



# South Dakota Retirement System

**Estimated Funded Status as of June 30, 2021**

**September 2021**



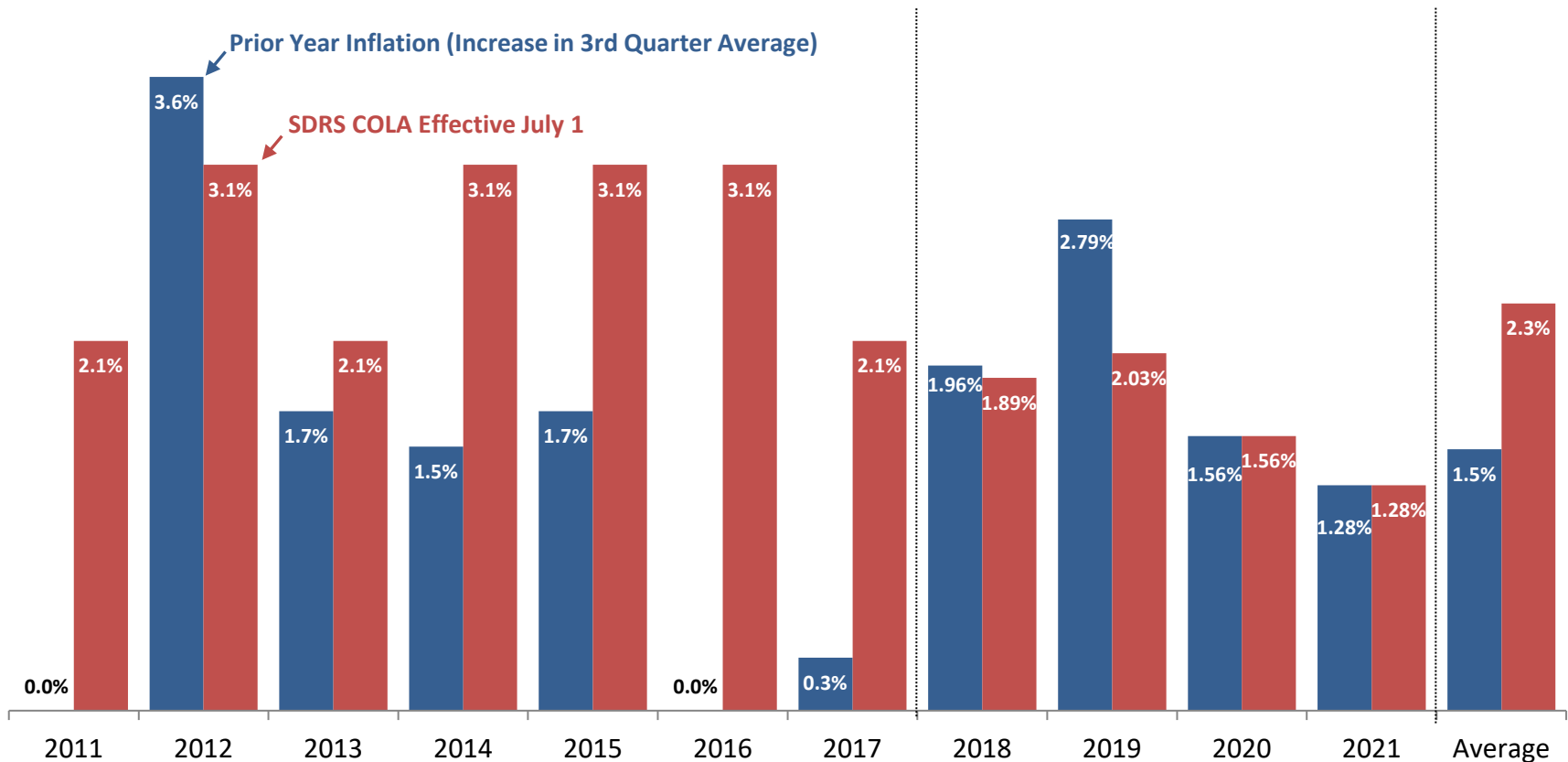
# Projected Funded Status and COLAs

- SDRS contribution rates are fixed and benefits vary based on affordability
- **COLA is primary variable benefit** and will vary directly with both inflation and long-term affordability
- The following exhibits examine:
  - SDRS COLAs and inflation since 2010
  - Projected June 30, 2021 FVFR and corresponding July 2022 COLA range
  - Projected July 2023 COLA ranges and likelihoods
- Projections are developed using an actuarial model intended to estimate short-term changes in funded ratios and resulting COLA ranges:
  - Future demographic gains and losses are excluded from the projection
  - Likelihoods are calculated based on June 2020 and 2021 investment portfolio statistics provided by SDIC staff



