



South Dakota Retirement System

SDRS Update

June 20, 2023



Funding Basics

- Member and employer **contribution rates are fixed in statute:**
 - Most state retirement plans vary employer contributions to meet actuarial requirements
- **COLA automatically varies** with inflation and affordability:
 - COLA equals inflation, up to 3.5% when affordable
 - When not affordable, COLA maximum is reduced to COLA that if paid for lifetimes of all members, keeps SDRS 100% funded
 - COLA can be as low as zero, if necessary
- SDCL 3-12C-228 requires recommendation, including circumstances and timing, to Legislature and Governor for **corrective action** if:
 - Funded ratio below 100% after COLA reduced to zero, or
 - Fixed, statutory contributions do not meet actuarial requirement



SDRS at June 30, 2022

- SDRS membership was 97,830 (10.8% of state population):
 - Active: 41,878 members
 - Average age 44.3; service 10.5; pay \$51,058
 - Benefit recipients: 32,348 members
 - Total annual benefits: \$690.8M
 - Retiree average monthly benefit: \$1,872
 - Terminated and due a benefit or refund: 23,604 members
- Fair value of assets was \$14,126M:
 - FY 2022 member and employer contributions: \$286M
 - FY 2022 disbursements: \$701M; including \$665M monthly benefits, \$31M refunds of contributions, and \$5M administrative expenses
 - Non-investment cashflow was negative 2.8% of beginning of year assets



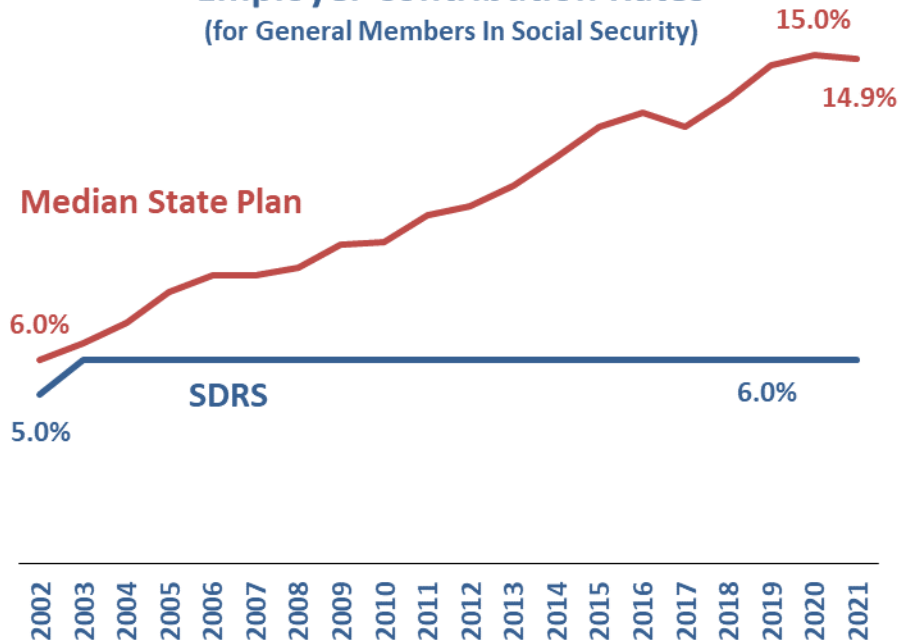
FY 2022 Headline Results

- Net investment return less than 6.50% actuarial assumption results in **actuarial investment loss**:
 - Net money-weighted return = (0.64%)
 - Actuarial investment loss = \$1,029M
- Demographic experience results in **actuarial liability loss**:
 - Liabilities \$209M higher than expected
- Funded status results:
 - Restricted maximum COLA of 2.10% applicable
 - Inflation for year = 8.75%; **2023 COLA will be 2.10%**
 - Fair Value Funded Ratio (FVFR) decreased to 100.1%

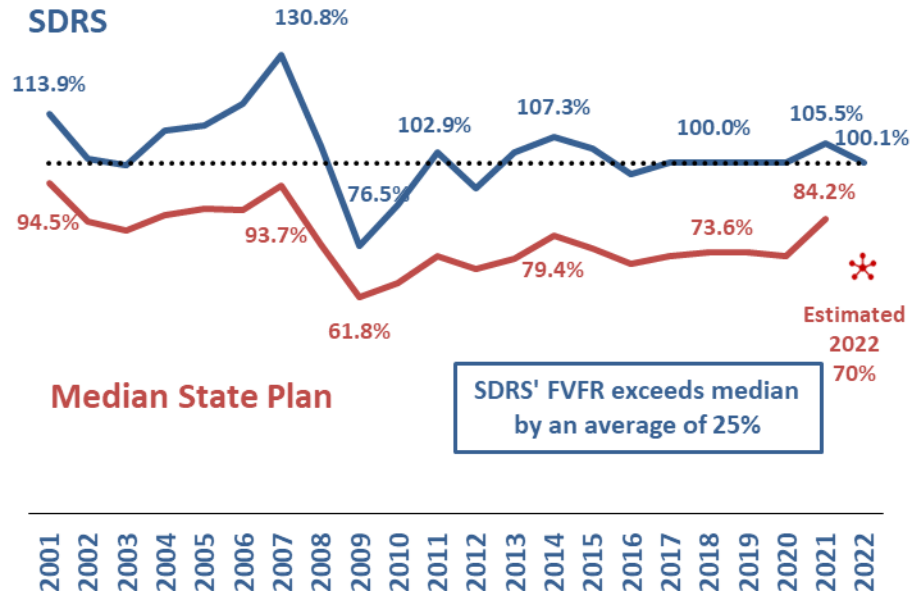


Employer Contributions and Funded Status Comparisons

Employer Contribution Rates
(for General Members In Social Security)



