University of California Retirement Plan

Results of Actuarial Experience Study

July 1, 2018 through June 30, 2022

UCRS Advisory Board
June 23, 2023

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Segal

Agenda

Overview of an Experience Study

Recommendations

Demographic Assumptions

Economic Assumptions

Anticipated Impacts

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Overview of an Experience Study

An experience study provides the basis for developing recommended assumptions to be used in the UCRP actuarial valuation

- Recommended under actuarial best practices
- Required under UCRP Plan terms every 3 to 5 years, last study performed in 2019
- Many assumptions also used for Retiree Health

Economic and demographic assumptions reviewed based on prior experience & future expectations

- Economic assumptions include inflation, investment return & salary increases
- Demographic assumptions include mortality, retirement, termination, disability & other miscellaneous

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

Recommendations

Segal has completed a draft of the experience study, scheduled to go to July Regents as an action item to adopt the following recommendations

Demographic Assumptions

- Decrease mortality rates
- Decrease assumed rates of future mortality improvement
- Increase retirement rates
- Decrease termination rates
- Slight decrease in disability incidence rates
- Additional changes to other more minor assumptions

Economic Assumptions

- Maintain inflation at 2.50%
- Maintain investment return at 6.75%
- Maintain “real across the board” salary increase at 0.75%
- Increase merit and promotional rates of salary increase

