COLORADO PERA

Joint Finance Committee

January 10, 2025

Andrew Roth, Chief Executive Officer/Executive Director

Amy C. McGarrity, Chief Investment Officer/Chief Operating Officer

Michael Steppat, Director of Public & Government Affairs

Agenda

- Overview
- 2023 Annual Comprehensive Financial Report (ACFR)
  - Facts & Figures
  - Investment Performance
- What to Expect Moving Forward
  - Priority Initiatives
  - Legislative Updates

Public Employees’ Retirement Association of Colorado (PERA)

Defined Benefit Plan

Stable benefit payments to over 138,000 retired public employees

Defined Contribution Plan

Choice available to State and Local Government employees

Voluntary Investment Program

PERAPlus 401(k) and 457 Plans

PERAPlus 401(k) / 457 PLANS

Health Benefits Program

Active and retired member coverage

PERACARE

COLORADO PERA

Governance

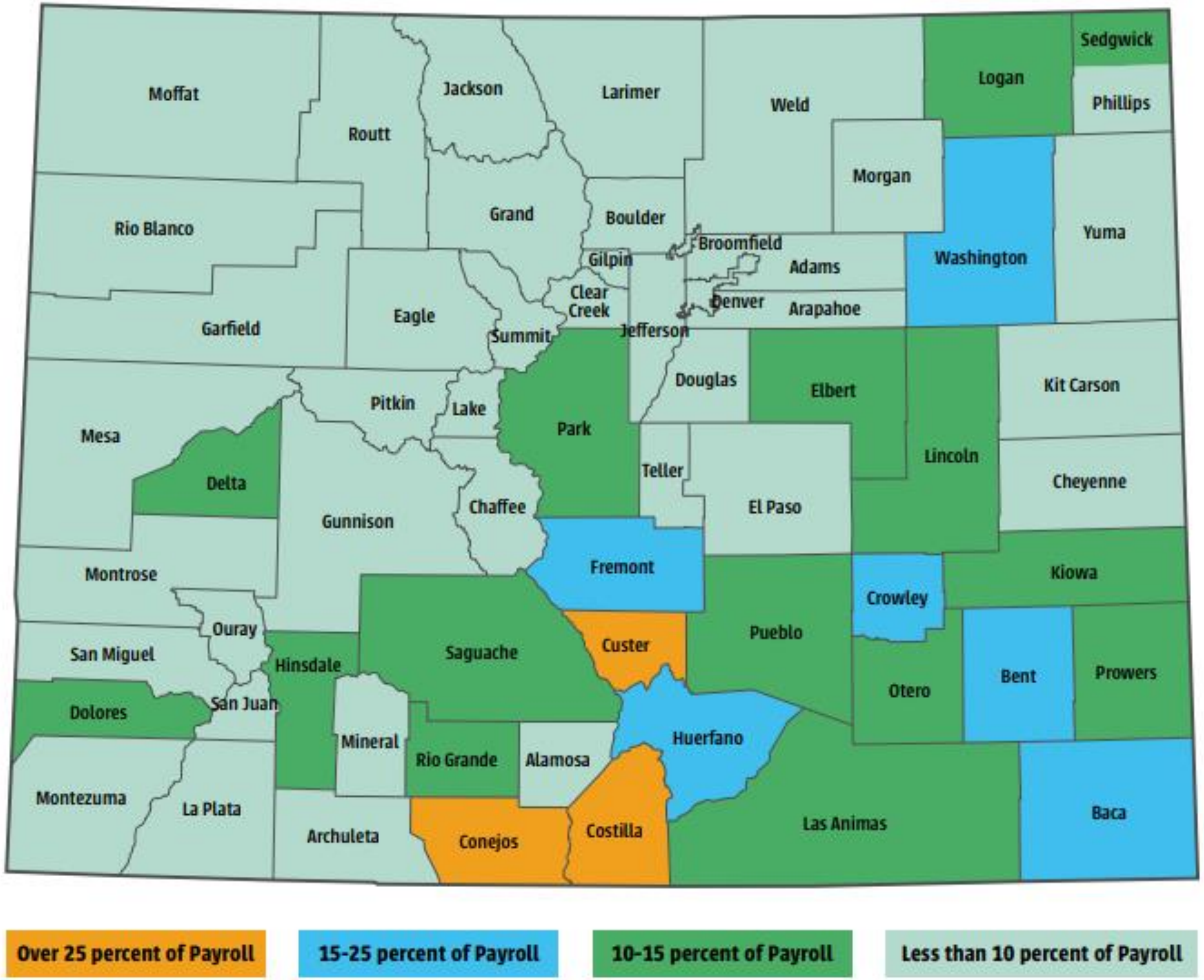
Colorado General Assembly

- Sets benefit and contribution structure, along with other plan requirements
- Provides legislative oversight via the following committees:
  - Legislative Audit Committee
  - Joint Budget Committee
  - Joint Finance Committee (SMART Act)
  - Pension Review Commission
    - Pension Review Subcommittee

PERA Board of Trustees

- Trustees, as fiduciaries, oversee investment program and benefits administration
- Adopt and revise rules in accordance with state statutes
- Sets policy and delegates the policy implementation to the Executive Director

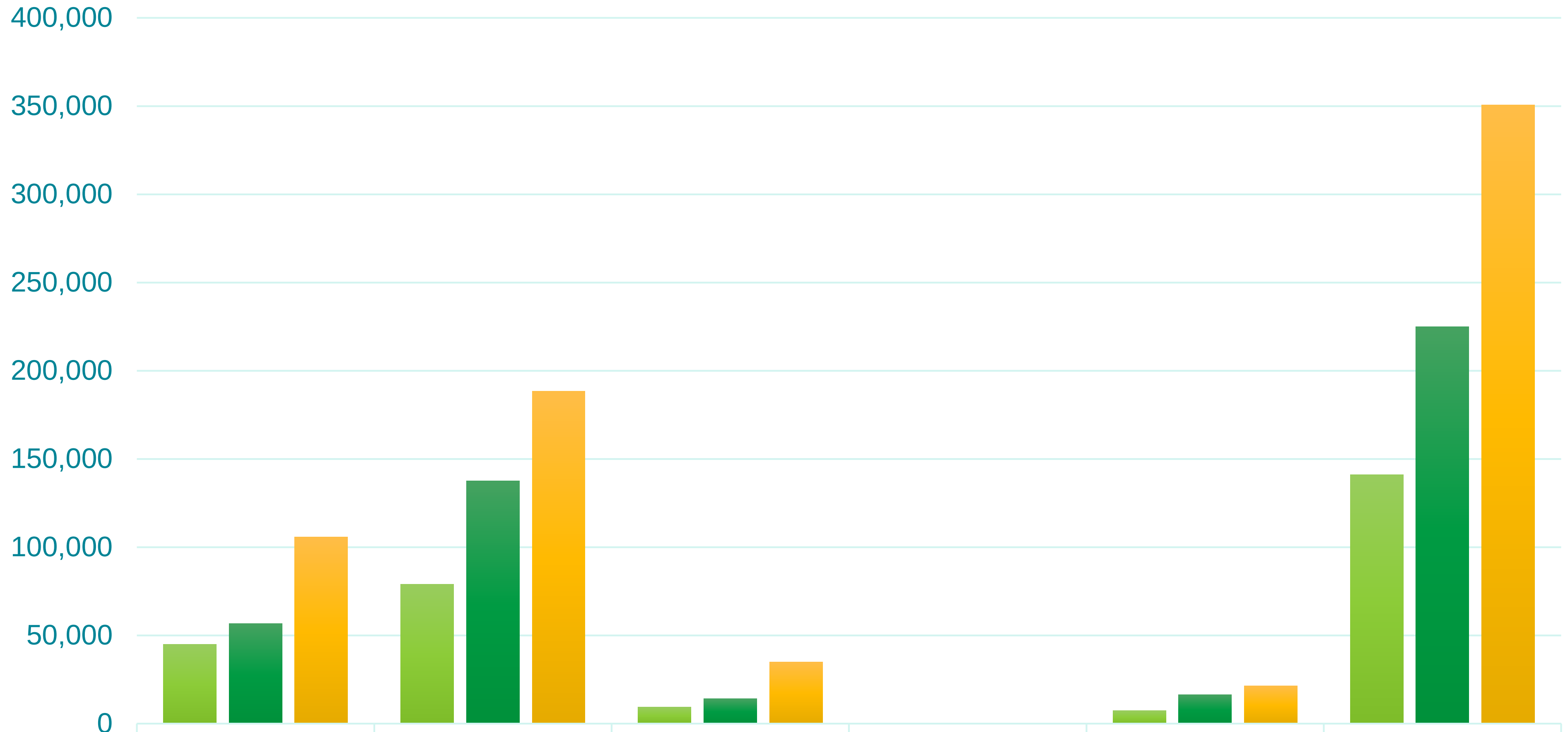
Annual PERA Retirement Distributions by County



