0.1	\$ 0.0	\$ 0.0	\$ 0.0
<b>EM Sovereign Bonds</b>	<b>\$ 23.3</b>	-	-	-	-	<b>(2.8)%</b>	<b>(2.8)%</b>
Benchmark		-	-	-	-	(2.9)%	(2.9)%
Excess		-	-	-	-	8 bps	8 bps
Cumulative Value Added (bn)		-	-	-	-	\$ 0.0	\$ 0.0

Exhibit 2.2

All performance reported net of investment expenses and annualized for periods greater than 1-Yr unless noted as cumulative.

# Section I. Performance Tables

## PERF Private Market Returns As of September 30, 2023

All applicable Private Market asset classes have positive returns for the 5-, 10-, and 20-Year periods

- Private Equity excess performance can fluctuate rapidly over short periods with mark to market changes in its public benchmark
- Real Asset delivered strong relative performance mainly but not exclusively attributed to the outperformance of Infrastructure over Real Estate

	End Value (bn)	20-Yr	10-Yr	5-Yr	1-Yr	FYTD	1-Qtr
<b>Private Equity</b>	<b>\$ 63.5</b>	<b>12.2%</b>	<b>11.6%</b>	<b>11.3%</b>	<b>6.4%</b>	<b>2.2%</b>	<b>2.2%</b>
Benchmark		13.1%	11.9%	9.8%	18.5%	6.6%	6.6%
Excess		(89) bps	(36) bps	149 bps	(1,211) bps	(438) bps	(438) bps
Cumulative Value Added (bn)		\$ (8.9)	\$ (3.4)	\$ 0.1	\$ (7.2)	\$ (2.7)	\$ (2.7)
<b>Private Debt</b>	<b>\$ 10.9</b>	-	-	-	<b>10.7%</b>	<b>3.9%</b>	<b>3.9%</b>
Benchmark		-	-	-	13.1%	3.6%	3.6%
Excess		-	-	-	(249) bps	24 bps	24 bps
Cumulative Value Added (bn)		-	-	-	\$ (0.2)	\$ 0.0	\$ 0.0
<b>Infrastructure</b>	<b>\$ 15.3</b>	-	<b>11.2%</b>	<b>7.9%</b>	<b>5.4%</b>	<b>2.7%</b>	<b>2.7%</b>
Benchmark		-	5.5%	5.5%	(10.7)%	(2.8)%	(2.8)%
Excess		-	565 bps	240 bps	1,608 bps	549 bps	549 bps
Cumulative Value Added (bn)		-	\$ 2.4	\$ 1.3	\$ 2.3	\$ 0.8	\$ 0.8
<b>Real Estate</b>	<b>\$ 53.7</b>	<b>5.2%</b>	<b>7.3%</b>	<b>5.0%</b>	<b>(10.5)%</b>	<b>(2.9)%</b>	<b>(2.9)%</b>
Benchmark		8.6%	7.7%	5.5%	(10.7)%	(2.8)%	(2.8)%
Excess		(348) bps	(40) bps	(47) bps	21 bps	(16) bps	(16) bps
Cumulative Value Added (bn)		\$ (14.6)	\$ (2.6)	\$ (2.1)	\$ (0.0)	\$ (0.1)	\$ (0.1)
<b>Forestland</b>	<b>\$ 0.3</b>	-	<b>0.0%</b>	<b>3.5%</b>	<b>10.6%</b>	<b>(1.2)%</b>	<b>(1.2)%</b>
Benchmark		-	5.9%	5.5%	(10.7)%	(2.8)%	(2.8)%
Excess		-	(589) bps	(204) bps	2,127 bps	152 bps	152 bps
Cumulative Value Added (bn)		-	\$ (1.1)	\$ (0.2)	\$ 0.1	\$ 0.0	\$ 0.0

Exhibit 2.3

All performance reported net of investment expenses and annualized for periods greater than 1-Yr unless noted as cumulative.



# Section I. Performance Tables

## Affiliate Investment Program Returns As of September 30, 2023

Affiliate returns were in line with respective asset allocations

- Affiliate funds are passively managed strategies, except for Long-Term Care Fund, with realized returns and volatility in line with the assigned asset allocation and benchmarks
- Positive excess returns are largely due to structural tax advantages of public equity and real estate investment trusts (REITs) funds vs their respective benchmarks

Defined Benefit, Health, and OPEB Plans	End Value (mm)	20-Yr	10-Yr	5-Yr	1-Yr	FYTD	1-Qtr
<b>Judges' Retirement Fund</b>	<b>\$ 49.1</b>	<b>1.5%</b>	<b>1.3%</b>	<b>1.9%</b>	<b>4.9%</b>	<b>1.4%</b>	<b>1.4%</b>
Benchmark		1.4%	1.1%	1.7%	4.5%	1.3%	1.3%
Excess		14 bps	14 bps	15 bps	46 bps	7 bps	7 bps
<b>Judges' Retirement System Fund II</b>	<b>\$ 2,235.3</b>	<b>6.2%</b>	<b>5.2%</b>	<b>4.0%</b>	<b>10.8%</b>	<b>(3.8)%</b>	<b>(3.8)%</b>
Benchmark		6.1%	5.0%	3.7%	10.5%	(3.9)%	(3.9)%
Excess		13 bps	26 bps	28 bps	34 bps	5 bps	5 bps
<b>Legislators' Retirement System Fund</b>	<b>\$ 89.6</b>	<b>5.0%</b>	<b>3.4%</b>	<b>2.1%</b>	<b>3.7%</b>	<b>(4.3)%</b>	<b>(4.3)%</b>
Benchmark		4.9%	3.2%	2.0%	3.7%	(4.3)%	(4.3)%
Excess		13 bps	21 bps	12 bps	3 bps	(2) bps	(2) bps
<b>Health Care Fund</b>	<b>\$ 198.5</b>	<b>2.9%</b>	<b>1.2%</b>	<b>0.1%</b>	<b>0.6%</b>	<b>(3.2)%</b>	<b>(3.2)%</b>
Benchmark		2.8%	1.1%	0.1%	0.6%	(3.2)%	(3.2)%
Excess		10 bps	11 bps	(1) bps	(3) bps	1 bps	1 bps
<b>Long-Term Care Fund</b>	<b>\$ 3,907.5</b>	<b>4.6%</b>	<b>2.7%</b>	<b>1.7%</b>	<b>3.2%</b>	<b>(4.0)%</b>	<b>(4.0)%</b>
Benchmark		4.4%	2.6%	1.7%	3.4%	(3.7)%	(3.7)%
Excess		13 bps	9 bps	(1) bps	(20) bps	(25) bps	(25) bps
<b>CERBT Strategy 1 Fund</b>	<b>\$14,813.8</b>	-	<b>5.3%</b>	<b>4.0%</b>	<b>10.3%</b>	<b>(3.9)%</b>	<b>(3.9)%</b>
Benchmark		-	5.0%	3.8%	10.1%	(3.9)%	(3.9)%
Excess		-	32 bps	21 bps	23 bps	4 bps	4 bps
<b>CERBT Strategy 2 Fund</b>	<b>\$ 1,765.2</b>	-	<b>4.2%</b>	<b>2.9%</b>	<b>6.9%</b>	<b>(4.4)%</b>	<b>(4.4)%</b>
Benchmark		-	3.9%	2.8%	6.7%	(4.4)%	(4.4)%
Excess		-	26 bps	13 bps	12 bps	(0) bps	(0) bps
<b>CERBT Strategy 3 Fund</b>	<b>\$ 752.7</b>	-	<b>3.3%</b>	<b>2.2%</b>	<b>4.5%</b>	<b>(4.6)%</b>	<b>(4.6)%</b>
Benchmark		-	3.1%	2.1%	4.4%	(4.6)%	(4.6)%
Excess		-	25 bps	9 bps	5 bps	(1) bps	(1) bps
<b>CEPPT Strategy 1 Fund</b>	<b>\$ 129.5</b>	-	-	-	<b>8.0%</b>	<b>(3.6)%</b>	<b>(3.6)%</b>
Benchmark		-	-	-	7.8%	(3.6)%	(3.6)%
Excess		-	-	-	18 bps	4 bps	4 bps
<b>CEPPT Strategy 2 Fund</b>	<b>\$ 45.5</b>	-	-	-	<b>4.7%</b>	<b>(3.4)%</b>	<b>(3.4)%</b>
Benchmark		-	-	-	4.7%	(3.4)%	(3.4)%
Excess		-	-	-	(4) bps	4 bps	4 bps

E

# Section I. Performance Tables

## Affiliate Investment Program Returns (cont.) As of September 30, 2023

Target Date Fund returns were in line with respective asset allocations

- Target Date Funds closely tracked their respective benchmarks
- Positive excess returns are largely due to structural tax advantages of public equity and real asset investments vs their respective benchmarks

Supplemental Income Plans (457/SCP Plan)	End Value (mm)	20-Yr	10-Yr	5-Yr	1-Yr	FYTD	1-Qtr
<b>Target Income Fund</b>	<b>\$ 175.7</b>	-	<b>3.0%</b>	<b>3.0%</b>	<b>7.4%</b>	<b>(2.8)%</b>	<b>(2.8)%</b>
Benchmark		-	2.9%	2.8%	7.3%	(2.7)%	(2.7)%
Excess		-	13 bps	14 bps	16 bps	(2) bps	(2) bps
<b>Target 2020 Fund</b>	<b>\$ 154.4</b>	-	<b>3.7%</b>	<b>3.8%</b>	<b>9.4%</b>	<b>(2.8)%</b>	<b>(2.8)%</b>
Benchmark		-	3.6%	3.6%	9.2%	(2.8)%	(2.8)%
Excess		-	13 bps	17 bps	19 bps	(3) bps	(3) bps
<b>Target 2025 Fund</b>	<b>\$ 210.6</b>	-	<b>4.5%</b>	<b>4.4%</b>	<b>11.9%</b>	<b>(3.0)%</b>	<b>(3.0)%</b>
Benchmark		-	4.4%	4.3%	11.6%	(2.9)%	(2.9)%
Excess		-	15 bps	18 bps	23 bps	(4) bps	(4) bps
<b>Target 2030 Fund</b>	<b>\$ 217.4</b>	-	<b>5.1%</b>	<b>5.0%</b>	<b>14.1%</b>	<b>(3.0)%</b>	<b>(3.0)%</b>
Benchmark		-	5.0%	4.9%	13.8%	(3.0)%	(3.0)%
Excess		-	11 bps	13 bps	28 bps	(5) bps	(5) bps
<b>Target 2035 Fund</b>	<b>\$ 150.1</b>	-	<b>5.8%</b>	<b>5.6%</b>	<b>16.9%</b>	<b>(3.2)%</b>	<b>(3.2)%</b>
Benchmark		-	5.7%	5.5%	16.5%	(3.1)%	(3.1)%
Excess		-	12 bps	15 bps	33 bps	(6) bps	(6) bps
<b>Target 2040 Fund</b>	<b>\$ 140.3</b>	-	<b>6.5%</b>	<b>6.2%</b>	<b>19.3%</b>	<b>(3.3)%</b>	<b>(3.3)%</b>
Benchmark		-	6.4%	6.0%	18.9%	(3.2)%	(3.2)%
Excess		-	13 bps	15 bps	37 bps	(7) bps	(7) bps
<b>Target 2045 Fund</b>	<b>\$ 83.9</b>	-	<b>6.8%</b>	<b>6.3%</b>	<b>19.7%</b>	<b>(3.3)%</b>	<b>(3.3)%</b>
Benchmark		-	6.7%	6.1%	19.3%	(3.2)%	(3.2)%
Excess		-	13 bps	15 bps	38 bps	(7) bps	(7) bps
<b>Target 2050 Fund</b>	<b>\$ 52.8</b>	-	<b>6.8%</b>	<b>6.3%</b>	<b>19.7%</b>	<b>(3.3)%</b>	<b>(3.3)%</b>
Benchmark		-	6.7%	6.1%	19.3%	(3.2)%	(3.2)%
Excess		-	13 bps	15 bps	38 bps	(7) bps	(7) bps
<b>Target 2055 Fund</b>	<b>\$ 20.4</b>	-	<b>6.7%</b>	<b>6.3%</b>	<b>19.7%</b>	<b>(3.3)%</b>	<b>(3.3)%</b>
Benchmark		-	6.6%	6.1%	19.3%	(3.2)%	(3.2)%
Excess		-	7 bps	15 bps	39 bps	(7) bps	(7) bps
<b>Target 2060 Fund</b>	<b>\$ 9.8</b>	-	-	-	<b>19.7%</b>	<b>(3.3)%</b>	<b>(3.3)%</b>
Benchmark		-	-	-	19.3%	(3.2)%	(3.2)%
Excess		-	-	-	38 bps	(7) bps	(7) bps
<b>Target 2065 Fund<sup>1</sup></b>	<b>\$ 1.8</b>	-	-	-	-	-	<b>(3.3)%</b>
Benchmark		-	-	-	-	-	(3.2)%
Excess		-	-	-	-	-	(7) bps

Exhibit 2.5

A Page 26 net of investment expenses and annualized for periods greater than 1-Yr.

## Section II. Performance Tables

### Affiliate Investment Program Returns (cont.) As of September 30, 2023

#### Core Fund returns were in line with benchmarks

- Core Funds closely track their respective benchmarks
- Positive excess returns are largely due to structural tax advantages of the Global All Cap ex-US public equity and Real Assets funds vs their respective benchmarks

Supplemental Income Plans (457/SCP Plan) (cont.)	End Value (mm)	20-Yr	10-Yr	5-Yr	1-Yr	FYTD	1-Qtr
<b>SSgA STIF</b>	<b>\$ 120.4</b>	-	<b>1.3%</b>	<b>1.9%</b>	<b>4.9%</b>	<b>1.4%</b>	<b>1.4%</b>
Benchmark		-	1.1%	1.7%	4.5%	1.3%	1.3%
Excess		-	17 bps	17 bps	48 bps	7 bps	7 bps
<b>SIP US Short Term Bond Core</b>	<b>\$ 37.3</b>	-	-	<b>1.2%</b>	<b>2.8%</b>	<b>0.7%</b>	<b>0.7%</b>
Benchmark		-	-	1.2%	2.8%	0.7%	0.7%
Excess		-	-	(4) bps	3 bps	(1) bps	(1) bps
<b>SIP US Bond Core</b>	<b>\$ 51.0</b>	-	-	<b>0.1%</b>	<b>0.6%</b>	<b>(3.2)%</b>	<b>(3.2)%</b>
Benchmark		-	-	0.1%	0.6%	(3.2)%	(3.2)%
Excess		-	-	2 bps	(3) bps	(0) bps	(0) bps
<b>SIP Real Asset Core</b>	<b>\$ 18.2</b>	-	-	<b>5.8%</b>	<b>4.4%</b>	<b>(0.7)%</b>	<b>(0.7)%</b>
Benchmark		-	-	5.7%	4.3%	(0.6)%	(0.6)%
Excess		-	-	7 bps	7 bps	(3) bps	(3) bps
<b>SIP Russell All Cap Core</b>	<b>\$ 651.5</b>	-	-	<b>9.2%</b>	<b>20.5%</b>	<b>(3.2)%</b>	<b>(3.2)%</b>
Benchmark		-	-	9.1%	20.5%	(3.3)%	(3.3)%
Excess		-	-	4 bps	6 bps	3 bps	3 bps
<b>SIP Global All Cap EX-US</b>	<b>\$ 68.8</b>	-	-	<b>2.8%</b>	<b>21.1%</b>	<b>(3.7)%</b>	<b>(3.7)%</b>
Benchmark		-	-	2.6%	20.2%	(3.5)%	(3.5)%
Excess		-	-	26 bps	91 bps	(22) bps	(22) bps

Exhibit 2.6

All performance reported net of investment expenses and annualized for periods greater than 1-Yr.

# Section III. Markets and Economy

## Macroeconomic Drivers and Outlook

Global growth expectations revised higher; soft-landing largely expected

### Higher longer-term interest rates a driver of asset returns

- Over the past quarter, the United States and global economies experienced uneven disinflation amidst mixed economic activity. The global economic expansion continued, led by the US, which exhibited resilience
- Most notable for asset returns has been increased expectations for a soft-landing for the US economy and a delay in expectations for a deterioration in real GDP growth
- Central banks continued to express a firm commitment to tight monetary conditions to ensure inflation tracks back to target. Throughout the quarter, the forward path of interest rates, as priced in financial markets, slowly eroded the size of rate cuts priced in. Correspondingly, a falling probability of an imminent recession resulted in a re-pricing of future expected interest rates higher across all maturities, in particular at longer durations
- Higher interest rates on longer-dated US Treasuries has also been associated with a number of other factors; such as larger US Treasury Department issuance than expected, a ratings downgrade, position adjustments by investors, technical changes to the Bank of Japan's monetary policy impacting global yields, and upward revisions to US national accounts data boosting expectations for the pace of economic growth into the end of 2023
- Higher interest rates were a contributing factor behind weaker equity and income returns over the quarter, while the re-pricing of real estate continued to weigh on returns in this sector. Private debt, which benefits from higher interest rates, performed well over the quarter
- Looking ahead, official institutions continue to expect global economic activity to soften and note the balance of risks remain to the downside. Geopolitical risks remain prominent. The IMF projects the global economy will grow 3.0% in 2023 (compared to 2.9% in April), and 2.9% in 2024

### US Treasury 10-year note

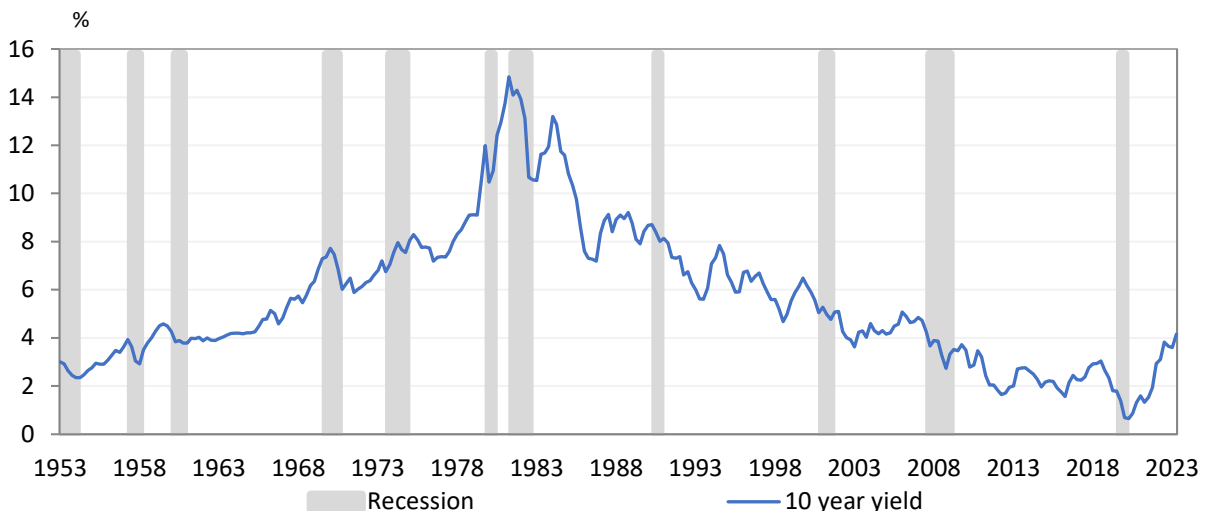


Exhibit 3.1

Source: S&P Analytics. Treasury note is constant maturity yield.