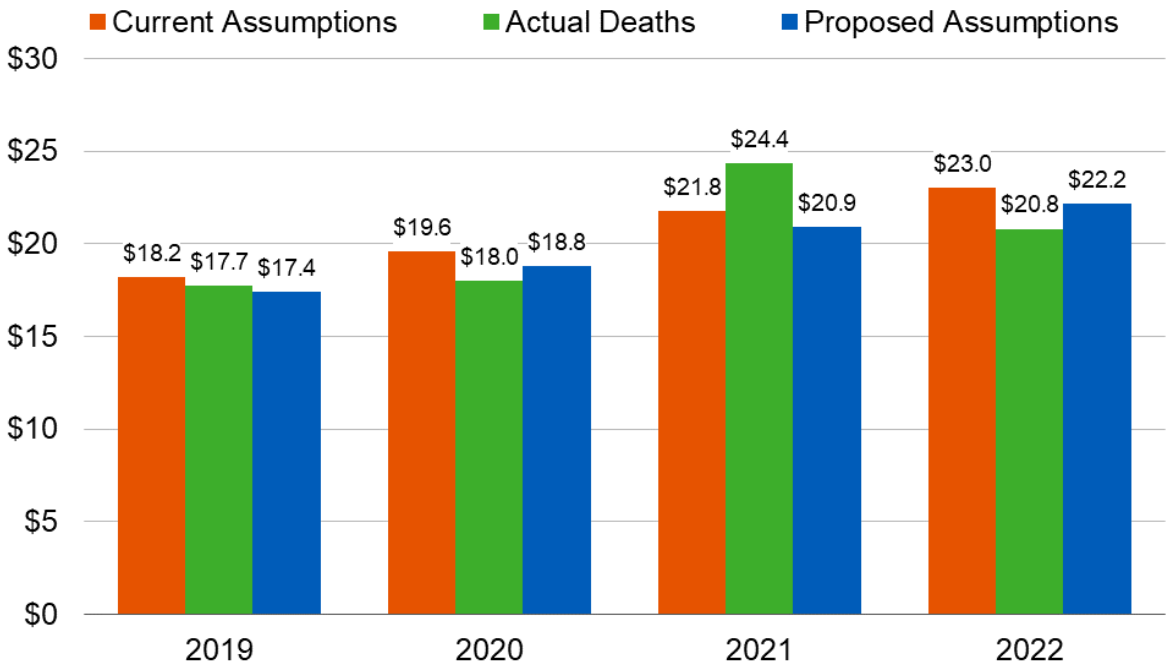
Demographic Assumptions

Mortality Rate Example

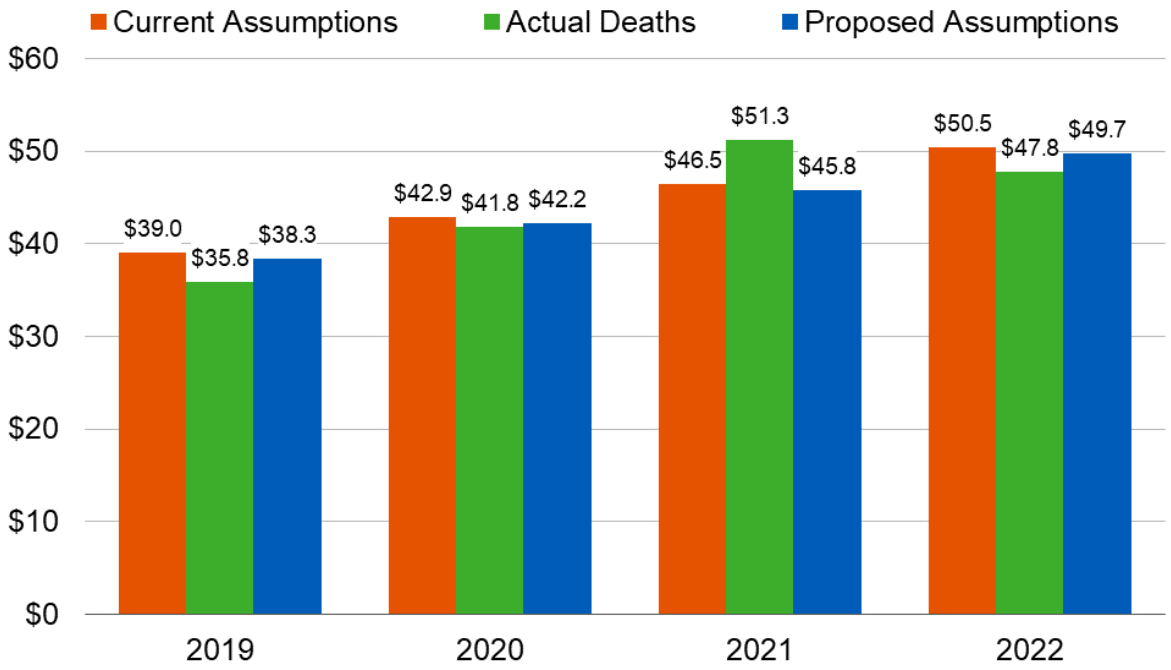
The below graphs show actual benefit-weighted deaths ($ in millions) compared with expected under the current and proposed assumptions

- Includes deaths after service retirement[1]

Benefit-Weighted Deaths – Faculty Members Year Ending June 30



Benefit-Weighted Deaths – Staff/Safety Members Year Ending June 30



[1]*Data for the year ending June 30, 2021 was excluded from our analysis when setting the mortality assumption.*