1 in 10 Coloradans are members of PERA

As of November 30, 2024

Total: 716,703



	State	School	Local Gov't	Judicial	DPS	Total
Benefit Recipients	44,841	79,052	9,359	476	7,310	141,038
Active Members	56,747	137,538	14,069	356	16,361	225,071
Inactive Members	105,830	188,372	34,945	36	21,411	350,594

2023 Annual Report

2023 in Review

Facts & Figures as of December 31, 2023

Investment Portfolio Fair Value
$61.5 billion
(Defined Benefit Plans)

Net Rate of Return
13.4%

Members Actively Contributing to PERA
213,548

Employers
410

Total Covered Participants
59,470
(In PERACare Health Benefits Program)

Funded Status
69.6%
(Division Trust Funds)

Retirees and Benefit Recipients
138,553

Annual Retirement Benefit Payments
$5.3 billion

Invested in Colorado-Based Companies, Partnerships, and Assets
$788.9 million

30-Year Rate of Return
8.3%
(Annualized, Gross-of-Fees)

	Item	State Division	School Division	Local Government Division	Judicial Division	Denver Public Schools Division	Total Weighted Average
1	Unfunded actuarial accrued liability as of December 31, 2023 ($ in millions)	$9,608.8	$16,766.1	$571.8	$57.3	$520.7	$27,524.7
2	Member contribution rate	11.14%	11.00%	9.02%	11.00%	11.00%	11.01%
3	Employer contribution rate*	20.06%	19.74%	13.06%	23.23%	9.94%	19.53%
4	Actuarially determined employer contribution rate	18.78%	20.49%	8.22%	12.20%	6.08%	19.35%
5	Direct distribution rate						1.80%
6	Blended total contribution rate: **2 + 3 + 5**						32.34%
7	Blended total required contribution: **2 + 4**						30.36%
8	Ratio of blended total contribution rate to blended total required contribution: **6 ÷ 7**						**106.52%**

Segal

Automatic Adjustment Provision (AAP)

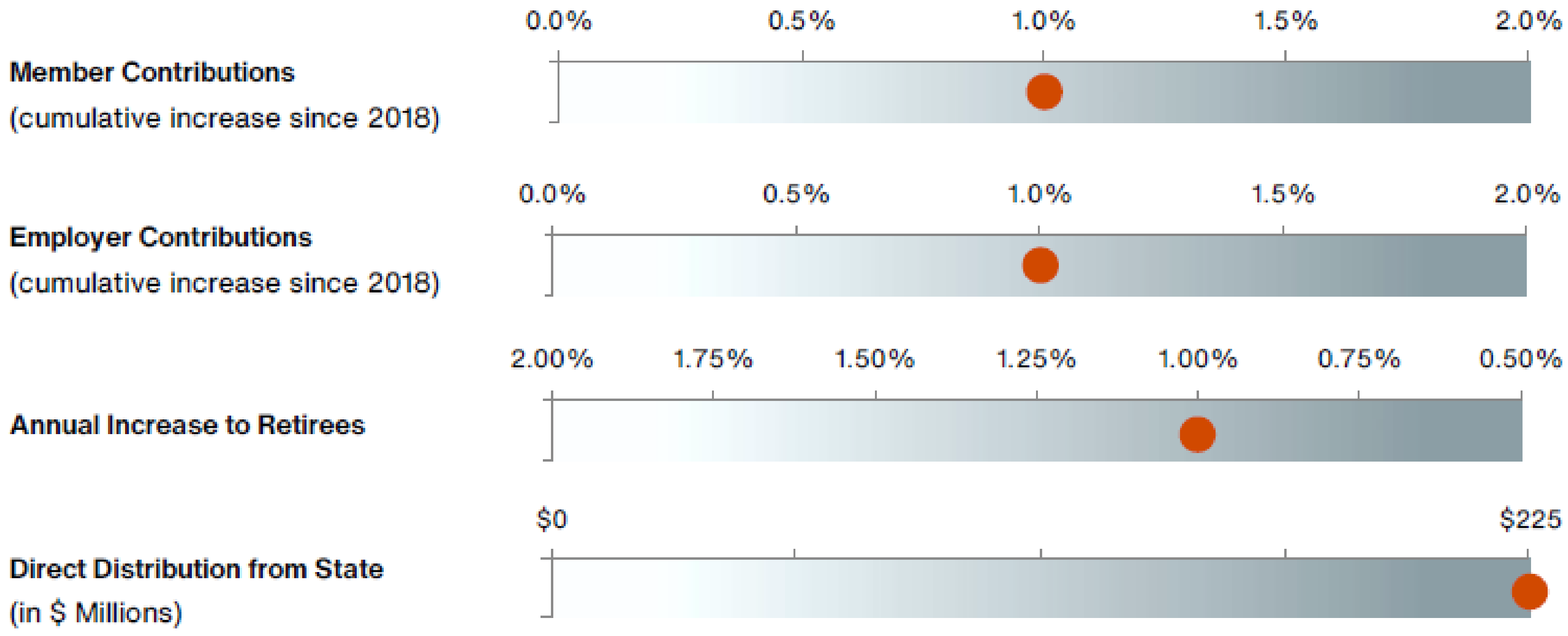
Automatic changes are triggered when the ratio of the Blended Total Contribution Rate to the Blended Total Required Contribution is less than 98% (or greater than 120%)

» As of December 31, 2023, this ratio is equal to **106.52%**

Automatic Adjustment Provision (AAP) – levers available

PERA's current positioning on the four levers is shown below

- The right-side of the exhibit represents the limit on each lever to improve the funded ratio



» The AAP was triggered for the 2020 and 2022 plan years resulting in:

- Cumulative 1% increase to member and employer contributions
- Cumulative 0.5% reduction in the annual increase to retirees (from 1.5% to 1.0%)
- No change to the direct distribution

