



San Bernardino County Employees' Retirement Association

Actuarial Experience Study

Analysis for the period from June 1, 2022 through May 31, 2025

June 4, 2026 / Molly Calcagno

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| Agenda

Actuarial Experience Study Overview

Summary of Recommendations

Actuarial Cost Impact

Taking a Closer Look

Actuarial Experience Study Overview

Actuarial Experience Study Overview

Why do we need experience studies?

Develop recommended assumptions for annual actuarial valuation

- Reviews economic and demographic assumptions every three years
- Current study is based on the **three-year** period from 2022-2025
 - Most assumptions include experience from prior studies to increase the “credibility”

Segal’s role is to make appropriate recommendations to the Board

- Recommendations follow guidance of Actuarial Standards of Practice
 - Assumptions are reasonable individually and in aggregate (ASOP No. 27)

Purpose of the Actuarial Assumptions

What do the assumptions do?



Economic

How will assets grow?

How will salaries and benefits increase?

How will UAAL be amortized?

What type of benefits will be paid?

When will benefits be paid and how long?



Demographic

Actuaries make assumptions as to when and how a member will leave active service and estimate the amount, duration and present value of the expected benefits paid.

Role of Actuarial Assumptions and Methods

$$C + I = B + E$$

Contributions + Investment Income
equals
Benefit Payments + Expenses

- Assumptions do not directly affect the **payment** of benefits, only the **timing** of contributions
 - Actuarial valuation determines the “current” cost, not the ultimate cost

Actuarial Assumption Impacts

How do the assumptions impact liabilities and costs?

Economic



Inflation



Investment return



Salary increase

Demographic



Post-retirement mortality



Pre-retirement mortality



Retirement



Termination



Disability (General members)



Disability (Safety members)

Scale of relative impact of assumptions



Boulder



Rock



Pebble



Sand

Summary of Recommendations

Summary of Economic Assumptions



Assumption	Recommendation
Inflation	<ul style="list-style-type: none"> Maintain current assumption of 2.50%
Cost-of-Living Increases	<ul style="list-style-type: none"> Maintain current assumption of 2.00%
Investment Return	<ul style="list-style-type: none"> Reduce investment return assumption from 7.25% to 7.00%
Salary Increase	<ul style="list-style-type: none"> Maintain current inflation assumption of 2.50% Maintain current “across-the-board” salary assumption of 0.50% Introduce separate assumptions for Tier 1 and Tier 2 members Increase merit & promotion salary assumptions to reflect past experience
Payroll Growth	<ul style="list-style-type: none"> Maintain current assumption of 3.00%
Administrative Expenses	<ul style="list-style-type: none"> Increase current administrative expense load assumption from 0.90% to 1.05% of projected payroll

Summary of Demographic Assumptions

Rates of decrement



Assumption	Recommendation
Mortality	<ul style="list-style-type: none"> • Adopt new Pub-2016 base tables • Adopt new adjustments to base tables to reflect SBCERA experience • Maintain latest MP-2021 projection scale
Disability	<ul style="list-style-type: none"> • Adjust rates to reflect lower incidence of disability for General members and higher incidence of disability for Safety members
Termination	<ul style="list-style-type: none"> • Adjust rates to reflect higher overall termination experience for General and Safety members
Retirement	<ul style="list-style-type: none"> • Introduce separate assumptions for General Tier 2 and Safety Tier 2 members with service less than 30 years of service and with 30 or more years of service • Adjust rates to reflect slightly lower incidence of retirement for General and Safety members

Summary of Demographic Assumptions

Miscellaneous assumptions

Assumption	Recommendation
Deferred Vested Retirement Age	<ul style="list-style-type: none"> • Increase assumption from 59 to 60 for General members with reciprocity • Maintain current assumption at 59 for General members without reciprocity • Increase assumption from 53 to 54 for Safety members with reciprocity • Reduce assumption from 52 to 51 for Safety members without reciprocity
Reciprocity	<ul style="list-style-type: none"> • Maintain current assumption at 40% of future General deferred vested members that will be covered by a reciprocal system • Reduce assumption from 65% to 55% of future Safety deferred vested members that will be covered by a reciprocal system
Beneficiary Assumptions	<ul style="list-style-type: none"> • Reduce assumption from 65% to 60% for males expected to have an eligible survivor at retirement and maintain current assumption of 50% for females expected to have an eligible survivor at retirement • Maintain assumption that male retirees are three years older than their spouses and that female retirees are two years younger than their spouses
Leave Cashouts	<ul style="list-style-type: none"> • Reduce assumption from 0.75% to 0.70% for General Tier 1 members • Reduce assumption from 1.75% to 1.50% for Safety Tier 1 members