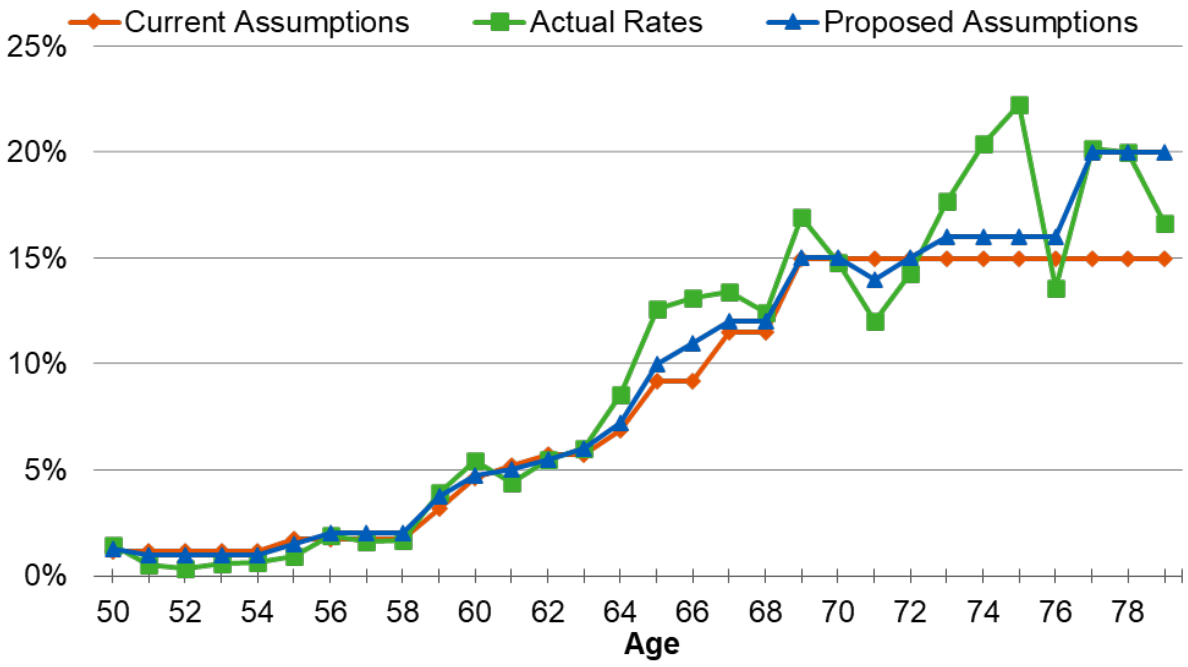
Demographic Assumptions

Retirement Rate Example

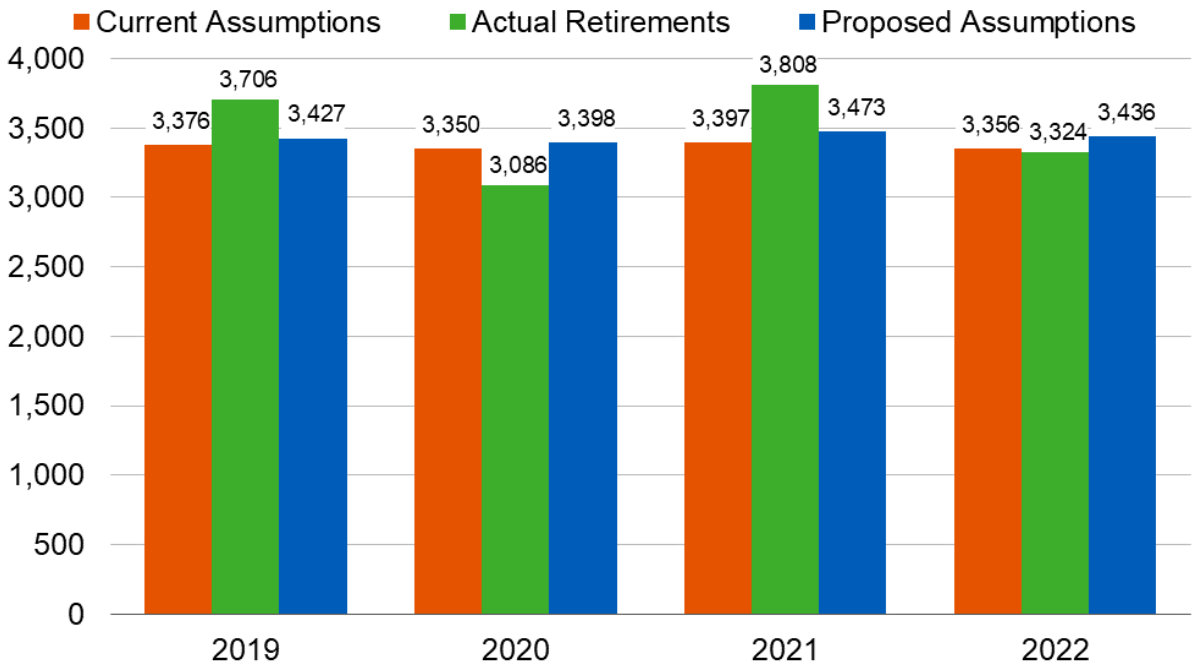
The below graphs show actual retirement rate experience and actual number of retirements, compared with similar information under the current and proposed retirement assumptions

