



South Dakota Retirement System

SDRS Update

June 2, 2022



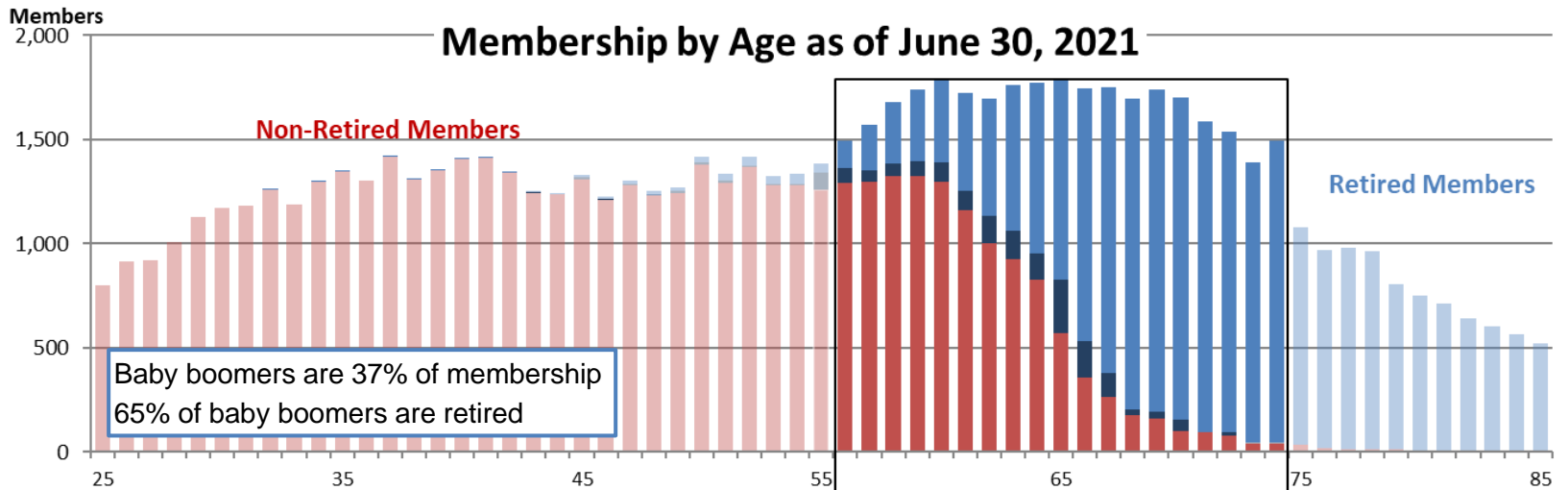
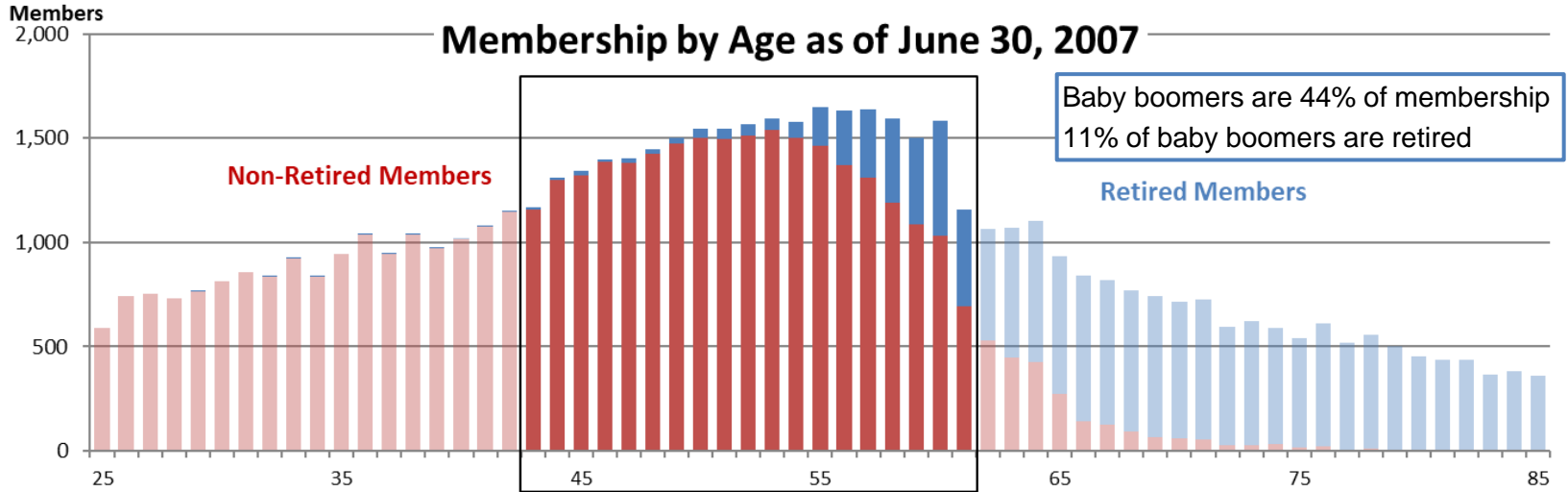
SDRS at June 30, 2021

- SDRS membership was 94,675:
 - Active: 41,305 members
 - Average age 44.5; service 10.8; pay \$49,480
 - Benefit recipients: 31,323 members
 - Total annual benefits: \$648.4M
 - Retiree average monthly benefit: \$1,817
 - Terminated and due a benefit or refund: 22,047 members

- Fair value of assets was \$14,632M:
 - FY 2021 member and employer contributions: \$272M
 - FY 2021 disbursements: \$666M; including \$636M monthly benefits, \$25M refunds of contributions, and \$5M administrative expenses
 - Negative cashflow was 3.2% of beginning of year assets



Baby Boomers and SDRS Membership



Dark blue shaded portions represent members beginning benefits in FY 2021.