Summary of Survivor Benefit Assumptions

For Survivor Benefit Valuation

Assumption	Recommendation
Survivor Assumptions	<ul style="list-style-type: none"><li>• Adjust rates to be consistent with the 2023 U.S. Census data<li>• Reduce assumed rates of members with survivors overall

Actuarial Cost Impact

Estimated Actuarial Impact

Modeled as of June 30, 2025

Actual cost impact will be reflected in the June 30, 2026 valuation

Component	Economic Assumptions	Demographic Assumptions	Survivor Benefit Assumptions	Total Change
Employer normal cost rate	+1.07%	-0.23%	N/A	+0.84%
Employer UAAL rate	<u>+1.99%</u>	<u>-0.34%</u>	<u>N/A</u>	<u>+1.65%</u>
Total Employer rate	+3.06%	-0.57%	N/A	+2.49%
Total Member rate	+0.89%	-0.04%	N/A	+0.85%
UAAL	+\$624 M	-\$97 M	+\$1 M	+\$528 M
AVA funded ratio	-2.9%	+0.4%	-0.0%	-2.5%

Estimated Actuarial Impact

Modeled as of June 30, 2025

Actual cost impact will be reflected in the June 30, 2026 valuation

Component	Current Assumptions	Total Change	Recommended Assumptions
Employer normal cost rate	11.29%	+0.84%	12.13%
Employer UAAL rate	<u>14.38%</u>	<u>+1.65%</u>	<u>16.03%</u>
Total Employer rate	25.67%	+2.49%	28.16%
Total Member rate	10.17%	+0.85%	11.02%
UAAL	\$2,058 M	+\$528 M	\$2,586 M
AVA funded ratio	88.8%	-2.5%	86.3%

Employer Contribution Rate Impact

Modeled as of June 30, 2025 as % of payroll

Cost Group	Current Assumptions	Total Change	Recommended Assumptions
County General Tier 2	21.50%	+2.26%	23.76%
County General Tier 2	18.92%	+2.17%	21.09%
Safety Tier 1	53.74%	+4.25%	57.99%
Safety Tier 2	44.70%	+3.45%	48.15%
Superior Court Tier 1	21.05%	+2.44%	23.49%
Superior Court Tier 2	18.47%	+2.35%	20.82%
SCAQMD Tier 1	37.30%	+2.45%	39.75%
SCAQMD Tier 2	33.14%	+2.18%	35.32%
SBCTA Tier 1	14.21%	+2.07%	16.28%
SBCTA Tier 2	10.00%	+1.83%	11.83%
CSAC Tier 1	30.75%	+1.98%	32.73%
CSAC Tier 2	24.67%	+1.97%	26.64%
Other General Tier 1	29.69%	+2.67%	32.36%
Other General Tier 2	24.34%	+2.58%	26.92%
All Categories Combined	25.67%	+2.49%	28.16%