- Includes retirements from active employment

Retirement Rates – 1976 Tier Faculty
20 or More Years of Service



Number of Retirements – All Members
Year Ending June 30



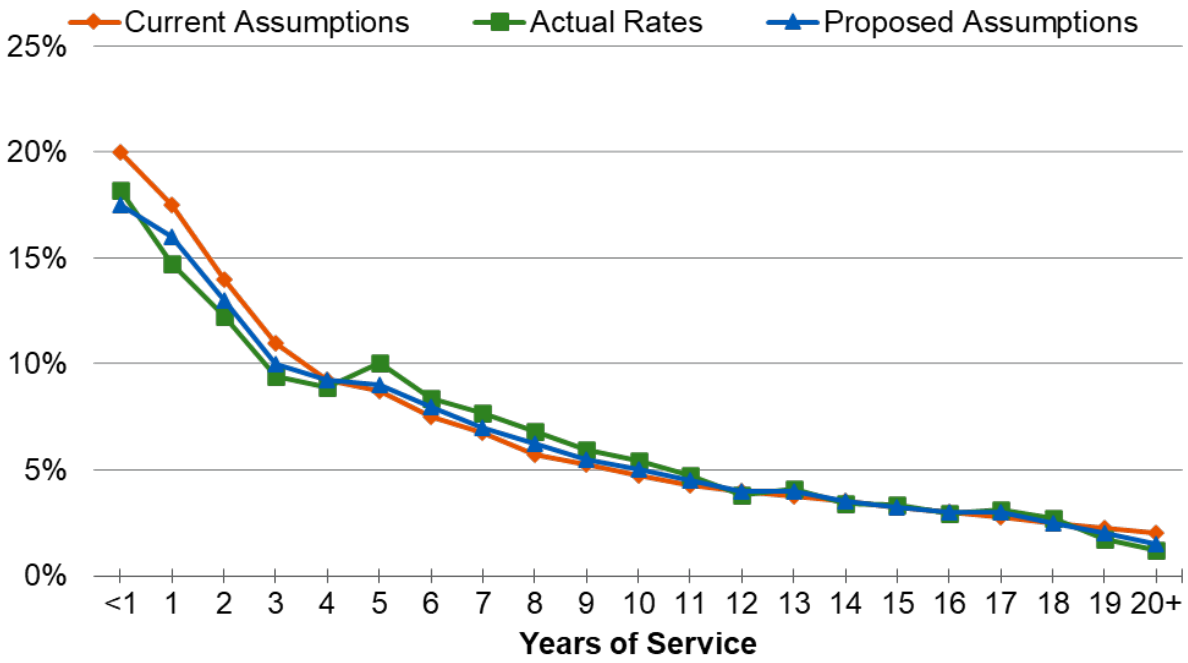
Demographic Assumptions

Termination Rate Example

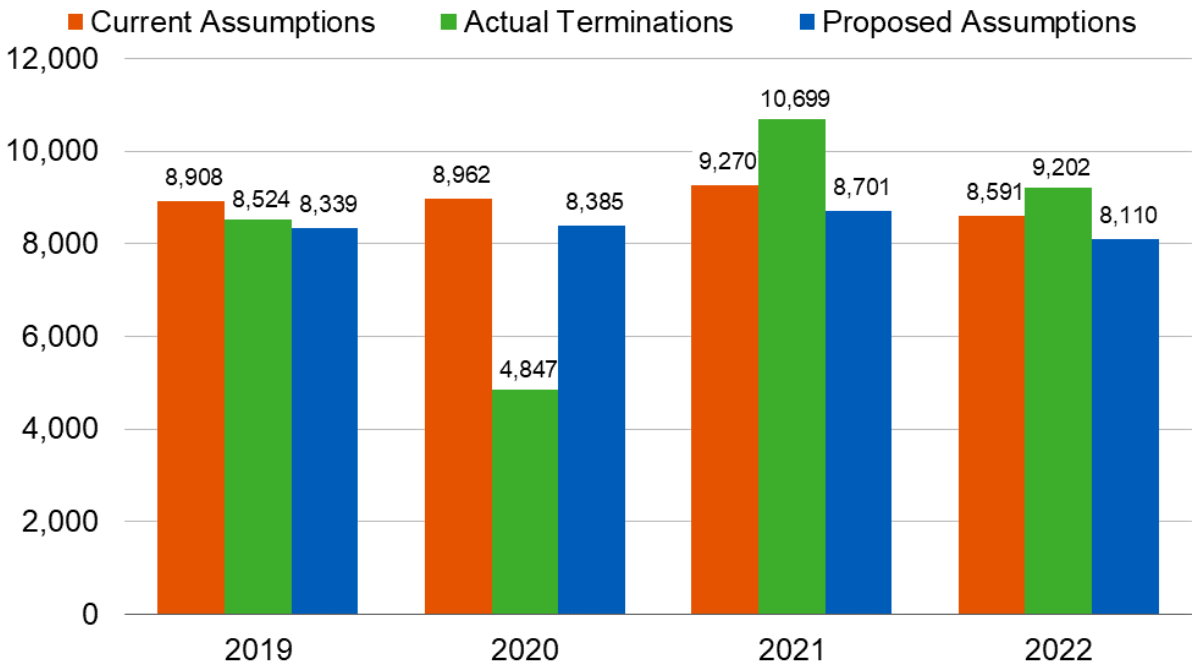
The below graphs show actual termination rate experience and actual number of terminations, compared with similar information under the current and proposed assumptions

- Includes terminations from active employment

Termination Rates – Staff/Safety Members



Number of Terminations – Staff/Safety Members Year Ending June 30



Economic Assumptions

	2023 Study Recommended		2019 Study Adopted	
	Investment Return	**Salary Increases[1]**	**Investment Return**	**Salary Increases[1]**
Price Inflation	2.50%	2.50%	2.50%	2.50%
Real Wages	N/A	0.75%	N/A	0.75%
Net Real Return	4.25%[2]	N/A	4.25%[2]	N/A
Total	**6.75%**	**3.25%**	**6.75%**	**3.25%**