PERA’s Investment Program

INTERNAL AND EXTERNAL MANAGEMENT EXPENSES

$218.5 million

ASSETS MANAGED IN-HOUSE BY PERA STAFF

59.8%

SAVINGS IN 2023 DUE TO INTERNAL INVESTMENT MANAGEMENT

$65 million

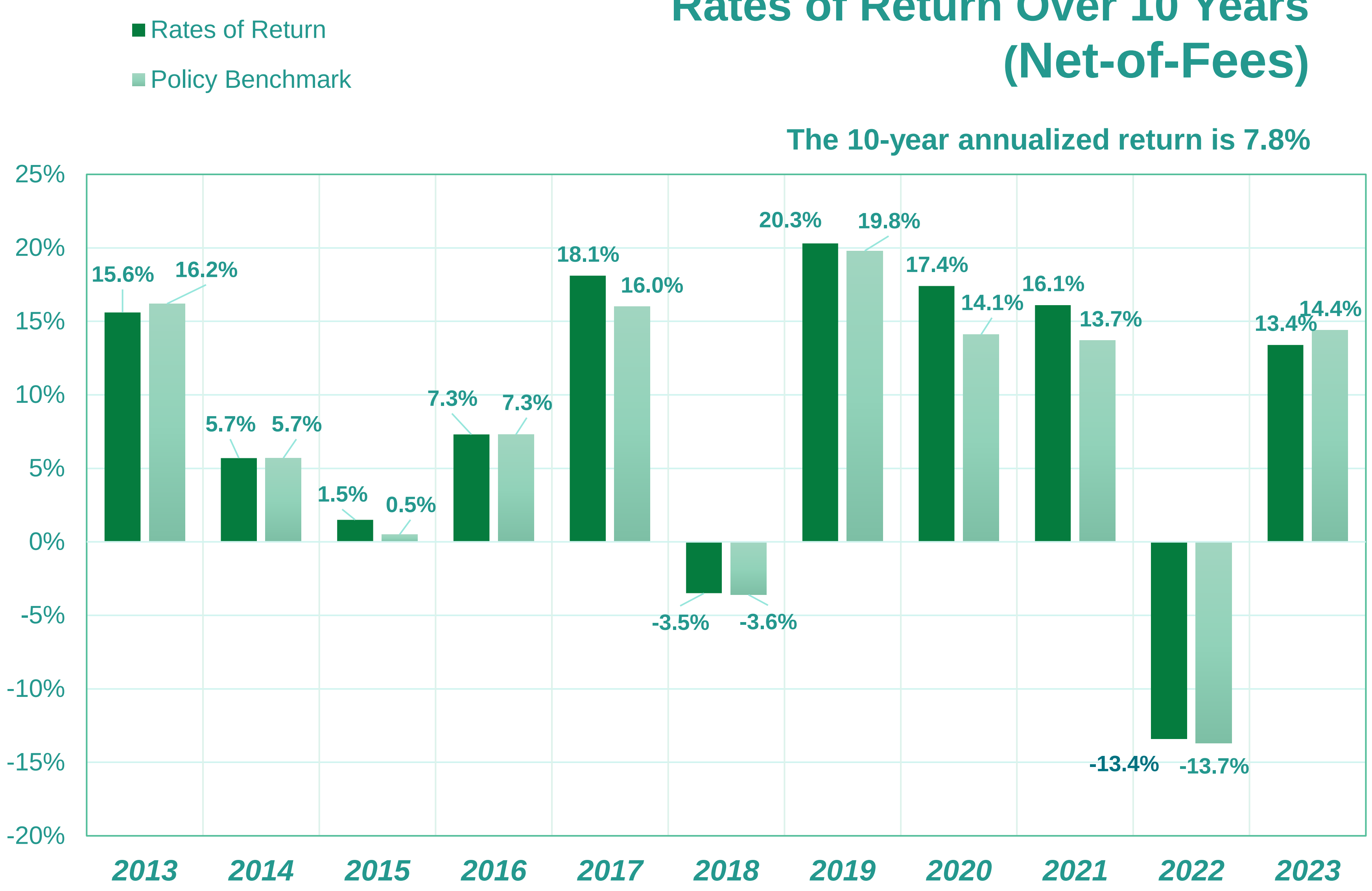
BASIS POINTS OF TOTAL ASSETS SPENT ON MANAGEMENT

35.5

2023 Investment Performance

Rates of Return Over 10 Years (Net-of-Fees)

The 10-year annualized return is 7.8%



2024 Asset/Liability Study Asset Allocation Changes

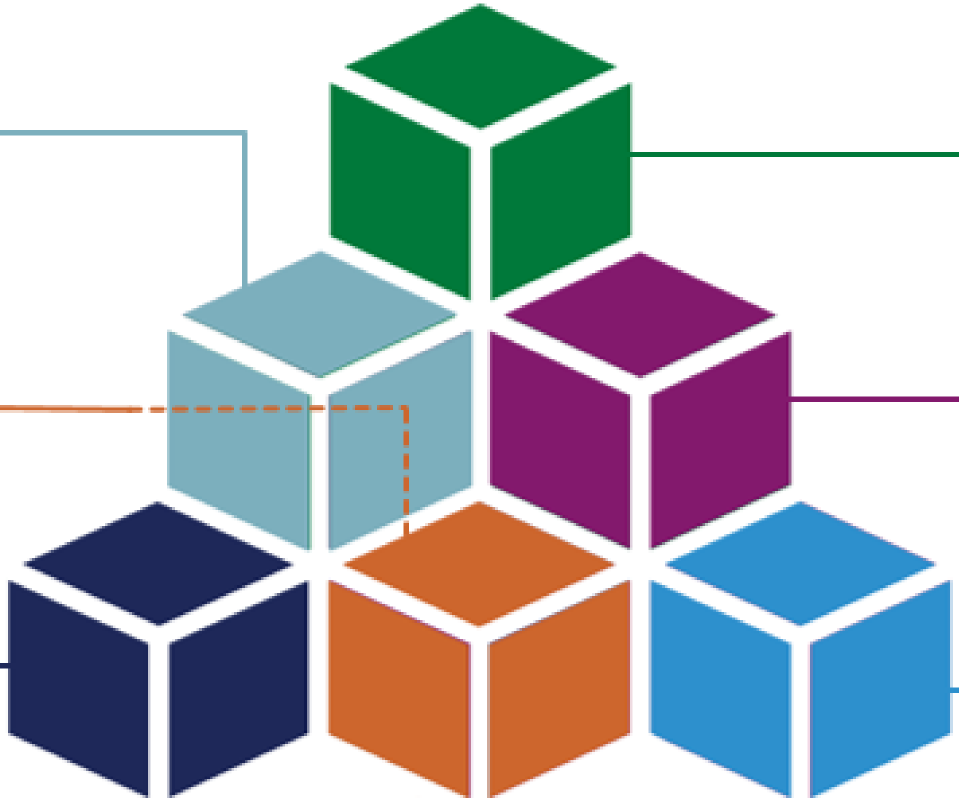
Incremental increase in Private Equity and Real Estate, small reduction in Global Equity

Asset Class	Current Policy Benchmark Weight	New Target Allocation**	Current Permissible Range	New Permissible Range**
Global Equity	54.0%	51.0%	48% - 60%	45% - 57%
Fixed Income	23.0%	23.0%	18% - 28%	18% - 28%
Private Equity	8.5%	10.0%	4% - 13%	5% - 15%
Real Estate	8.5%	10.0%	4% - 13%	5% - 15%
Alternatives	6.0%	6.0%	0% - 12%	1% - 11%
Cash/Short Term*	0.0%	0.0%	0% - 3%	0% - 3%
Total	100%	100%		

** Includes Cash Overlay*
*** Effective 1/1/2025*

Asset/Liability Study

Takes into account each plan's unique circumstances to determine the Strategic Asset Allocation



Real Estate: 10.0%*
- **Expected 30-year return:** 6.5%
- Source of alternative income and downside protection

Global Equities: 51.0%*
- **Expected 30-year return:** 7.4%
- Primary driver of portfolio return in the long-run
- Provides liquidity to the portfolio

Cash: 0%*
- **Expected 30-year return:** 4.2%
- Held for liquidity purposes

Alternatives: 6.0%*
- **Expected 30-year return:** 7.6%
- Provides good risk-adjusted returns and diversification

Private Equity: 10.0%*
- **Expected 30-year return:** 10.1%
- Enhances returns beyond what is available in public equity
- Provides diversification