# Section IV. PERF Allocation

## Strategic Asset Allocation As of September 30, 2023

Allocation remains within policy bands

### Interim Targets and Policy Bands

- The Board's General Pension Consultant, in consultation with the Investment Committee and staff, establishes Interim Allocation Targets to reflect reasonable expected pacing to implement the long-term SAA
- Allocation remains in line with policy bands and on pace to longer-term allocation targets

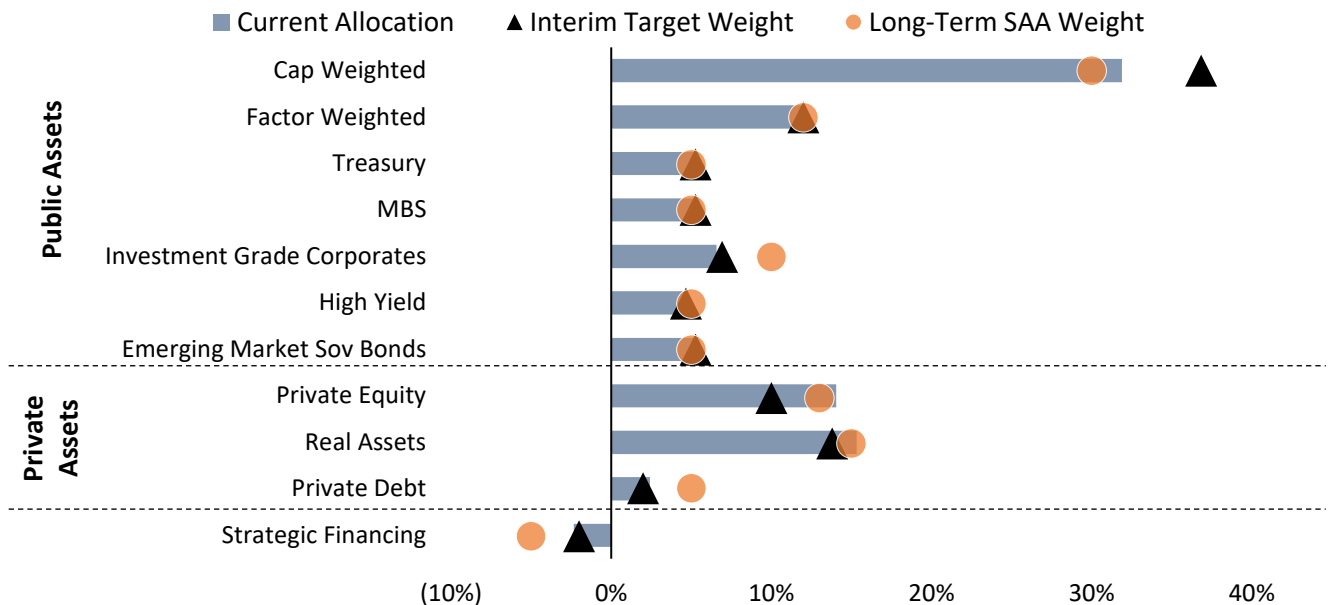
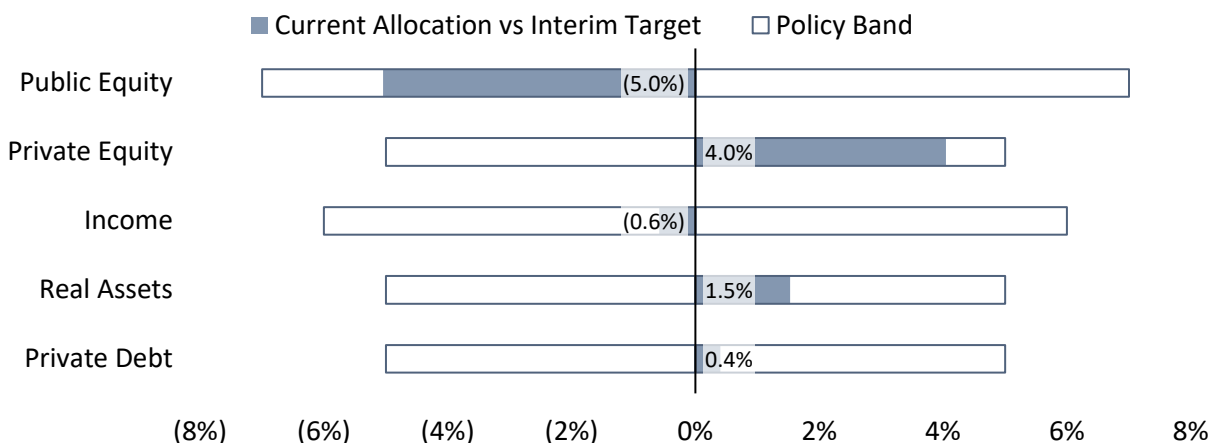


Exhibit 4.1



# Section V. PERF Risk Detail

## Volatility

Total portfolio volatility has been in line with expectations

### Current Levels

- Total Fund Forecasted Volatility for PERF has been relatively stable for the last 12 months . Its fluctuations were driven by trading to implement the new Strategic Asset Allocation adopted in November 2021. The difference between Total Fund and Policy Benchmark volatility is primarily driven by the private equity portfolio versus its public market benchmark
- Actionable Tracking Error is well below the Policy Limit of 100 bps and indicative of opportunities to increase active management. This metric captures deviations from benchmarks for all public market programs, out of benchmark opportunistic investments, and asset allocation. There is no equivalent quantitative metric for private programs due to inherent limitations in modeling, measurement, and benchmarking

	Policy Limit	Current 9/30/2023	Last Qtr 6/30/2023	Last Year 9/30/2022
<b>Total Fund Volatility (%)</b>	-	13.5	13.7	13.7
<b>Policy Benchmark Volatility (%)</b>	-	12.3	12.5	12.5
<b>Tracking Error (%)</b>				
<b>Actionable</b>	< 1.00	0.16	0.14	0.11
<b>Total Fund</b>	-	1.81	1.84	1.62
<b>Allocation</b>	-	0.04	0.01	0.00

Exhibit 5.1

# Section V. PERF Risk Detail

## Risk Decomposition As of September 30, 2023

Growth oriented asset classes dominate overall risk

### % Contribution to Total Portfolio Volatility

- Public and Private Equities contribute approximately 81% of Total Fund Volatility. The remaining asset classes are also either growth-oriented (e.g., Real Assets) or contain growth-oriented components (e.g., High Yield in fixed income)

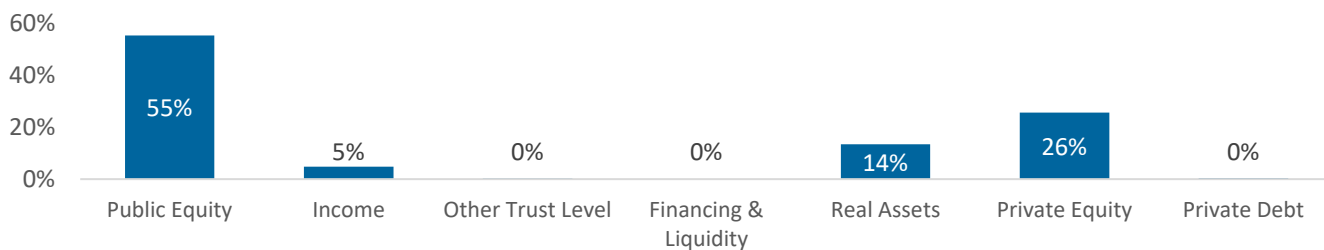


Exhibit 5.2

Asset Class	Market Value (\$ Millions)	Total Forecasted Volatility (%)	% Contribution to Total Volatility	5-Year Realized Volatility (%)
<b>Public Asset Classes</b>				
<b>Public Equity</b>	<b>\$ 197,875</b>	<b>17.4</b>	<b>55.4</b>	<b>17.3</b>
Cap Weighted	\$ 144,050	18.8	43.4	18.4
Factor Weighted	\$ 53,825	14.0	12.0	13.7
<b>Income</b>	<b>\$ 120,692</b>	<b>6.5</b>	<b>4.8</b>	<b>9.5</b>
IG Corp	\$ 29,685	9.6	1.4	12.0
EM Sov Debt	\$ 23,304	7.6	1.9	-
MBS	\$ 23,262	6.2	0.2	5.3
Treasury	\$ 23,261	10.7	-0.3	11.9
High Yield	\$ 21,180	6.4	1.6	9.3
<b>Other Trust Level</b>	<b>\$ 15,619</b>	<b>2.7</b>	<b>0.3</b>	<b>-</b>
LLER	\$ 12,516	2.8	0.3	3.1
Opportunistic	\$ 243	3.2	0.0	-
Total Fund Income	\$ 1,508	2.2	0.0	-
Other	\$ 1,353	4.1	0.0	-
<b>Financing &amp; Liquidity</b>	<b>\$ (26,334)</b>	<b>-</b>	<b>0.0</b>	<b>-</b>
Liquidity	\$ 8,069	0.0	0.0	0.0
Trust Level Financing	\$ (34,402)	-	0.0	-
<b>Private Asset Classes</b>				
<b>Real Assets</b>	<b>\$ 69,426</b>	<b>13.0</b>	<b>13.5</b>	<b>5.6</b>
<b>Private Equity</b>	<b>\$ 63,448</b>	<b>25.7</b>	<b>25.6</b>	<b>10.7</b>
<b>Private Debt</b>	<b>\$ 10,867</b>	<b>4.8</b>	<b>0.4</b>	<b>-</b>
<b>TOTAL PERF</b>	<b>\$ 451,594</b>	<b>13.5</b>	<b>100.0</b>	<b>9.6</b>

# Section V. PERF Risk Detail

## Risk Decomposition (cont.) As of September 30, 2023

LLER is the largest contributor to actionable tracking error

### % Contribution to Actionable Tracking Error

- Total Fund Actionable Tracking Error (TE) is modest at 16 bps vs. a policy limit of 100 bps
- The primary contributors to Actionable TE are the Low Liquidity Enhanced Return (LLER) program and external public equity managers

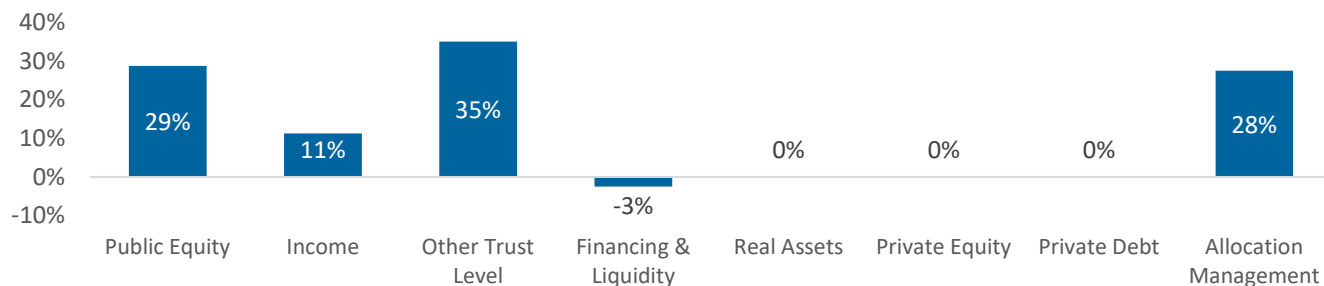


Exhibit 5.4

Asset Class	Tracking Error (bps)	% Contribution to Actionable TE	5-Year Realized TE (bps)
<b>Public Equity</b>	<b>24</b>	<b>29</b>	<b>20</b>
Cap Weighted	33	29	26
Factor Weighted	5	0	10
<b>Income</b>	<b>20</b>	<b>11</b>	<b>28</b>
IG Corp	42	4	44
EM Sov Debt	50	8	-
MBS	25	1	31
Treasury	24	1	86
High Yield	35	-3	30
<b>Other Trust Level</b>	<b>266</b>	<b>35</b>	<b>-</b>
LLER	284	33	300
Opportunistic	322	1	-
Total Fund Income	221	2	-
Other	410	-1	-
<b>Financing &amp; Liquidity</b>	<b>-</b>	<b>-3</b>	<b>-</b>
Liquidity	16	0	-
Trust Level Financing	-	-3	-
<b>Allocation Management</b>	<b>-</b>	<b>28</b>	<b>-</b>
<b>TOTAL PERF Actionable</b>	<b>16</b>	<b>100</b>	<b>20</b>
<b>Real Assets</b>	<b>458</b>		<b>271</b>
<b>Private Equity</b>	<b>963</b>		<b>1,400</b>
<b>Private Debt</b>	<b>162</b>		<b>-</b>
<b>TOTAL PERF</b>	<b>181</b>		<b>164</b>



# Appendix 1: PERF Benchmarks

## Asset Class

## Policy Benchmark

Public Equity – Cap Weighted	CalPERS Custom FTSE All World, All Cap Equity Benchmark
Public Equity – Factor Weighted	CalPERS Custom FTSE Factor Weighted Index
Private Equity	CalPERS Custom FTSE Global Benchmark +150 bps, Quarter Lag
Income - Treasury	Custom Bloomberg Government
Income - MBS	Custom Bloomberg Mortgage
Income - IG Corporates	Custom Bloomberg Corporate ex Sov
Income - High Yield	Custom Bloomberg High Yield
Income - EM Sovereign Bonds	Custom JP Morgan EMBIG Diversified
Real Assets	MSCI/PREA U.S. ACOE Quarterly Property Fund index (Unfrozen), Quarter Lag
Private Debt	S&P/ LSTA U.S. Leveraged Loan 100 Index +125 bps, Quarter Lag
Strategic Leverage	ICE BofA US 3-Month Treasury Bill Index +50 bps

## Appendix 2: Definitions

<b><u>Term</u></b>	<b><u>Definition</u></b>
10 Year U.S. Treasury	The 10-Yr Treasury note (bond) is a debt obligation issued by the United States government with a maturity of 10 years upon initial issuance. A 10-Yr Treasury note pays interest at a fixed rate once every six months and pays the face value to the holder at maturity. The “10-Yr” is viewed as a sign of investor sentiment about the economy. A rising yield for the 10-Yr indicates falling demand for Treasury bonds, which means investors prefer higher-risk, higher-reward investments. A falling yield suggests the opposite.
Annual average percent change (aapc)	The change in a variable between one entire year and the prior entire year. This differs to an annual percent change, which looks at one point in time compared with the same point in time a year earlier.
Actionable Tracking Error	Investment Policy definition of the Total Fund tracking error that excludes the effect of active exposure from private asset classes arising from the modeling challenges and the non-investible nature of their benchmarks.
Active Leverage	The portion of Total Fund leverage that is controlled by staff and used to fund exposures incremental to the Strategic Asset Allocation.
Alpha	The measure of the return of an investment relative to an appropriate benchmark.
Basis Point (BP)	1 basis point is 1/100 of a percent or 0.01%.
Beta	A statistical measure of investment or portfolio return sensitivity to the market where the market is typically defined by a market index. A beta of 1.0 means the investment moves in synch with the market. A beta of 0.5 means the investment moves 50% as much as the market. A beta of 1.5 means the investment moves 150% as much as the market. For example, a portfolio with a beta of 0.8 is expected to have an 8% return when the market returns 10%.
Benchmark	A collection of assets to compare against the portfolio’s assets. These are typically market indices (e.g., SP500 or Bloomberg Barclays Global Aggregate). Benchmarks can be a useful tool to evaluate performance and risk.
Central Banks	The principal monetary authority of a nation, a central bank performs several key functions, including issuing currency and regulating the supply of credit in the economy. The Federal Reserve is the central bank of the United States.

<b><u>Term</u></b>	<b><u>Definition</u></b>
Consensus Economics	Consensus Economics is a global macroeconomic survey firm that polls more than 700 economists monthly for their forecasts for over 2,000 macroeconomic indicators in 115 countries. The company is headquartered in London, United Kingdom.
Consumer Prices Index (CPI)	An index which measures changes in the prices of a (weighted average) basket of goods and services. This basket is representative of aggregate U.S. consumer spending and is a common reference point for inflation.
Counterparty	The legal entity that holds the other side of a contract or financial transaction.
Economic Activity	Any action that involves producing, distributing, or consuming products or services is an economic activity. Used synonymously with real GDP growth.
Event Risk	Refers to any future potential occurrence that can cause losses for investors or other stakeholders in a company or investment.
Excess Return	The portfolio return minus the portfolio benchmark return. Time-weighted excess return is not affected by the amount of capital invested.
Federal Reserve Open Market Committee (FOMC)	A twelve-member committee made up of the seven members of the Board of Governors; the president of the Federal Reserve Bank of New York; and, on a rotating basis, the presidents of four other Reserve Banks. The FOMC meets eight times a year to set Federal Reserve guidelines regarding the purchase and sale of government securities in the open market and the policy (overnight) interest rate as a means of influencing the volume of bank credit and money in the economy.
Financial Market Pricing	Current price at which an asset or service can be bought or sold. The market price of an asset or service is determined by the forces of supply and demand and, when traded in real time on global financial markets, can be influenced by (unrealized) expectations around the future.
Future Commission Merchant (FCM)	Highly regulated entities that accept orders for exchange traded contracts in Central Counterparty Clearing House (CCPs). Collateral posted at the FCM is mostly used to meet the margin requirements at the CCPs. The collateral in the counterparty section has been provided to the FCM to post at the CCPs on behalf of CalPERS and bridging operational timing and processing gaps in collateral transfer.
High Yield (HY)	Compared to Investment Grade, these bonds have a lower credit rating meaning they have a relatively higher risk of default. Due to their higher probability of default, they pay a higher yield to compensate investors for the additional risk.

<b><u>Term</u></b>	<b><u>Definition</u></b>
Inflation	A rate of increase in the general price level of goods and services. The general term 'inflation' usually refers to the change in the CPI index over one year.
International Monetary Fund (IMF)	An international organization with 146 members, including the United States. The main functions of the IMF are to lend funds to member nations to finance temporary balance of payments problems, to facilitate the expansion and balanced growth of international trade, and to promote international monetary cooperation among nations. The IMF also creates special drawing rights (SDR's), which provide member nations with a source of additional reserves. Member nations are required to subscribe to a Fund quota, paid mainly in their own currency. The IMF grew out of the Bretton Woods Conference of 1944.
International Swaps and Derivatives Association (ISDA)	A trade organization of market participants that facilitates standardization of contractual agreements to trade over-the-counter derivative contracts. CalPERS enters into ISDA agreements to trade derivatives; for example, FX forwards, total return and interest rate swaps.
Investment Grade (IG)	Bonds with a higher credit rating meaning they have a relatively low risk of default.
Liquidity Coverage Ratio	Metric refers to the proportion of liquid assets to meet short term obligations under a stress scenario (within 30 days). The ratio divides Sources of Liquidity by Uses of Liquidity.
Liquidity (sources of)	Includes: Cash Equivalents, Pension Contributions & Other Inflows, Internal Funding and Liquidity on Demand.
Liquidity (uses of)	Includes: Pension Benefits, Private Asset Funding, Contingent uses and Maturing Derivatives/Repos & Others.
Macroeconomics	A branch of economics that studies how an overall economy (markets, businesses, consumers, and governments) behave. Macroeconomics examines economy-wide phenomena such as inflation, price levels, rate of economic growth, national income, gross domestic product (GDP), and changes in unemployment.
Master Repurchase Agreement (MRA)	The bilateral agreement that governs the collateralized loans of securities. CalPERS uses this contract to enter into forward purchase/repurchase of US Treasuries and Mortgage securities and to post/receive collateral in return (also known as Repo and Reverse Repo).

<b><u>Term</u></b>	<b><u>Definition</u></b>
Master Securities Forward Transaction Agreement (MFSTA)	The bilateral agreement that CalPERS uses to enter into forward purchase or sale of mortgage bonds and "TBA" instruments.
Net Asset Value (NAV)	The value of an investment fund's assets less its liabilities.
Net Return	Performance net of internal and external investment office management expenses. CalPERS' performance uses a daily Modified-Dietz methodology which is geometrically linked to produce time-weighted returns for longer periods.
	<p>Daily Rate of Return Formula</p> <ul style="list-style-type: none"> <li>• 6/30/2016 &amp; Prior: Dollar Value Added / (Beginning Market Value + Net Cash Flows)</li> <li>• 7/1/2016 to Present: Dollar Value Added / Beginning Market Value</li> <li>• Dollar Value Added = Gains/losses due to price appreciation and income</li> </ul> <p>Daily returns are geometrically linked to produce longer period returns.</p>
Unfunded Commitments	A legally binding commitment to a private asset investment fund/vehicle for which the capital has not yet been drawn.
Oil (Brent)	A crude oil blend commonly referred to as Brent Blend, London Brent, or Brent petroleum. It is the main global benchmark for oil prices.
Oil (WTI)	West Texas Intermediate is also crude oil blend. It serves as the main US benchmark for oil prices.
Over the Counter (OTC)	A decentralized market where participants trade stocks, bonds, currencies, or derivatives without a centralized exchange or broker.
Public Employee's Retirement Fund (PERF)	An investment fund created under California state statute and exclusively controlled by the CalPERS Board. The fund is managed with the expressed purpose of paying retirement benefits to participating members.
Policy Rate	The policy interest rate is that at which the central bank will pay or charge commercial banks for their deposits or loans. This rate affects the interest rate that commercial banks apply with their customers, both borrowers and depositors, and more generally, impacts on the general price (rate) of credit in the economy.

<b><u>Term</u></b>	<b><u>Definition</u></b>
Portfolio Market Value	<p>The sum of the underlying investment values +/- any open receivables or payables (uninvested assets), consistent with the Net Asset Value or Total Net Assets reported in accounting.</p> <ul style="list-style-type: none"> <li>• Public Asset Market Values are calculated as units held x price per unit + accrued income.</li> <li>• Private Asset Market Values represent an opinion of value as of a certain date as stated by either the investment advisor or independent appraiser. Market value differs from amount funded or net investment in that the value includes unrealized gains or losses during the holding period.</li> </ul>
Real Gross Domestic Product (GDP)	Measures the total economic output of a country over a specified period (often a year) adjusted for changes in price. The total economic output refers to the volume of all goods and services produced by an economy. It is often referred to as constant-price GDP or constant dollar GDP.
SLA/Sec Lending	Refers to the Securities Lending Agreement ("SLA") under which CalPERS lends securities and receives either cash or other securities as collateral.
Supply-Chain	A network of individuals and companies who are involved in creating a product and delivering it to the consumer. Links on the chain begin with the producers of the raw materials and end when the finished product is delivered to the end user.
Supplemental Income Plans (SIP)	Refers to the combined program for the Public Employees' Deferred Compensation Fund and the Supplemental Contributions Program.
Tracking Error	Standard deviation of the differential return between the portfolio and an equal investment in the benchmark.
Uncertainty	The range of possible values or paths. These are unknown.
Value Added	The incremental gain or loss in dollars resulting from portfolio implementation, active management, and imperfectly investible benchmarks. Over shorter time horizons, the benchmark component can create significant variability in outcomes. Unlike a time-weighted excess return which does not account for the size of the investment, value added will vary with the amount of capital invested. Also referred to as "Dollar Value Added".
Volatility	A measure of the distribution of portfolio returns (or a given security). It is typically defined as the statistical standard deviation of returns, annualized.

<b><u>Term</u></b>	<b><u>Definition</u></b>
Wage Growth	Wages are the compensation paid to employees for the work or services they perform over a specified period. In the US it is often described as average hourly earnings. Wage growth typically refers to the annual change in wages.
Yield Curve	A yield curve is a line that plots yields (interest rates) of bonds having equal credit quality but differing maturity dates. The slope of the yield curve gives an idea of future interest rate changes and economic activity. There are three main yield curve shapes: normal (upward sloping curve), inverted (downward sloping curve), and flat.



**TOWN OF LOS GATOS**  
**TOWN PENSION AND OPEB TRUSTS**  
**OVERSIGHT COMMITTEE REPORT**

MEETING DATE: 12/05/2023

ITEM NO: 5

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DATE: November 27, 2023  
TO: Town Pension and OPEB Trusts Oversight Committee  
FROM: Laurel Prevetti, Town Manager  
SUBJECT: Receive a Report of the CalPERS 2023 Annual Review of Funding Levels and Risks

**RECOMMENDATION:**

Receive a report of the CalPERS 2023 annual review of funding levels and risks.

**BACKGROUND:**

Staff routinely monitors items presented to the CalPERS Investment Committee and Board of Administration. While the Town has no fiduciary control over the investment decisions determined by CalPERS, it is prudent as a fiduciary to understand the potential risks and consequences inherent in actions taken by CalPERS. Attachment 1 contains the CalPERS 2023 Annual Review of Funding Levels and Risks. This report focuses on:

- Reporting the current funded status of the system,
- Reviewing prior and expected future funding progress,
- Identifying and quantifying investment risks,
- Examining other system risks, such as high inflation and mortality, and
- Discussing risk mitigating activities for the system and employers.