FY 2021 Headline Results

- Net investment return well above 6.5% actuarial assumption resulted in actuarial gain:
 - Net money-weighted return = 22.01%
 - Actuarial investment gain = \$1.882M
- Demographic experience resulted in small actuarial liability loss:
 - Liabilities \$31M higher than expected
- Funding results:
 - Full COLA range (0% to 3.5%) affordable
 - Inflation for year = 5.92%; July 2022 COLA will be 3.5%
 - Fair Value Funded Ratio (FVFR) increased to 105.5%:
 - Fair Value of Assets = 14,632M
 - Actuarial Accrued Liabilities = \$13,865M



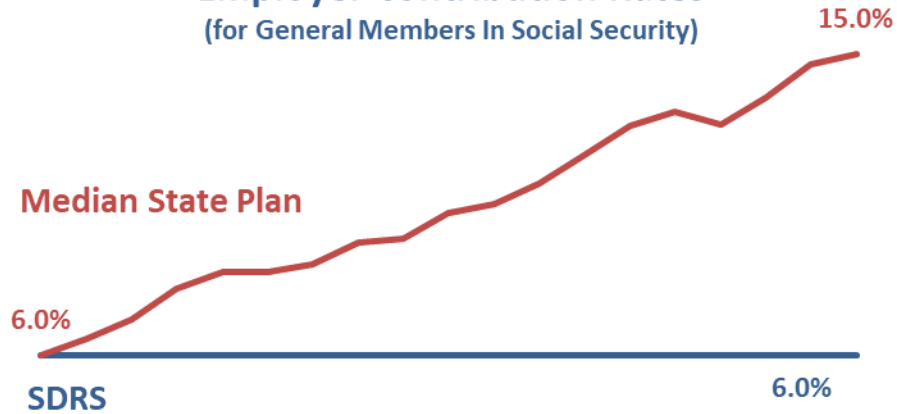
SDRS Funding Basics

- SDRS contribution rates are fixed in statute:
 - Most state retirement plans vary employer contributions to meet actuarial requirements
- Statutes require a recommendation for corrective actions if SDRS falls below 100% funded
- The SDRS COLA varies with inflation and affordability and is critical to managing the system on fixed contributions:
 - When SDRS is fully funded on the baseline COLA assumption (currently 2.25%), the COLA is equal to inflation up to 3.5%
 - When SDRS is not fully funded, the maximum COLA is reduced to the percentage that keeps SDRS fully funded

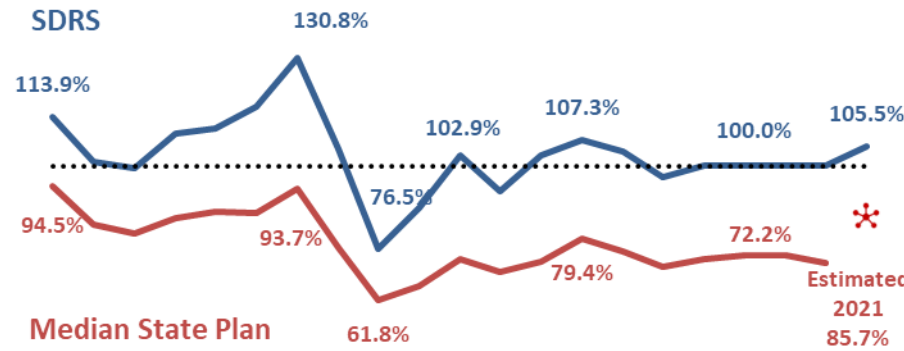


Employer Contributions and Funded Status Comparisons

Employer Contribution Rates
(for General Members In Social Security)