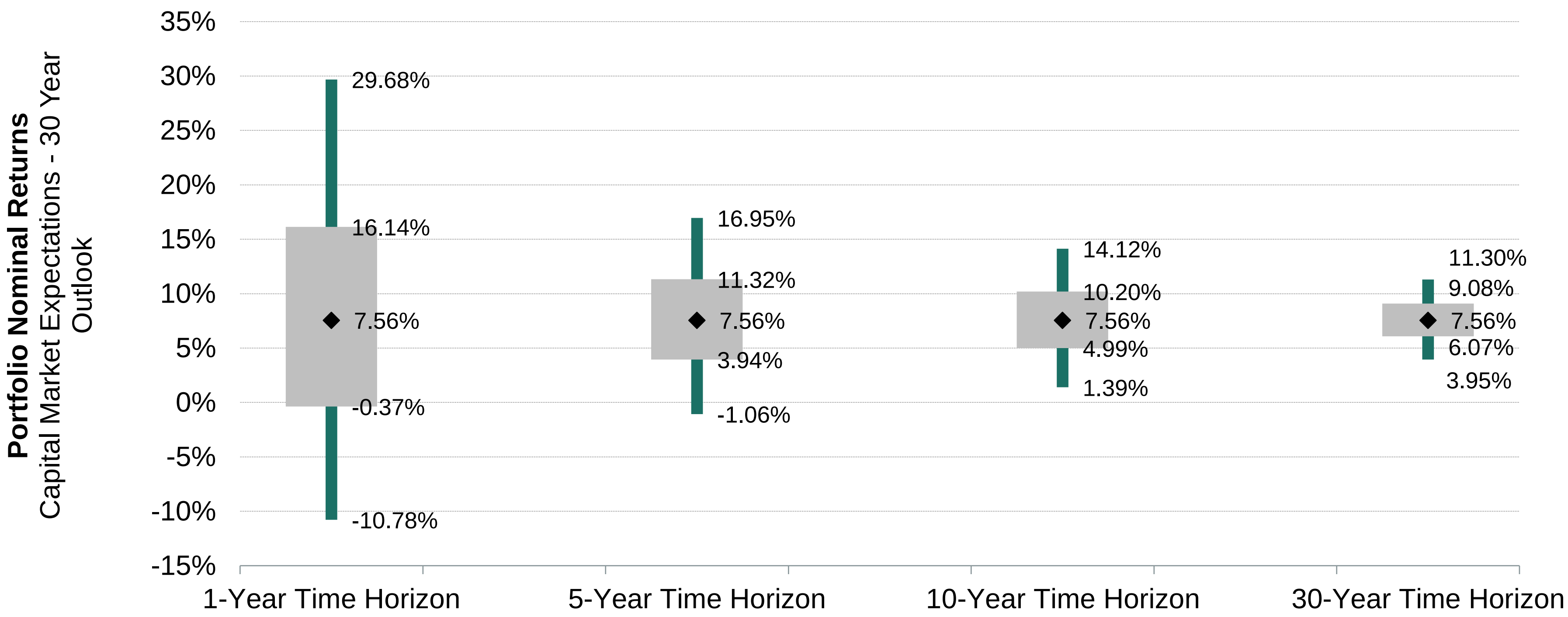
Fixed Income: 23.0%*
- **Expected 30-year return:** 5.0%
- Provides diversification and liquidity while reducing portfolio volatility

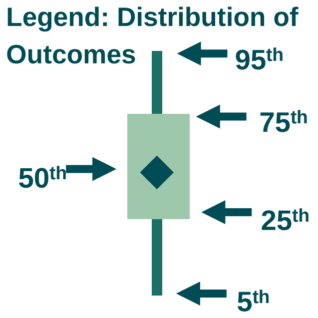
* Long-Term target allocation

Note: Expected 30-year returns were as of Q3 2023, were provided by the Board's external consultant (Aon), and were used in the 2024 asset/liability study.

Portfolio Analysis – Range of Nominal Returns

Wide variability in the short term, expected returns that narrow over the longer term





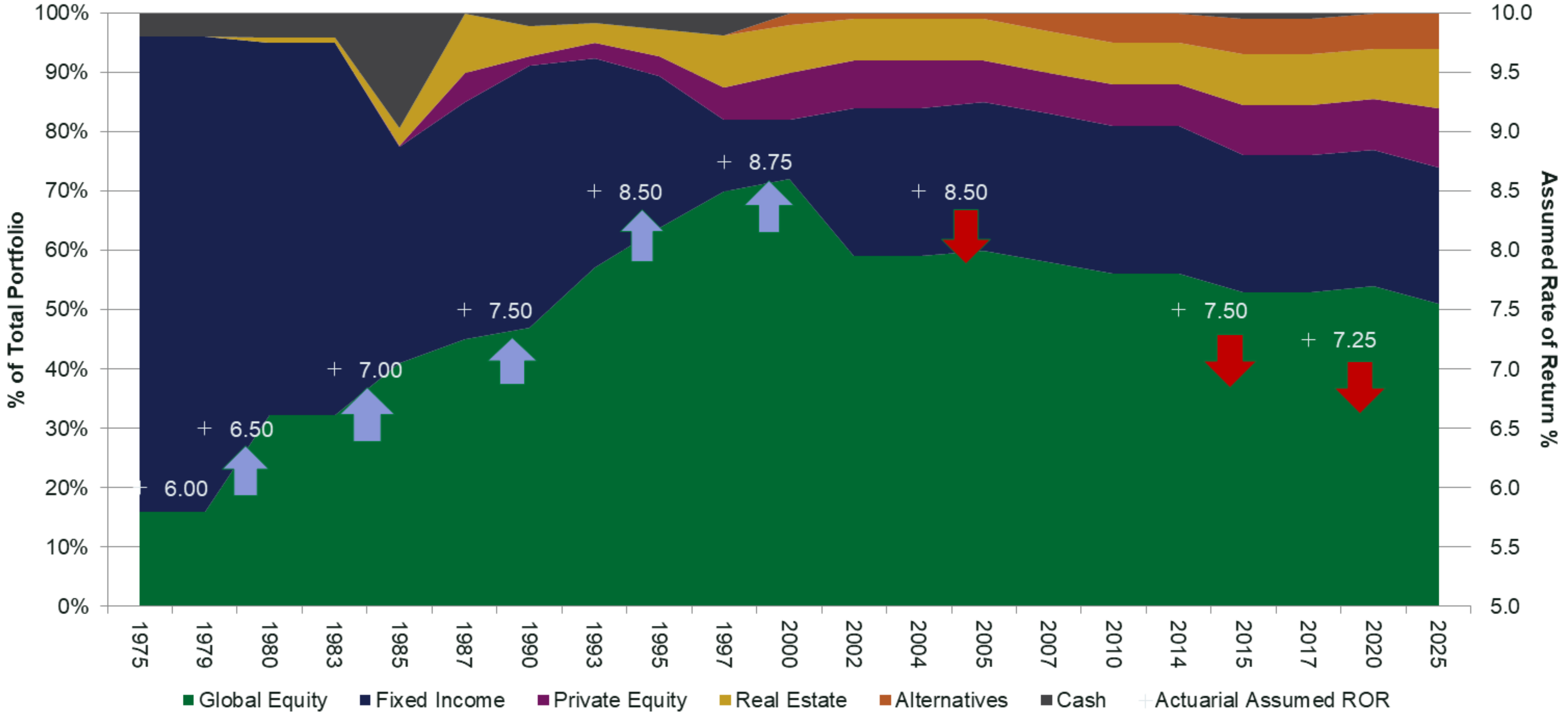
5th percentile example: We would expect this return 5% of the time.

Expected returns are using Aon's Q4 2023 30-Year Capital Market Assumptions (CMAs), as used in the 2024 asset/liability study.