This report is intended to assist the CalPERS Board of Administration, participating employers, and other stakeholders in assessing the soundness and sustainability of the Public Employees' Retirement System for ongoing pension plans. The results presented in this report are based on the June 30, 2022 annual valuations, which have been projected forward to June 30, 2023 based on investment performance of 6.1% for the year ending June 30, 2023. Staff routinely utilizes information from CalPERS during development of the Proposed Operating Budget, Five-Year Forecast, and other Town financial analysis. The Finance Commission will receive this report at its December 11<sup>th</sup> meeting.

**PREPARED BY:** Gitta Ungvari  
Finance Director

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Reviewed by: Town Manager, Town Attorney, and Assistant Town Manager

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DISCUSSION:

Following are items of note identified in the report regarding CalPERS as a whole and its funding level of risk:

With the slightly lower-than-expected investment returns for fiscal year (FY) 2022-23, the funded status of the system has increased modestly from 70.9% as of June 30, 2022 to an estimated 72% as of June 30, 2023 as a result of employers making their unfunded accrued liability (UAL) payments. Funded ratios vary somewhat among the different plans, with the plans for miscellaneous members generally having higher funded ratios than plans for safety members.

Many CalPERS plans are less than 100% funded as of June 30, 2023. CalPERS believes this is not a significant cause for concern provided employers continue to make the actuarially determined required contributions. The report states there is no specific funded status that indicates a retirement plan and its members are in jeopardy, but says plans that fall below 50% would likely have short-term required contributions that would strain the employer's budget.

All actuarial assumptions and methods are based on the latest Asset Liability Management (ALM) process and associated Experience Study. These include a discount rate of 6.8%, an inflation assumption of 2.3%, and a payroll growth assumption to 2.8%.

CalPERS cautions that recent and current increases in the Consumer Price Index (CPI) are expected to have an impact on the pension liabilities in future actuarial valuation reports for both retirees (due to cost of living increases) and the active members (due to future salary increases). While there is no immediate concern regarding the system's ability to pay required benefits, the possibility of unfavorable events in the near future, such as continued high inflation and the possibility of an economic recession, lead to concerns that required employer contributions could rise to levels that would be challenging for employers.

CalPERS concludes the report with the following observation:

"Over the last few years various external factors have had material impacts on the experience of the retirement system. These include extreme investment experience (both favorable and unfavorable), a global pandemic and historically high levels of inflation. In addition, over the last 10-years the system has had to recognize investment losses and significantly lower levels of future expected investment return due primarily to lower capital market assumptions across most asset classes. Also, during this 10-year period however, employer costs were somewhat reduced due to the impact of PEPRAs.

DISCUSSION (continued):

“The combined impact of the above factors has resulted in increased required employer contributions and only modest improvements in the funded status of the system over the last 10-years. However, necessary changes to actuarial assumptions over the last decade have positioned the system to see greater improvements in funded status over the next 10-years.”

Employer contributions are currently at relatively high levels due to large amounts of UAL and are projected to increase somewhat over the next 5 years. In addition, uncertainty within the economy suggests a near-term economic recession is a possibility. The ability of employers to continue making required contributions to the system is the area of greatest concern. “ Los Gatos budgets for its payments and is expected to make all required contributions if not also Additional Discretionary Payments (ADP).

Various strategies and actions by CalPERS, its Board of Administration, and its employers have improved the sustainability of the system and mitigated certain risks. Among these identified by CalPERS are:

- The adoption of the current amortization policies that mitigate the risk of the system dropping to dangerously low funding levels.
- The increased level of additional contributions made by CalPERS agencies.
- The use of a separate 115 trust by many CalPERS agencies for minimizing the risk of required contribution spikes and volatility
- The continued improvements in investment policies which maintains favorable investment return expectations and associated volatility.
- Improved modeling tools that allow CalPERS and its participating employers to forecast future required contributions and funded status under a variety of possible future scenarios.

In addition to the actions listed above, CalPERS intends to give a high level of focus to the following:

- Continue the focus on the acceptable level of investment risk versus the desire for higher investment returns.
- Monitor the effectiveness of the current investment policy to ensure desired returns relative to the chosen level of risk.
- Continue the focus on educating participating employers on the risks facing the system and providing tools that enhance their ability to manage these risks.
- Conduct stakeholder outreach regarding employers' ability to make required contributions.

PAGE 4 OF 4

SUBJECT: CalPERS 2023 Review of Funding Levels and Risks

DATE: November 27, 2023

DISCUSSION (continued):

According to CalPERS, it and its participating employers have taken many positive steps to manage the risks of the system. Increased focus on these risks and opportunities to minimize and manage them, as discussed in the report, are important going forward.

Attachment:

1. CalPERS 2023 Annual Review of Funding Levels and Risks

# 2023 Annual Review of Funding Levels and Risks

**November 2023**



# Table of Contents

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Introduction	1
Executive Summary	3
Funding Levels	4
Current Funding Levels	4
10-Year Funding History	6
Funding Projections	8
Funded Status - Termination Basis	11
PEPRA Impacts on Funding	12
Identifying and Quantifying Investment Risks	15
Shared Risk	15
Risk of Low Funding Levels	15
Lower Than Expected Average Investment Returns	17
Current State	17
Expected Future State	18
Alternate Investment Scenarios	20
Investment Shocks	21
Key Non-Investment Risks	23
Mortality	23
Inflation	24
Plan Maturity	27
Managing Risk	30
Trend Toward Lower Expected Returns and Discount Rates	30
Amortization Policy	33
Employers Making Supplemental Payments	35
California Employers' Pension Prefunding Trust Program	37
Conclusion	38
Appendix A – Public Employees' Retirement System (PERS) Summary Statistics	40

Appendix B – Results of June 30, 2022 Public Agency Valuations for Safety Plans	41
Public Agency Funded Ratios for Safety Plans	41
Public Agency Contribution Rates for Safety Plans	42
Appendix C – Results of June 30, 2022 Public Agency Valuations for Miscellaneous Plans	44
Public Agency Funded Ratios for Miscellaneous Plans	44
Public Agency Contribution Rates for Miscellaneous Plans	45
Appendix D – Additional Information on PEPRA Impacts	47

# Introduction

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This report is intended to assist the CalPERS Board of Administration (board), participating employers and other stakeholders in assessing the soundness and sustainability of the Public Employees' Retirement System for ongoing pension plans. It does not address the Terminated Agency Pool or the 1959 Survivor Benefit Program, nor does it address the other systems (Judges' Retirement Systems, Legislators' Retirement System or the non-pension programs) administered by CalPERS.

The results presented in this report are based on the June 30, 2022 annual valuations, which have been projected forward to June 30, 2023 based on investment performance of 6.1% for the year ending June 30, 2023. Unless stated otherwise, current and projected results in the report are based on a long-term discount rate of 6.80% and the demographic assumptions reflecting the 2021 Experience Study.

The actual results based on the June 30, 2022 valuations are summarized in Appendix A.

This report focuses on:

- Reporting the current funded status of the system
- Reviewing prior and expected future funding progress.
- Identifying and quantifying investment risks
- Examining other system risks, such as high inflation and mortality
- Discussing risk mitigating activities for the system and employers

The report is organized into the following sections:

- Funding Levels: this section discusses the relationship between assets and liabilities for the Public Employees' Retirement System (PERS) and various sub-groups of the system. Current, historic and potential future funding levels are shown.
- Identifying and Quantifying Investment Risks: this section outlines the impact future investment performance could have on funding and contribution levels. This is of particular importance because investment performance has a large impact on pension funding and costs.
- Key Non-Investment Risks: this section addresses the potential impact of key non-investment risks (e.g., mortality, inflation, etc.) on the pension system. The topics in this session may change over time to reflect current and expected trends.
- Managing Risks: this section describes areas where risks may be managed. These include assumptions (e.g., expected investment return and inflation), amortization of costs as well as employers making additional payments to fund their pension plans.

Pension and investment beliefs adopted by the board that inform our work on risks and funding include the following:

**Pension Belief 5:** Funding policies should be applied in a fair, consistent manner, accommodate investment return fluctuations and support rate stability.

**Pension Belief 9:** Sound understanding, and deployment of enterprise-wide risk management is essential to the ongoing success of a retirement system.

**Investment Belief 1:** Liabilities must influence the asset structure. More specifically, ensuring the ability to pay promised benefits by maintaining an adequate funding status is the primary measure of success for CalPERS.

**Investment Belief 9:** Risk to CalPERS is multi-faceted and not fully captured through measures such as volatility or tracking error.



# Executive Summary

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With the slightly lower-than-expected investment returns for fiscal year (FY) 2022-23, the funded status of the system has increased modestly from 70.9% as of June 30, 2022 to an estimated 72% as of June 30, 2023 as a result of employers making their unfunded accrued liability (UAL) payments. Funded ratios vary somewhat among the different plans, with the plans for miscellaneous members generally having higher funded ratios than plans for safety members.

The recent decrease in funded status over the past couple of years has increased the risk that plans will fall to low funding levels. However, other factors including Additional Discretionary Payments (ADPs) have reduced this risk. Employer contribution levels are increasing primarily in response to the investment loss for fiscal year 2021-22. With the added economic stress due to inflation, and the possibility of a near-term recession, the ability of employers to continue making required contributions is an area of concern for the system and its members. However, with few exceptions, employers are currently up to date with their contribution requirements, and many are considering ADPs to improve their funded status and lower their overall costs.

The termination policies and processes currently in place should mitigate risk to the system. However, if an employer is under severe financial stress, the termination policies do not fully protect the benefits of members that have served that employer. Ultimately, the members' benefits are only secure if the employer continues to make the required contributions.

All actuarial assumptions and methods are based on the latest Asset Liability Management (ALM) process and associated Experience Study. These include a discount rate of 6.8%, an inflation assumption to 2.3% and a payroll growth assumption to 2.8%.

Recent and current increases in the Consumer Price Index (CPI) are expected to have an impact on the pension liabilities in future actuarial valuation reports for both retirees (due to cost of living increases) and the active members (due to future salary increases).

This report illustrates the impact of recent events on the retirement system and projects the possible impacts of various factors that are possible in the future. While there is no immediate concern regarding the system's ability to pay required benefits, the possibility of unfavorable events in the near future, such as continued high inflation, and the possibility of an economic recession, lead to concerns that required employer contributions could rise to levels that would be challenging for employers. Understanding these risks and opportunities to manage them is the main focus of this report.

# Funding Levels

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CalPERS is a conglomeration of multiple plans and several risk sharing pools. While it is informative to review actuarial results of the system as a whole, it is also important to understand that individual “plans” within CalPERS have unique funded status and required contribution results. In general, the assets of one plan are not shared with any other plan.

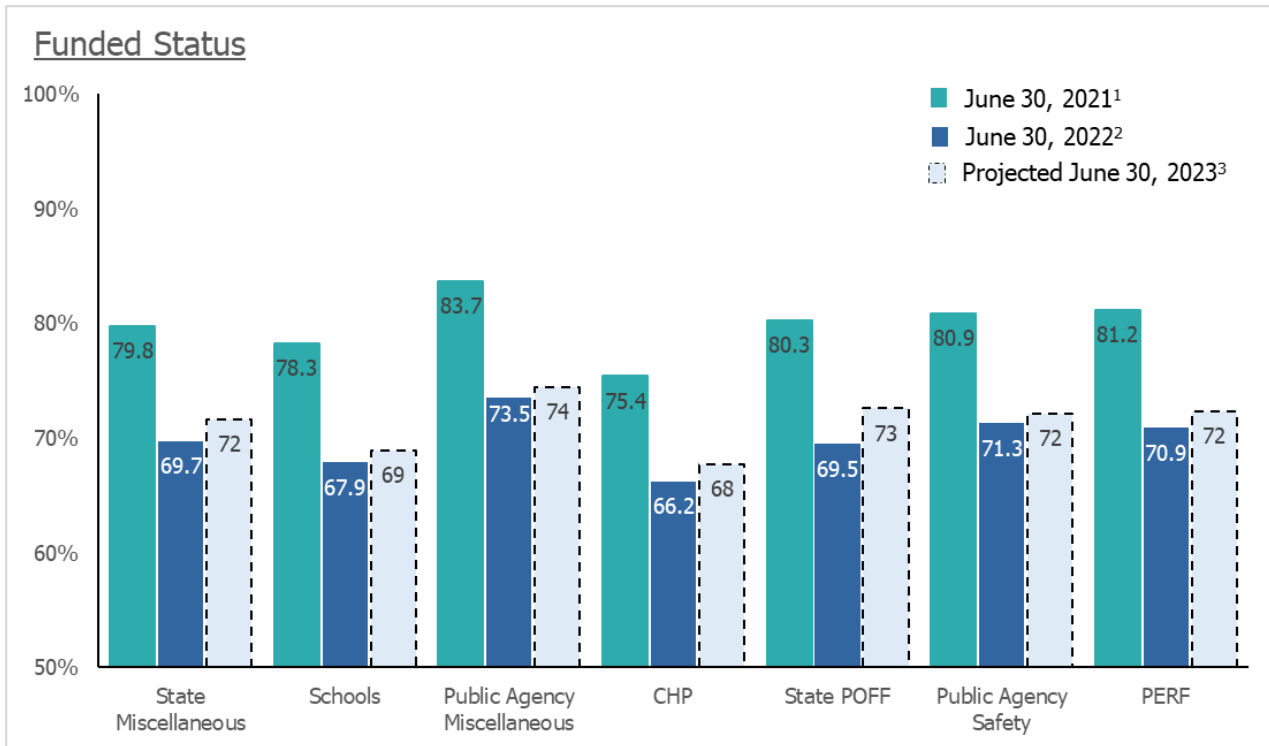
In this section we will discuss current valuation results for the system as a whole, as well as results for various member sub-groups of the system. In addition, a summary and analysis of funding results over the last 10-years as well as results expected during the next 10-years is also provided. This information helps illustrate the effectiveness of the current funding methods as well as the impact of unexpected experience on the funding levels of the system.

More detailed funding results can be found in the appendices as well as on the CalPERS website at <https://www.calpers.ca.gov/page/employers/actuarial-resources/summary-valuation-results-overview>.

## Current Funding Levels

The overall level of funding of the system has been quite volatile over the last 2-3 years. Strong investment performance during the fiscal year ending June 30, 2021 significantly improved asset values. However, the following fiscal year ending June 30, 2022 saw decreases in asset values due to the FY 2021-22 poor investment return. The investment performance for the year ending June 30, 2023 was just under the expected return of 6.8%. The preliminary return was communicated as 5.8% for the previous fiscal year. However, the return reflecting the 4<sup>th</sup> quarter results for private and real assets was later determined to be 6.1%.

The chart below shows the funding levels of the various components of the Public Employees’ Retirement Fund (PERF) as of June 30, 2021, June 30, 2022, and estimated results as of June 30, 2023. Estimates as of June 30, 2023 were based on asset values as of June 30, 2023 and liabilities rolled forward from the most recent valuation date of June 30, 2022 to June 30, 2023.



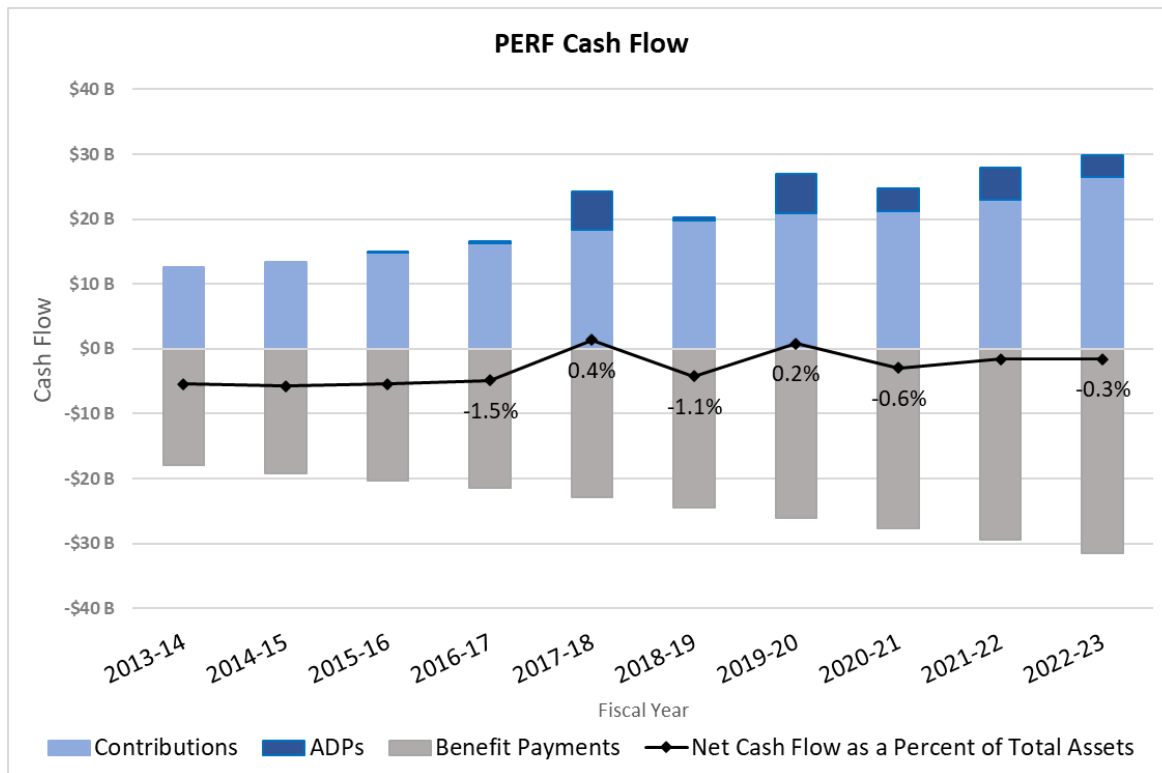
<sup>1</sup>June 30, 2023 projected funded status based on an investment return of 6.1% for FY 2022-23.

The chart above shows that the funded status decreased significantly between June 30, 2021 and June 30, 2022. This was due to an investment return during that year of -7.5%. Based on the results of the funding valuations as of June 30, 2022, the overall funded ratio of the PERF was about 71% and the estimated PERF funded ratio as of June 30, 2023 is 72%.

## 10-Year Funding History

A review of funded status and cash flow results during the prior ten years provides valuable information regarding the operation of the system. The charts below provide a 10-year history of results for the system as a whole. As mentioned previously, all results shown are the aggregation of individual plan results.

The chart below provides a 10-year history of contributions including ADPs into the system and benefit payments out of the system.



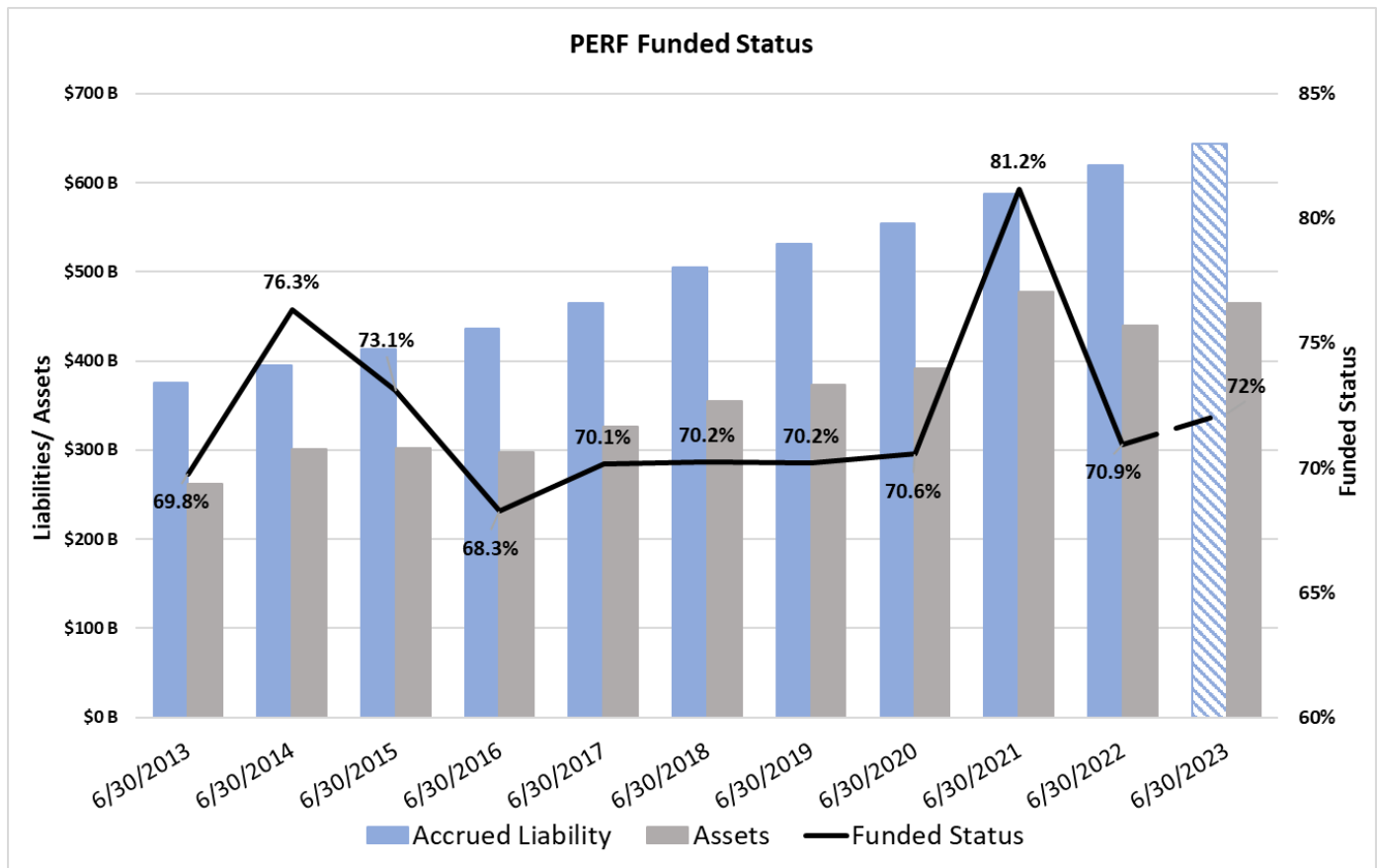
As shown in the chart above, benefit payments consistently increased during this period. This is expected to continue into the future. However, as more PEPRAs members retire, these increases will be somewhat muted.