Fair Value Funded Ratio



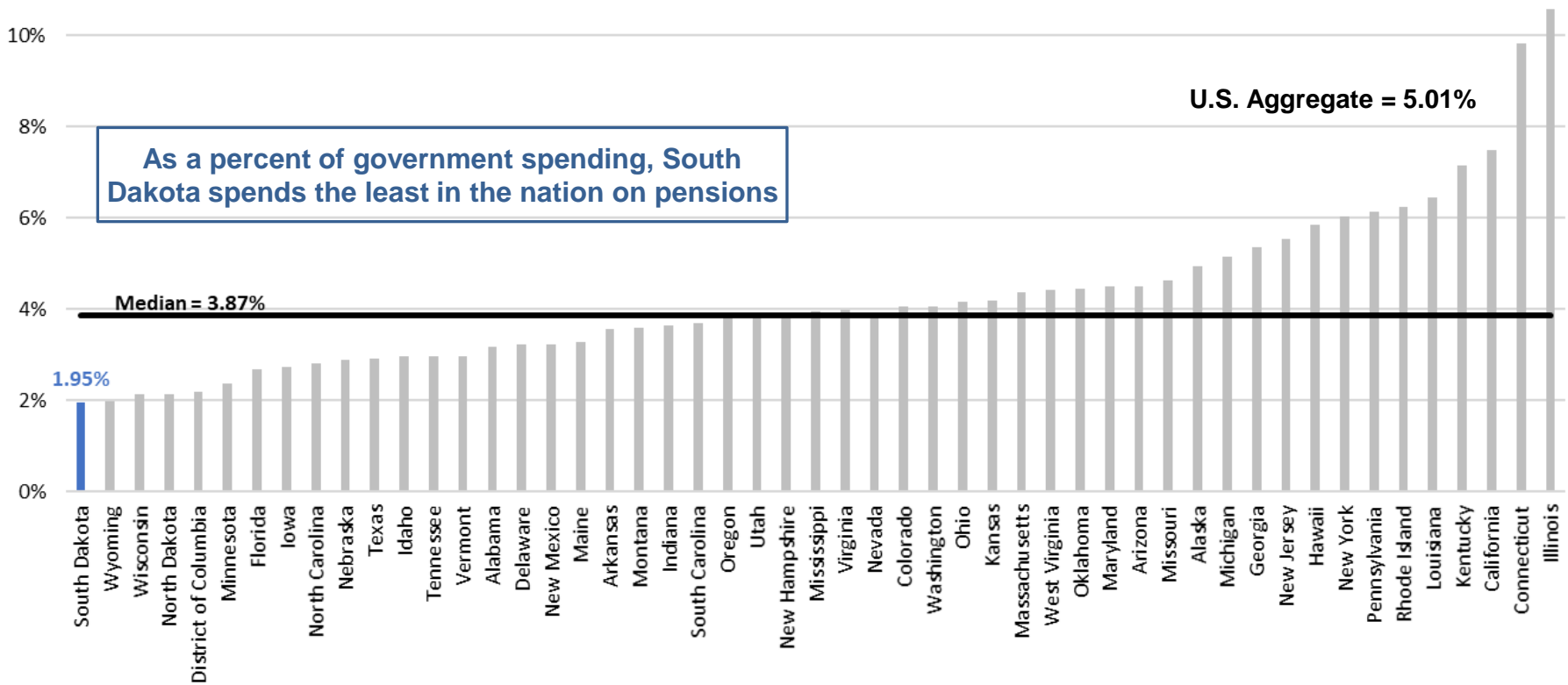
SDRS' FVFR exceeds median by an average of 25%

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



Government Spending on Pensions Comparisons

Government Contributions to Pensions as a Percent of All Direct Government Spending, FY 2019



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



Competing Objectives

- Delivering adequate benefits and remaining fully funded through all economic conditions while funded with contributions that are less than half of the 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