COLORADO PERA

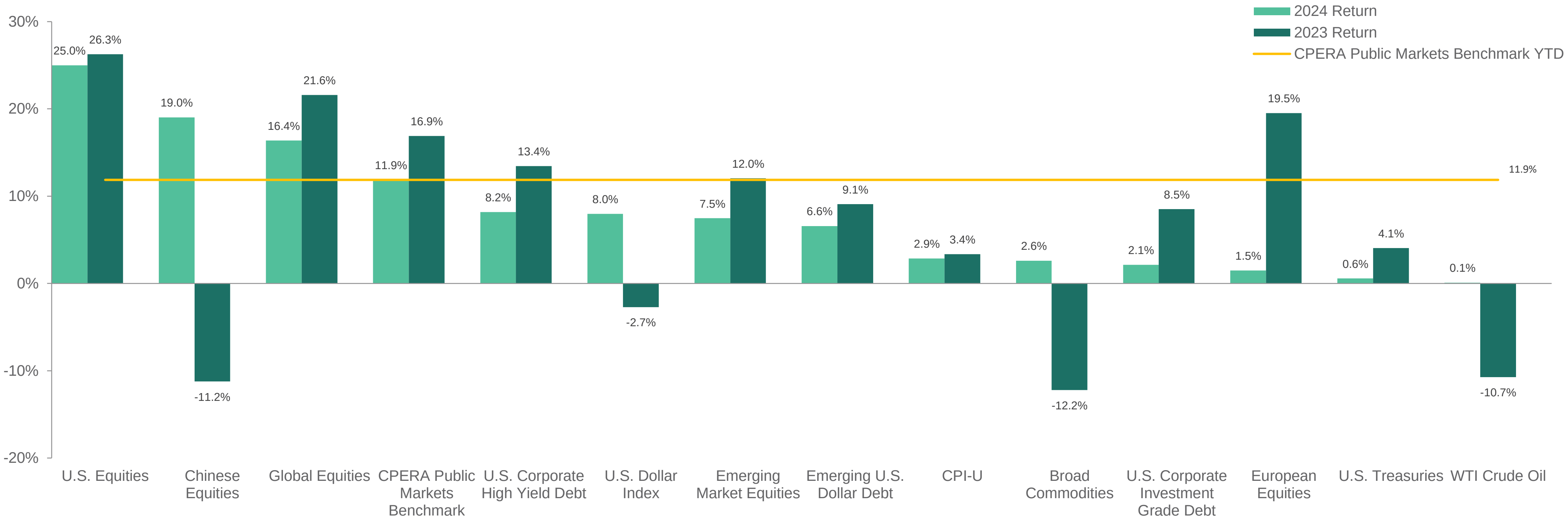
Historic Asset Allocation

PERA's Historical Strategic Asset Allocation Targets and Actuarial Assumed Rates of Return



Market Performance:
2024 vs. 2023 Calendar Year

All asset classes shown finished 2024 with positive performance. Chinese equities, commodities, and oil reversed course from 2023.



All returns are presented in unhedged USD terms
CPI-U YTD as of 11/30/2024

Less is More

How PERA Limits Investment Costs to Maximize Returns

$61.5 billion

Assets under management on behalf of PERA membership

$218.5 million

Internal and external investment management expenses

60%

Assets managed in-house by PERA staff

$65 million

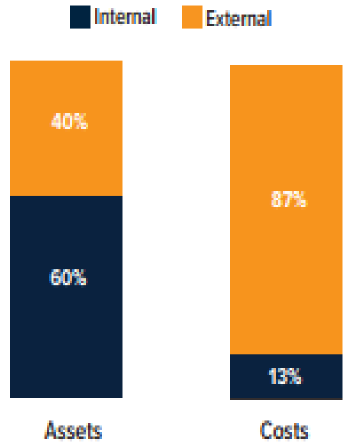
Savings in 2023 due to the use of internal investment management

INTERNAL/EXTERNAL MANAGEMENT FEES

35.5

basis points of total assets spent on management

INTERNAL/EXTERNAL ASSETS AND COSTS



Snapshot of PERA Governance Reporting Timeline

	2024	2025	2026	2027	2028	2029	2030
Asset/Liability Study							
Actuarial Experience Study							
Actuarial Audit							
Proxy Voting Policy							
Pension Funding Policy							
OPEB Funding Policy							
Strategic Planning							
Governance Manual Review							
*SB 10-001 (SB 18-200) Report							
*Working After Retirement Report							
*SB 09-282 DPS True-Up							

*Statutorily Required Reports (C.R.S. 24-51-220) & (C.R.S. 24-51-1101(6)(a)) & (C.R.S. 24-51-401(1.7)(e)) w/ applicable citations in order as listed above.

Legislative Updates

Federal Legislation - Social Security Fairness Act

Background

- The Social Security Act of 1935 created the program and it excluded state and local government employees from coverage.
- Approximately one-fourth of employees of state and local government participate in a public retirement system in lieu of Social Security, including approximately 40 percent of school and over two-thirds of firefighters, police officers, and other first responders.
- Most PERA members do not contribute to Social Security while they are working for PERA employers and if they are eligible for both a PERA benefit and a Social Security benefit, the PERA benefit will never be reduced due to any Social Security benefit they may receive, however, two provisions in federal law may apply to their Social Security benefit leaving them with a smaller Social Security benefit or possibly no benefit at all, which they may have earned through other employment or are eligible for through their spouses.

Windfall Elimination Provision (WEP) & Government Pension Offset (GPO)

- **WEP**: applies to retirees who also receive a Social Security earned benefit, which is paid to a worker who earned enough credits under Social Security-covered employment to qualify for a benefit, and WEP reduces the earned Social Security benefit using a formula that is based on earnings and payroll tax contributions to the Social Security system.
- **GPO*:*** applies to retirees who also receive a Social Security spousal or widow(er) benefit and reduces the spousal Social Security benefit by two-thirds of the PERA benefit and may eliminate the Social Security benefit.

H.R.82 - Social Security Fairness Act

- The Act repealed both provisions (WEP & GPO) and was signed into law by President Biden on January 5th, 2025, after it previously passed the U.S. House of Representatives on November 12, 2024, and the U.S. Senate on December 21, 2024.
- The Congressional Budget Office (CBO) estimates that "..eliminating the WEP would increase monthly benefits in December 2025 by $360, on average, for 2.1 million Social Security beneficiaries.." and "eliminating the GPO would increase monthly benefits in December 2025 by an average of $700 for 380,000 spouses and by an average of $1,190 for 390,000 surviving spouses."

COLORADO PERA | FPPA Fire & Police Pension Association of Colorado

December 13, 2024

Sen. Michael Bennet
Sen. John Hickenlooper
Russell Senate Office Building
2 Constitution Ave. NE
Washington, DC 20510

Dear Senators Bennet and Hickenlooper,

We're writing to you as chief executives of the two largest public pension plans in Colorado, encouraging you to support H.R. 82, the Social Security Fairness Act, in the United States Senate. This bill is of great interest to the members we serve and would improve their financial security, if passed.

H.R. 82 would repeal Social Security's Windfall Elimination Provision (WEP) and Government Pension Offset (GPO), two provisions that can significantly reduce Social Security benefits for retirees who also receive retirement income from work that wasn't covered by Social Security. In Colorado, most public employees do not contribute to Social Security and therefore face reductions to their Social Security benefits under WEP and GPO. We collectively provide benefits to more than 730,000 members, including employees of the Colorado state government, public school teachers, firefighters and law enforcement officers, and more than 100,000 of them are affected by these provisions, according to Congressional Research Service data.

Both WEP and GPO are based on outdated formulas and act as blunt instruments. As we know from an April 2024 hearing of the House Ways and Means Subcommittee on Social Security, the Social Security Administration has much better worker data available today and has the ability to calculate benefits in a more equitable manner.