Actual contributions made over this period also generally increased from one year to the next. While contribution dollars are expected to increase somewhat each year due to payroll increases, contributions during this period also increased due to investment losses and changes to actuarial assumptions. Significant ADPs were made in some years as shown above in the dark blue boxes. These ADPs also increased the net cash flow in those years. The two years during which net cash was positive were the result of ADPs.

In a prefunded public retirement system, net cash flow generally starts out positive in the early years of the system but becomes negative at some point as the system matures. This is an expected outcome of

prefunding and generally not a result to attempt to correct. However, projected levels of negative cash flow should be understood so that invested assets can be managed to maintain the necessary level of liquidity to pay benefits without harming the overall performance of the fund.

The chart below shows that the funded status of the system has varied from year to year, increasing in some years and decreasing in others. Year-to-year changes are primarily the result of investment gains/losses. However, other factors include changes to actuarial assumptions, non-investment gains/losses, and payments made by employers to pay-down existing UAL. While employers have required minimum payments toward UAL as set by the CalPERS amortization policy, ADPs can also be made.



The ending funded status of 72% as of June 30, 2023 is not considerably higher than the funded status at the beginning of the period of 69.8%. Factors that can result in slower improvement in the funded status include, unfavorable investment or non-investment experience, lack of sufficient contributions to pay down UAL, or changes in actuarial assumptions. During this period, investment and non-investment experience was reasonably close to expectations (on average), and employers made all actuarially determined contributions including required payments toward UAL.

The factor having the greatest impact on the funded during this period was changes to actuarial assumptions, especially the lowering of the discount rate from 7.5% to 6.8%. In addition, even though the average investment return for the prior 10-years was 7.1%, there was a larger amount of investment losses than investment gains during this period. This is primarily due to two factors, 1) the expected return at the beginning of this period was 7.5% and was gradually reduced to the current 6.8%, and 2) the timing of individual gains and losses, for example the largest of the investment losses occurred late in this period on a relatively high amount of assets. So, while it was not the predominant factor, investment losses over this 10-year period also led to overall reductions in funded status and increases in employer contribution rates.

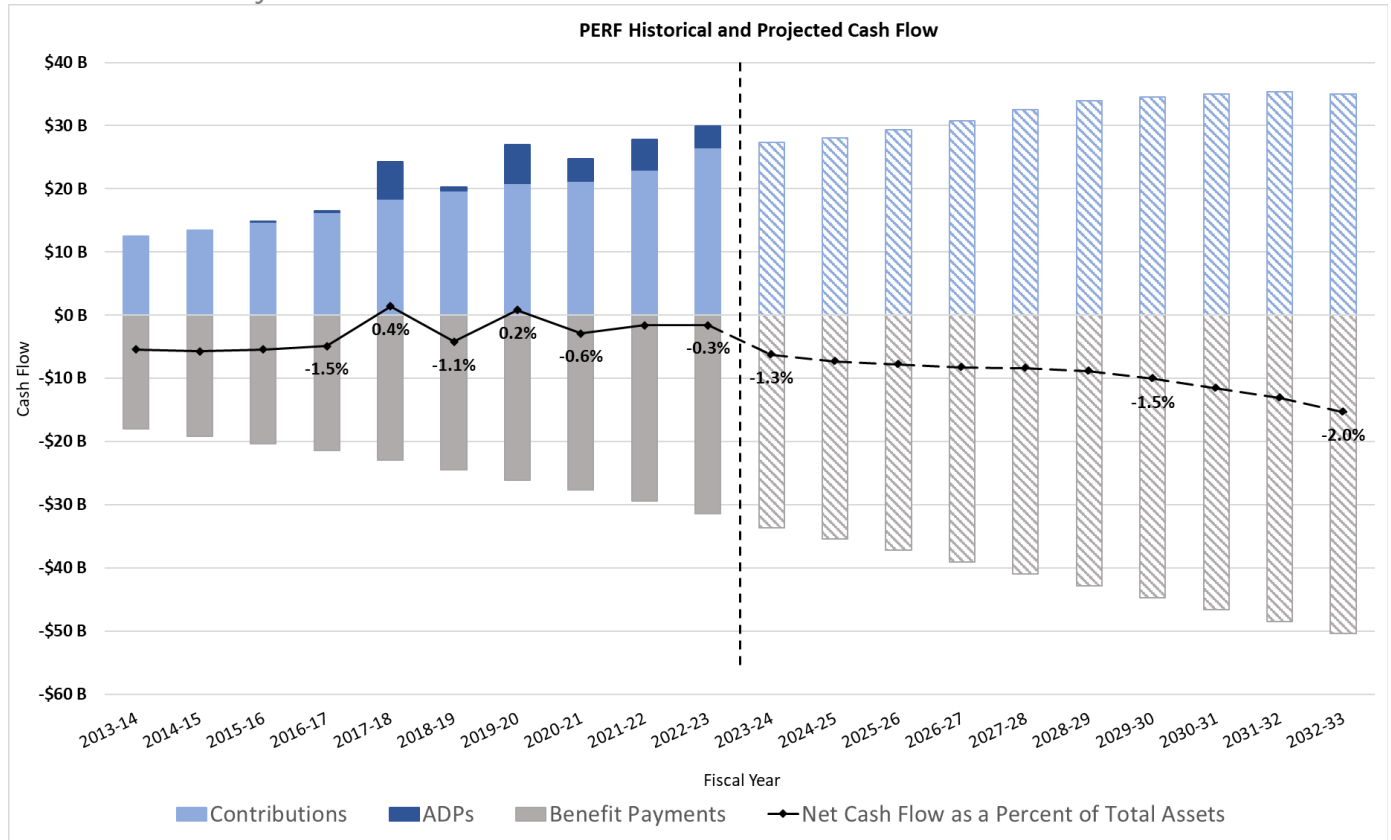
While a change to the discount rate impacts neither the current level of assets nor the amounts of future benefits expected to be paid, it resets the funding target and therefore immediately changes the funded status.

Knowing what we know today regarding the actual investment experience over the past 10-years and the current projection of returns going forward of 6.8%, this period's starting funded status (measured with a 7.5% discount rate) would be remeasured today as being much lower than 69.8%. Therefore, the actual improvement in funded status due to employer contributions over this period is obscured by funding level decreases caused by assumption changes.

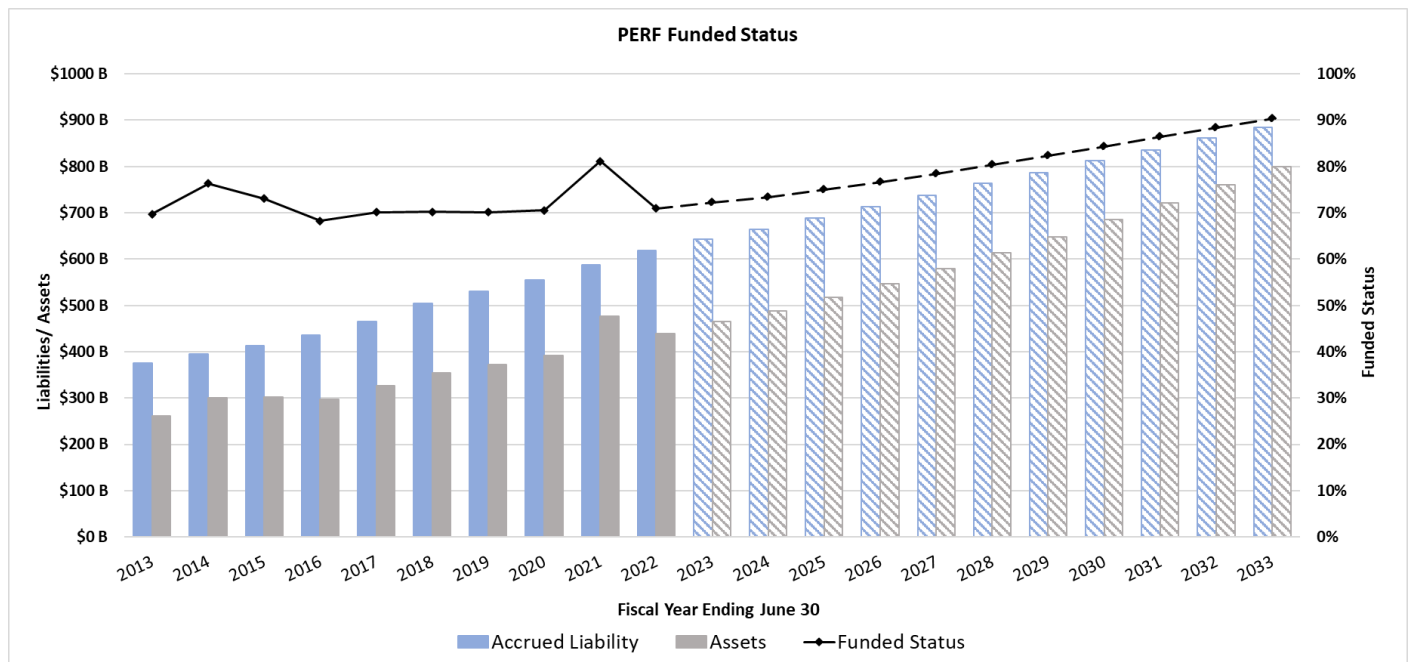
## Funding Projections

Assuming all future experience exactly matches the current actuarial assumptions, cash flows and funded status projections for the next 10-years are provided in the charts below.

## Historical and Projected Cash Flow



## Historical and Projected PERF Funded Status



While benefit payments are expected to continue to increase in a relatively consistent fashion, contribution increases are expected to moderate over the next ten years with decreases expected toward the end of this period. This is due to decreasing projected payments toward UAL as plans become better funded. Lower future contributions are expected to increase negative cash flow as shown above. However, as stated previously, this is an expected result.

Projected results assume no ADPs by employers over the next 10-years. Any such payments would result in faster improvement in the funded status and reduce negative cash flow in those years.

During the previous 10-years, there was only modest improvement in the funded status of the system primarily because of necessary changes to actuarial assumptions and investment losses. While there is no evidence to suggest the need for material changes to any non-investment assumptions in the next 10-years, it is possible the system could experience decreases to the expected investment return and discount rate.

Absent any changes to actuarial assumptions, provided future experience matches the current assumptions and employers continue to make required annual contributions, it is expected the funded status will improve by 15-20% over the next 10-years. An additional reason for potentially faster improvement during this period is the continued phase-in of the current amortization policy which somewhat accelerates the pay down of UAL.



## Funded Status - Termination Basis

The term "funded status" as used in the previous charts, is the funded portion of the funding target determined annually for each plan in the actuarial valuation process, reflecting all the actuarial assumptions and methods adopted by the Board of Administration for funding purposes. Alternate funding methods and assumptions yield different funding targets and therefore different funded status results.

If an agency elects to terminate its contract with CalPERS, the employer is required to contribute the amount necessary to fully fund the plan. However, for this purpose, the funded status of the plan is determined using different actuarial assumptions and methods. Since the employer will no longer be obligated to make up any shortfalls in investment return (or due to other economic or demographic events), CalPERS funds the terminated agency pool on a much more conservative basis to ensure that the affected members' benefits are secure. With the funding of terminated plans based on fixed income assets, the termination discount rate depends on actual market rates of return for such assets on the date of termination. Such rates are lower than the ongoing 6.8% discount rate used for funding purposes (currently around 4.50%) and result in a lower funded status for CalPERS plans. A typical CalPERS plan that is currently 70% funded based on a 6.8% discount rate, would be around 50-55% funded based on current termination rates. This indicates some additional risk to public agency members, in the form of potential benefit reductions, if their employer were to terminate their plan and be unable to make the required final contribution to fully fund the plan.

# PEPRA Impacts on Funding

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The California Public Employees' Pension Reform Act (PEPRA), which took effect in January 2013, changed CalPERS retirement benefits, and placed compensation limits on new members.

In general, as defined by PEPRA, a new member includes:

- A new hire who joins CalPERS for the first time on or after January 1, 2013, and **who has no prior membership** in another California public retirement system.
- A new hire who joins CalPERS for the first time on or after January 1, 2013, and who was a member of another California public retirement system prior to that date, but **who is not subject to reciprocity** upon joining CalPERS.

All members who don't fall into the definitions above are considered classic members. Classic members will retain the existing benefit enrollment levels for future service with the same employer.

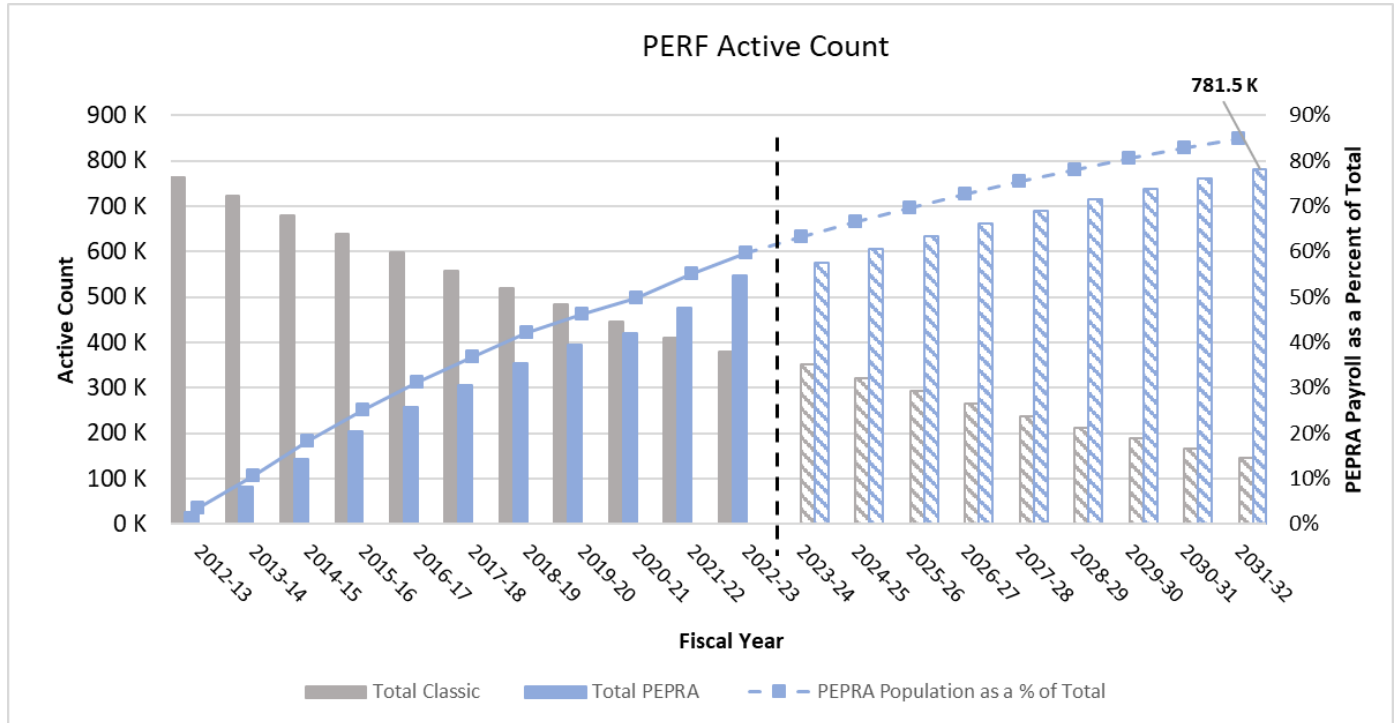
Changes to pension benefit provisions include:

- Generally later retirement eligibility provisions
- Lower benefit multipliers in some cases
- A cap on the compensation used to determine pension benefits
- Member contributions equal to roughly half of the estimated cost of benefits

One of the objectives of PEPRA was to improve the ability of employers to manage the costs of retirement benefits for their members. Due to legal limitations that make it difficult or impossible to change benefit provisions for existing active or retired CalPERS members, if benefit reductions are necessary to align benefit costs with employers' ability to fund them, such changes can only be made for future members of the system. While such changes can reduce future benefit costs in a meaningful way, the full impact on employer contributions can take decades to materialize.

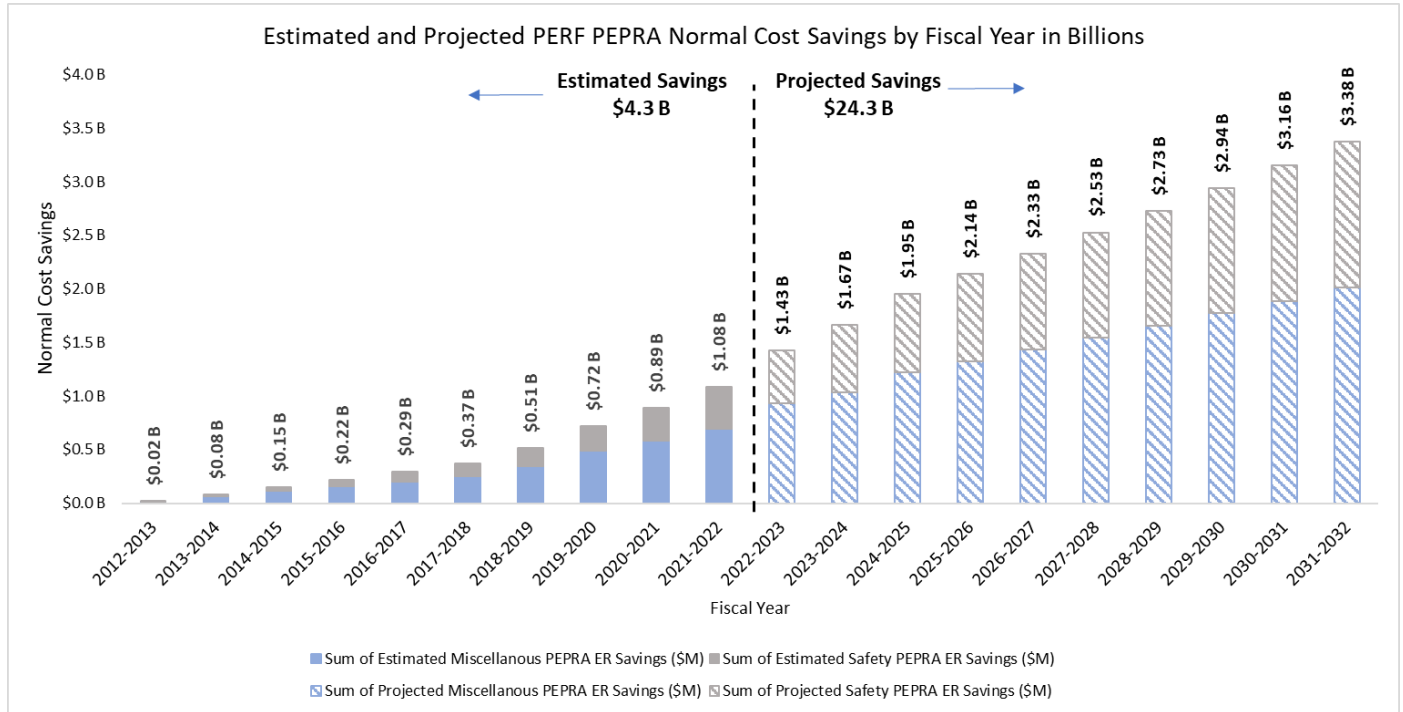
PEPRA has been in effect for roughly 10-years. The progression of PEPRA members within CalPERS over the last 10-years, as well as the corresponding impact on employer costs are explored in this section.

As Classic members terminate or retire, they are generally replaced by PEPRA members. Over the last 10-years, the percentage of PEPRA members out of the entire active member population has continued to grow. This is expected to continue until all active members are subject to the rules and provisions of PEPRA. The chart below illustrates this progression.



Since the pension benefit changes applied only to new hires, there was no immediate impact on the funded status of the system upon adoption. However, reductions to employer contributions did begin immediately after adoption. As members were hired that were subject to the provisions of PEPRA, required employer contributions for pre-funding the retirement benefits of these members were adjusted downward to reflect the lower cost of these benefits. In addition, new member contribution rates for these PEPRA members also took effect immediately. Over the last 10-years, as more and more PEPRA members were hired, employer cost savings continued to grow.

The chart below provides the estimated annual reduction in employer normal costs since the effective date of PEPRA through today, as well as projected savings for the next 10-years. The accumulation of these annual normal cost reductions can be thought of as the employer cost savings attributable to PEPRA.



It is impossible to know the exact financial impact of PEPPRA on employers, as the cost of the system if PEPPRA had not been implemented can never be known. Estimates provided here represent the decrease in employer normal costs due to lower cost benefits and increased member contributions.

While total contributions into the system began to decrease immediately with PEPPRA, the impact on actual benefits paid to retirees developed more slowly. Even today, the portion of annual benefits paid from the system attributable to PEPPRA members is very low. As shown previously, negative cash flow for the system is expected to grow over the next . This is partially due to a larger decrease in contributions than benefit payments due to the phase-in of PEPPRA. Eventually all active and retired members will be PEPPRA members, and contributions and benefit payments will stabilize at "PEPPRA" levels, as opposed to "Classic" levels. However, even at that point, it is expected that total benefit payments will exceed contributions, such that negative cash flow will continue to exist.

Over the last 10-years since PEPPRA's effective date, employer costs have been reduced by \$4-5 billion. However, as illustrated above, expected cost savings over the next 10-years are expected to be roughly 5 times the savings in the previous 10-years.

# Identifying and Quantifying Investment Risks

This section looks at risks to the retirement system and members due to future investment performance by focusing on three key risk considerations:

1. The funded status and probability that it will fall to very low levels.
2. The risk of increasing contributions due to lower-than-expected average investment returns.
3. The possibility of high contribution increases in a single year due to investment “shocks”.