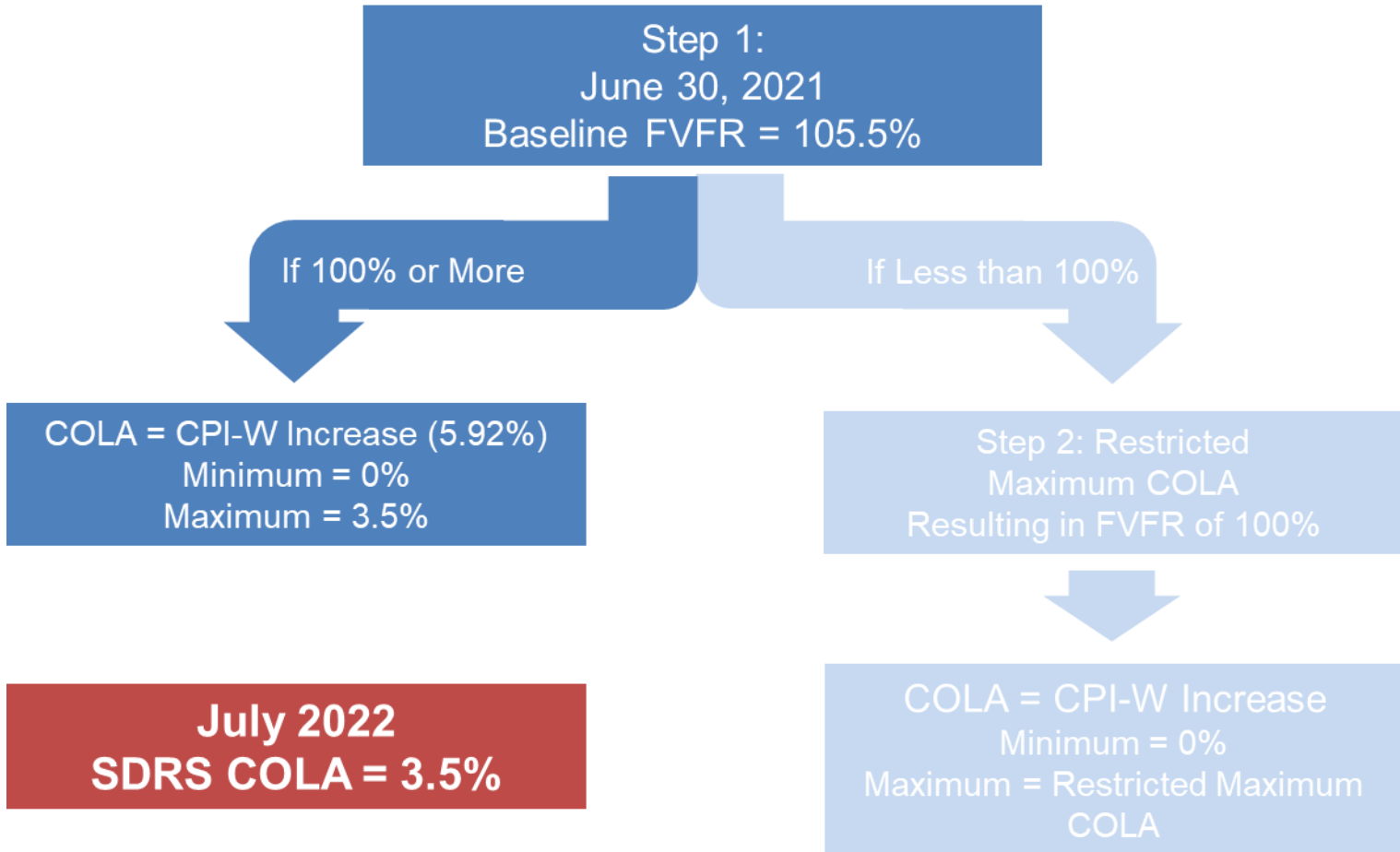


Competing Objectives

- Ongoing efforts to provide adequate and appropriate benefits on the fixed, modest contributions are essential but will be dependent upon:
 - Maintaining realistic actuarial assumptions to provide the best estimate of the costs and affordability of the current benefits
 - Identifying and reducing opportunities for some employers or members to increase their benefits at the expense of other SDRS members
 - Lobbying the legislature to make only intentional, thoughtful changes to SDRS that do not endanger future benefits or future system sustainability, and only after considering a thorough analysis and recommendation from SDRS
- **Tension will exist between the dual goals of providing adequate and appropriate benefits while sustainably managing the system on fixed, modest contributions**
- SDRS Challenge: Effectively communicate with all stakeholders the efforts to responsibly achieve our competing objectives