[1] Excludes merit and promotion component of individual salary increases

[2] Recommended return is net of investment expenses and a risk adjustment

Economic Assumptions

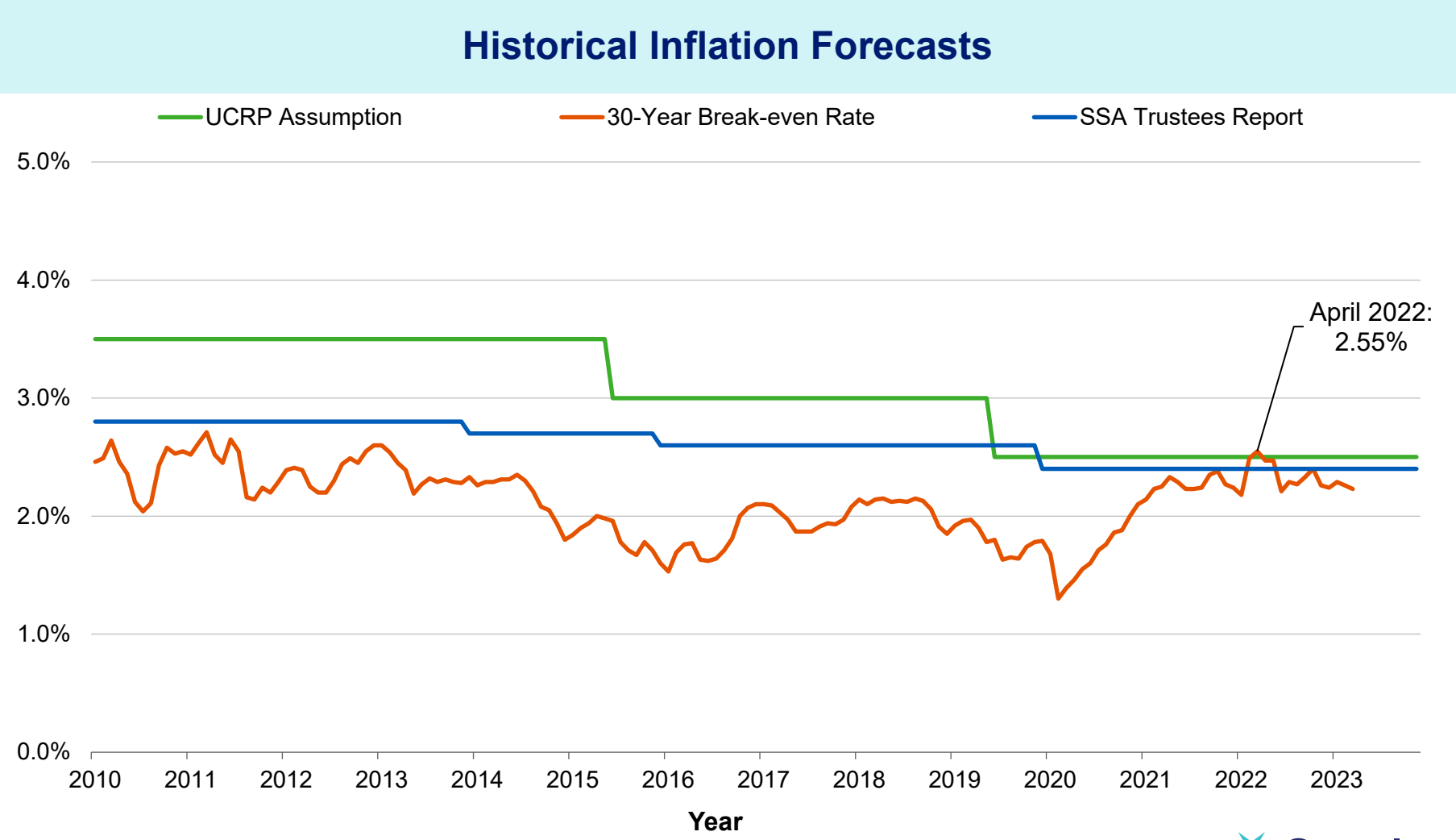
Historical Inflation Forecasts

30-Year Break-even Rate

- Difference between the yields on the 30-year inflation indexed U.S. Treasury bonds to comparable traditional U.S. Treasury bonds
  - A market-based gauge of future inflation expectations

SSA Trustees Report

- Projected average increase in the CPI over a 75-year period under the intermediate cost assumptions as published in the Social Security Administration's (SSA) report on the financial status of the Social Security program



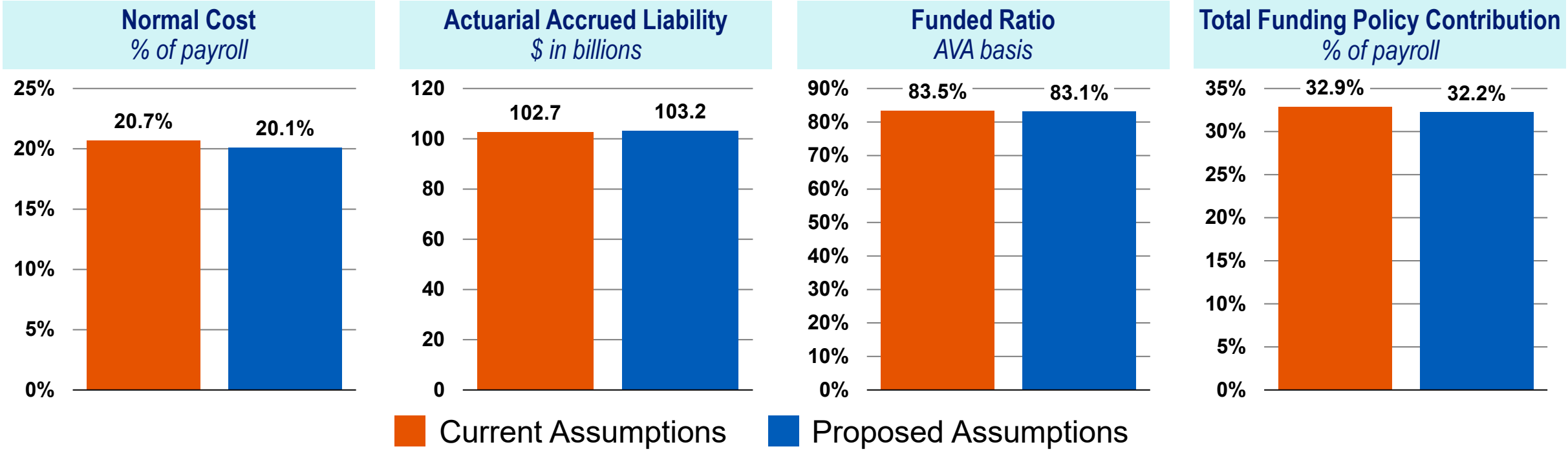
Economic Assumptions

Components of UCRP Investment Return Assumption

	2023 Study Recommended	2019 Study Adopted
Assumed Inflation	2.50%	2.50%
Portfolio Real Rate of Return	5.59%	5.40%
Assumed Investment Expenses	(0.80%)	(0.80%)
Risk Adjustment	(0.54%)	(0.35%)
Total	**6.75%**	**6.75%**
Confidence Level	56%	54%