These risks were evaluated in connection with alternate investment scenarios. Other factors can impact the risks of the system but generally not to the same extent as investment returns. However, longevity and high near-term inflation are potentially material risks. Longevity refers to the potential of an individual to live longer than anticipated. This could be due to medical advancements, lifestyle choices and genetics, all of which have an impact on one’s lifespan and increase the cost of projected benefits. These risks are discussed separately in later sections of the report.

## Shared Risk

Member benefits are paid through the combination of CalPERS investment returns, required employer contributions, and member contributions. While there is a legal requirement for the employer to make the full contribution needed to fund the plan, in extreme circumstances the employer may be unable to do so. In these situations, the employer’s financial hardship can become a direct risk to the members and their benefits.

The risks borne by the employers (primarily investment risk) can impact their ability to make required CalPERS contributions. Investment and actuarial policies adopted by the board are always adopted with the purpose of maintaining benefit security for members.

By focusing on the risks to the soundness and sustainability to the overall system, CalPERS can take steps to mitigate risks to both members and employers. Ultimately, pensions are a shared responsibility between members and employers.

## Risk of Low Funding Levels

When the funded status of a plan is low, the required employer contributions can become quite high. If required contributions exceed the amount that an employer is able to pay, there is a possibility the employer’s CalPERS contract will be terminated, which can lead to benefit reductions for members of that plan. Many CalPERS plans are less than 100% funded as of June 30, 2023. This is not a significant cause for concern provided employers continue to make the actuarially determined required contributions. While there is no specific funded status that indicates a retirement plan and its members are in jeopardy, plans

that fall below 50% would likely have short-term required contributions that would strain the employer's budget.

The likelihood that a plan falls below 50% funded in the future can be estimated with "Stochastic Modeling". With this type of modeling, alternate future investment scenarios are used to create projected future funded ratios. The results provided in this section are based on the outcomes of 5,000 alternate investment scenarios for all future years provided by the investment office.

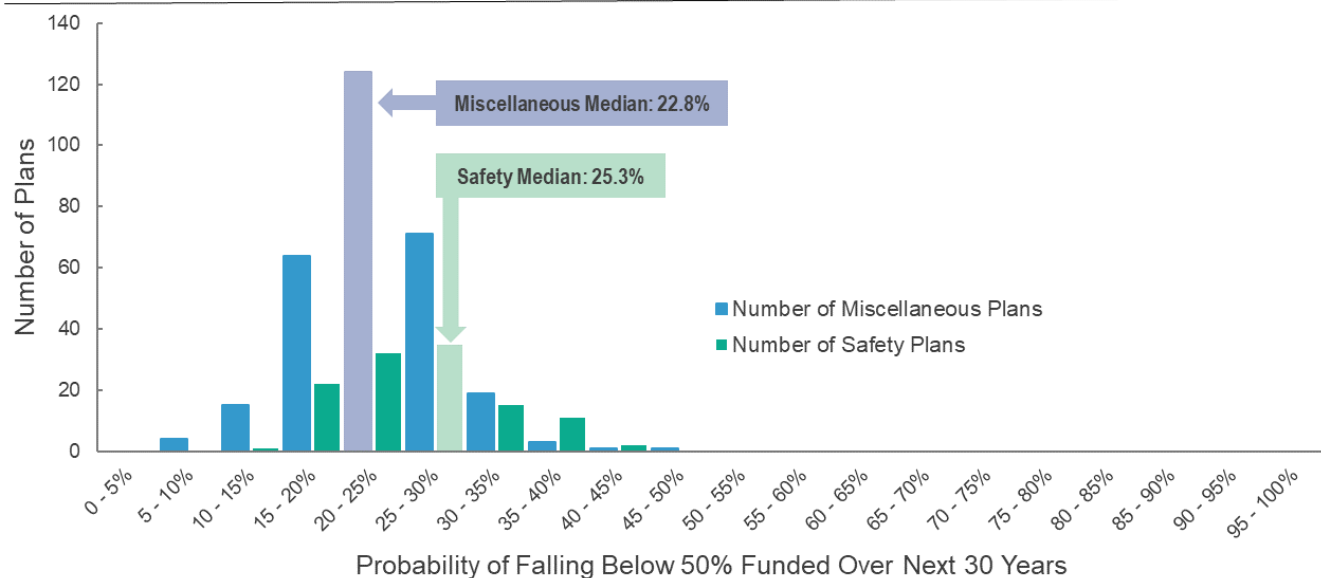
Alternate investment return scenarios were developed based on the expected returns and standard deviations of each of the asset classes in the PERF. Assumed correlations along with a covariance matrix between asset classes are also reflected.

Based on stochastic modeling, the State Miscellaneous Plan has a 20.0% probability of falling below 50% funded at some point over the next 30 years. For the School's Pool, the probability is 20.3%. While many factors contribute to these results, the recent investment loss during the fiscal year ending June 30, 2022 was a primary factor in increases to these percentages. Notably, additional contributions by the state reduced the probability for the State Miscellaneous Plan.

The probability of falling below 50% funded status for CalPERS public agency plans is illustrated in the chart below. The chart shows the numbers of non-pooled plans within various probability ranges of falling below 50% funded. (Pooled plans are expected to have similar results.) For example, 124 miscellaneous plans have a 20%-25% probability of falling below 50% funded over the next 30 years.

### Probability of Falling Below 50% Funded (at any point in next 30 years)

Distribution of Non-Pooled Public Agency Plans



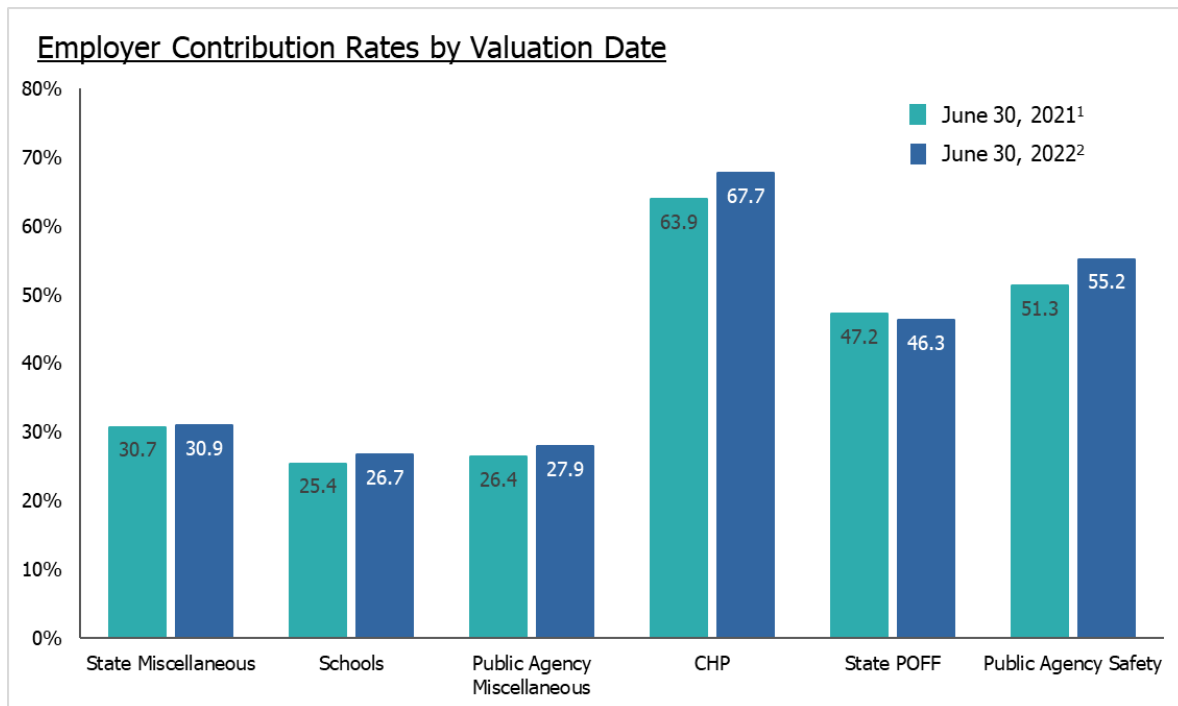
## Lower Than Expected Average Investment Returns

While it is believed that the current investment policy and asset allocation will result in average long-term geometric returns of approximately 6.8%, future average returns may be higher or lower. It is also believed that there is an equal likelihood that long-term average returns will be either greater than or lower than 6.8%. Average future returns of greater than 6.8% pose little risk to the system. However, since required contributions for PEPRA members reflect the current 6.8% assumption, it could be considered that PEPRA members overcontributed if the fund earns greater than 6.8% on a long-term basis.

Returns in any year that are lower than the assumed 6.8% result in increases to employer contributions. High employer contribution rates impose significant financial stress and may increase the risk that employers will default and be unable to make their required contributions. Since future employer contributions are one of the funding sources for the benefit payments, a default by the employer would result in increased risk to the members' benefits. The level of financial stress associated with any particular level of contributions will differ by employer.

### Current State

Current contribution levels or average contribution levels for public agency plans are shown in the table below. As shown below, employer contribution levels are relatively high, especially for safety plans. Actions to reduce the probability of low funded status or contribution volatility generally result in increases in the contribution levels. It is difficult to assess just how much strain current contribution levels are putting on employers. However, evidence such as collections activities, inquiries regarding extensions to amortization schedules and information regarding termination procedures indicate that some public agencies are under significant strain.



<sup>1</sup>June 30, 2021 valuations for state plans and the schools pool set FY 2022-23 rates and set FY 2023-24 rates for public agencies.

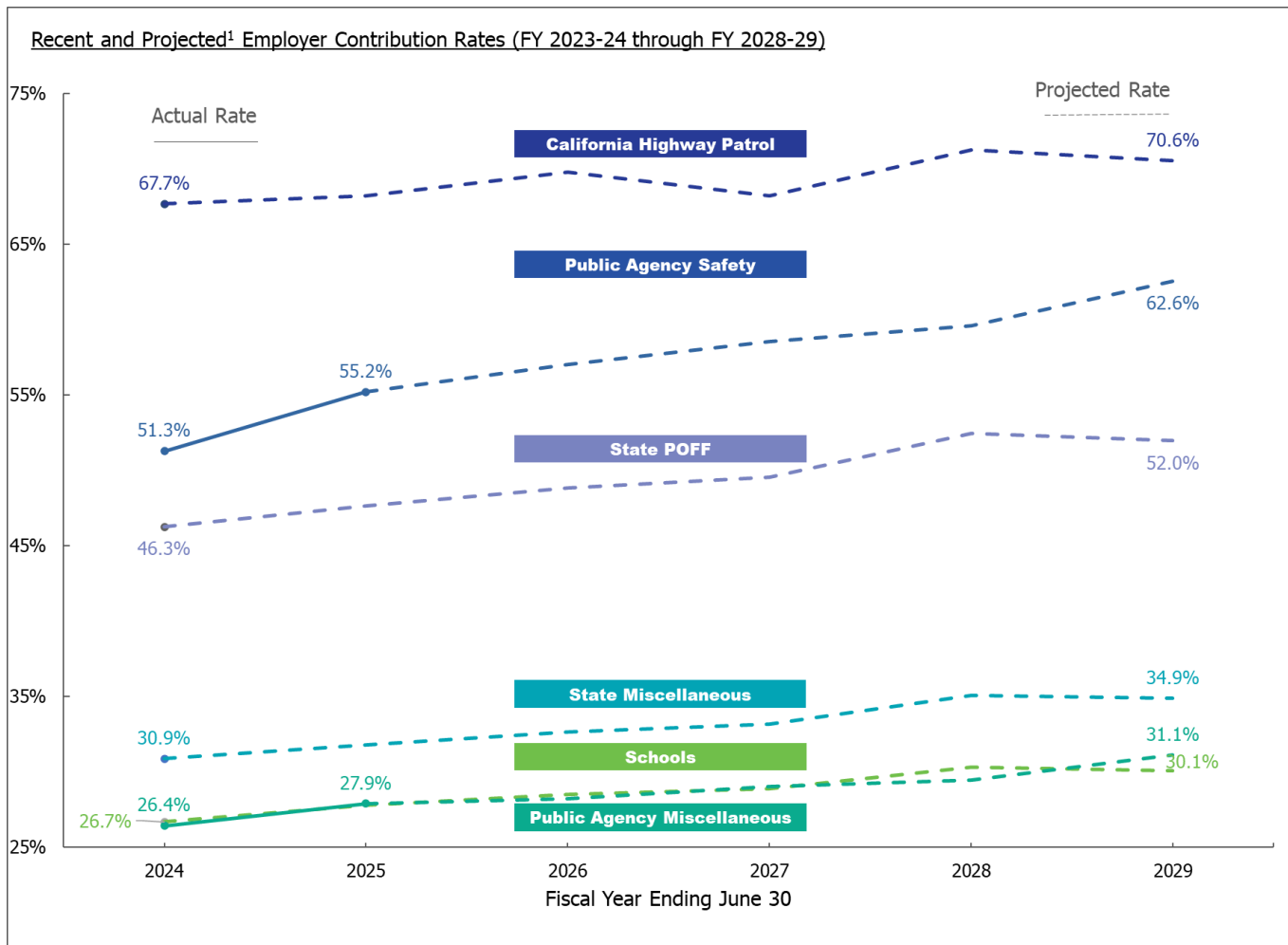
<sup>2</sup>June 30, 2022 valuations for state plans and the schools pool set FY 2023-24 rates and set FY 2024-25 rates for public agencies.

Note, for the above chart the results for Public Agency plans were determined by summing the required dollar contributions for each plan and then dividing by total payroll for all plans.

### Expected Future State

Below are projected employer contribution requirements (expressed as percentage of payroll) based on the June 30, 2022 actuarial valuation results projected forward with an investment return of 6.1% for FY 2022-23 and assumed annual investment returns thereafter of 6.8%.





<sup>1</sup>FY 2023-24 state plan and schools pool rates are actual. FY 2023-24 and 2024-25 public agency rates are actual.

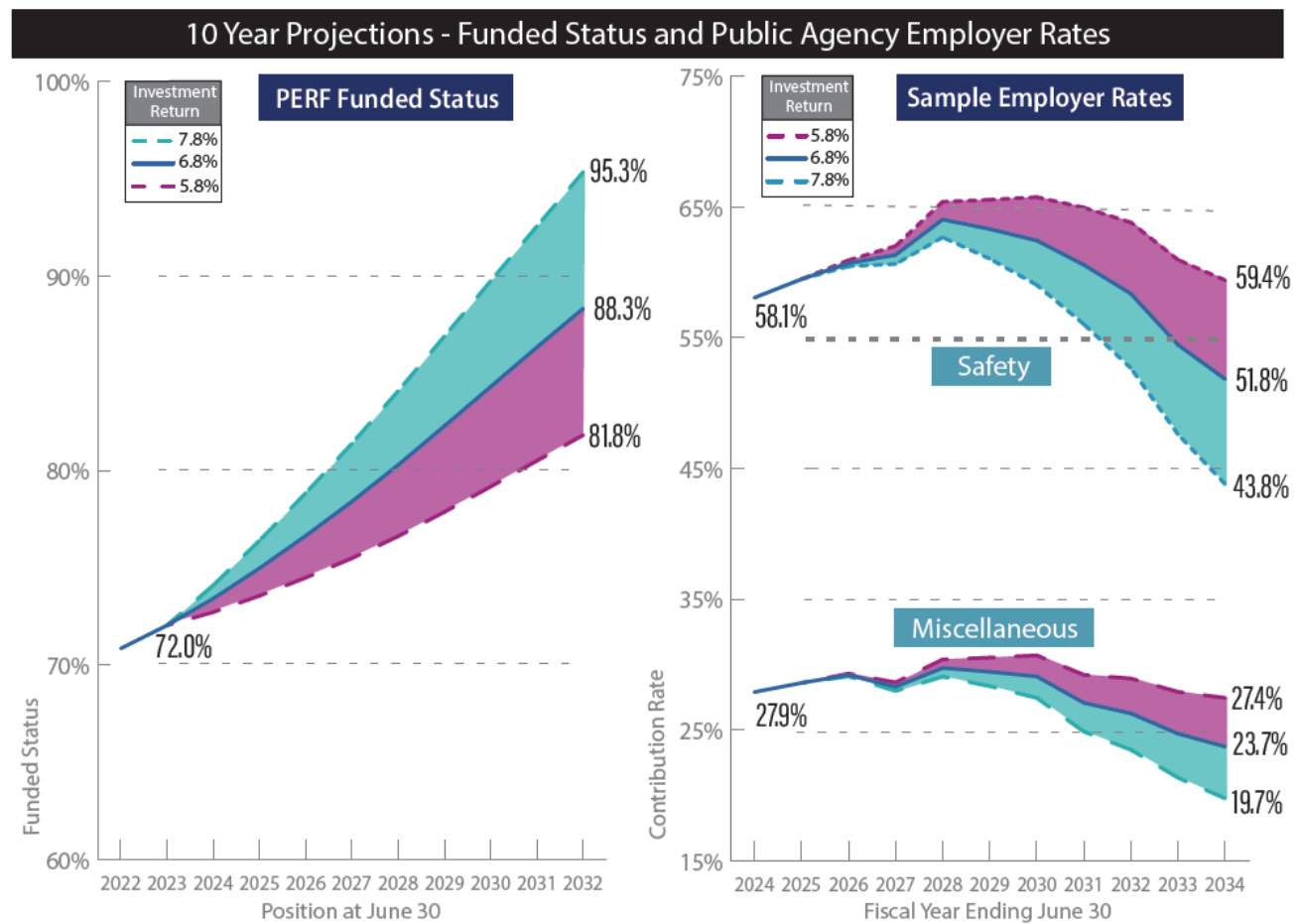
### Alternate Investment Scenarios

To the extent future experience deviates from the actuarial assumptions, adjustments are made to the UAL position which result in required contribution increases or decreases from present levels. The factor that is likely to have the largest impact on future contribution requirements is the investment return of the PERF. While actual plan experience in other areas such as mortality, inflation, rates of retirement, pay changes, etc., also impact required contributions, these factors are typically not as volatile as investment return.

The expected long-term investment return of the PERF is 6.8%. If the actual returns every year in the future were 6.8%, the following are expected to occur:

- Required employer contributions would continue to increase over the next few years while the full costs of recent investment losses are being phased in.
- In approximately five years, required employer contributions are expected to decrease. This is due to two separate factors:
  1. the continual decrease in normal cost as Classic members retire or terminate and are replaced by PEPRA members, and
  2. current required payments toward existing unfunded accrued liability bases will be gradually eliminated as individual UAL bases are fully paid-off.
- In the long-term, required employer contributions will trend toward the employer portion of the normal cost.
- The funded status of all plans would gradually increase to around 100% over the next 20 to 25 years.

The charts below provide the projected funded status of the PERF and sample employer contribution rates for a public agency safety and miscellaneous plan over the next ten years reflecting the assumed 6.8% annual investment return, with alternative annual investment returns of 5.8% and 7.8% to demonstrate the sensitivity of the PERF and the plans to future investment returns.



Over longer periods of 20 years or more, chances are greater the average return will be closer to the expected geometric average of 6.8%. However, based on the current allocation of assets and the expected volatility of the various asset classes, there is a significant possibility that the average return over the next 10-years will fall outside of the range illustrated above of 5.8% to 7.8%.

## Investment Shocks

Over periods shorter than 20 years or single year periods, the likelihood of varying from the 6.8% expected return is even greater. For example, there is roughly a 16% chance that in a single year, the investment return will be lower than -4.4% and a 16% chance that it will be greater than 18.0%. These returns are one standard deviation lower and higher than the expected return of 6.8%. So, while it is more likely that any

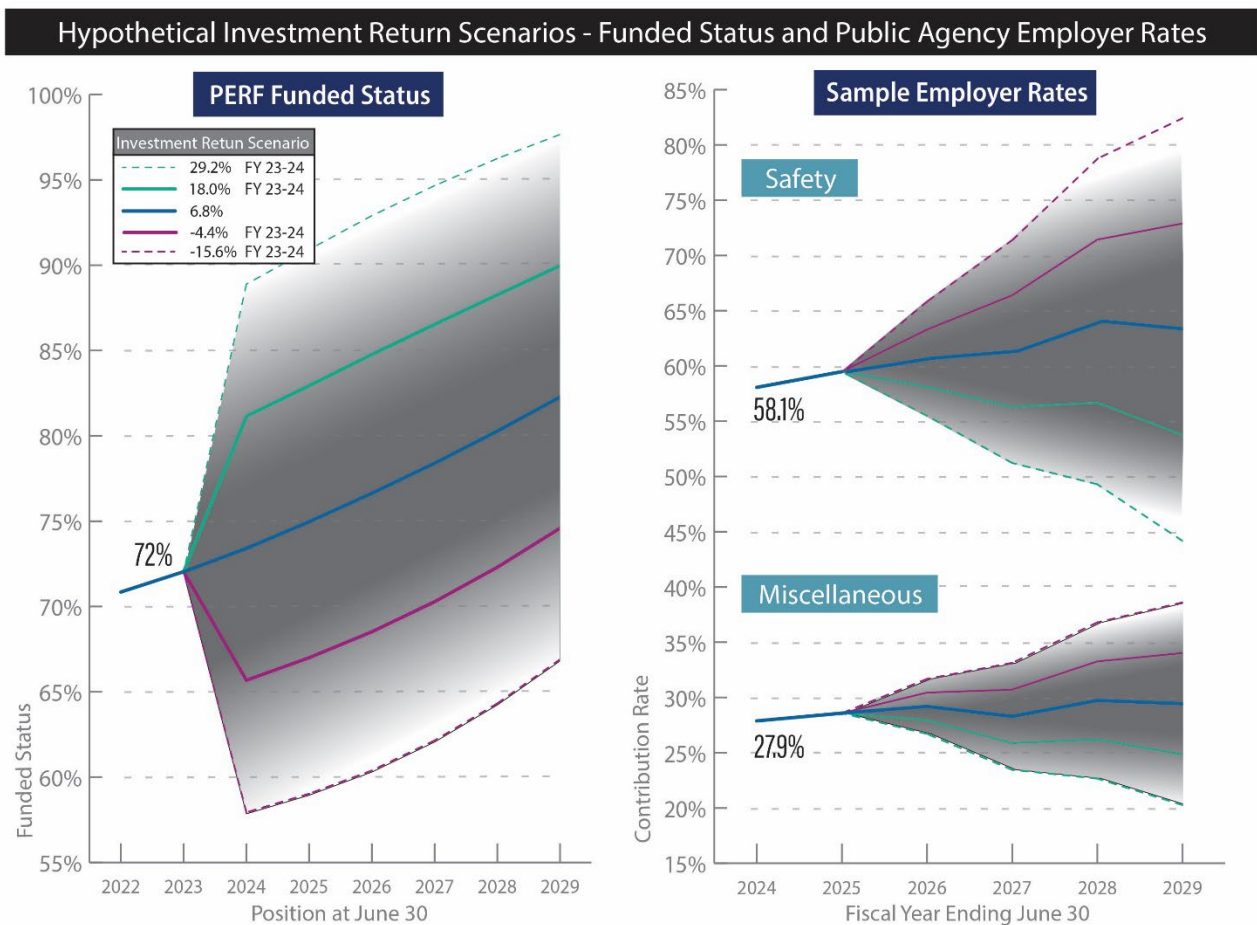
single year return will be between -4.4% and 18.0% (68% probability), the chance of falling outside this range for one year is not insignificant.