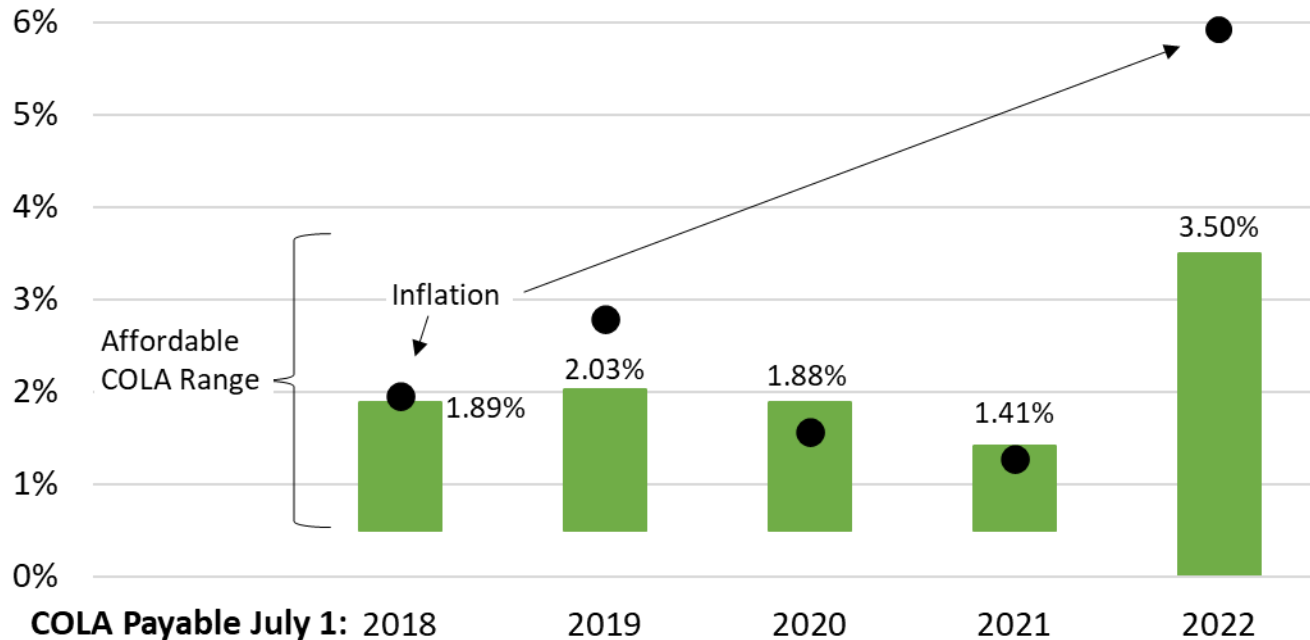
July 2022 COLA Calculation





Recent COLA Ranges

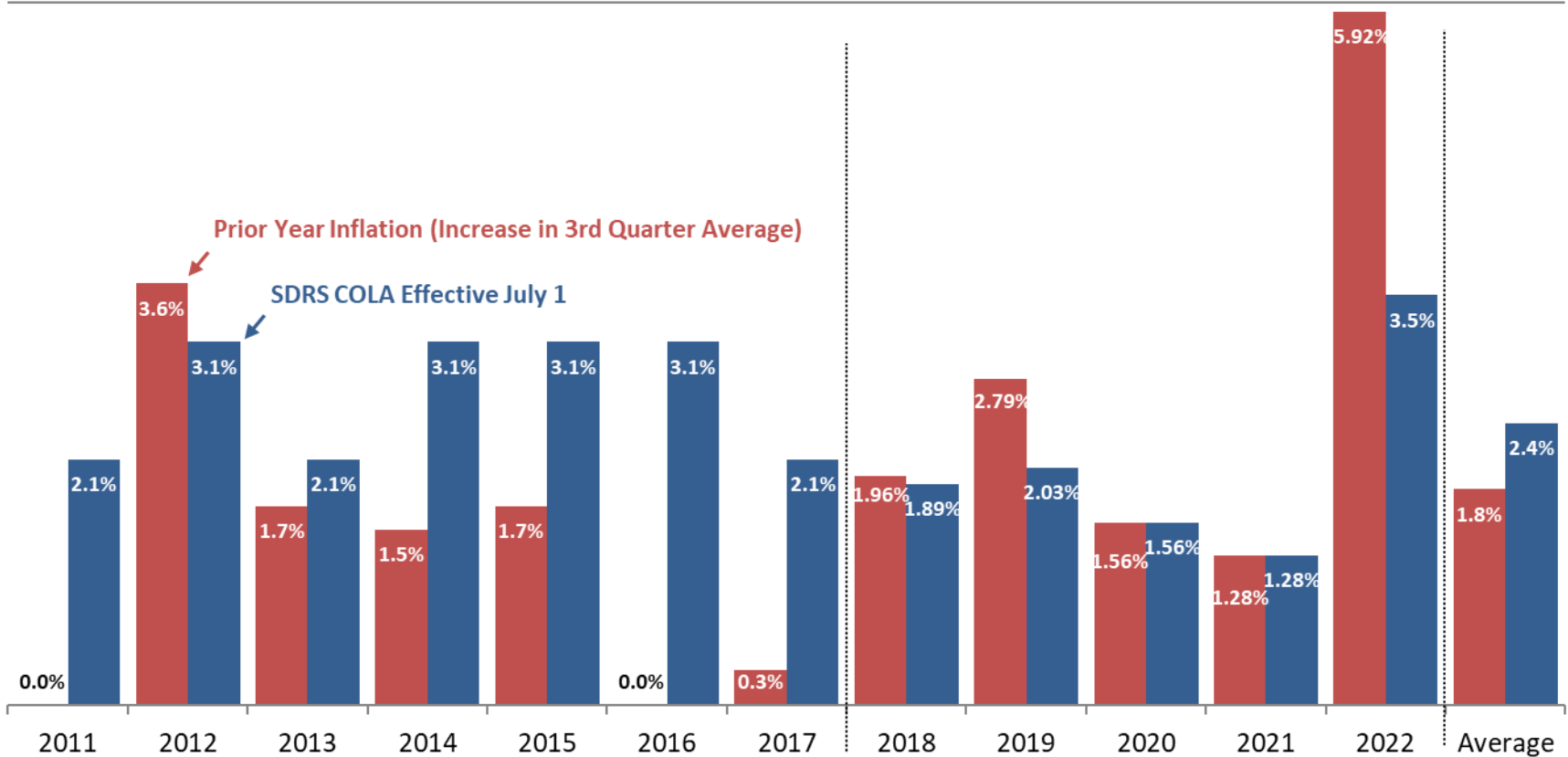
- Recent investment experience had reduced the affordable COLA payable, but FY 2021 investment returns permitted the full COLA range to be payable in 2022





Inflation and SDRS COLAs Since 2010

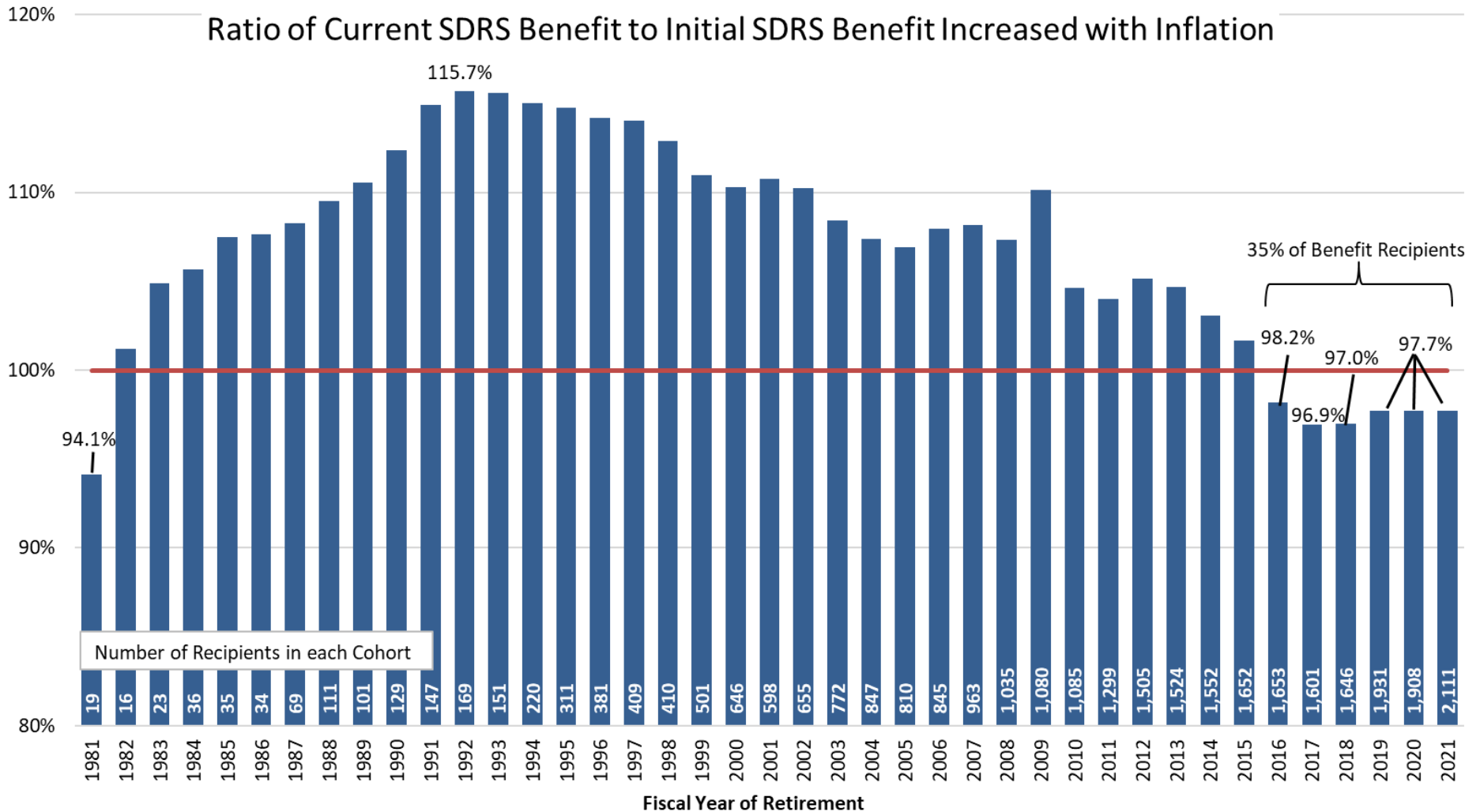
Annual Inflation and SDRS COLA Increases 2011-2022