Member Contribution Rate Impact

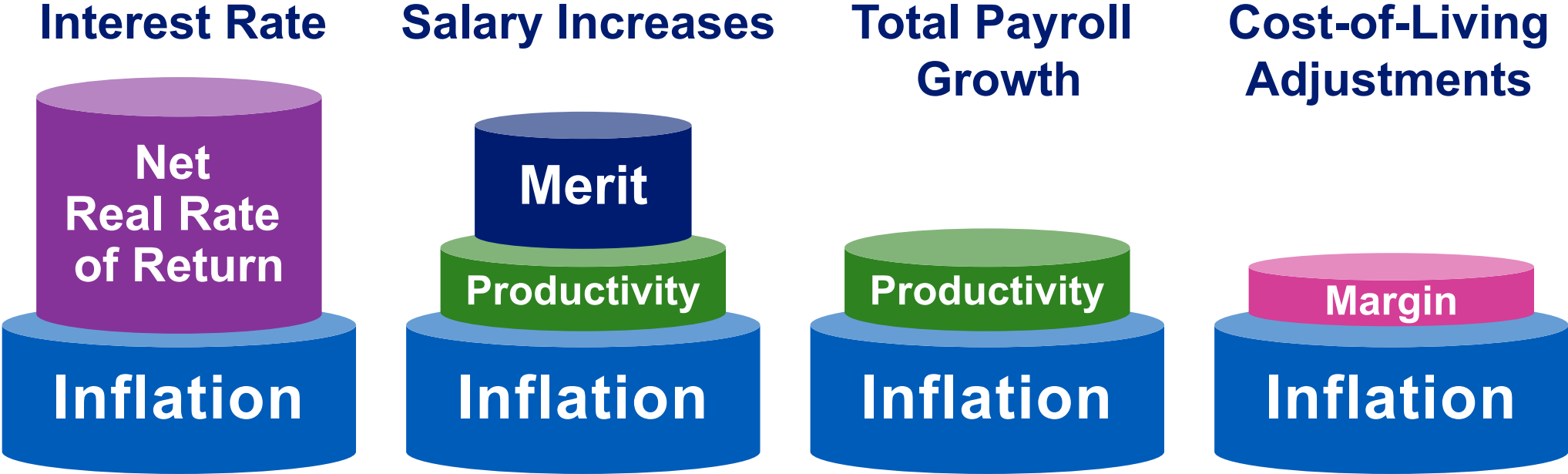
Modeled as of June 30, 2025 as % of payroll

Cost Group	Current Assumptions	Total Change	Recommended Assumptions
County General Tier 2	10.53%	+0.93%	11.46%
County General Tier 2	8.73%	+0.66%	9.39%
Safety Tier 1	13.68%	+1.34%	15.02%
Safety Tier 2	14.69%	+1.25%	15.94%
Superior Court Tier 1	10.53%	+0.92%	11.45%
Superior Court Tier 2	8.73%	+0.66%	9.39%
SCAQMD Tier 1	10.06%	+0.89%	10.95%
SCAQMD Tier 2	7.72%	+0.51%	8.23%
SBCTA Tier 1	9.48%	+0.95%	10.43%
SBCTA Tier 2	9.01%	+0.49%	9.50%
CSAC Tier 1	10.66%	+1.01%	11.67%
CSAC Tier 2	8.54%	+0.51%	9.05%
Other General Tier 1	10.09%	+0.89%	10.98%
Other General Tier 2	8.31%	+0.64%	8.95%
All Categories Combined	10.17%	+0.85%	11.02%