Anticipated Impacts

Modeled as of July 1, 2022 for Illustration Purposes



Assumptions adopted by Regents will first be effective for July 1, 2023 valuation

Changes to UCRP's actuarial equivalence basis have also been recommended consistent with the other recommended assumptions

- Generally slight increases to option factors and Lump Sum Cashout (LSC) factors
- This change will be effective July 1, 2024

Future Expectations

UCRP is a fixed rate plan with current approved contributions less than the total funding policy contribution

- Difference between total funding policy contribution and approved contributions is funding shortfall

Following slides show projections of contributions and funded ratio over the next 10-20 years

- Projection of UCRP contributions based on current assumptions
  - Funding shortfall is represented by red bars
  - Current funding shortfall of $900 million is projected to increase to $2 billion in 2031
- Projection of UCRP contributions based on recommended assumptions
  - Slight decrease in projected funding shortfall, from $2 billion to $1.8 billion in 2031
- Projection of UCRP's funded ratio based on both current and recommended assumptions

The recommended assumptions do not significantly impact the projection of UCRP Contributions or Funded Ratio over the next ten to twenty years

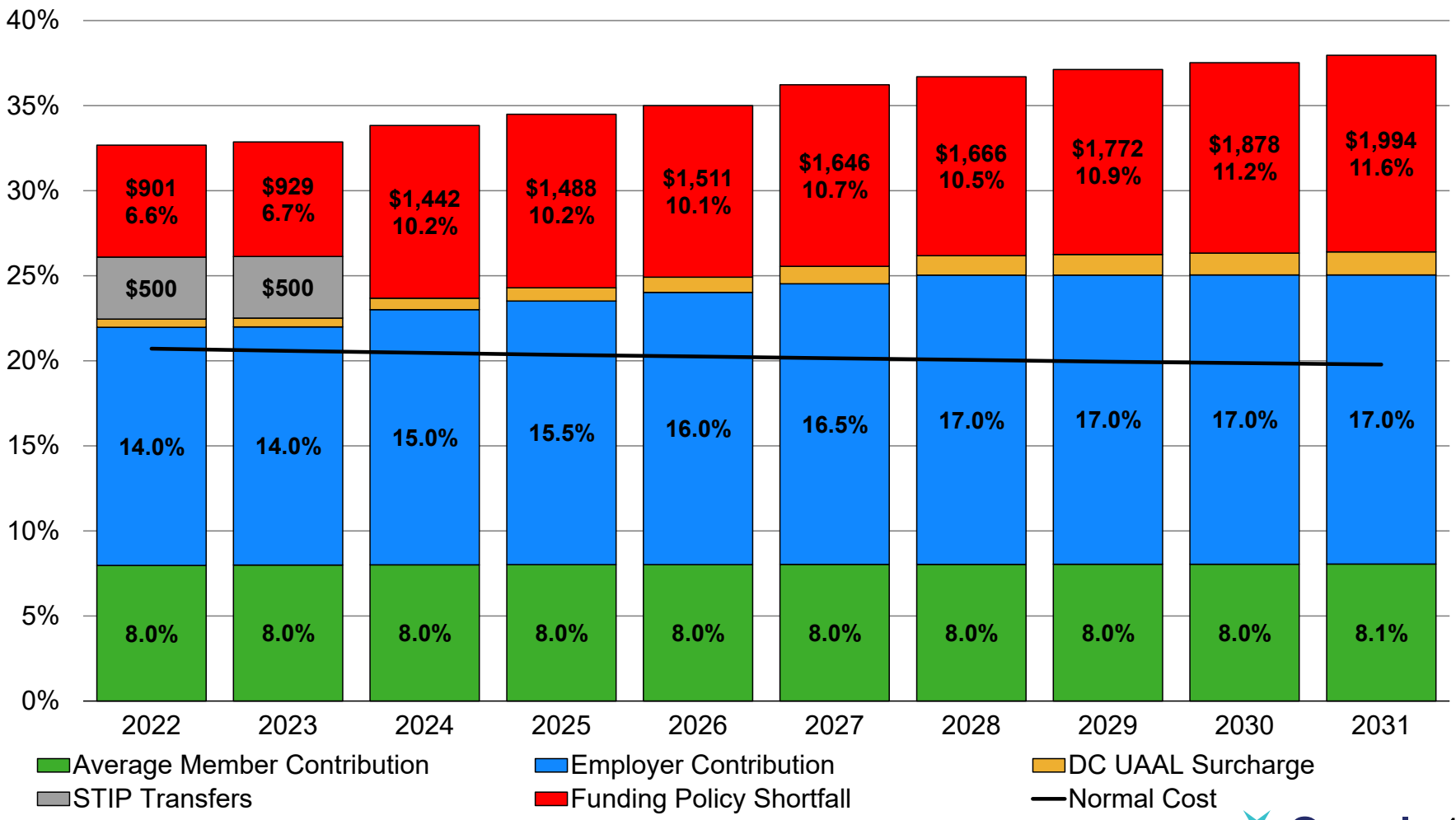
Projected UCRP Contribution Amounts

Campus and Medical Center Segment ($ in millions)