A two standard deviation higher or lower return is much less likely but does have roughly a 5% chance of occurring. The two standard deviation range is -15.6% to 29.2%. Or said another way, a return between -15.6% and 29.2% in any given year has a probability of around 95%.

While such "shock" returns are possible and do occur, history has shown that market corrections in the opposite direction typically occur over the next few years. However, such corrections are certainly not guaranteed.

The chart below provides the impact of various "shock" returns in the year ending June 30, 2024 with no assumed future correction. The purpose of the chart is to illustrate the potential impact of a single very good year or very bad year of investment return.

As demonstrated in the chart, funded status is impacted immediately and significantly while changes to required contributions happen more gradually due to the 5-year phase-in of the impact of investment gains and losses. The 5-year phase-in would allow time for a possible correction to occur which would then begin to have the opposite effect on future contributions.



# Key Non-Investment Risks

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## Mortality

The ultimate cost of a CalPERS members benefit depends on many factors including how long the member lives after retirement. For centuries, life expectancy has been consistently increasing. CalPERS actuaries study the mortality rates of its members, as well as national rates and use this information to project mortality rates into the future. If on average, members live longer than what is projected by the mortality rates used in the actuarial valuations, the cost of benefits increases. This results in downward pressure on funded status results and upward pressure on contribution rates.,

As of the publication of this document, there have been more than 100,000 COVID-19 related deaths in California. While many of these deaths have been among older individuals, deaths have occurred at younger ages as well. The impacts of the pandemic in California began early in the 2020 calendar year. During this relatively short period of time, impacts of the pandemic on the economy, public health and workplace norms have been significant but there remain unknowns regarding the potential long-term impacts to CalPERS.

## COVID-19 Impacts

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The pandemic altered the experience of the retirement system in several different areas. These include, investment returns, inflation, deaths, retirements, terminations, disability retirements, pay increases, etc. Material impacts on the demographic results of the system are as follows:

- More deaths than expected over the last few years (roughly 10-15%)
- More retirements occurred than expected in the school's pool and within public agency plans.

While there were a significant number of additional deaths over the last few years, presumably due primarily to COVID 19, the impact on the liabilities of CalPERS plans has been less. Many of these "additional" deaths were among older retirees and therefore liability gains measured in recent valuations were less material than if deaths occurred among younger retirees. We expect to see similar results in the June 30, 2023 valuations.

During the pandemic several employers utilized budget management tools such as golden handshakes, furloughs, pay decreases and staff reductions to reduce short-term spending. There are risks to these tools and it remains of utmost importance that employers use appropriate due diligence.

## Long-term COVID-19 Questions

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- Will viruses like COVID-19 be more common in the future?
- Will COVID-19 survivors and those that experience Long Covid have a higher likelihood of earlier death or disability?
- Will increased handwashing, masks, and social distancing practices lower the risk of existing diseases and therefore improve future mortality?
- Will changes in work patterns (e.g., increased teleworking) change the frequency of job changes?
- Will high interest rates and forecasts of slower economic growth persist and reduce the long-term expected return on plan assets?

These questions will be examined in the November 2025 experience study which will also analyze their impact to the pension system and provide us with enough credible experience to determine if changes are needed to the demographic assumptions. However, the demographic impacts of COVID-19 over the last few years will add complexity and uncertainty to the selection of assumptions in the next Experience Study.

## Inflation

Over the last few years, inflation has been significantly higher than the CalPERS long-term assumption of 2.3%. As a result, the most recent actuarial valuation of CalPERS plans as of June 30, 2022, showed most of our plans experienced actuarial losses attributable to inflation. These losses were directly related to higher-than-expected Cost of Living Adjustments to retiree benefits and in some cases, higher than expected pay increases to active members. Losses varied somewhat from plan to plan, but in aggregate amounted to roughly 2% or less of existing CalPERS benefit liabilities. Losses attributable to higher inflation or any other factor, result in increases to required employer contributions, but not increases to PEPRAs member contributions.

The determination of member benefits can be impacted by other factors that are tied to inflation. One such factor is the compensation limit that applies to most PEPRAs members. Increases to this pay limit due to higher inflation can increase both employer and PEPRAs member contributions. In addition, certain federal limits that apply to qualified retirement plans are also impacted by inflation. These include limits on monthly benefit amounts. However, the impact of the IRS monthly benefit limits is to cap benefits paid from the PERF with the difference in benefits being paid by the Replacement Benefit Fund (RBF). Therefore, higher increases to this federal limit due to higher near-term inflation will generally simply result in a different allocation of costs between the PERF and RBF.

While recent inflation has been higher than anticipated, long-term estimates continue to be in-line with CalPERS long-term assumption of 2.3%. However, inflation for the year ending June 30, 2023 continued to be higher than the 2.3% assumption. The impacts of this will be quantified in the June 30, 2023 actuarial valuations scheduled for completion in August 2024.

Salary increases due to high inflation can be difficult to predict due to other factors such as budgeting constraints of the employer and the bargaining cycle. Individual employers are in a better position than CalPERS to estimate the impact of future salary increases.

Retiree COLAs, on the other hand, are calculated by CalPERS, and we can say that in the June 30, 2022 actuarial valuation, the April 2022 COLA caused the accrued liability to increase about 1% more than expected. Due to the amortization policy, a liability loss of 1% or less can be absorbed by most ongoing agencies without impacting services. The April 2023 COLA, which was based on 8% annual inflation the prior year, will have a similar impact in the June 30, 2023 actuarial valuation, but the impact will vary based on the COLA provision and whether the agency participates in a risk pool. The following table shows the estimated actuarial loss, as a percent of retiree accrued liability, for the various employers.

<b>Plan Type</b>	<b>Estimated Increase in Retiree Accrued Liability as of June 30, 2023 due to 2023 COLA</b>
<b>Non-pooled Public Agencies</b>	
2% COLA Provision	< 0.5%
3% COLA Provision	4.1%
4% COLA Provision	4.8%
5% COLA Provision	5.3%
<b>Pooled Public Agencies</b>	
Miscellaneous	0.7%
Safety	< 0.5%
<b>State</b>	< 0.5%
<b>Schools Pool</b>	< 0.5%

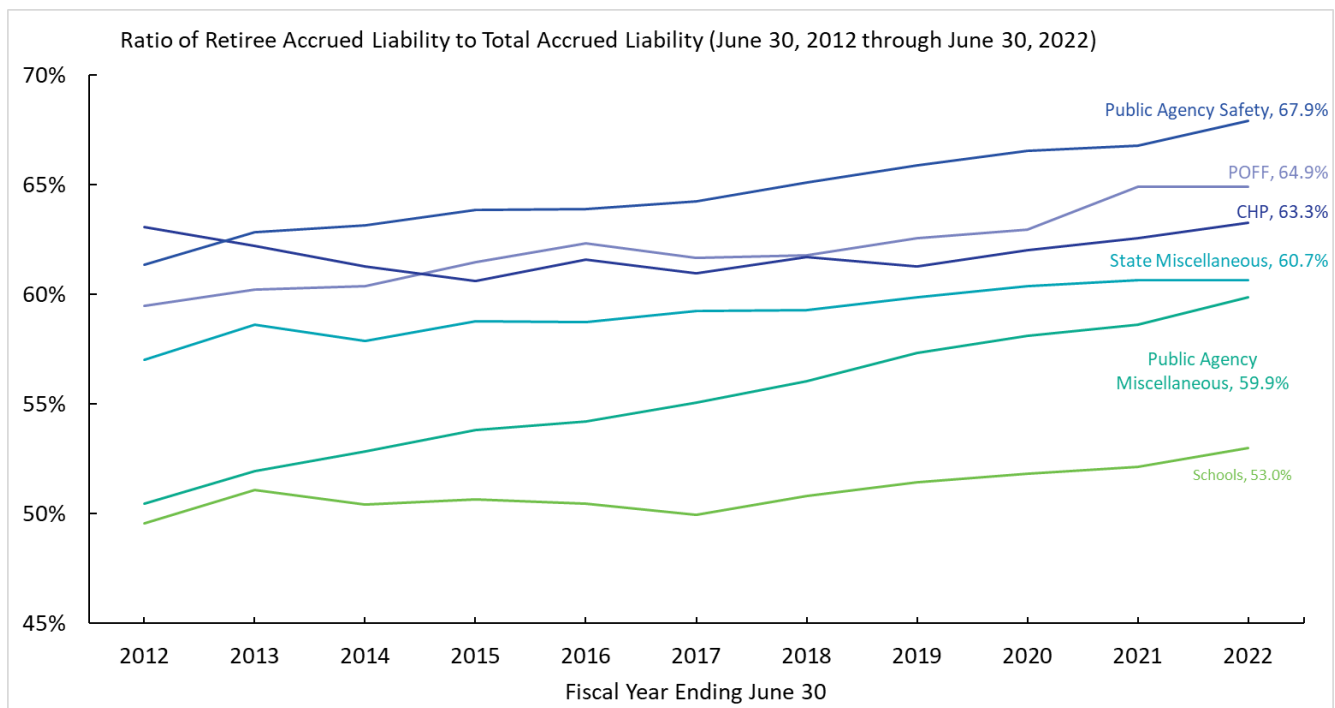
The largest actuarial losses resulting from the 2023 COLAs will be for the non-pooled public agencies that have adopted an enhanced COLA provision. For more information about the impact on a particular rate plan, contact a CalPERS actuary.

## Plan Maturity

The maturity of a pension plan can provide useful information regarding its sensitivity to various risks in the future. A variety of risk measures based on plan maturity, can be calculated, and tracked over time for this purpose.

One simple way to look at the maturity level of CalPERS and its plans is to look at the ratio of active members to retirees. A more relevant ratio is a plan's retiree liability to its total liability. A pension plan in its infancy will have a very low ratio of retiree liability to total liability. As the plan matures, the ratio increases. A mature plan will often have a ratio above 60%-65%. For CalPERS and other retirement systems in the United States, these ratios have been steadily increasing in recent years. However, this measure has flattened out somewhat in the last few years. Certain individual plans may have a significantly lower ratio, particularly if the plan has not been in existence as long.

In general, plans with higher retiree liability ratios have a shorter "duration" over which current accrued benefits will be paid. In some cases, particularly when a plan has only retiree liability, the actuary may determine that a shorter amortization period for UAL is appropriate to avoid the depletion of plan assets.



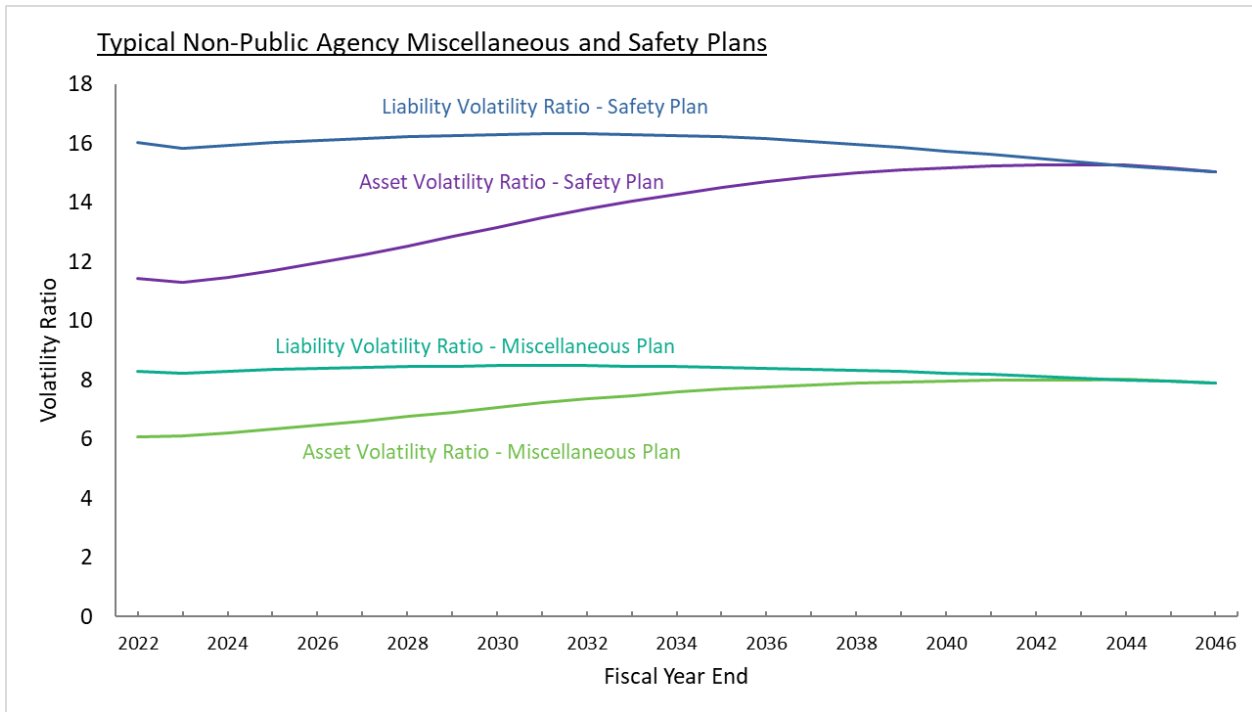


Other measures of plan maturity are the Asset Volatility Ratio (AVR) and the Liability Volatility Ratio (LVR). The AVR is the ratio of assets to payroll, and the LVR is the ratio of liability to payroll. As with the ratio of retiree liability to total liability, these ratios start out low given the low levels of assets and accrued liabilities, then increase over time as service is earned and contributions are made. Plans that have higher asset-to-payroll or liability-to-payroll ratios generally experience more volatile employer contributions (as a percentage of payroll) due to unexpected experience such as investment returns or mortality experience. For example, if the investment return in any given year is 1% less than expected a plan with an AVR of 10 experiences an investment loss equal to 10% of annual payroll, whereas a plan with an AVR of 5 only suffers an investment loss equal to 5% of annual payroll.

While many of the individual plans within CalPERS have comparable AVRs and LVRs, there can be significant differences from plan to plan based on several factors such as:

- The age of the plan
- The funded ratio of the plan
- The level of benefits provided by the plan
- Changes to the membership of the plan, for example if fire services are moved from a city to a county, etc.

Projections of these ratios indicates that Liability Volatility Ratios are projected to grow minimally (or decrease) for many CalPERS plans which have already been in existence for a long period of time. However, some public agency plans that were established more recently have lower current LVRs that are projected to grow more significantly in the future. Overall, the results indicate that contribution risks due to factors that impact plan liabilities, such as mortality, salary increases, retirements, etc., are not expected to increase significantly for most plans due to further maturation. However, current LVRs are relatively high which indicates most CalPERS plans already face high contribution volatility.



The projected increases in the AVR are primarily due to fact that the assets are projected to grow to equal the accrued liability as the funded ratio grows toward 100%. The funding policy alone will cause the AVR to increase above current levels. As the AVR increases, each investment loss will have a higher impact than the last from the perspective of the employer.

As illustrated in the chart above, there will be downward pressure on volatility ratios in the future as liabilities for benefits earned by PEPRA members become a larger portion of total liabilities.

The maturing of a defined benefit retirement system is expected and is not a sign of mismanagement or that corrective action needs to necessarily take place. In fact, it is difficult to reduce plan maturity measures without lowering benefits or settling benefit obligations with retirees through lump sums or annuity purchases. However, it is important to recognize that increasing plan maturity typically leads to increased contribution volatility.

Volatility measures can vary significantly from plan to plan. Each plan's annual actuarial valuation includes these measures along with a recent history and discussion of their significance. Employers with higher AVR and MVRs, or those who may be more sensitive to contribution volatility, may wish to create or increase funding toward a stabilization or rainy-day fund such as the California Employers' Pension Prefunding Trust (CEPPT).

# Managing Risk

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## Trend Toward Lower Expected Returns and Discount Rates

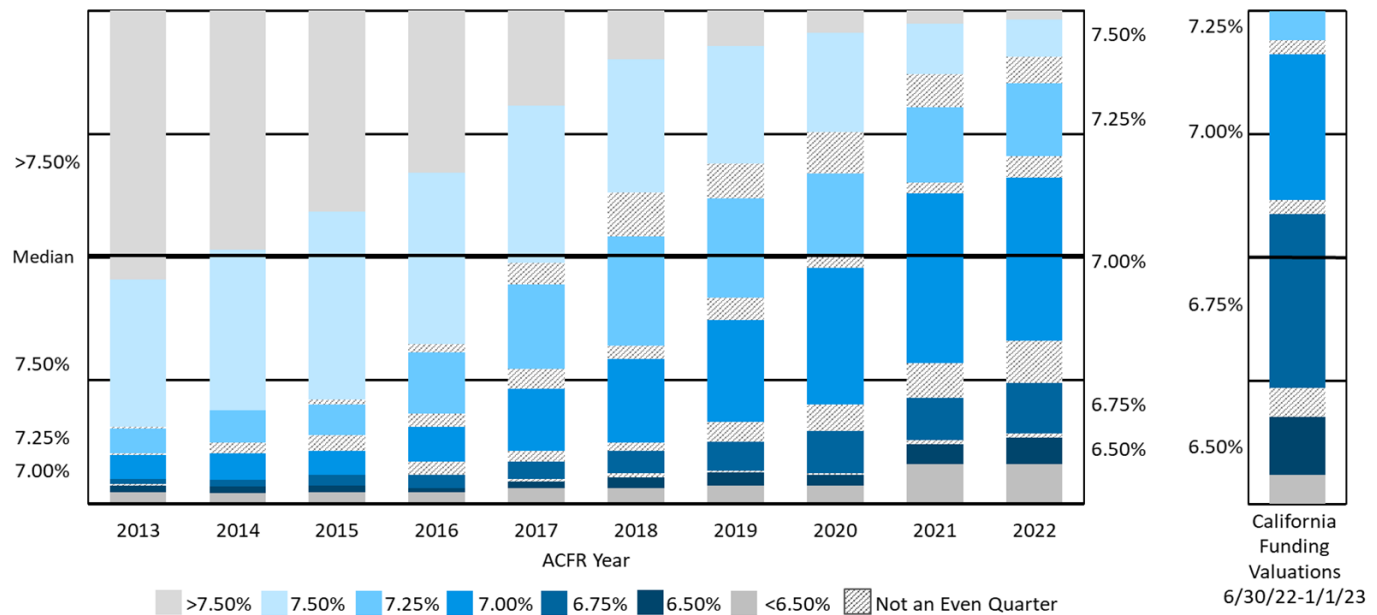
Despite recent increases in interest rates and more favorable capital market forecasts, concerns about lower returns over the next 10 to 20 years persist. The trend nationally for public pension plans in recent years has been a reduction in the rate of return assumption.

Over the last 10-15 years bond yields were below historical averages, and forecasts of economic growth and inflation were also lower than they were prior to 2009. This meant that plans needed to change their asset allocations to accept a higher level of investment risk (to achieve the same level of expected return) or to accept a lower expected return on investments, or a combination of both.

Over the prior two years, price inflation has increased, and the Federal Reserve has responded by increasing interest rates. Up to this point, this does not appear to be significantly impacting long-term assumptions.

CalPERS is not alone in facing the changed expectations of what can be achieved in the capital markets. The chart below left shows the change in distribution of public pension investment return assumptions from 2013 through 2022. The survey shows that based on the available 2022 Annual Comprehensive Financial Report (ACFR) data, discount rates ranged from 5.25% to 8.25% with a median of 7.00%

## Distribution of Public Pension Plan Investment Return Assumptions



Data sources: Left - Center for Retirement Research at Boston College Public Plans Data (left), downloaded August 23, 2023  
Right - Actuarial Funding Valuations for each system

Each year from 2013 through 2022 between 14% and 35% of the systems included in the survey reduced their discount rates including 16% in the most recent year.