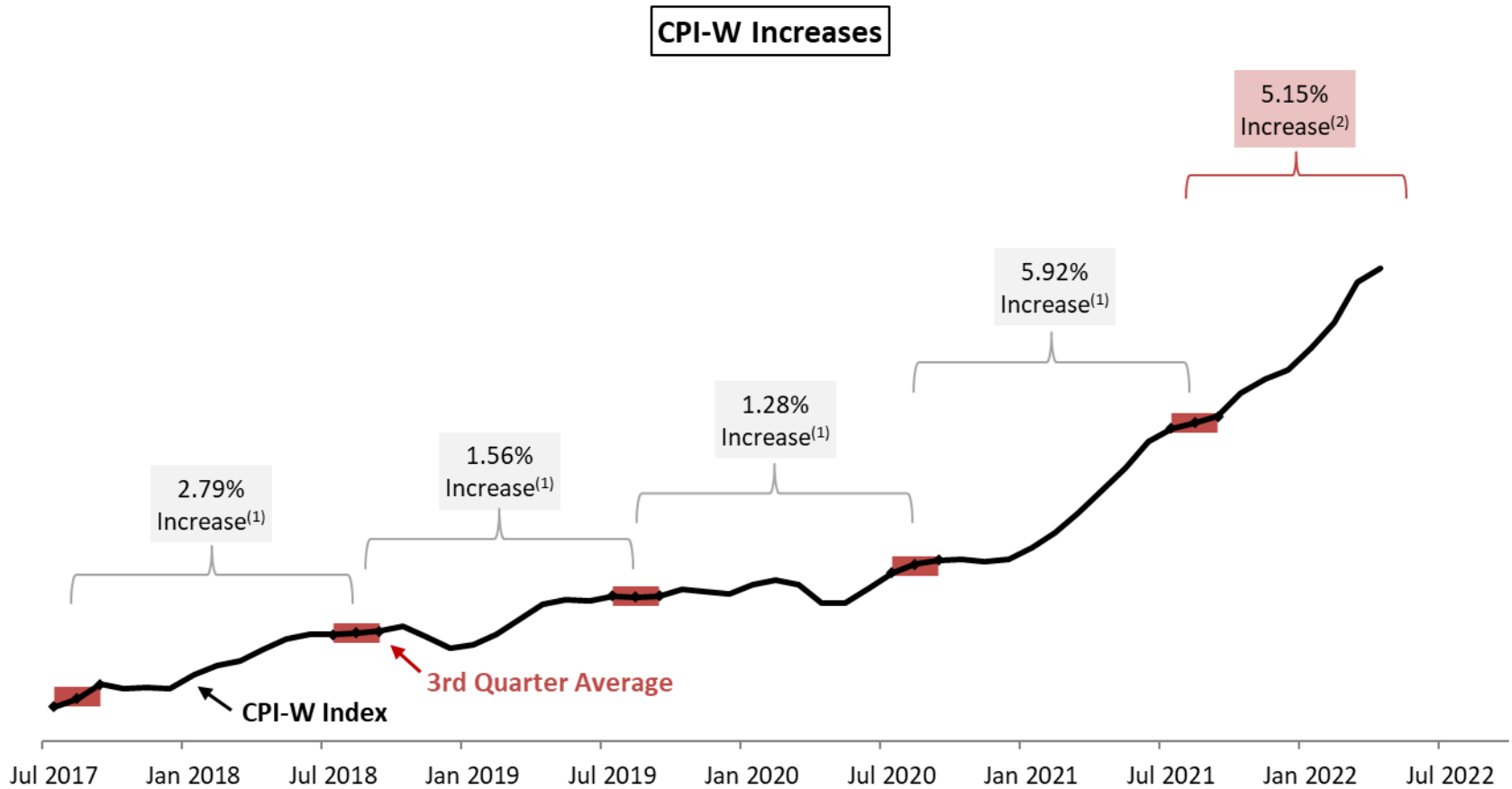
Historical Inflation and SDRS COLAs

Ratio of Current SDRS Benefit to Initial SDRS Benefit Increased with Inflation





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 three-month average (December 2021 to April 2022) over July to September 2021 average. Current trend projects to an annual increase of 6.7% to 9.0%.