Fair Value Funded Ratio



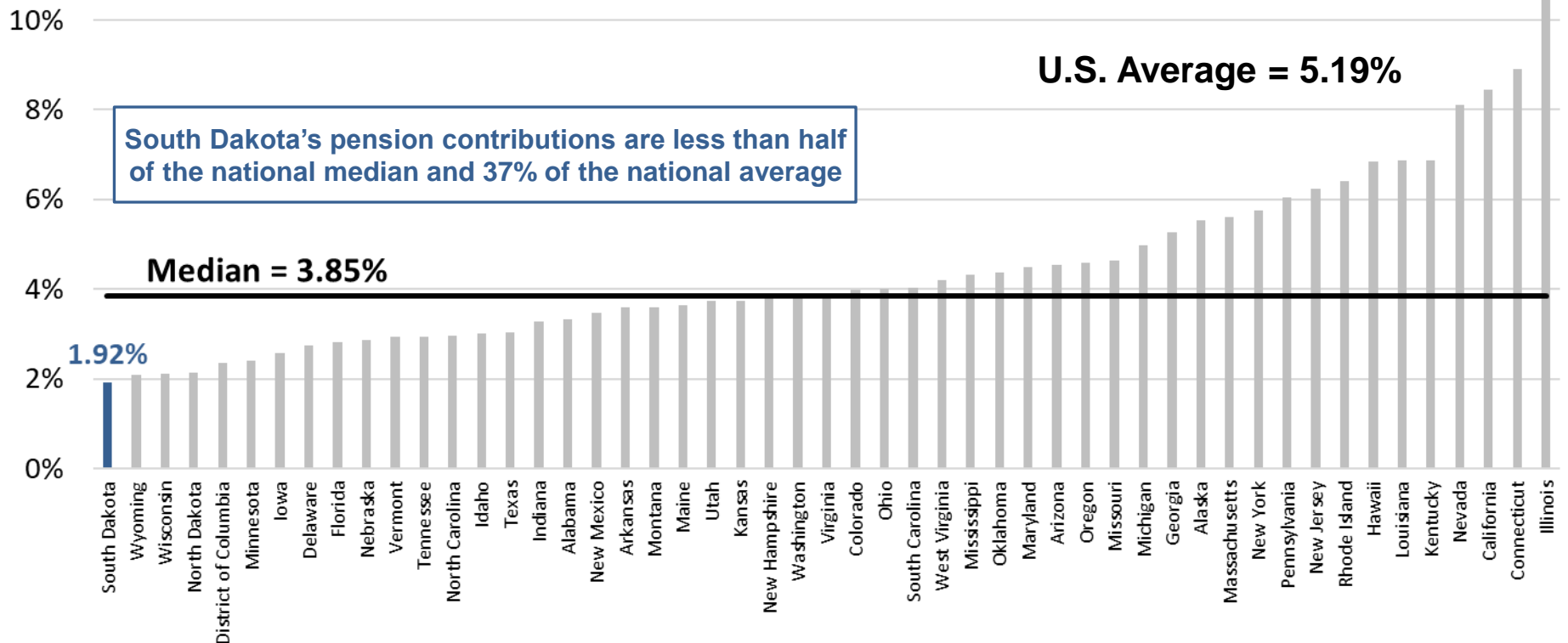
- Employer contribution rates for Class A members are 40% of the national median
- SDRS COLA varies to maintain 100% Fair Value Funded Ratio (FVFR)

Median public sector FVFR from Public Plans Database. 2022 estimated median public sector FVFR from 2022 Wilshire estimate released July 8, 2022. Employer contribution rates from NASRA Public Fund Survey.



Government Spending on Pensions

Government Contributions to Pensions as a Percent
of All Direct Government Spending, FY 2020 (most recently available)



Data from NASRA Issue Brief: State and Local Government Spending on Public Employee Retirement Systems, February 2023



Competing Objectives

- Delivering adequate benefits and remaining fully funded through all economic conditions with contributions that are less than half of the national median is a very high standard
- These are very challenging objectives and become even more difficult to meet as retirees live longer and the consensus view of future investment returns is lower
- SDRS management efforts to meet these objectives have included:
 - Variable COLA process
 - Foundation members transition to 5-year FAC and pay increase caps
 - Generational design
 - Retire-rehire reform
 - Various other initiatives to avoid or lessen subsidies



Competing Objectives

- SDRS resources are not sufficient to provide COLAs that match inflation during periods of very high inflation, like the last two fiscal years
- **Proposals that impose additional objectives funded by SDRS' limited resources will detract from the ability to provide adequate benefits funded by the fixed, modest contributions:**
 - Opportunities for employers or members to increase their benefits at the expense of other SDRS members must be opposed
 - Proposed changes to SDRS must be thoroughly evaluated to ensure they do not endanger future benefits, COLAs, or system sustainability
 - Actuarial assumptions must remain realistic