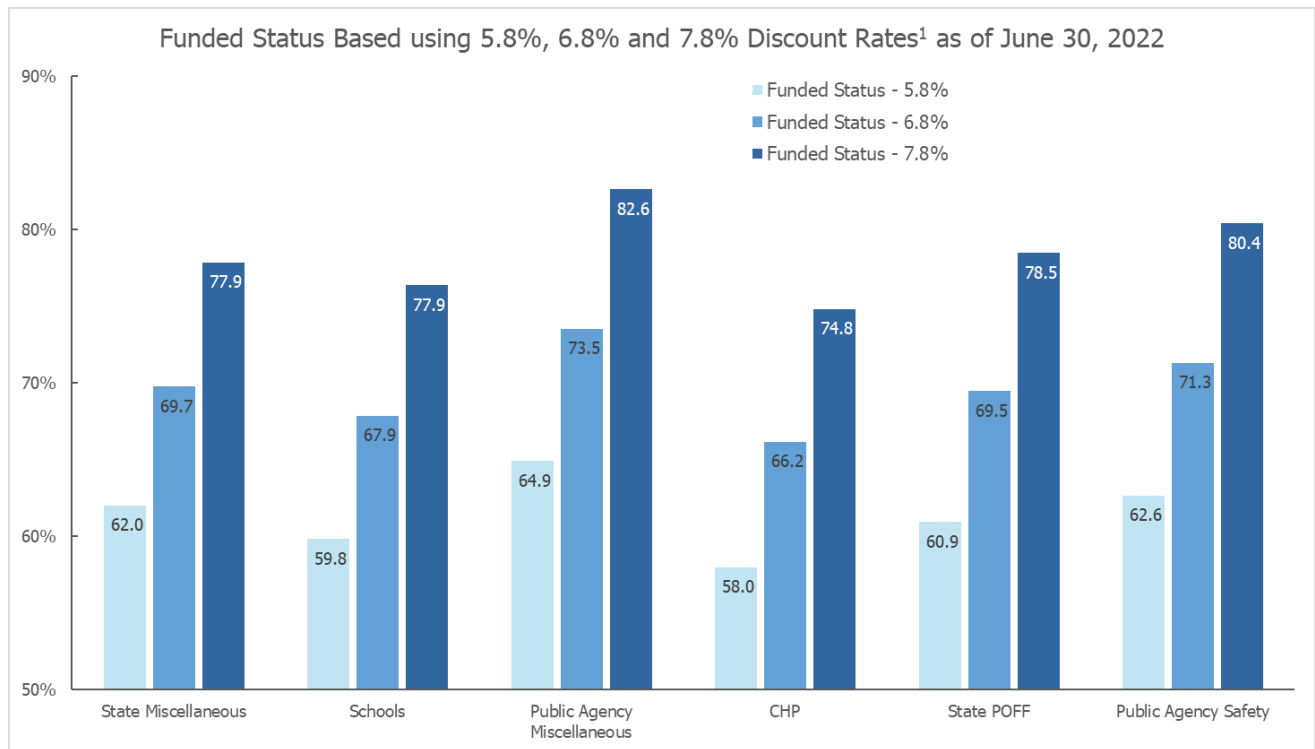
Since the Public Plans Data was compiled from available 2022 ACFR information, which typically reports information from 2021 funding valuations, it is somewhat out of date compared to current funding practices.

The Actuarial Office performs a more up to date, albeit smaller, survey of public retirement systems in California. The discount rates for 34 state, county and city retirement systems within California were compiled. The chart shown to the right of the Public Plans Data is based on funding valuations with valuation dates ranging from June 30, 2022 through January 1, 2023. The survey found that discount rates ranged from 6.00% to 7.25% with a median of 6.75%. Four systems reduced the discount rate since last year's survey, two to 6.75% and two to 6.50%.

It is likely that the reductions in investment return assumptions are the result of the same factors that have influenced changes at CalPERS. As interest rates fell starting in the early 1990s, discount rates only partially followed as investment risk was added to portfolios. With interest rates today higher than they have been in a decade, it will be interesting to observe whether retirement systems will consider reducing investment risk in the future.

Given the recent changes in capital market assumptions, and the uncertainty regarding what the actual CalPERS long-term rate of investment return will be, it is informative to consider the current funded status under alternate discount rate assumptions. The chart below provides such results assuming 5.8%, 6.8%, and 7.8% discount rates with no change to the current inflation assumption of 2.3%.

**Funded Status based upon 5.8%, 6.8% and 7.8% Discount Rates**



<sup>1</sup>Inflation assumption is kept at 2.3% for all scenarios listed. The inflation assumption may increase or decrease along with the discount rate assumption.

Discount rate changes are primarily due to 1) revised expectations of the future returns of utilized asset classes, or 2) decision to raise/lower investment risk by shifting investment allocations toward lower/higher risk return investments. The decision regarding the level of investment risk to target is among the most important decisions made by the system and its board. Excessive risk can lead to significant swings in funded status and contribution requirements as illustrated throughout this report. In addition, if discount rates are set higher than the reasonably expected average return, required contributions will be understated with the differences needing to be made up by future generations. Under that scenario, future contributions can rise to levels higher than if the discount rate had been set appropriately.

## Amortization Policy

The goals of a retirement system's amortization policy should be to pay down existing UAL over a reasonable amount of time in order to:

- Provide benefit security for plan members
- Maintain intergenerational equity
- Limit contribution volatility to the extent possible

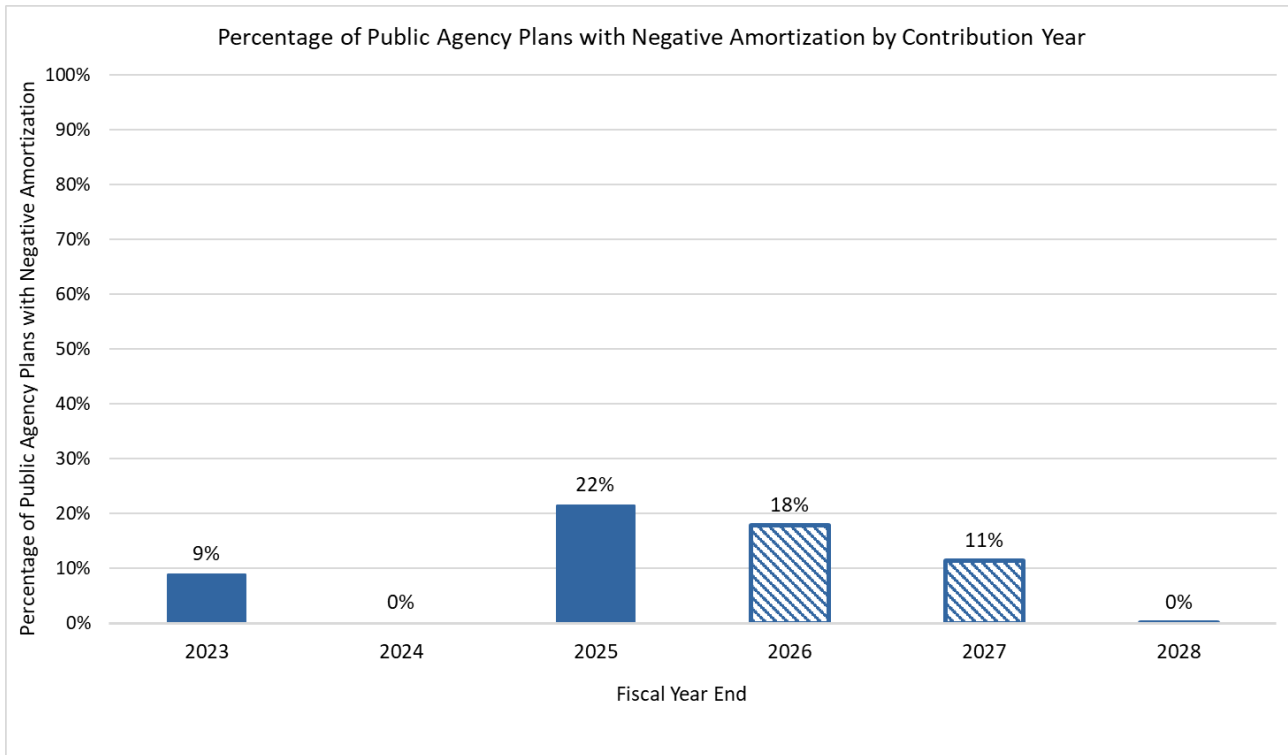
CalPERS current amortization policy adopted by the Board (effective with the June 30, 2019 Actuarial Valuation Reports), improved the overall expected outlook for these objectives relative to the previous policy. In particular, the current policy greatly reduces the possibility of "negative amortization" which occurs when required amortization payments are lower than the interest on a plan's existing UAL.

Negative amortization can be the result of various factors such as:

- UAL bases being paid off over a long period of time (e.g., 25 years or more) using a payment schedule with increasing amounts.
- The interaction of positive and negative UAL bases with different amortization periods which combine to result in a low total payment toward total UAL.
- A large portion of the UAL attributable to recent investment losses that are within the 5-year phase-in period.

The current CalPERS amortization policy precludes the first scenario from occurring. For CalPERS plans, the third bullet item above is likely to be the cause of negative amortization if negative amortization exists. However, in such situations the funded position of the plan is typically higher than the average plan and the period over which the negative amortization is expected to occur is typically short (<5 years).

Given the large investment losses for the year ending 6/30/22, it was expected that a significant number of well-funded CalPERS plans would have required UAL payments for FY 2024-25 that would be less than interest on the UAL. As shown in the chart below, the number of rate plans subject to negative amortization increased from 0% to 22% this year.



While the number of plans with negative amortization for this year is higher than usual, the dollar amount of UAL associated with these plans is a relatively low percentage of CalPERS total UAL. In addition, as illustrated in the chart above, negative amortization for these plans is not expected to continue beyond a few years.

We do not consider the high number of plans with negative amortization this year a result of any issue with the CalPERS amortization policy. In addition, CalPERS agencies are notified within the annual valuation report if the required UAL payment is less than interest on the UAL. The report also provides the amount of ADPs that would be necessary to eliminate the negative amortization.

Note: The Actuarial Amortization Policy addresses situations where an employer has requested an extension of the amortization of the UAL due to a financial necessity. While these policies can temporarily moderate employer contribution requirements, such employers are required to contribute at least interest on the UAL.

## Employers Making Supplemental Payments

Many employers have elected to make additional contributions over and above the minimum required contributions. Education efforts over the last few years have increased employers' awareness of the ability to make such payments and the many advantages of doing so. As part of the education efforts, CalPERS Actuarial Office has been providing the Managing Employer Contribution (MEC) spreadsheet upon employer request and access to the [Pension Outlook](#) tool on the CalPERS website. These tools help employers determine the possible impact of additional contributions to their plans.

The primary advantages of additional contributions are:

- Expected savings in interest paid and lowering the overall cost of the pension program
- Lower risk of low funded status in the future
- Lower risk of high contributions in the future
- A reduction to net pension liability for financial reporting purposes
- A reduction in pension expense for financial reporting purposes

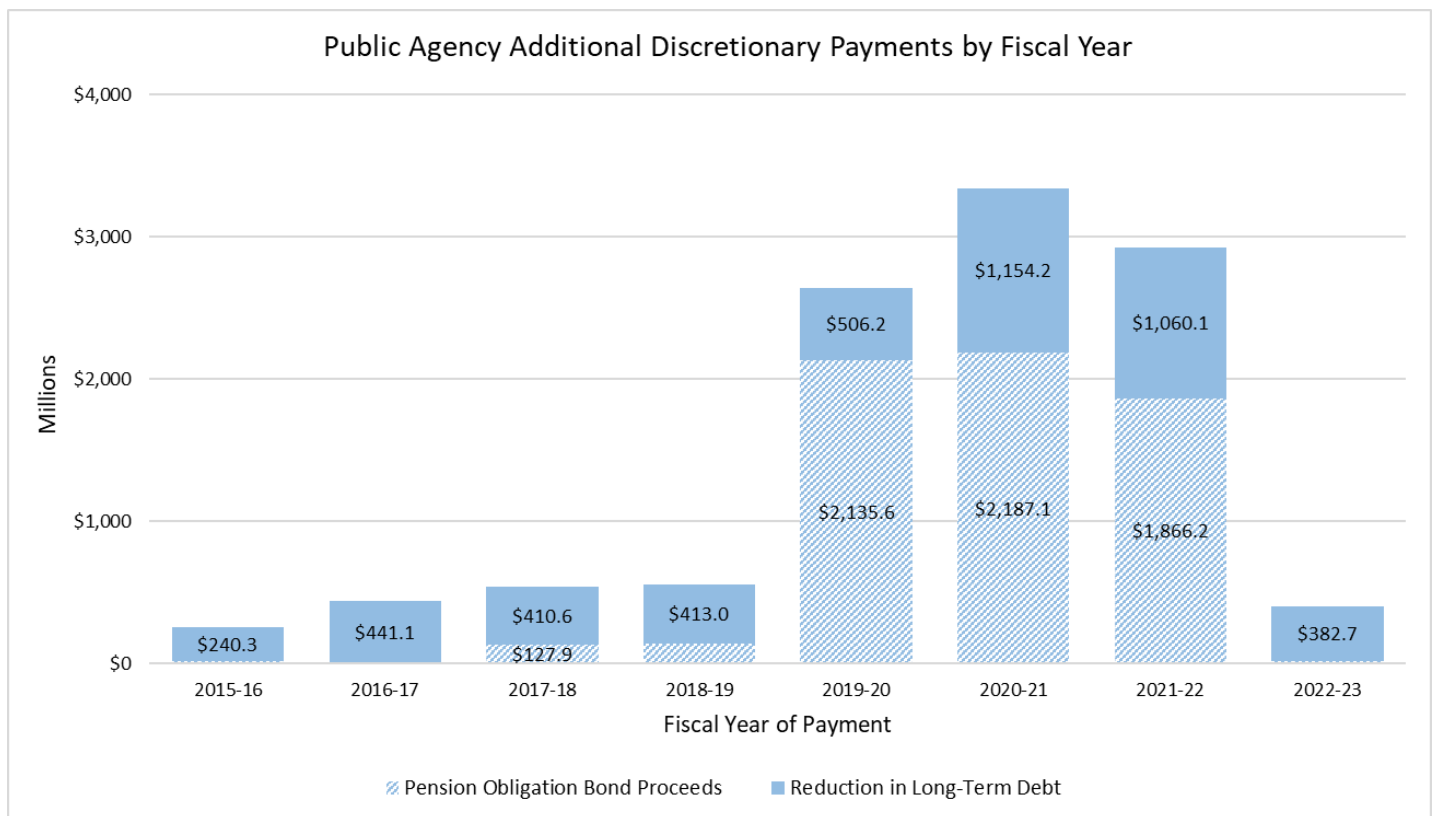
The form of these ADPs varies between employers. Some employers make occasional ADPs on an ad hoc basis, for example, if they have a budgetary surplus towards the end of a fiscal year. Other employers have made more regular ADPs on a monthly or quarterly basis, and some even have a formal plan in place to pay off their unfunded liabilities by a specific target date.

The State of California also makes contributions in excess of the actuarially required contributions in order to reduce UAL. Some additional contributions have been collectively bargained, some are due to a provision in the California Constitution that requires certain surplus funds be used to reduce State pension debt, and some are discretionary and serve to reduce long-term costs and stabilize contribution rates. In FY 2023-24, the State is expected to contribute over \$2 billion more than the actuarially required contributions.



In addition to ADPs, public agencies have also been issuing Pension Obligation Bonds (POBs) with increased frequency since FY 2019-20. A POB is a taxable bond that some agencies issue to fund the unfunded portion of their pension liabilities by creating a debt to bondholders. The low interest environment likely contributed to the recent trend of public agencies issuing POBs. Now that interest rates are beginning to rise, the frequency of new POB issues has all but ceased. We are not aware of any POBs being issued by CalPERS public agencies since August 2022.

The chart below reflects the total ADPs made by public agencies including the POBs that were issued in order to make those ADPs. The ADPs reduce long-term public agency debt only to the extent they exceed new POB issues. Although much of the increase in ADPs over the last few years has been driven by an increased use of POBs, agencies continue to pay off pension debt. The total public agency ADPs that were not paid for with POB proceeds has increased to over \$1 billion per year for two straight years before sharply declining in 2022-23.



ADP information was provided by the CalPERS Financial Office. POB issuance data was downloaded from the [California Debt and Investment Advisory Commission](#) on the California State Treasurer website.

## California Employers' Pension Prefunding Trust Program

Many public employers set aside additional pension assets in a trust separate from pension fund. These trusts, known as "Section 115 Trusts" (after Internal Revenue Code Section 115), allow employers to prefund future required defined benefit pension system normal costs and UAL payments. This also includes both lump sum annual UAL payments and voluntary ADPs. Section 115 pension trust assets can be used by the employer at any time to reimburse the employer's general fund from which they have made these pension contributions. Employers may also make pension contributions directly from a Section 115 pension trust.

The purposes of Section 115 pension trusts include the following:

- Save overall pension costs due to additional prefunding which generates investment income.
- Likely earn higher long-term returns than the State Treasurer's Local Agency Investment Fund or a county treasurer's office.
- Invest with different time horizons and risk levels than the pension fund.
- Retain liquidity on assets dedicated to pension costs.
- Stabilize and subsidize future budgets.
- Create a contingency reserve for difficult times ahead.
- Pay down pension liabilities in a predictable and prudent manner.

One of the most attractive of these Section 115 pension trust purposes from an employer's point of view is the ability to build up a contingency reserve that can be used to satisfy CalPERS contribution requirements during years the employer's budget is strained. This can be an effective way to deal with CalPERS contribution volatility due to fluctuating investment markets.

The unfunded pension liabilities and future pension contribution volatility summarized in the previous sections of this report do not reflect the fact that hundreds of public employers already have Section 115 pension trust funds. Because Section 115 pension trusts can be expensive to set up and administer, CalPERS launched the California Employers' Pension Prefunding Trust (CEPPT) in 2019. The CEPPT was established by Senate Bill 1413 which provides public agencies additional low cost and not-for-profit investment vehicles to help manage pension costs. Participation in the CEPPT is voluntary and provides employers with the flexibility to determine the amount of their contributions, reimbursements, and overall funding strategy. The CEPPT offers two broadly diversified portfolio options with low to moderate risk profiles that are expected to have a net rate of investment return of 3.5% and 4.5%, respectively. As of October 2023, a total of 94 employers have established CEPPT accounts with assets under management totaling approximately \$175 million.

# Conclusion

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Over the last few years various external factors have had material impacts on the experience of the retirement system. These include extreme investment experience (both favorable and unfavorable), a global pandemic and historically high levels of inflation.

In addition, over the last 10-years the system has had to recognize investment losses and significantly lower levels of future expected investment return due primarily to lower capital market assumptions across most asset classes. Also, during this 10-year period however, employer costs were somewhat reduced due to the impact of PEPR.

The combined impact of the above factors has resulted in increased required employer contributions and only modest improvements in the funded status of the system over the last 10-years. However, necessary changes to actuarial assumptions over the last decade have positioned the system to see greater improvements in funded status over the next 10-years.

Employer contributions are currently at relatively high levels due to large amounts of UAL and are projected to increase somewhat over the next 5 years. In addition, uncertainty within the economy suggests a near-term economic recession is a possibility. The ability of employers to continue making required contributions to the system is the area of greatest concern.

For employers facing financial difficulties, financial necessity policies within the CalPERS amortization policy can be used in some cases to spread amortization payments over a longer period and hence reduce near-term contributions. However, these policies require minimum contributions that may still pose challenges for some agencies. In addition, these policies do not reduce costs but merely delay and increase them.

Various strategies and actions by CalPERS, its Board of Administration, and its employers have improved the sustainability of the system and mitigated certain risks. Among these are:

- The adoption of the current amortization policies that mitigate the risk of the system dropping to dangerously low funding levels.
- The increased level of additional contributions made by CalPERS agencies.
- The use of a separate 115 trust by many CalPERS agencies for minimizing the risk of required contribution spikes and volatility
- The continued improvements in investment policies which maintains favorable investment return expectations and associated volatility.
- Improved modeling tools that allow CalPERS and its participating employers to forecast future required contributions and funded status under a variety of possible future scenarios.

In addition to the actions listed above, we believe the following items should receive a high level of focus going forward.

- Continual focus on the acceptable level of investment risk versus the desire for higher investment returns.
- Monitor the effectiveness of the current investment policy to ensure desired returns relative to the chosen level of risk.
- Continue the focus on educating participating employers on the risks facing the system and providing tools that enhance their ability to manage these risks.
- Stakeholder outreach regarding employers' ability to make required contributions.

CalPERS and its participating employers have taken many positive steps to manage the risks of the system. Increased focus on these risks and opportunities to minimize and manage them, as discussed in this report, will be of utmost importance going forward.

# Appendix A – Public Employees’ Retirement System (PERS) Summary Statistics

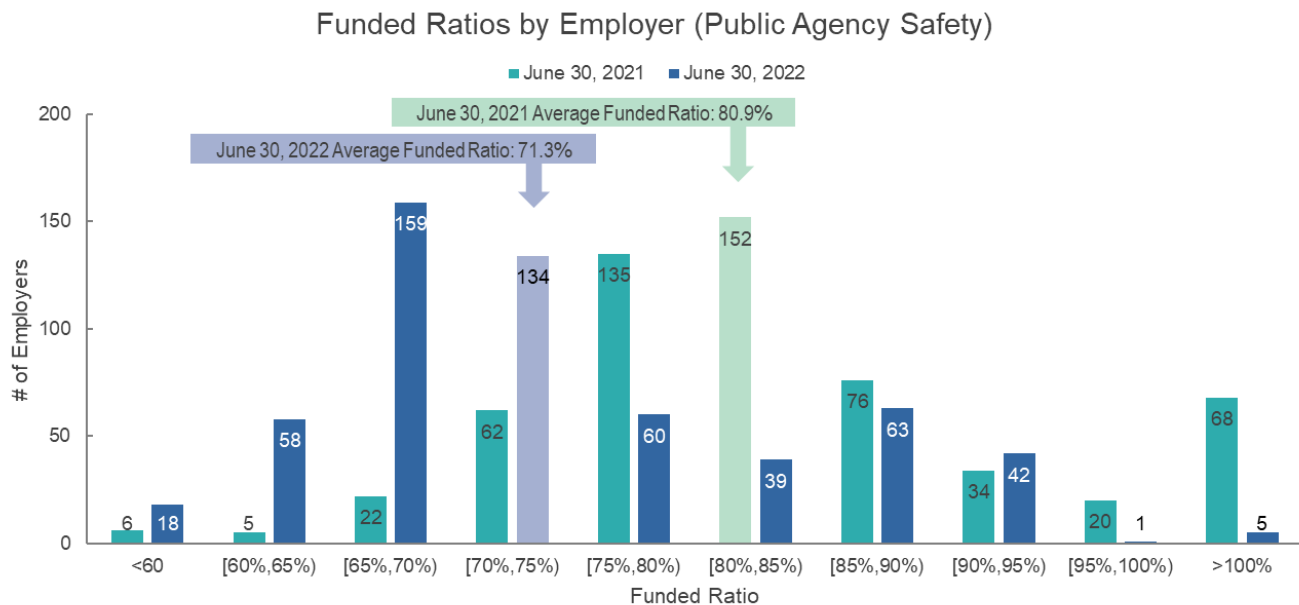
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	June 30, 2021	June 30, 2022
Number of Actives <sup>1</sup>	844,905	867,844
Number of Transferred <sup>1</sup>	166,686	167,329
Number of Separated <sup>1</sup>	458,012	496,715
Number of Receiving <sup>1</sup>	897,640	922,678
Payroll	\$58.7 billion	\$62.3 billion
Entry Age Accrued Liability	\$587.3 billion	\$618.8 billion
Market Value of Assets	\$476.2 billion	\$438.4 billion
Unfunded Liability	\$111.1 billion	\$180.4 billion
Funded Status	81.1%	70.8%
Prior Year Benefit Payments	\$27.7 billion	\$29.4 billion
Prior Year Employer Contributions	\$20.0 billion	\$22.7 billion
Prior Year Employee Contributions	\$4.8 billion	\$5.2 billion

<sup>1</sup>These counts are from the CalPERS actuarial valuation system, which may not match the statistics provided in CalPERS Annual Comprehensive Financial Report (ACFR). For example, the number of receiving displayed in this report is not the count of unique benefit recipients; rather, it is the count of data records in CalPERS actuarial valuations for benefits in pay status. Some individual retirees have multiple records in our data due to having worked at multiple CalPERS agencies. Numbers shown in the ACFR for retirees receiving benefits include individuals just once in the count even if they are receiving benefits from multiple CalPERS agencies.