Taking a Closer Look

Summary of Economic Assumptions

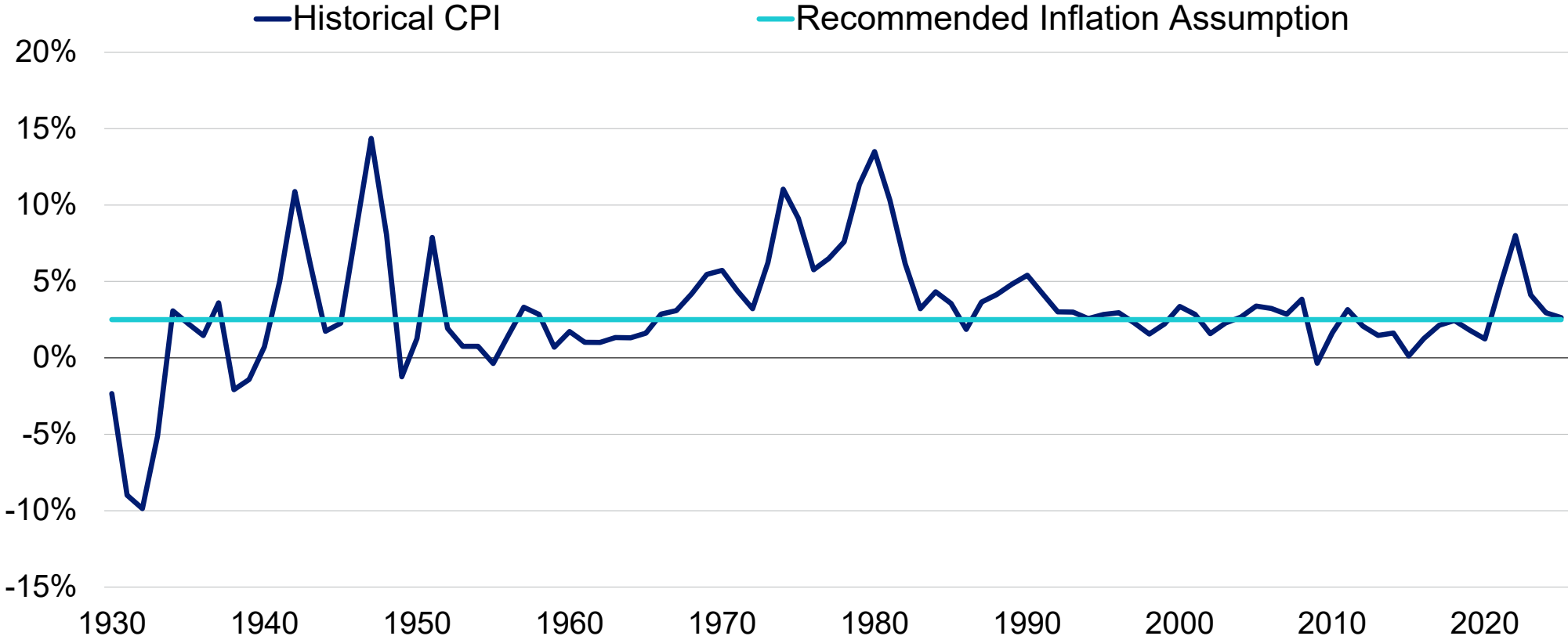
What are the components of the economic assumptions?



Each component should be consistent across all economic assumptions

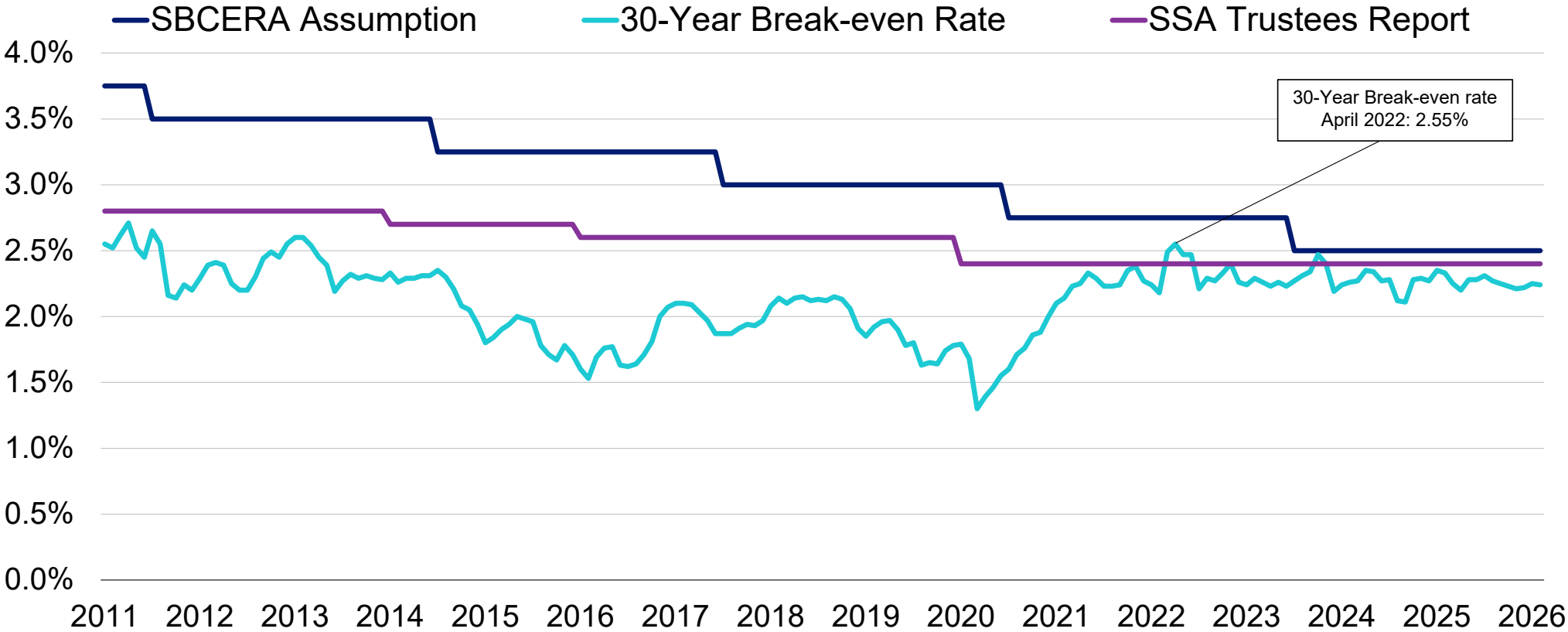
Historical Consumer Price Index (CPI)