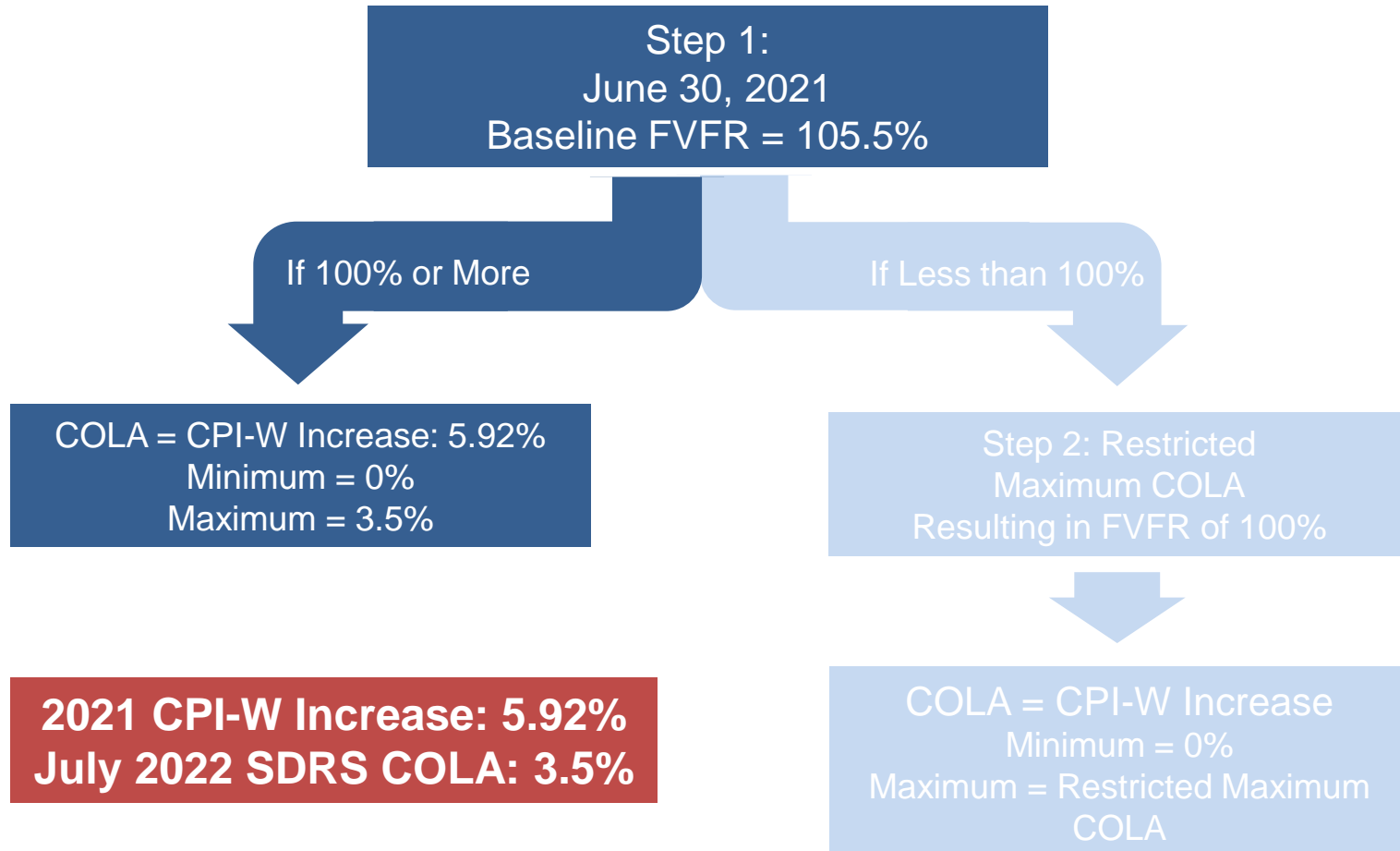


Projected Funded Status and COLAs

- The following exhibits examine:
 - SDRS COLAs and inflation since 2010 and by cohort since retirement
 - Estimated June 30, 2023 FVFR, based on range of FY 2023 investment returns, corresponding July 2024 COLA ranges, and likelihoods of achieving returns
- Projections are developed using an actuarial model intended to estimate short-term changes in funded ratios and resulting COLA ranges:
 - Demographic experience is assumed to match assumptions for FY 2023 and beyond
 - Likelihoods are calculated based on FY 2023 investment portfolio statistics provided by SDIC staff