Assumptions

- Market value return of 6.75% per year beginning July 1, 2022
- All actuarial assumptions in the July 1, 2022 valuation are met
- Total UCRP & Savings Choice active member population remains level for one year, then grows by 0.7% per year
- 35% Savings Choice election rate for eligible members
- Approved contributions are made each year, including approved STIP transfers through 2023/2024
- Shortfalls are shown in future dollars

Current Actuarial Assumptions



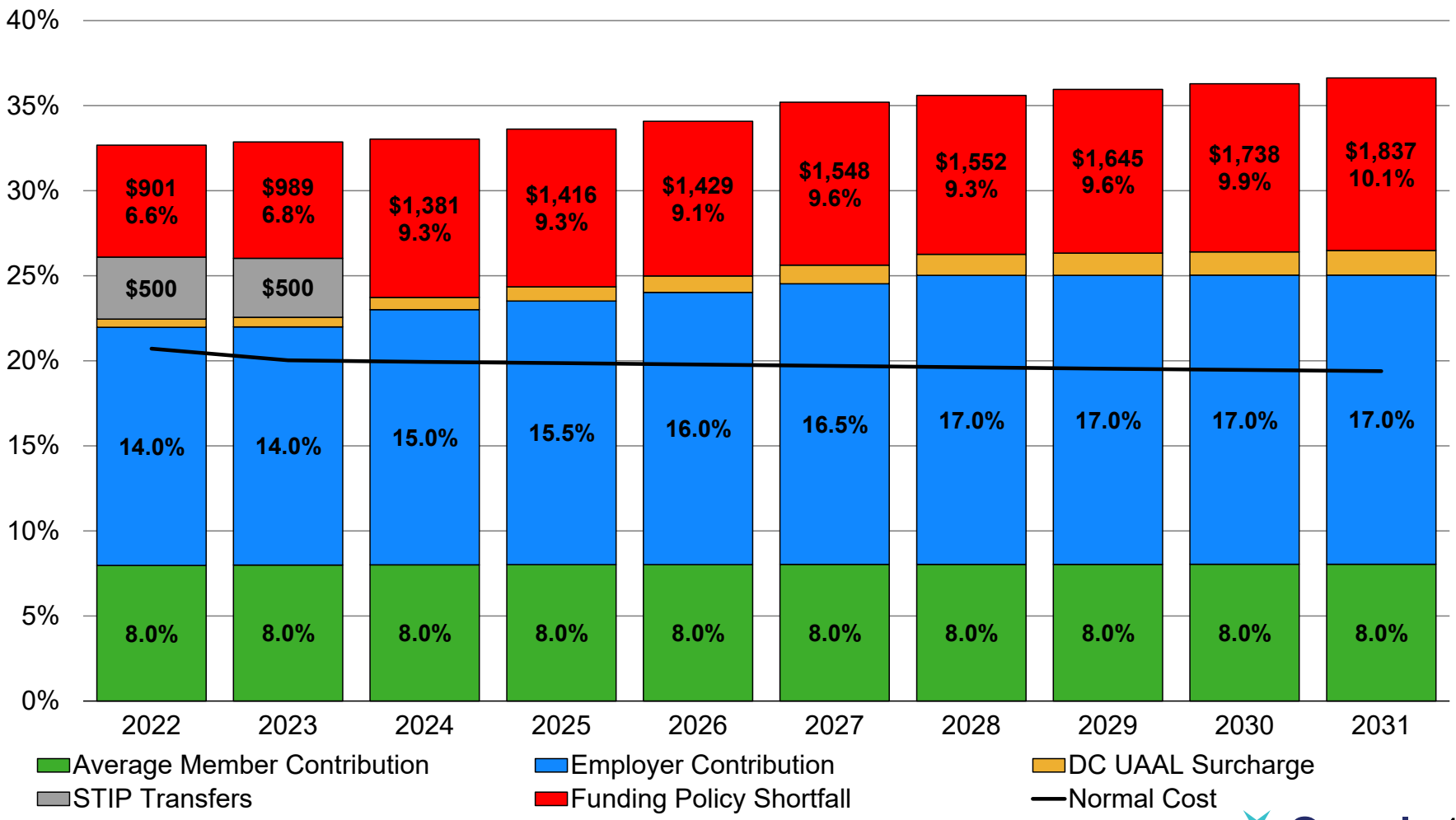
Projected UCRP Contribution Amounts

Campus and Medical Center Segment ($ in millions)