Projected June 30, 2022 Funded Status and July 2023 COLA Range⁽¹⁾

| Net Investment Return FYE June 30, 2022 | Baseline FVFR | COLA Range | Final FVFR | Applicable Conditions |
|--------------------------------------------|------------------|---------------|---------------|-------------------------------------------|
| <= (18.0%) | 80.0% | NO COLA | <100% | Corrective Action Recommendation Required |
| (17.9%) | 80.5% | 0% to 0.01% | 100% | Restricted Maximum COLA |
| (5.0%) | 93.4% | 0% to 1.58% | 100% | |
| (2.5%) | 95.9% | 0% to 1.84% | 100% | |
| 0.0% | 98.4% | 0% to 2.09% | 100% | |
| 1.5% | 99.9% | 0% to 2.24% | 100% | |
| 1.6% | 100.0% | 0% to 3.50% | 100% | Full COLA Range |
| 2.5% | 100.9% | 0% to 3.50% | 100.9% | |
| 5.0% | 103.4% | 0% to 3.50% | 103.4% | |
| 21.5% | 119.9% | 0% to 3.50% | 119.9% | |
| 21.6% | 120.0% | 0% to 3.50% | 120.0% | 120% Benefit Improvement Threshold Met |

(1) Before consideration of liability gains/losses for FYE June 30, 2022. June 30, 2021 Baseline FVFR: 105.5% and July 2022 COLA Range: 0% to 3.5%.

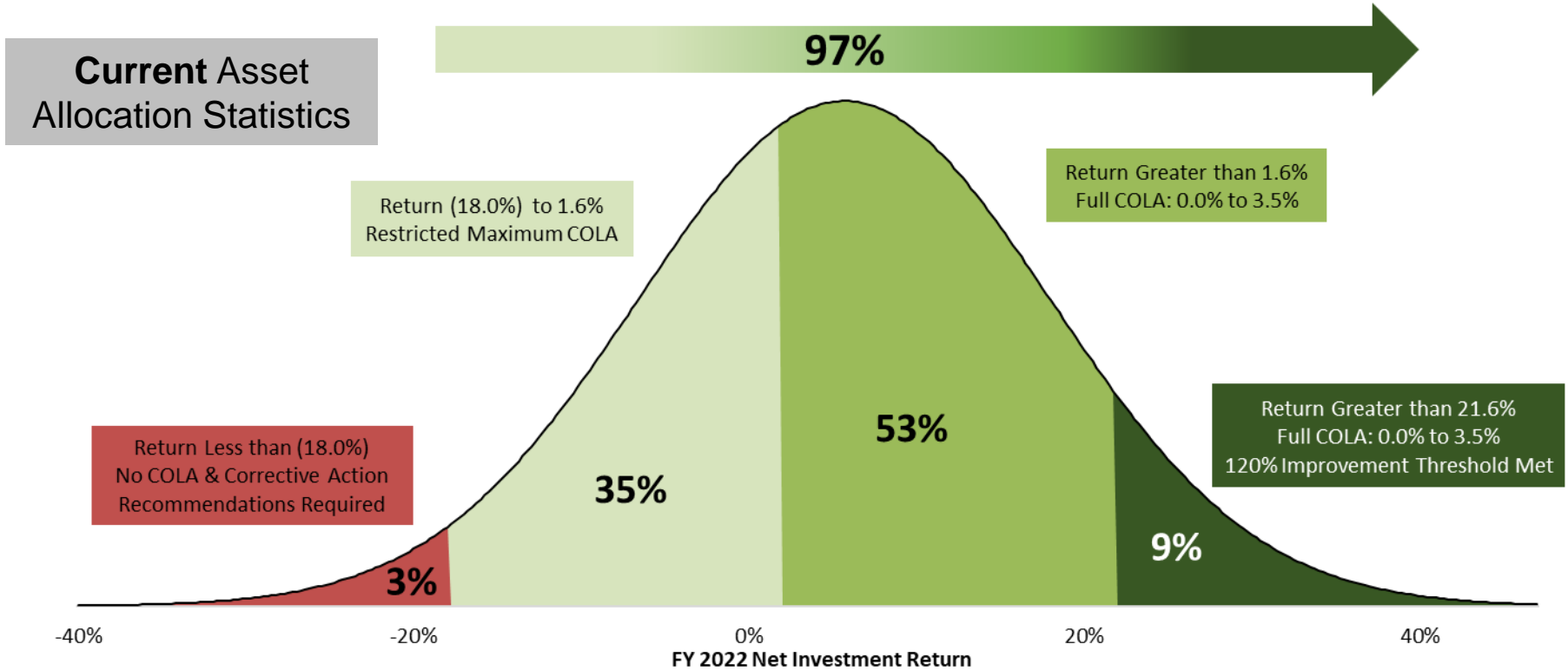


Risk Analysis

- The most significant and immediate risk to SDRS is investment risk
- Investment returns will first impact the variable SDRS COLA
- Based on the full COLA range affordable in 2022, future investment returns:
 - Less than assumed will eventually result in a restricted maximum COLA
 - Greater than assumed will continue the full COLA range
- The variable COLA will not be sufficient to maintain 100% FVFR in all conditions and additional corrective actions may be required
- Likewise, if investment returns significantly exceed assumptions, the FVFR may reach the Board's criteria for consideration of benefit improvements