As administrators of public retirement plans, we are sensitive to the financial challenges our beneficiaries face amid high inflation and soaring health care costs. We support Congress' efforts to reform WEP and GPO, as doing so would put more money in the pockets of retirees who dedicated their careers to public service and who deserve to see every dollar of the benefits they've earned.

Sincerely,

Andrew Roth
Chief Executive Officer/Executive Director
Colorado Public Employees' Retirement Association (PERA)

Kevin B. Lindahl
Executive Director
Fire & Police Pension Association of Colorado

Legislative Updates

State Legislation – 2025 Bills and Other Potential Issues

Pension Review Commission

House Bill 25-1052: Income Tax Credit for PERA Retirees

- The bill creates a refundable income tax credit that is available for income tax years commencing on or after January 1, 2025, but prior to January 1, 2027, for a qualifying public employees' retirement association retiree, which means a full-time Colorado resident individual who is 65 years of age or older at the end of the 2025 or 2026 income tax year; and has an annual federal adjusted gross income of no more than $38,000 as a single filer or $76,000 as a joint filer.

Senate Bill 25-028: PERA Risk-Reduction Measures

- The bill codifies the PERA Board's current practice of conducting a periodic actuarial experience study and actuarial audit, neither of which are referenced in current law, and are conducted approximately once every 5 years. The bill requires the board to conduct the actuarial experience study in the 2025 calendar year and every 4 years thereafter and requires the board to conduct the periodic actuarial audit in the 2026 calendar year and every 4 years thereafter, rather than every 5 years, as well as ensure that each periodic actuarial audit takes into consideration the results and findings of the actuarial experience study that was conducted during the prior calendar year.
- In addition, beginning in the 2027 calendar year, and every 4 years thereafter, the state auditor is required to commission an independent review of the periodic actuarial audit that the board conducted in the prior calendar year by experts other than those already working on behalf of PERA. The experts commissioned to conduct the independent review are required to analyze how the periodic actuarial audit was conducted and provide an independent interpretation of the results of the periodic actuarial audit, including whether the periodic actuarial audit appropriately considered the results of the most recent actuarial experience study that the board conducted or caused to be conducted.

Legislative Updates

State Legislation – 2025 Bills and Other Potential Issues

Budget-related

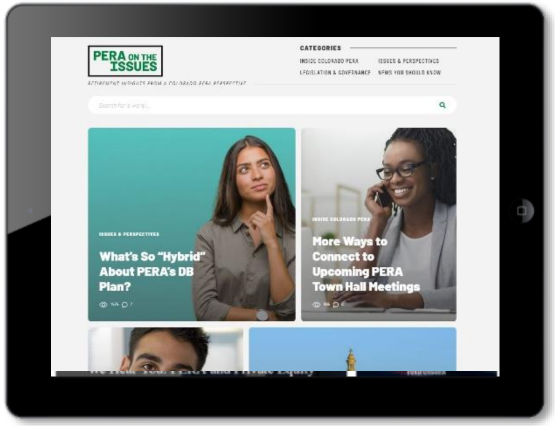
Pinnacol Conversion

The proposed conversion of Pinnacol Assurance included as part of the Governor's budget request has two PERA-related components:

- Disaffiliation from PERA
  - If Pinnacol becomes a private entity, then it cannot continue to be part of PERA both for current employees and future employees, and so with a conversion there would be a requirement for Pinnacol to disaffiliate from PERA.
  - There is a cost to disaffiliate given the current unfunded liability and Pinnacol would be required to pay PERA for its expected liabilities to the plan, with the exact cost being determined at the time of disaffiliation.
  - Under current law, there is a statutory framework for the methodology used to determine the cost of disaffiliation for the Local Government Division of PERA, as these employers may choose to affiliate with PERA, however, the methodology used to determine the cost for Pinnacol would need to be included as part of any enabling legislation for such a conversion.
  - Current Pinnacol employees would cease receiving PERA service credit as of any disaffiliation date, but their accounts and benefits earned up until the date of affiliation would remain.
- Proceeds from Conversion to Offset Direct Distribution
  - The second component of the proposed conversion involves using the proceeds from the sale of Pinnacol to offset the State's $225m 'direct distribution' payment to PERA in future years.

Stay in Touch

Website
www.copera.org



Retirement Insights
www.peraontheissues.com

Social Media
@coloradopera

Call us at 800-759-7372

Appendix

Summary of Valuation Highlights

» Asset Return

- The **market value of assets** increased from **$54.7 billion** (as of 12/31/22) to **$60.0 billion** (as of 12/31/23)
  - » The investment return was approximately **13.4%**, net of investment expenses
- The **actuarial value of assets** – which smooths investment gains and losses over four years – increased from **$60.9 billion** (as of 12/31/22) to **$62.9 billion** (as of 12/31/23)

» Funded Percentage

Trust Fund	December 31, 2023	December 31, 2022	Change
State Division	66.2%	66.5%	**−0.3%**
School Division	66.7%	67.0%	**−0.3%**
Local Government Division	90.7%	91.0%	**−0.3%**
Judicial Division	89.2%	88.5%	**+0.7%**
DPS Division	89.6%	90.3%	**−0.7%**

Segal

COLORADO PERA

Summary of Valuation Highlights (cont.)

» Unfunded Actuarial Accrued Liability (UAAL)

- The actuarial accrued liability (AAL) increased from $87.2 billion (as of December 31, 2022) to $90.5 billion (as of December 31, 2023)
- The unfunded actuarial accrued liability (UAAL) increased from $26.3 billion to $27.5 billion.
  - » $1.2 billion increase includes an expected decrease of $0.4, offset by $0.4 billion loss from investments and $1.2 billion loss from demographic experience

» Actuarially Determined Contribution Rates

Trust Fund	December 31, 2023 (ADC for 2025)	December 31, 2022 (ADC for 2024)	Change
State Division	18.78%	19.77%	**−0.99%**
School Division	20.49%	20.58%	**−0.09%**
Local Government Division	8.22%	8.28%	**−0.06%**
Judicial Division	12.20%	12.78%	**−0.58%**
DPS Division	6.08%	6.04%	**+0.04%**

Segal

Membership (Pension) – Actives

Item	State Division General	State Division Troopers	School Division	Local Government Division	Local Government Division State Troopers	Judicial Division	Denver Public Schools Division
December 31, 2023:							
Number	50,738	2,949	131,188	12,651	49	347	15,626
Average age	45.3	35.3	44.5	44.4	37.2	53.1	41.2
Average service	9.1	4.8	8.9	7.7	1.9	11.6	7.7
Average payroll	$65,771	$81,082	$47,083	$66,345	$84,209	$174,657	$57,228
December 31, 2022:							
Number	48,820	2,072	128,057	12,071	32	340	15,254
Average age	45.5	36.3	44.5	43.9	37.1	53.3	41.1
Average service	9.2	5.6	9.0	7.8	2.1	11.9	7.6
Average payroll	$61,864	$79,043	$44,279	$62,784	$75,023	$166,369	$53,127
Change							
Number	+3.9%	+42.3%	+2.4%	+4.8%	+53.1%	+2.1%	+2.4%
Average payroll	+6.3%	+2.6%	+6.3%	+5.7%	+12.2%	+5.0%	+2.4%

Segal

COLORADO PERA

Membership (Pension) – Retirees and Survivors

Item	State Division General	School Division	Local Government Division	Judicial Division	Denver Public Schools Division
December 31, 2023:					
Number	44,517	77,165	9,095	460	7,316
Average annual benefit	$41,152	$36,931	$38,761	$77,844	$39,275
Average age	73.0	72.7	71.3	75.4	75.1
December 31, 2022:					
Number	43,860	75,094	8,829	446	7,256
Average annual benefit	$40,909	$36,798	$38,530	$76,355	$39,250
Average age	72.6	72.4	70.9	75.2	74.9
Change					
Number	+1.5%	+2.8%	+3.0%	+3.1%	+0.8%
Average annual benefit	+0.6%	+0.4%	+0.6%	+2.0%	+0.1%
Average age	+0.4	+0.3	+0.4	+0.2	+0.2

Funding Period Progress[1]

40-Year Projections – Projected Years Until 100% Funded

Division Trust Fund	December 31, 2023	December 31, 2022	Change
State	23 Years	32 Years	**-9**
School	27 Years	34 Years	**-7**
Local Government	14 Years	23 Years	**-9**
Judicial	8 Years	12 Years	**-4**
Denver Public Schools (DPS)	9 Years	13 Years	**-4**

[1]Funding periods are determined on an open-group basis and shown as of the current valuation date only.