Assumptions

- Market value return of 6.75% per year beginning July 1, 2022
- All recommended actuarial assumptions in the Actuarial Experience Study are met
- Total UCRP & Savings Choice active member population remains level for one year, then grows by 0.7% per year
- 35% Savings Choice election rate for eligible members
- Approved contributions are made each year, including approved STIP transfers through 2023/2024
- Shortfalls are shown in future dollars

Recommended Actuarial Assumptions

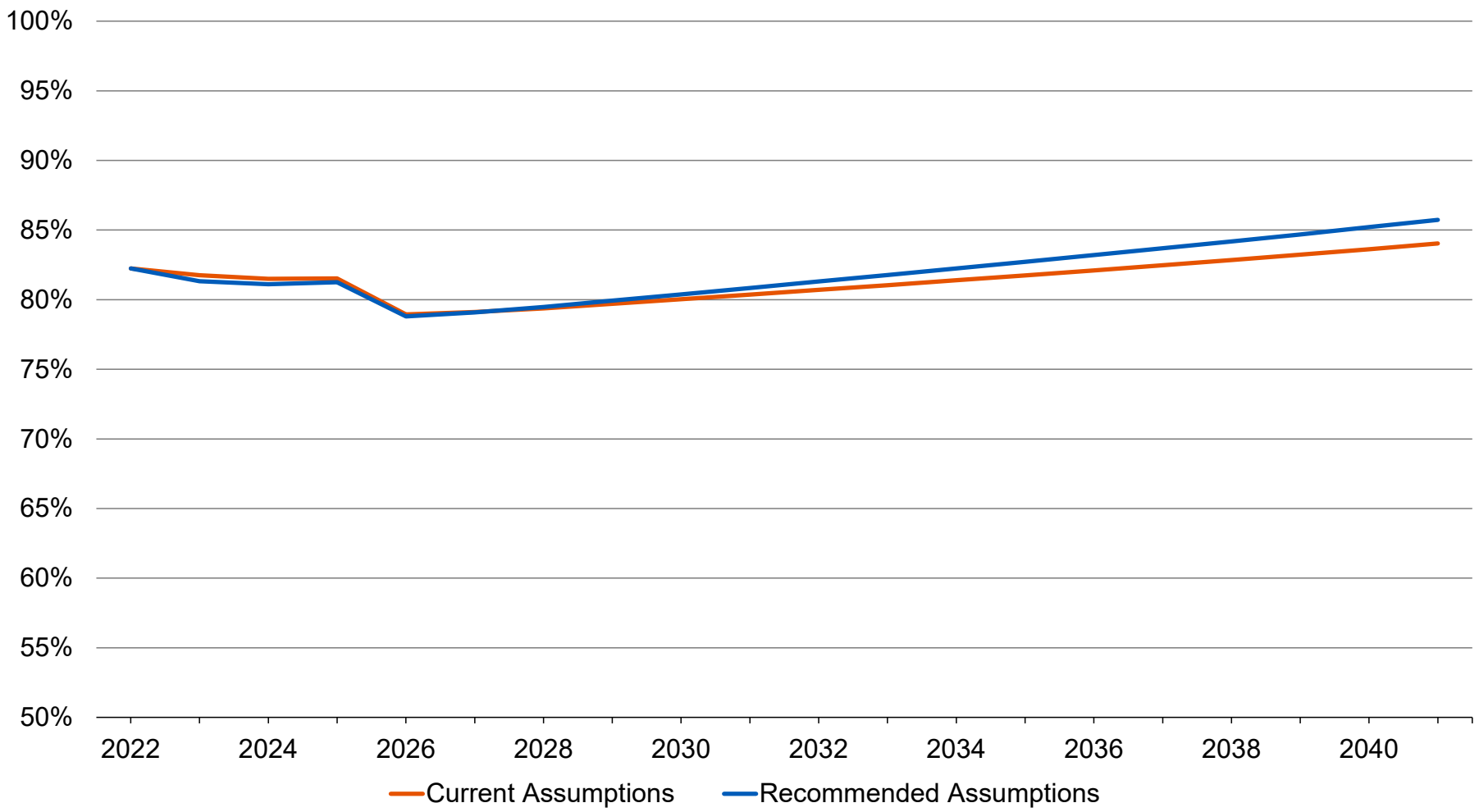


Projected Funded Ratio

Campus and Medical Center Segment

Assumptions

- Market value return of 6.75% per year beginning July 1, 2022
- Actuarial assumptions, as noted in the legend, are met
- Total UCRP & Savings Choice active member population remains level for one year, then grows by 0.7% per year
- 35% Savings Choice election rate for eligible members
- Approved contributions are made each year, including approved STIP transfers through 2023/2024
- Decrease in funded ratio from 2025 – 2026 due to asset smoothing recognizing the 6/30/2022 investment loss



Thank You

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