Price inflation historical review



Historical Inflation Forecasts

Price inflation comparisons



Price Inflation Assumption

Looking forward

Future expectations

- Investment consultant survey average inflation is 2.49%
 - NEPC: 2.70% annual inflation over 30 years
- Social Security Administration: 2.40% average CPI over 75 years
- Market implied forward inflation hovering between 2%-2.5%
- Public Plan Database: 2.50% median inflation assumption

Recommend maintaining annual inflation assumption at 2.50%

Investment Earnings Assumption

Putting it all together

Assumption Component	June 30, 2026 Recommended	June 30, 2023 Adopted
Inflation	2.50%	2.50%
Portfolio expected arithmetic real return	6.53%	7.12%
Expense adjustment	(0.50%)	(0.50%)
Adjustment to expected geometric real return	(0.55%)	(0.60%)
Risk adjustment	(0.98%)	(1.27%)
Total	7.00%	7.25%
Confidence level	64%	67%

Risk Adjustment

Risk adjustment

- **Decrease** in risk adjustment
 - Results in **slightly lower** confidence level under **7.00% recommendation**
- Compares risk position over time

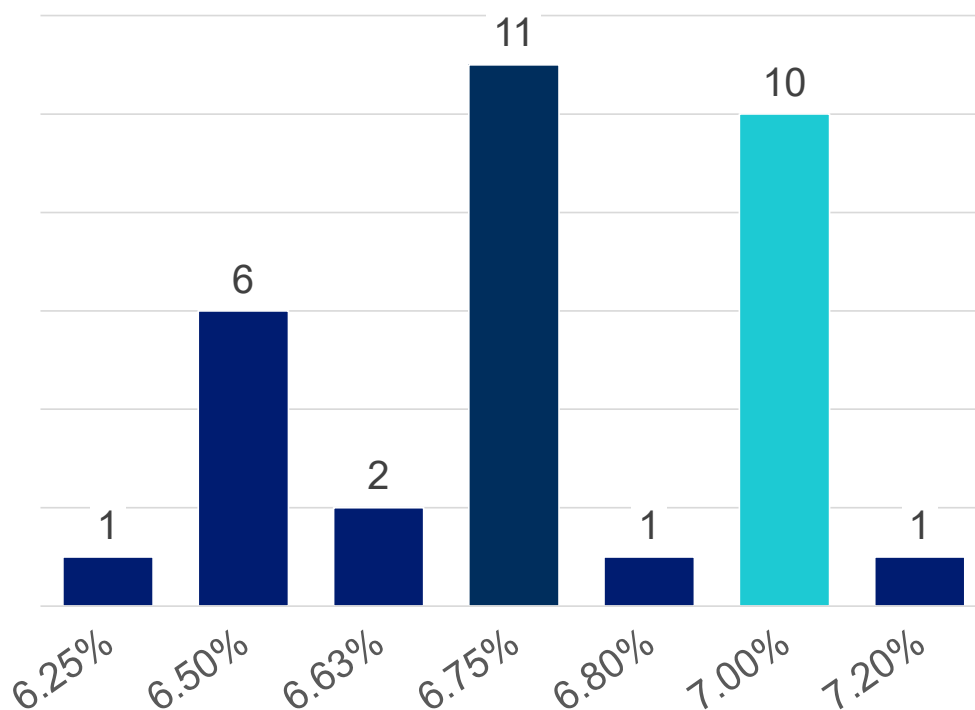
Years Ending June 30	Investment Return	Risk Adjustment	Confidence Level
2008 – 2010	8.00%	0.94%	64%
2011 – 2013	7.75%	0.38%	56%
2014 – 2016	7.50%	0.26%	53%
2017 – 2019	7.25%	0.05%	51%
2020 – 2022	7.25%	0.26%	53%
2023 – 2025	7.25%	1.27%	67%
2026 (Recommended)	7.00%	0.98%	64%