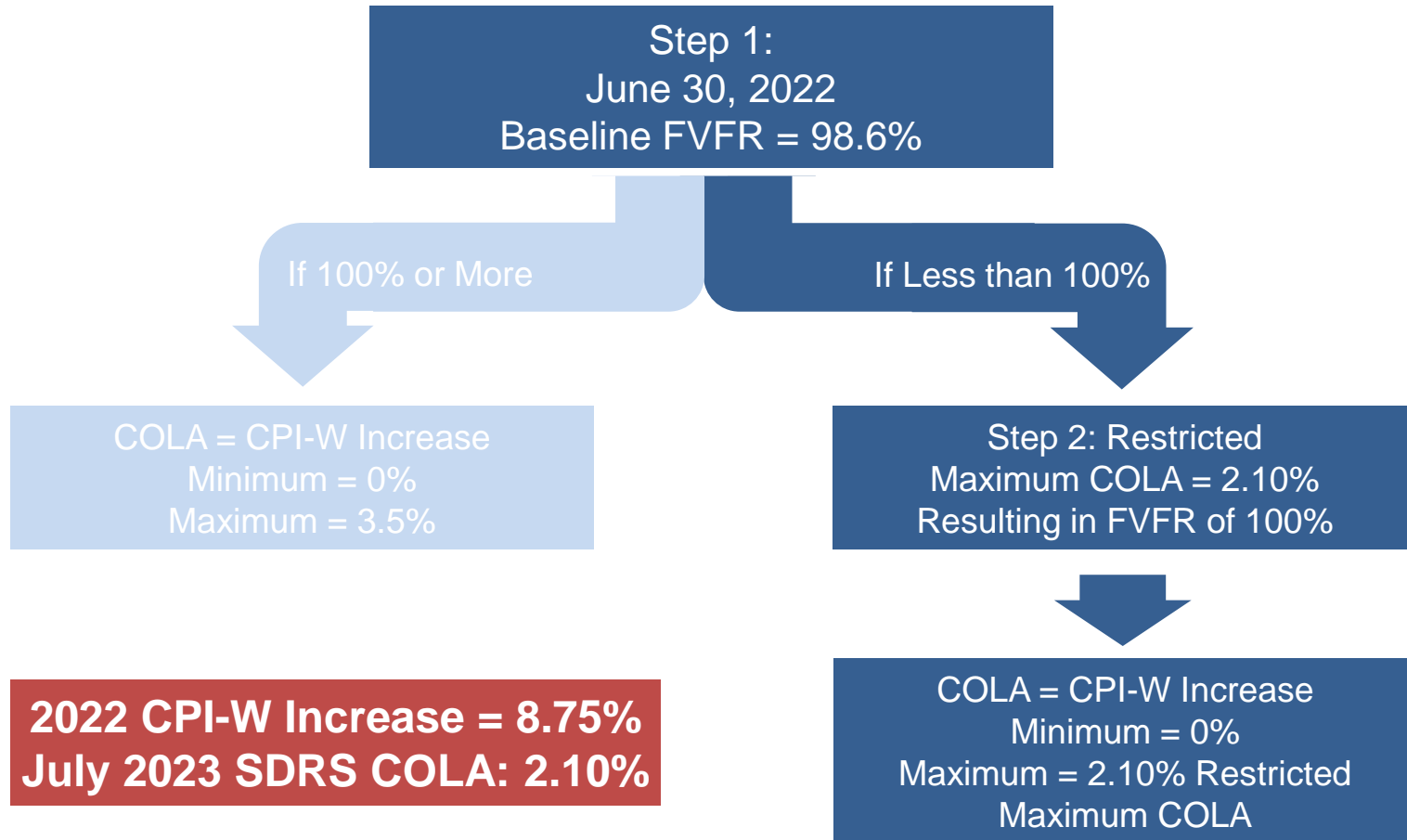


July 2022 COLA Calculation





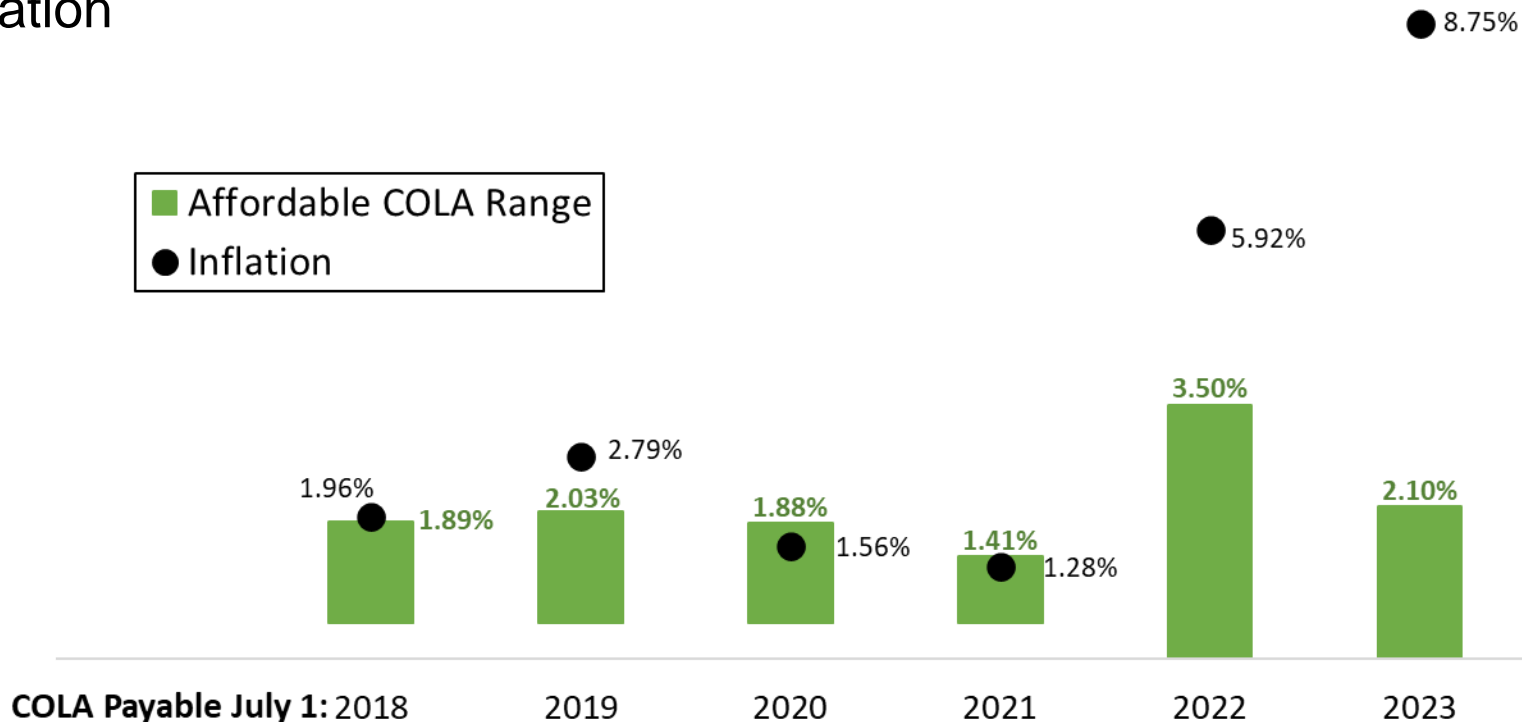
July 2023 COLA Calculation





Historical COLA Ranges

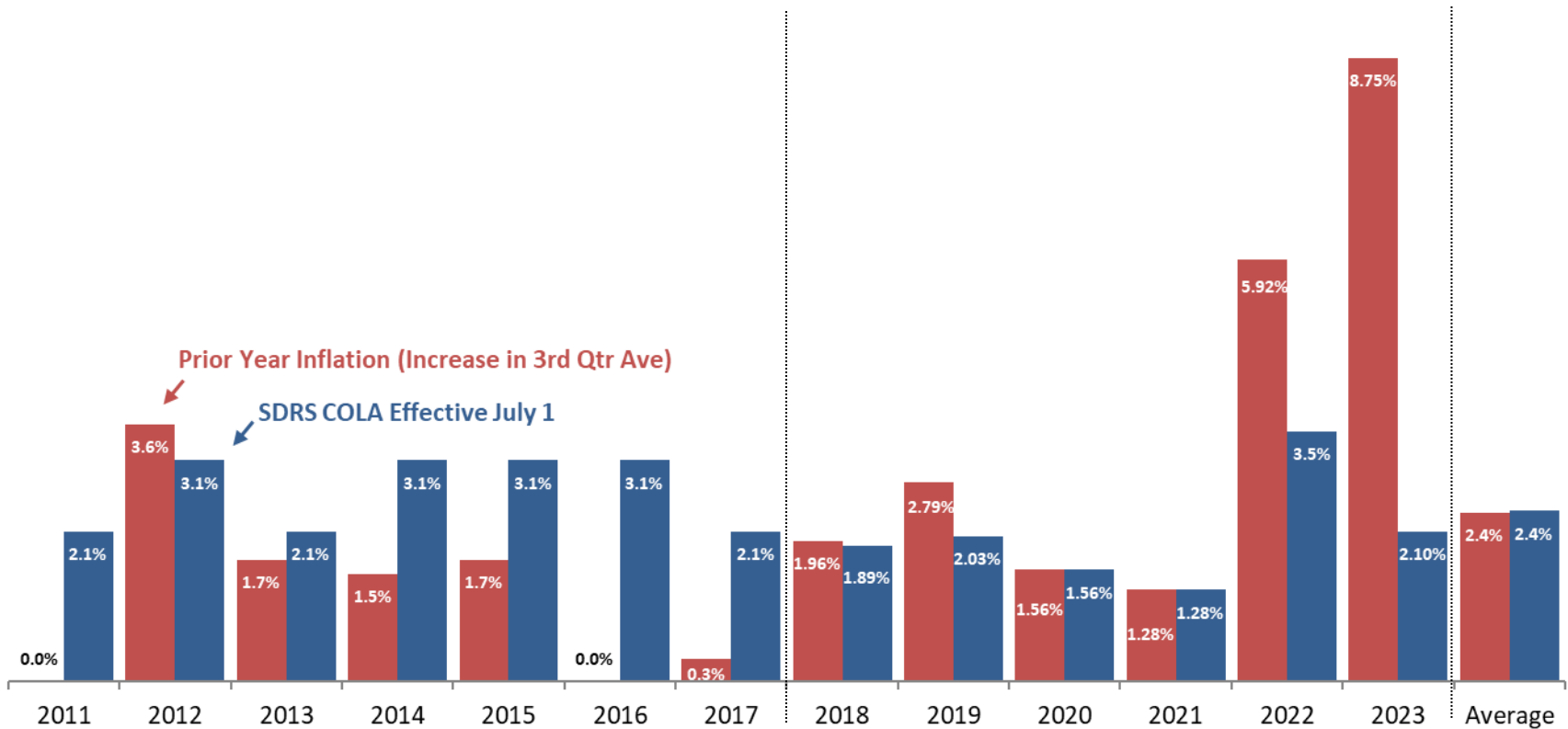
- Under the current COLA process, the full COLA range has only been affordable for the 2022 COLA
- The 2023 restricted maximum COLA is 2.10%, significantly less than inflation