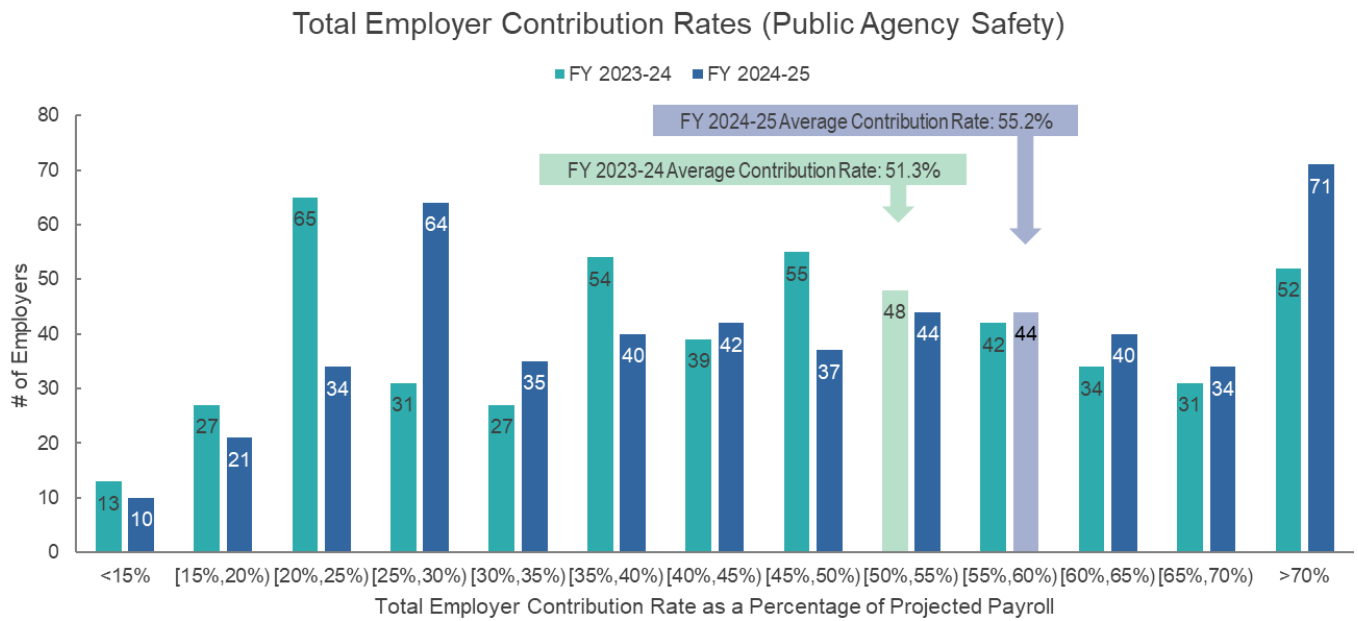
# Appendix B – Results of June 30, 2022 Public Agency Valuations for Safety Plans

## Public Agency Funded Ratios for Safety Plans

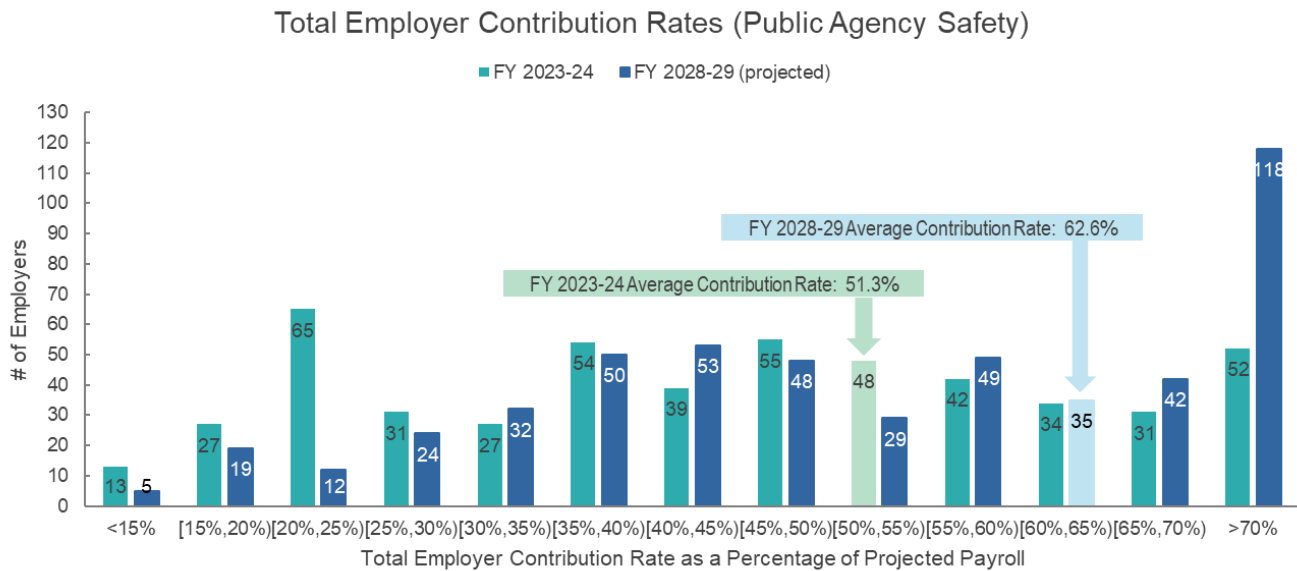


## Public Agency Contribution Rates for Safety Plans

The following table displays the total employer contribution rates for public agency safety plans that contract with CalPERS for benefits. These contribution percentages reflect both the required normal cost contribution percentage and the required payment toward any UAL (converted to a percent of payroll).



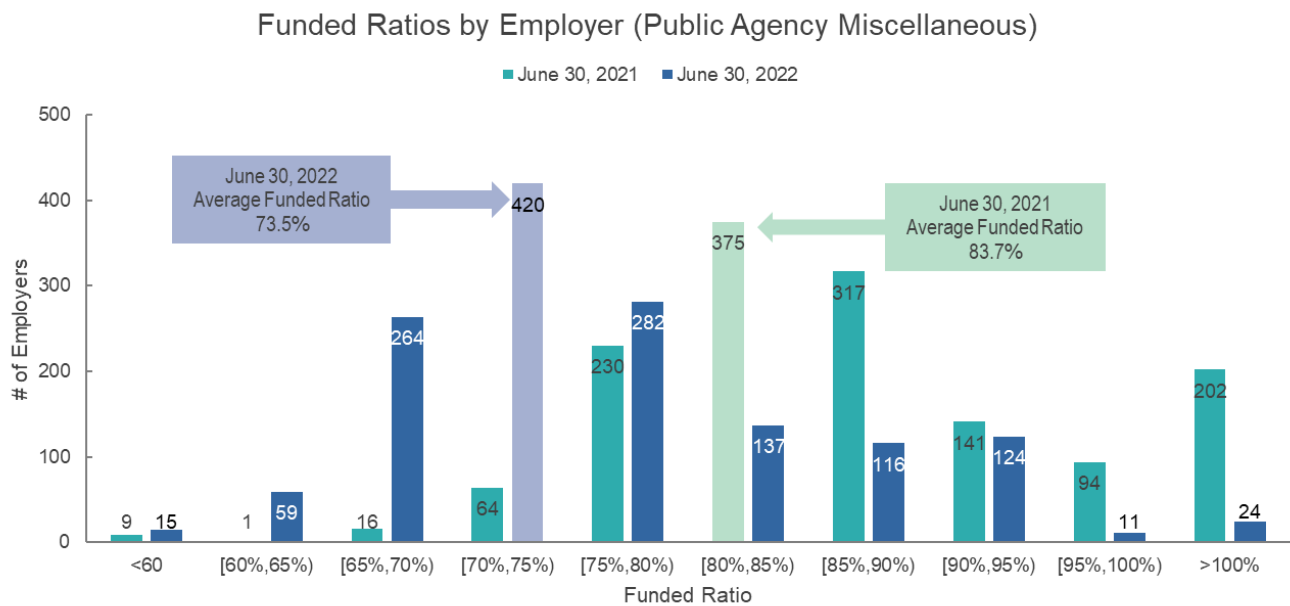
The following table displays the actual and projected total employer contribution rates for public agency safety plans that contract with CalPERS for benefits. These contribution percentages reflect both the required normal cost contribution percentage and the required payment toward any UAL (converted to a percent of payroll). FY 2028-29 rates are based on a projected payroll. For plans with a decreasing number of active members (and therefore decreasing payroll), these contribution percentages can become quite large when the required payment toward UAL becomes a large percentage of the decreasing payroll. In addition, the projected contributions are based on experience through June 30, 2022. There will be additional investment, economic and demographic experience that will impact the projected rates before they become actual rates in the future.





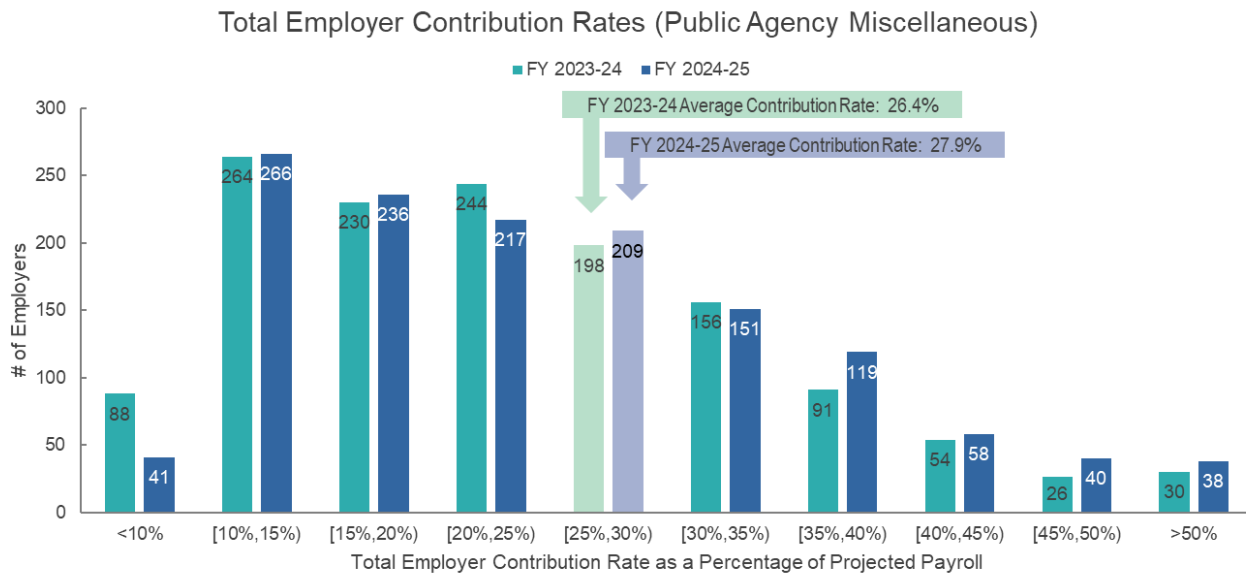
# Appendix C – Results of June 30, 2022 Public Agency Valuations for Miscellaneous Plans

## Public Agency Funded Ratios for Miscellaneous Plans



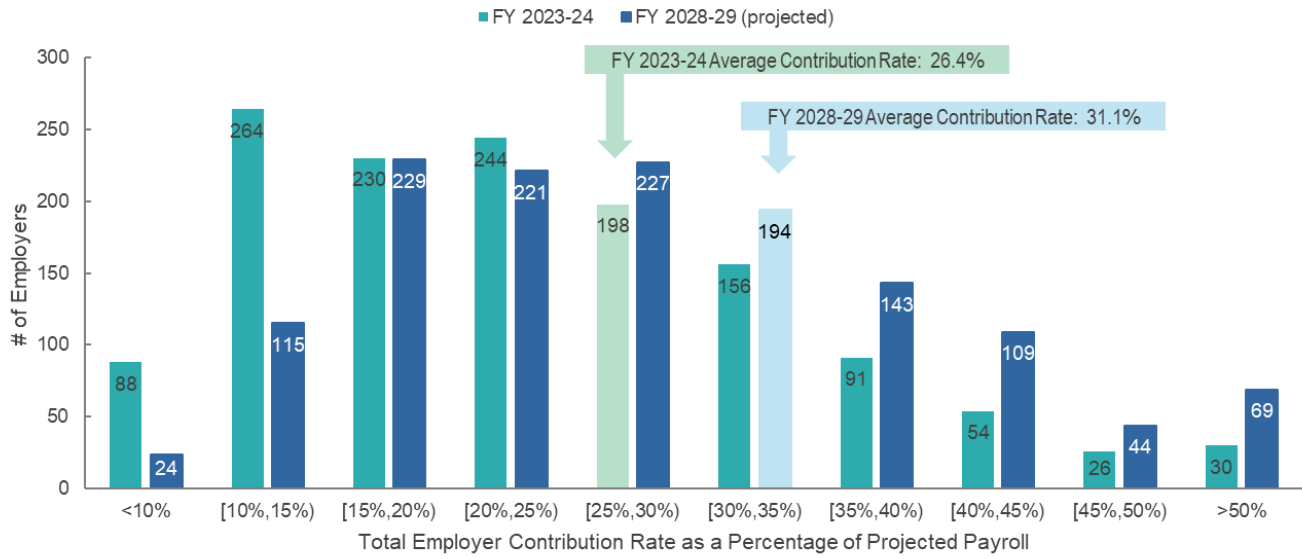
## Public Agency Contribution Rates for Miscellaneous Plans

The following table displays the total employer contribution rates for public agency miscellaneous plans that contract with CalPERS for benefits. These contribution percentages reflect both the required normal cost contribution percentage and the required payment toward any UAL (converted to a percent of payroll).



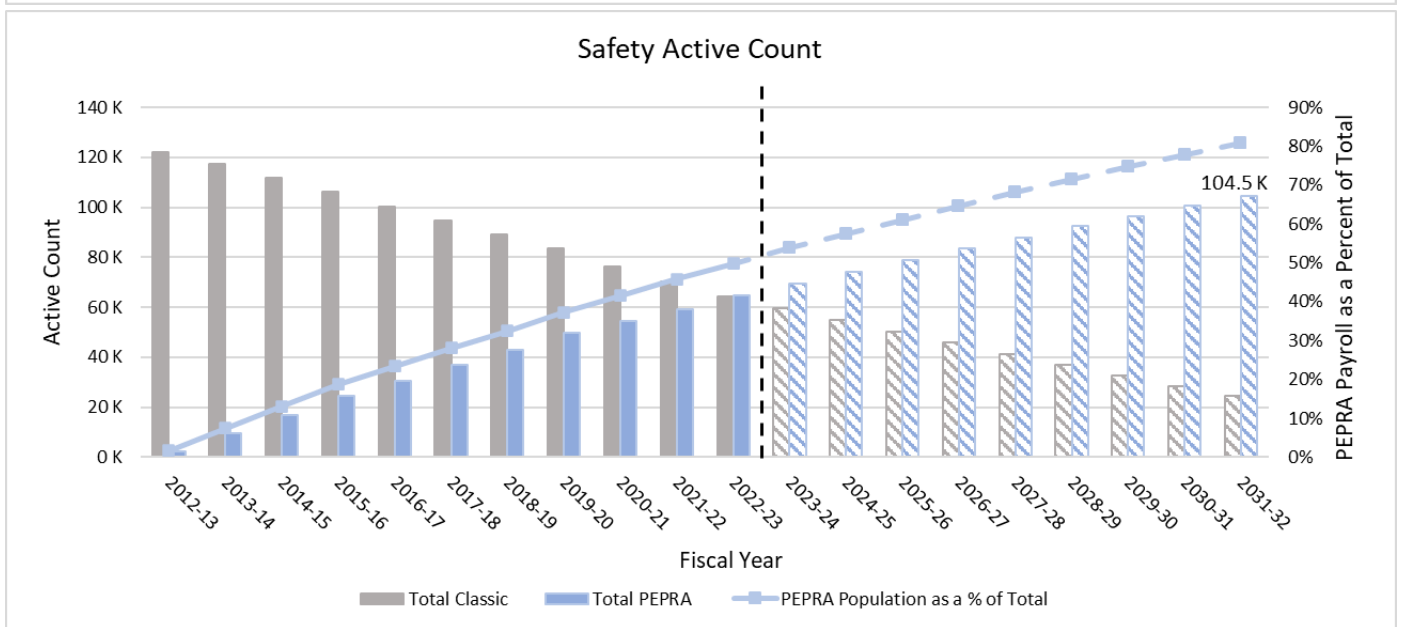
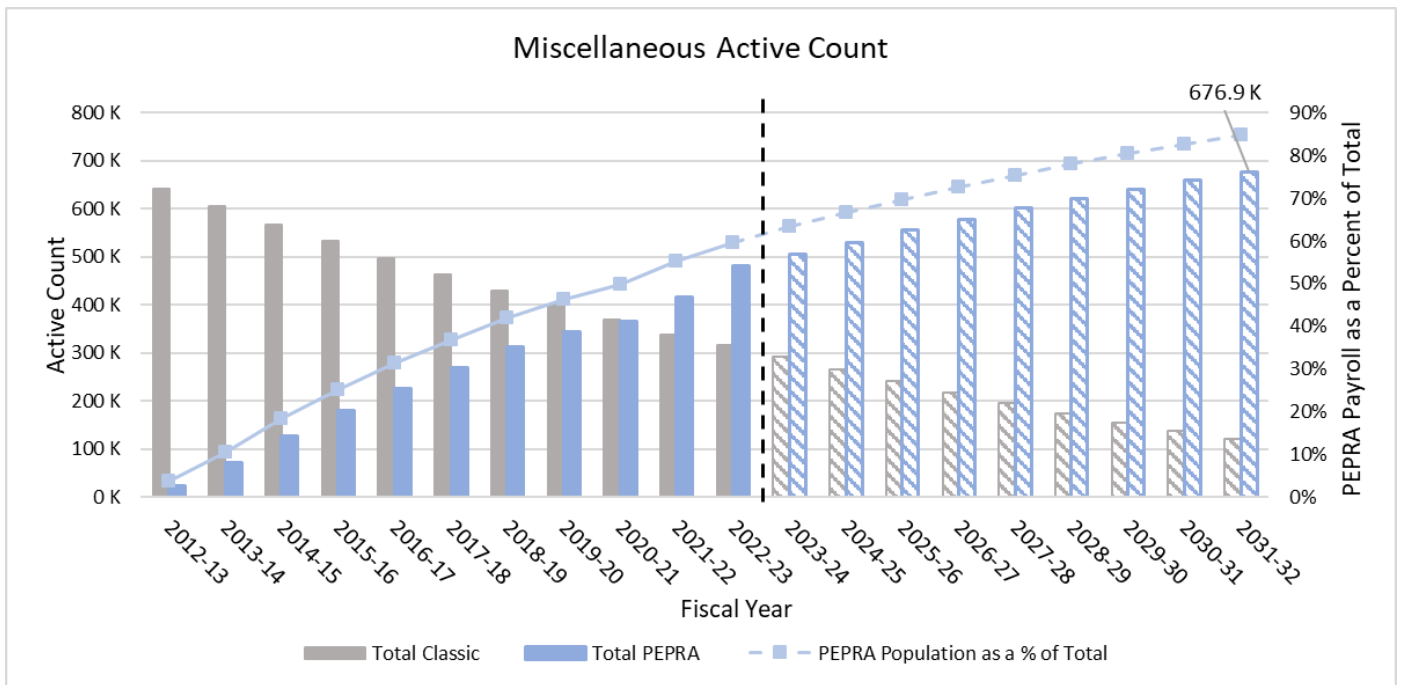
The following table displays the actual and projected total employer contribution rates for public agency miscellaneous plans that contract with CalPERS for benefits. These contribution percentages reflect both the required normal cost contribution percentage and the required payment toward any UAL (converted to a percent of payroll). FY 2028-29 rates are based on a projected payroll. For plans with a decreasing number of active members (and therefore decreasing payroll), these contribution percentages can become quite large when the required payment toward UAL becomes a large percentage of the decreasing payroll. In addition, the projected contributions are based on experience through June 30, 2022. There will be additional investment, economic and demographic experience that will impact the projected rates before they become actual rates in the future.

### Total Employer Contribution Rates (Public Agency Miscellaneous)



## Appendix D – Additional Information on PEPRA Impacts

Plan Type	% PEPRA Members 6/30/2023	% PEPRA Payroll 6/30/2023	Cost savings Last 10-Years	Cost Savings Next 10-Years
State	50%	43%	\$1.3 B	\$7.6 B
Schools	57%	49%	\$0.8 B	\$3.7 B
Public Agencies	68%	50%	\$2.3 B	\$13.0 B



## 2023 Annual Review of Funding Levels and Risks

November 2023