Comparison with Other Systems

How does the 7.00% recommendation compare?

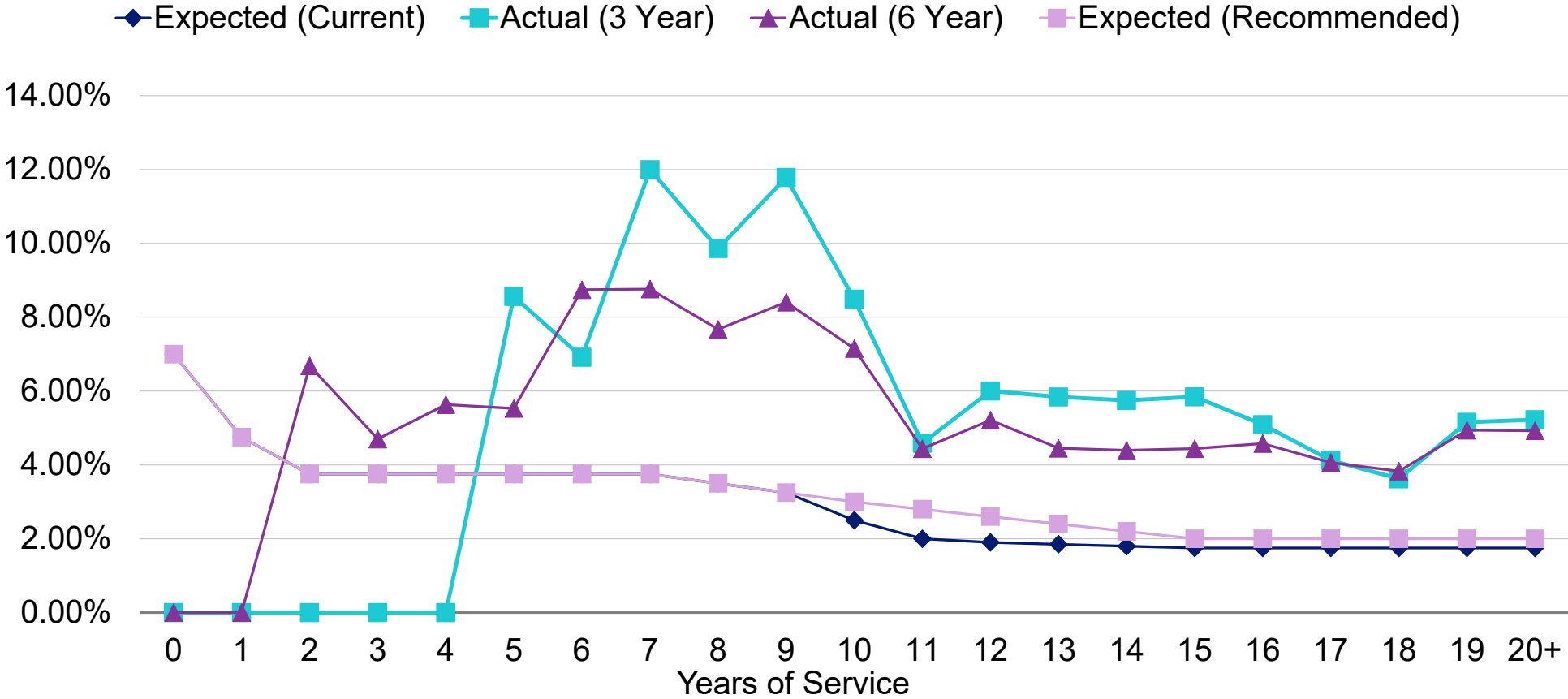
- **National** median is 7.00%
 - NCPERS’s survey mean is 6.67%
 - 149 public fund responses, as of 2025
 - Public Plan’s survey mean is 6.91%
 - 239 large public funds in their 2024 fiscal year valuation
 - 72% of the systems have reduced their investment return assumption from 2017 to 2024
 - State systems outside California tend to lag emerging practices