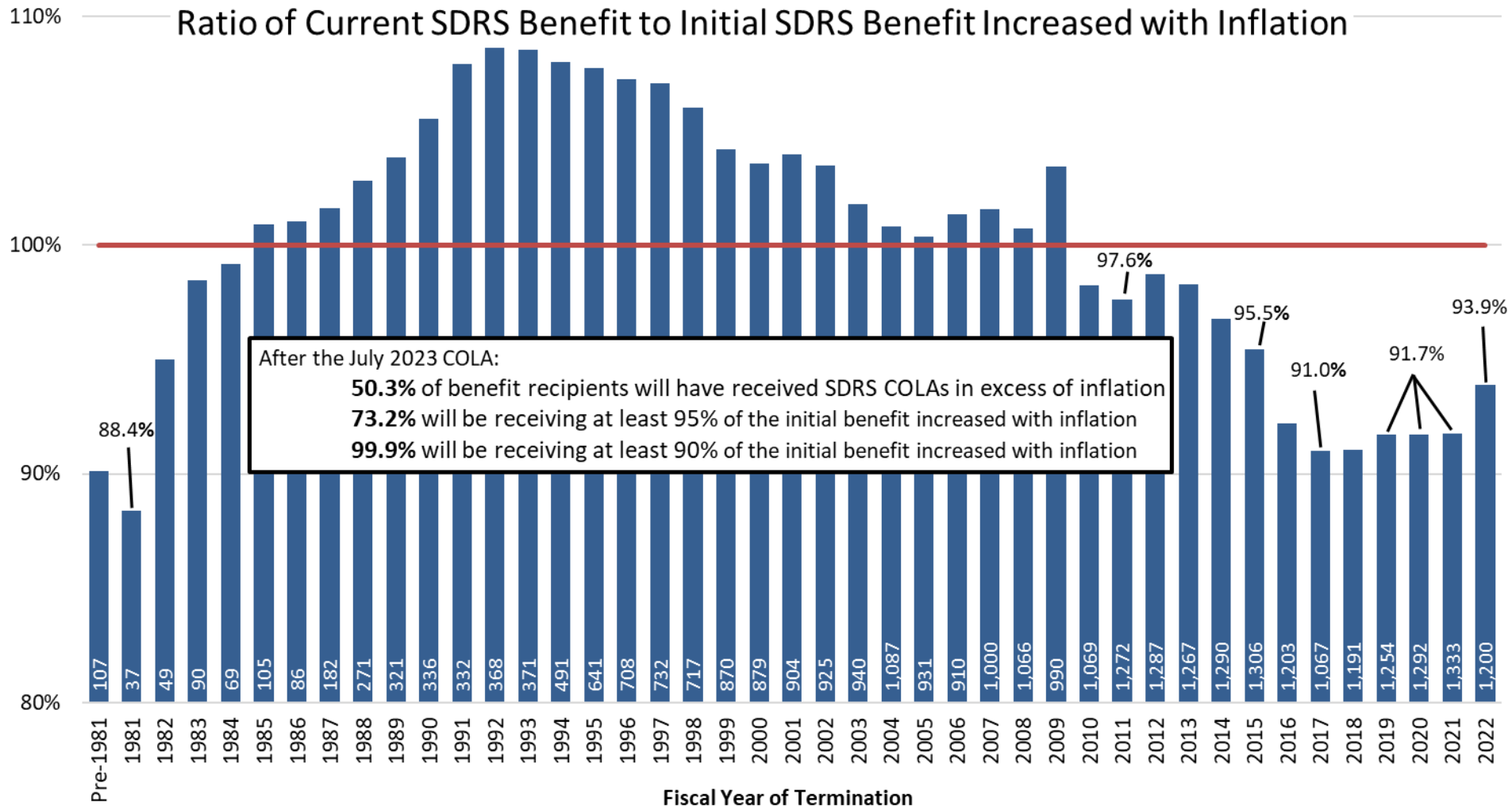
Inflation and SDRS COLAs Since 2010

Annual Inflation and SDRS COLA Increases 2011-2023



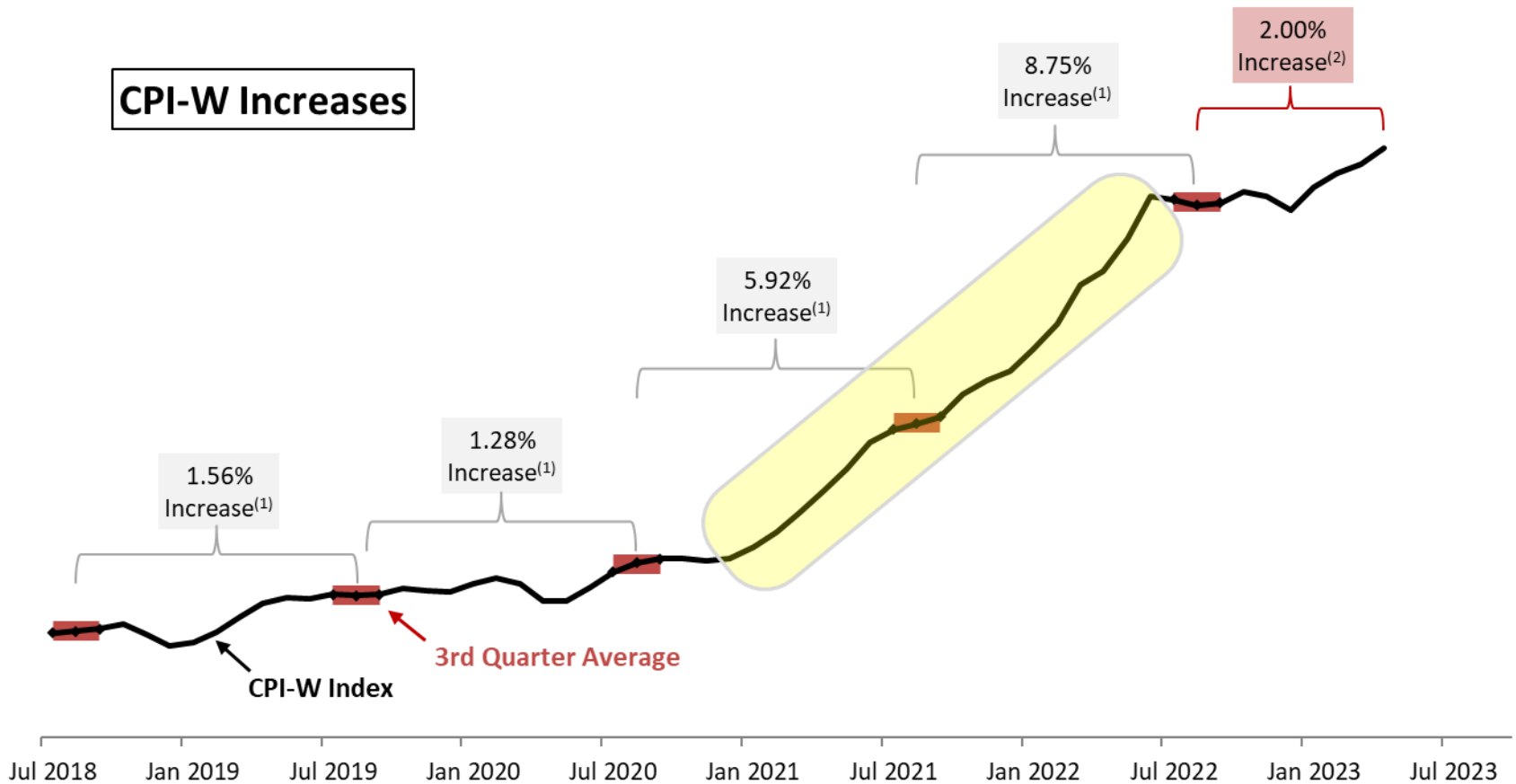


Historical Inflation and SDRS COLAs: 2023





Inflation Measurement for Social Security and SDRS COLAs



(1) Increase in the third calendar quarter average over the prior highest third calendar quarter average – the specified inflation measurement for the Social Security COLA effective the following January and the SDRS COLA effective the following July.