Automatic Adjustment Provision

New rates effective
July 1, 2024
(No Changes)

PERA IS ON SCHEDULE TO MEET ITS FUNDING GOAL

The automatic adjustment provision is reviewed on an annual basis to help ensure the long-term stability of benefits today and in the future.

As indicated in its 2023 *Annual Comprehensive Financial Report (ACFR),* PERA is on schedule to meet its funding goal. This means the automatic adjustment provision will not trigger any additional changes in 2025.

Current Provisions

Member Contributions

Member contributions will not be affected by the automatic adjustment provision in July 2025.

	State, School, and DPS Divisions	Safety Officers	Local Government	Judicial Division
As of July 1, 2024	11.00%	13.00%	9.00%	11.00%

See copera.org for more information on contribution rates.

Employer Contributions

Employer contributions will not be affected by the automatic adjustment provision in July 2025.

	State Division	Safety Officers (State)	School and DPS Divisions	Local Government	Safety Officers (Local Govt.)	Judicial Division
As of July 1, 2024	21.61%	24.31%	21.40%	14.78%	17.88%	24.91%

Actual DPS employer rate will be subject to the PCOPs offset. The DC Supplement may also affect rates in the State and Local Government Divisions effective January 1, 2025. See copera.org for more information on contribution rates.

Annual Increase

The AI will not be affected by the automatic adjustment provision in July 2025. The AI paid to eligible benefit recipients in July 2024 will be 1.0%. The AI paid in July 2025 for most eligible benefit recipients will be 1.0%.

State Direct Distribution

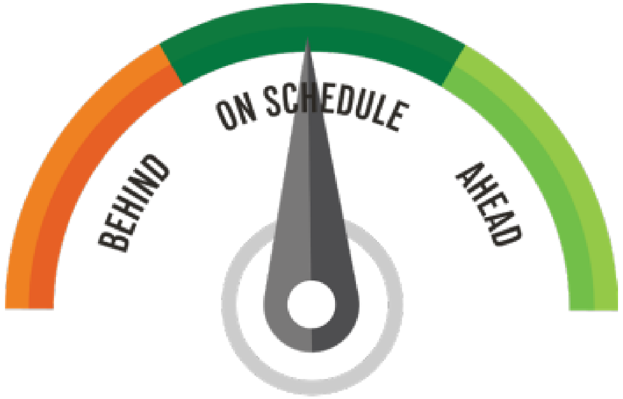
PERA will receive a direct distribution from the State budget for 2024.

How Does the Automatic Adjustment Keep PERA on Schedule?

IF PERA IS BEHIND SCHEDULE

- Decrease AI percentage by up to 0.25% in one year, not to fall below 0.5%
- Increase employer contributions by up to 0.5% in one year, not to exceed an additional 2%
- Increase member contributions by up to 0.5% in one year, not to exceed an additional 2%
- Increase the direct distribution from the State budget by up to $20 million in one year, not to exceed $225 million

PERA'S PROGRESS TOWARD FUNDING GOAL



IF PERA IS AHEAD OF SCHEDULE

- Increase AI percentage by up to 0.25% in one year, not to exceed 2%
- Decrease employer contributions by up to 0.5% in one year, not to fall below 2018 levels
- Decrease member contributions by up to 0.5% in one year, not to fall below 2018 levels
- Decrease the direct distribution from the State budget by up to $20 million in one year

Funded Status

As of December 31, 2023

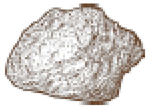
Total Unfunded Liability: $27.5 billion
Funded Status: 69.6%

STATE UNFUNDED LIABILITY	$9.6 billion	FUNDED STATUS 66.2%
SCHOOL UNFUNDED LIABILITY	$16.8 billion	FUNDED STATUS 66.7%
LOCAL GOVT. UNFUNDED LIABILITY	$572 million	FUNDED STATUS 90.7%
JUDICIAL UNFUNDED LIABILITY	$58 million	FUNDED STATUS 89.2%
DPS UNFUNDED LIABILITY	$521 million	FUNDED STATUS 89.6%