1-Year Outlook from June 30, 2021 Current Asset Allocation Statistics



- **Ignoring FY22 returns to date**, the preliminary likelihoods for July 2023 COLA ranges, primarily driven by FY22 investment returns, are:
 - 3% likelihood: No COLA and corrective action recommendations required
 - 35% likelihood: COLA equals CPI-W increase between 0.0% and a restricted COLA maximum
 - 62% likelihood: COLA equals CPI-W increase between 0.0% and 3.5%; 9% likelihood 120% benefit improvement threshold met

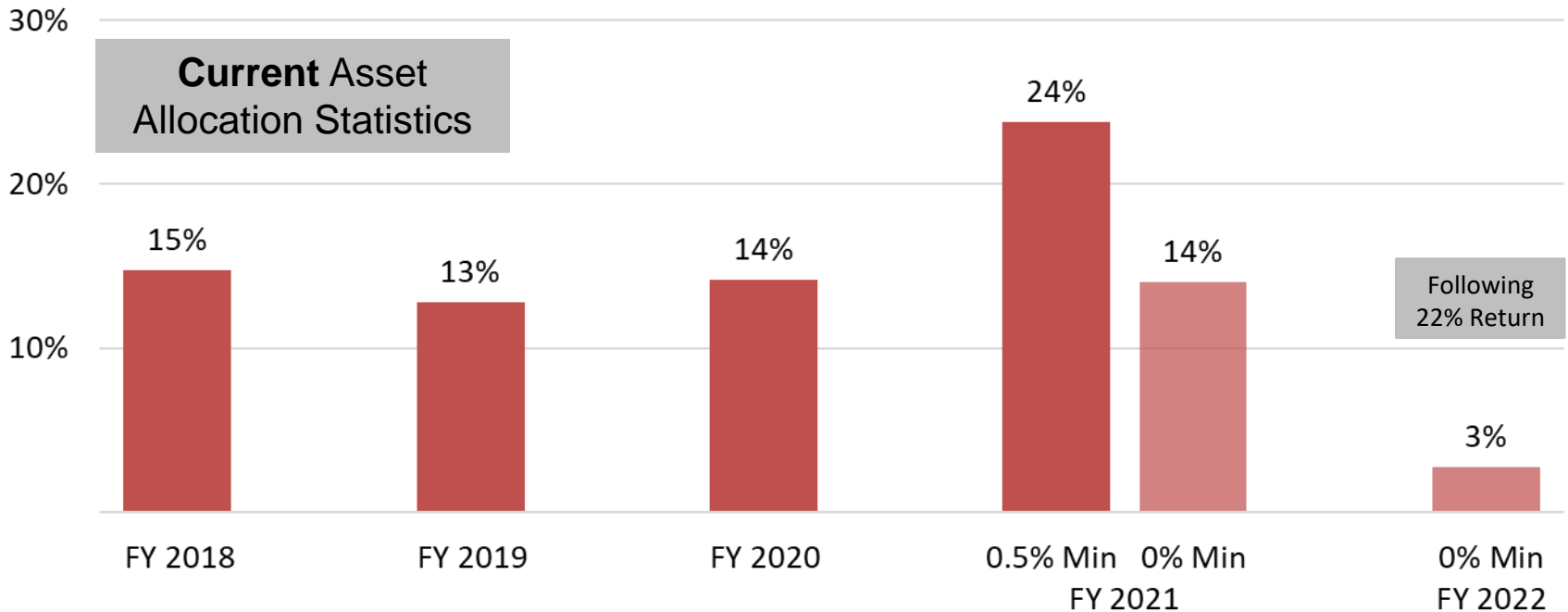
* Before consideration of liability gains/losses. Likelihoods based on SDIC 2021 **current** asset allocation investment portfolio statistics (mean = 5.30%, standard deviation = 12.3%).



Historical 1-Year Corrective Action Requirement Likelihoods

Lowering minimum COLA to 0% and favorable investment experience in FY 2021 **reversed recent trend** of increased likelihood of required corrective action recommendations

1-Year Likelihoods of Required Corrective Action Recommendations





Summary

- SDRS contributions are fixed and the COLA varies to meet our statutory funding requirements
- SDRS was 105.5% funded at June 30, 2021:
 - Variable COLA is expected to keep us 100% funded in most economic conditions
 - FY22 net returns greater than approximately 1.6% would result in the full 0% to 3.5% COLA range applying for the July 2023 COLA
 - FY22 returns below approximately negative 18% would require a corrective action recommendation
 - FY22 net returns between approximately negative 18% and 1.6% would result in a restricted COLA maximum for the July 2023 COLA
- Actuarial assumptions will be revised for June 30, 2022 valuation based on experience analysis