(2) Increase in most recent month index (April 2023) over July to September 2022 average. Increase annualizes to 3%, ignoring seasonal impacts.



Projected Funded Status as of June 30, 2023 and July 2024 COLA Range⁽¹⁾

Net Investment Return FYE June 30, 2023	Baseline FVFR	COLA Range	Final FVFR	Applicable Conditions
<= (12.4%)	80.0%	NO COLA	<100%	Corrective Action Recommendation Required
(12.3%)	80.9%	0% to 0.01%	100%	Restricted Maximum COLA
0.0%	92.5%	0% to 1.45%	100%	
3.0%	95.3%	0% to 1.76%	100%	
4.0%	96.3%	0% to 1.86%	100%	
5.0%	97.2%	0% to 1.96%	100%	
6.5%	98.6%	0% to 2.11%	100%	
7.9%	99.9%	0% to 2.24%	100%	Full COLA Range
8.0%	100.0%	0% to 3.50%	100%	
10.0%	101.9%	0% to 3.50%	102%	
15.0%	106.6%	0% to 3.50%	107%	
29.1%	119.9%	0% to 3.50%	120%	
29.2%	120.0%	0% to 3.50%	120%	120% Benefit Improvement Threshold Met

(1) Before consideration of liability gains/losses for FYE June 30, 2023. June 30, 2022 Baseline FVFR: 98.6%; July 2023 COLA Range: 0.0% to 2.10%.



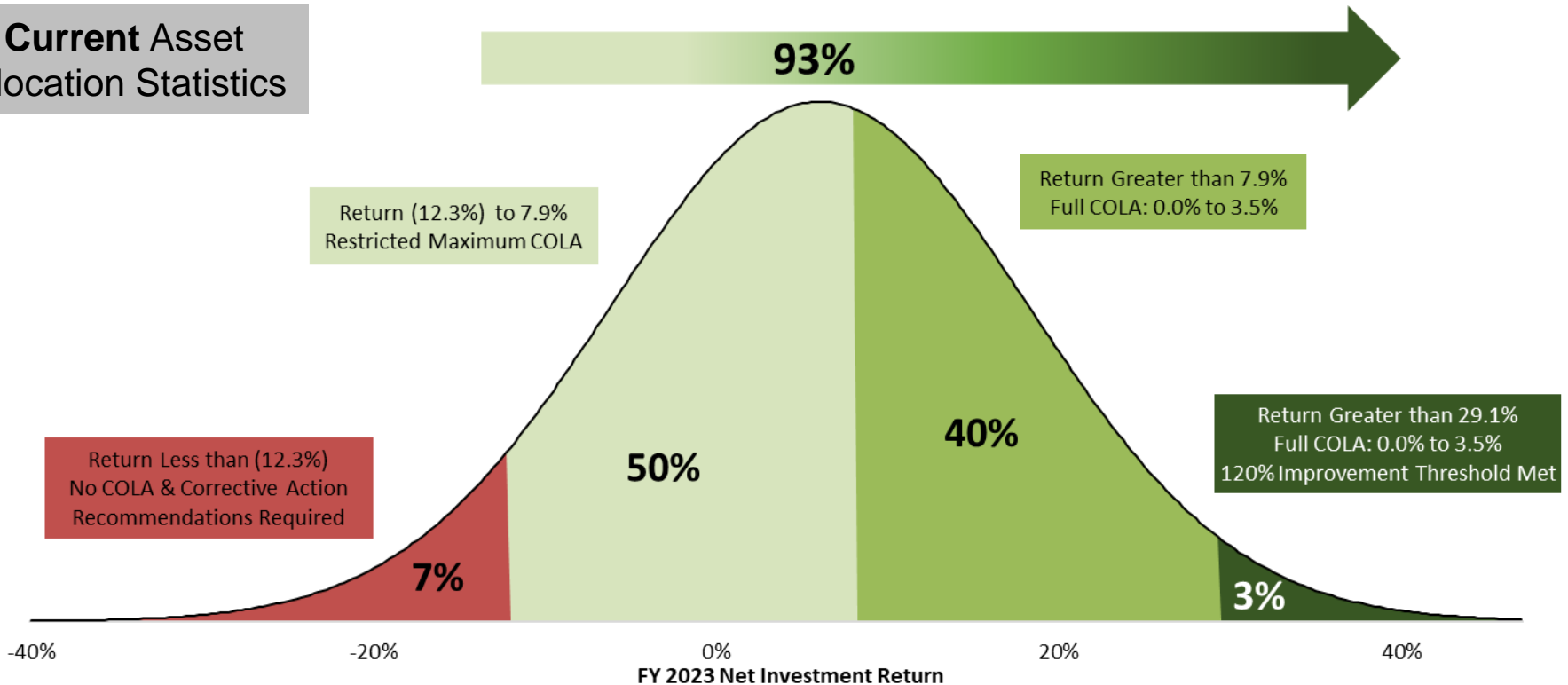
Risk Analysis

- The **most significant and immediate risk to SDRS is investment risk**
- Investment returns will **first impact** the affordable COLA range
 - Less than assumed will reduce restricted maximum COLA
 - Greater than assumed will increase maximum or enable full COLA range
- The variable COLA will not be sufficient to maintain 100% FVFR in all conditions and additional corrective actions may be required
- The following exhibit estimates the one-year likelihood of 2024 COLA restrictions, corrective action requirements, and benefit improvement possibilities for FY 2023, but before any liability gains or losses