Actuarial Assumptions

Economic

 Inflation

 Investment return

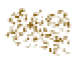
 Active membership growth

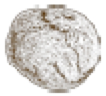
 Salary increase

 Payroll growth

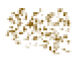
Demographic

 Death after retirement

 Death in active service

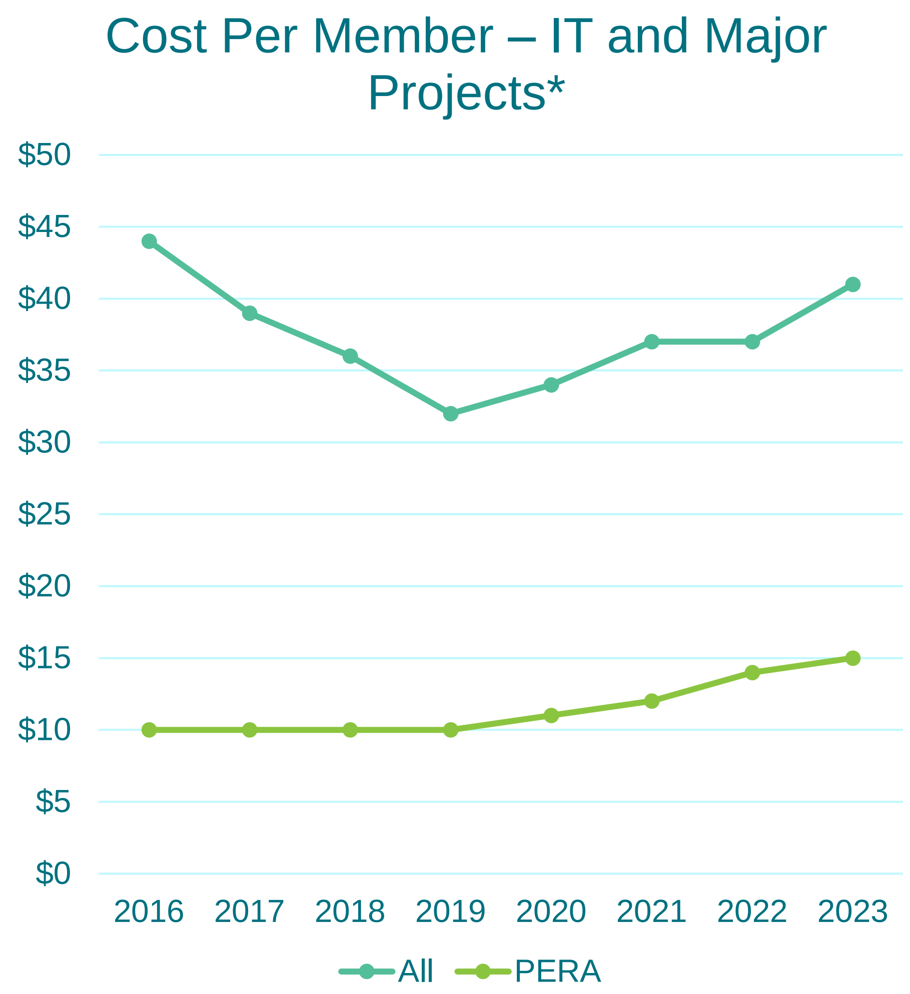
 Retirement

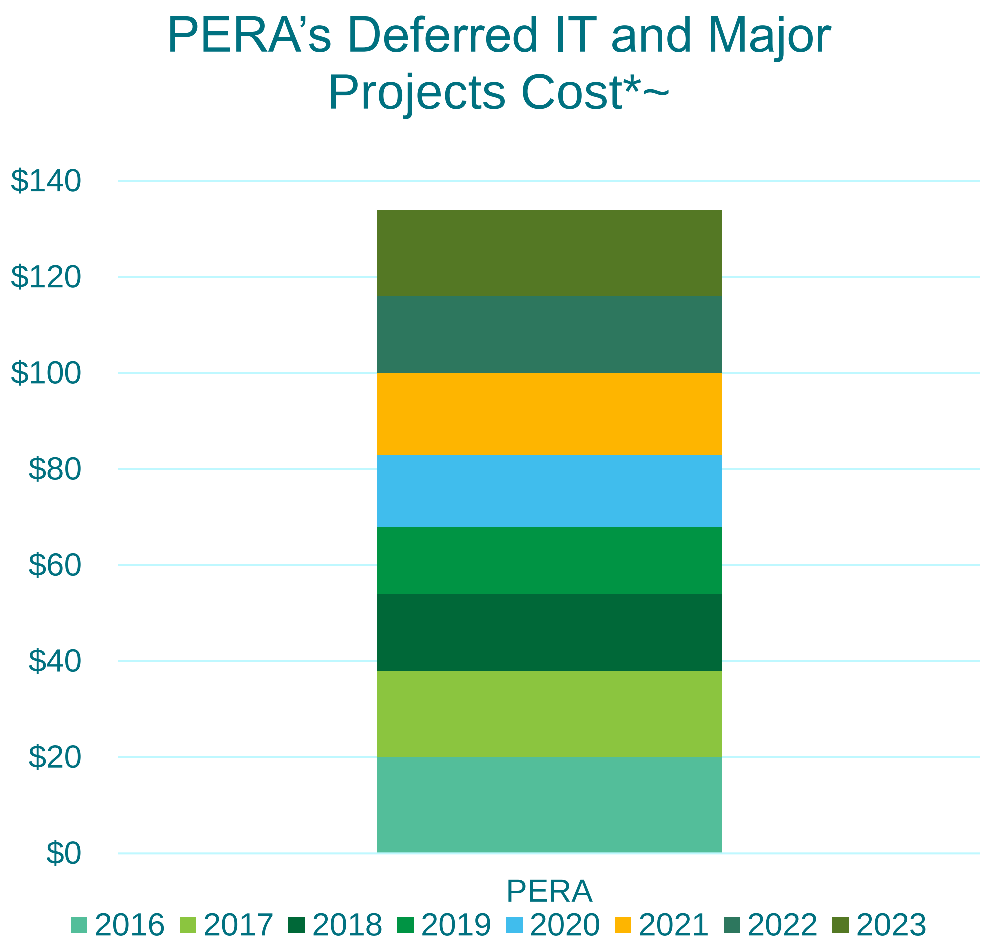
 Termination

 Disability

Scale of relative impact of assumptions on plan liability:

Legacy Modernization: Deferred Maintenance

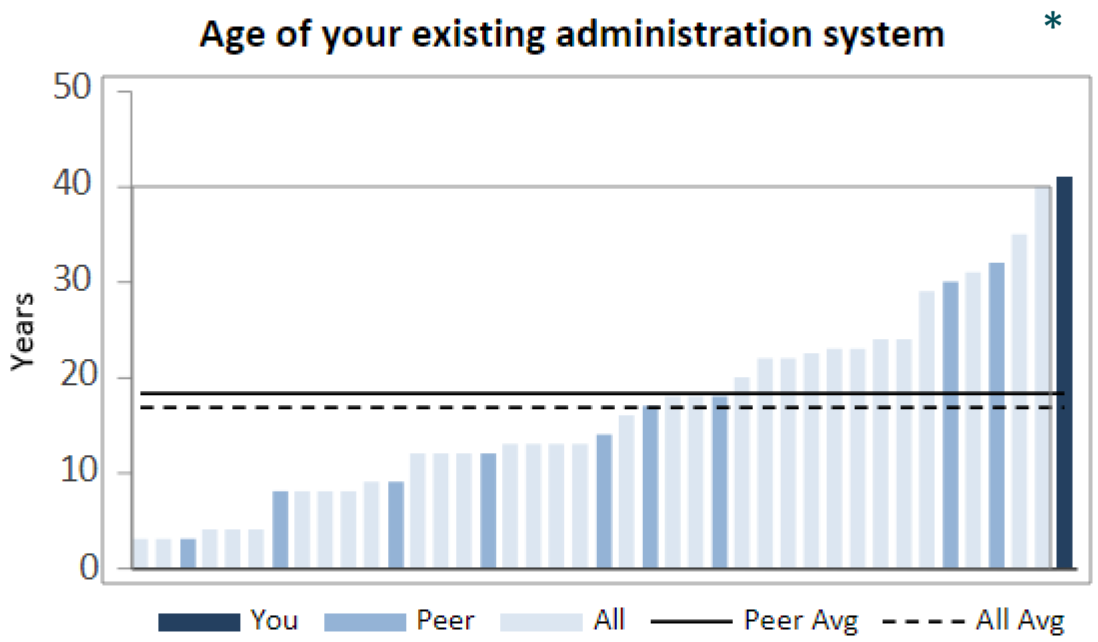




* Source: CEM Benchmarking 2024 PERA Report

~Numbers in millions

Legacy Modernization: Risk and Rationale for Acting Now



- Colorado PERA has the oldest Pension Administration System in the CEM universe
- The risks of failing to modernize technology can be profound. Southwest Airlines is an example of the enormous cost, member impact, and reputational damage
- Increasingly aging technology integrates poorly, making the adoption of new technology more difficult, expensive, and riskier
- The programming and developing skills necessary to maintain the aging system are dwindling
- Modernizing with inadequate resources adds risk and ultimately expense
- Finding the necessary talent to maintain aging systems is already difficult and expensive

* Source: CEM Benchmarking 2024 PERA Report

2024 Legislation Concerning PERA

House Bill 24-1044: Additional PERA Service Retirees for Schools

- This bill increases the current limit of 10 retirees that can be designated to work up to 140 days without a reduction in their benefits by allowing school districts with over 10,000 students to designate an additional retiree for each thousand students in excess of 10,000.

Senate Bill 24-099: PERA Employment After Retirement for Rural Schools

- The bill adds superintendents and principals to the list of service retirees that may be hired by a rural school district and be employed without a reduction in retirement benefits.

Senate Bill 24-169: State Firefighter PERA Job Classification

- The bill modifies the definition of “state trooper” to include duly sworn employees of the division of fire prevention & control in the department of public safety effective July 1, 2025.

Senate Bill 24-186: County Coroner & Deputy Coroner PERA Eligibility

- The bill modifies the definition of “state trooper” to include employees of a local government division employer classified as a coroner or deputy coroner who were elected, reelected, or appointed on or after January 1, 2021, effective January 1, 2025.

House Bill 24-1427: PERA Study Conducted by an Actuarial Firm

- The bill requires the state auditor to contract with an actuarial firm to conduct a comprehensive study comparing the cost and effectiveness of the current hybrid defined benefit plan design to alternative plans, and specified aspects of the defined benefit plan and the defined contribution plan currently administered by PERA. A report detailing the findings of this study must be completed on or before August 15, 2025.