California Public Sector Systems



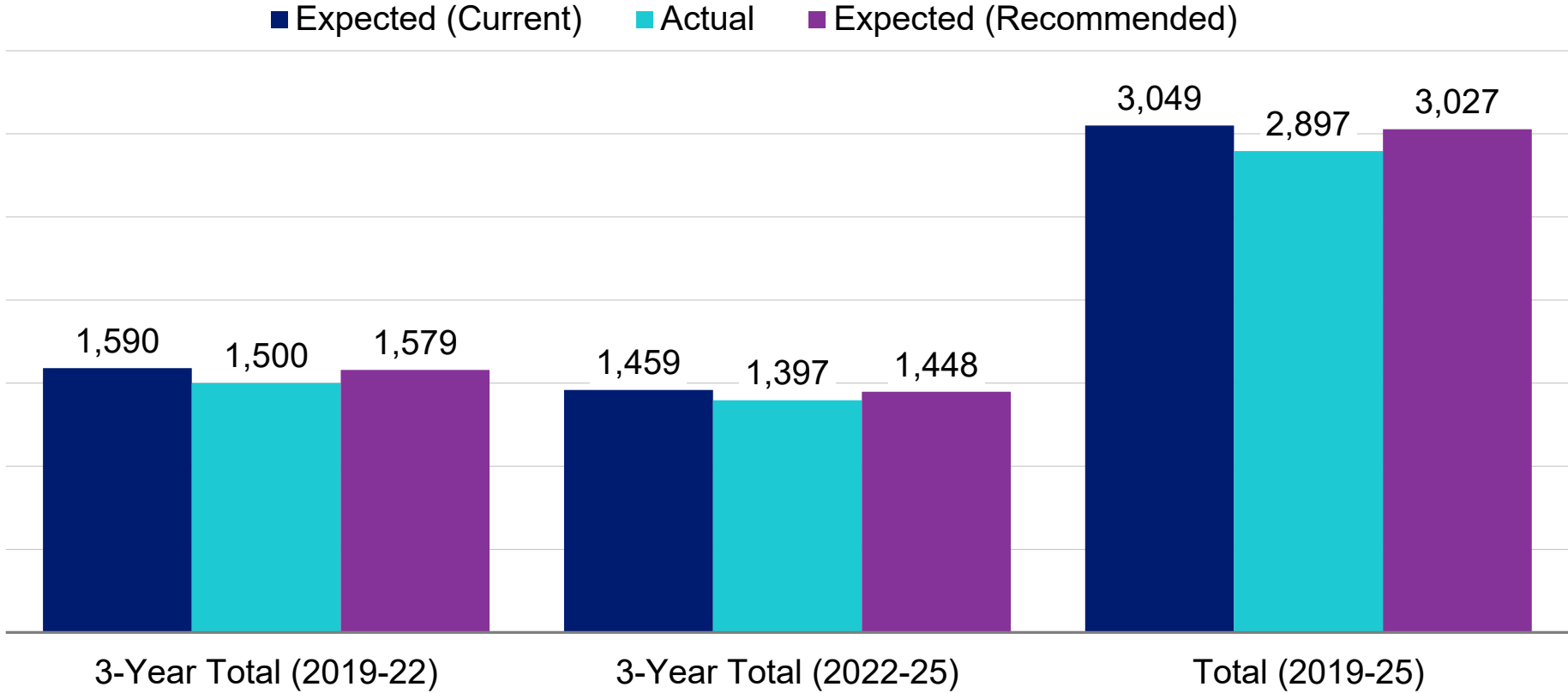
Merit and Promotion Increase Example

Safety Tier 1 Members



Retirement Assumption Example

General Tier 1 Members



Note: Results may not add due to rounding.

Thank You

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