Projected Range of 2024 COLA and Likelihoods

Current Asset Allocation Statistics



- **Ignoring FY 2023 investment returns to date**, the preliminary likelihoods for **July 2024 COLA ranges**, primarily driven by FY 2023 investment returns, are:
 - 7% likelihood: No COLA and corrective action recommendations required
 - 50% likelihood: COLA equals CPI-W increase between 0.0% and a restricted COLA maximum
 - 43% likelihood: COLA equals CPI-W increase between 0.0% and 3.5%; 3% likelihood 120% benefit improvement threshold met

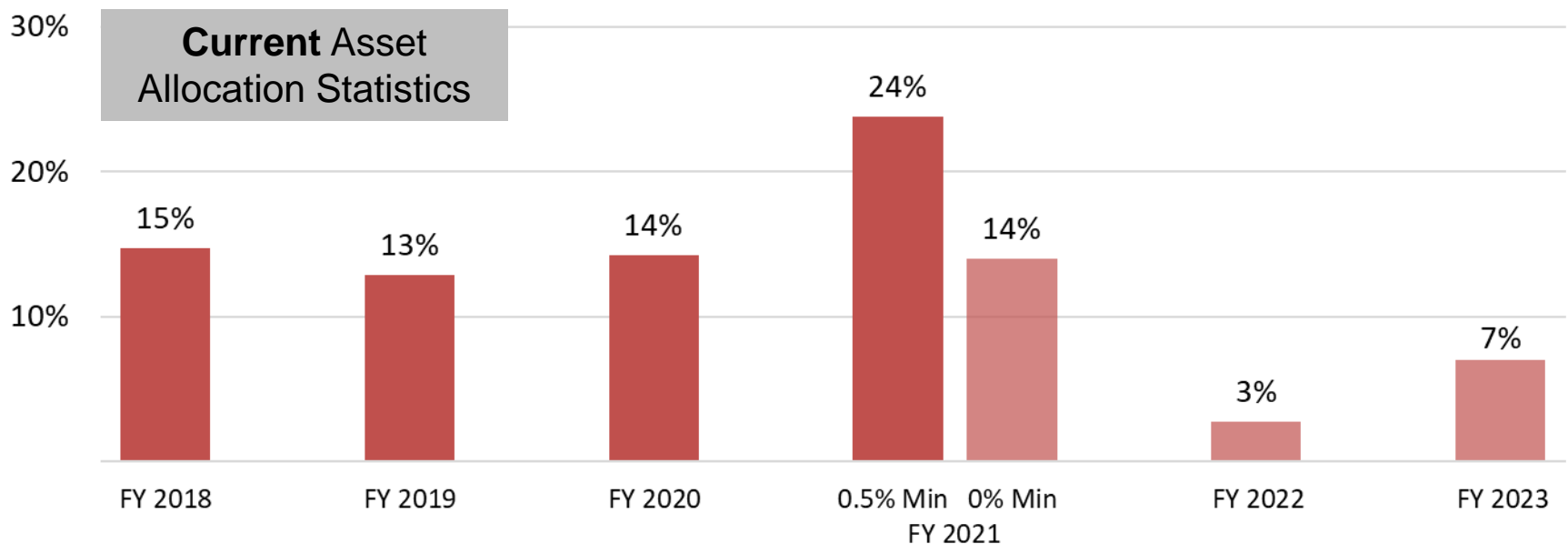
Before consideration of liability gains/losses. Likelihoods based on SDIC FY 2023 current asset allocation investment portfolio statistics (mean = 5.66%, standard deviation = 12.2%).



Historical 1-Year Corrective Action Requirement Likelihoods

Favorable FY 2021 investment experience drove a significant decline in the likelihood of required corrective action recommendations. FY 2022 returns less than the long-term assumption increased the likelihood for FY 2023.

1-Year Likelihoods of Required Corrective Action Recommendations





Actuarial Standard of Practice No. 4 Disclosure Requirement

- Revised ASOP No. 4 now effective requiring disclosure of **Low-Default-Risk Obligation Measure (LDROM)**:
 - **Recalculation of liability** using discount rate derived from low-default-risk fixed income securities (LDRFIS) (typically lower than expected investment return, for example, April 2023 = 5.07%)
 - **Required commentary on significance** of LDROM with respect to plan funded status, plan contributions, and security of member benefits
 - **Considers the impact of investing in LDRFIS** on variable benefits – significant for SDRS
- Variable benefit recognition will cause SDRS' LDROM to be much closer to funding measure of liability than most public plans and appropriately focuses on the risk to the members' COLAs
- **LDROM disclosure has no impact on funding measurements or actual SDRS COLAs**



Expected Narratives

- Expected interpretations of LDROM:
 - SDRS: LDROM close to AAL, but LDROM based on lower COLA:
 - Difference in affordable COLAs a current market estimate of future COLAs that are dependent on future investment returns above current LDRFIS yields
 - This risk is borne by SDRS members through the variable COLA
 - Many public plans will likely focus on difference between traditional measures and LDROM as **expected cost savings from investing in diversified assets**
 - Financial economists and public pension critics may say the **“true costs” are finally being disclosed**:
 - ASOP 4 transmittal memo states: “The calculation and disclosure of this additional measure is **not intended to suggest that this is the ‘right’ liability measure** for a pension plan.”
 - Certain critics will likely seize upon the LDROM disclosure to intensify calls for public pensions to be curtailed or eliminated because of high cost and risk



Summary

- SDRS contributions are fixed and the COLA varies to meet our statutory funding requirements
- SDRS was 100.1% funded at June 30, 2022:
 - Variable COLA is expected to keep us 100% funded in most economic conditions
 - FY23 net returns greater than approximately 8% would result in the full 0% to 3.5% COLA range applying for the July 2024 COLA
 - FY23 returns below approximately negative 12% would require a corrective action recommendation
 - FY23 net returns between approximately negative 12% and 8% would result in a restricted COLA maximum for the July 2024 COLA