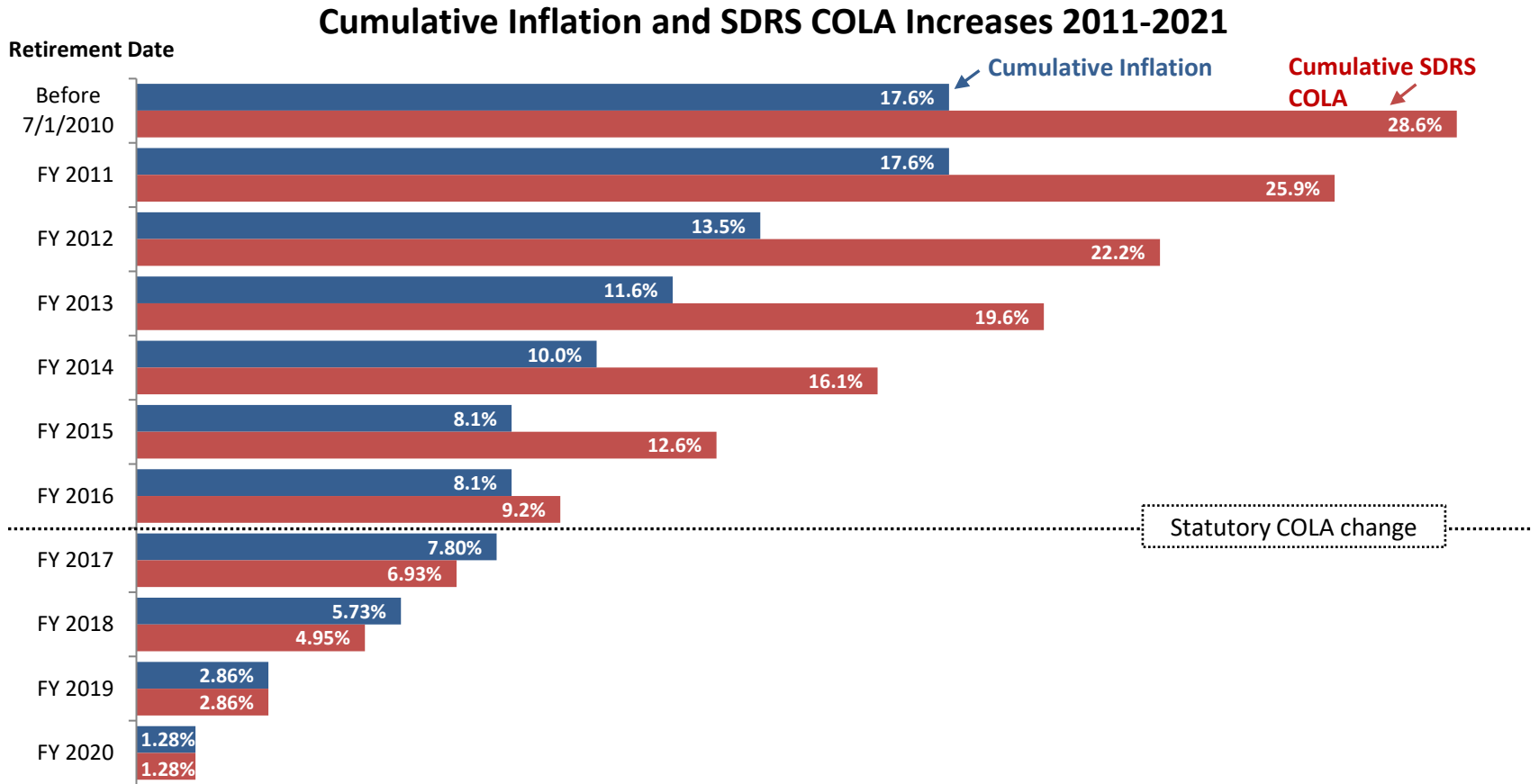
# Inflation and SDRS COLAs Since 2010

### Annual Inflation and SDRS COLA Increases 2011-2021





# Inflation and SDRS COLAs Since 2010



Cumulative SDRS COLA increases have outpaced inflation for virtually all benefit recipients who began receiving benefits prior to FY 2010.



# Projected Funded Status as of June 30, 2021 and July 2022 COLA Range<sup>(1)</sup>

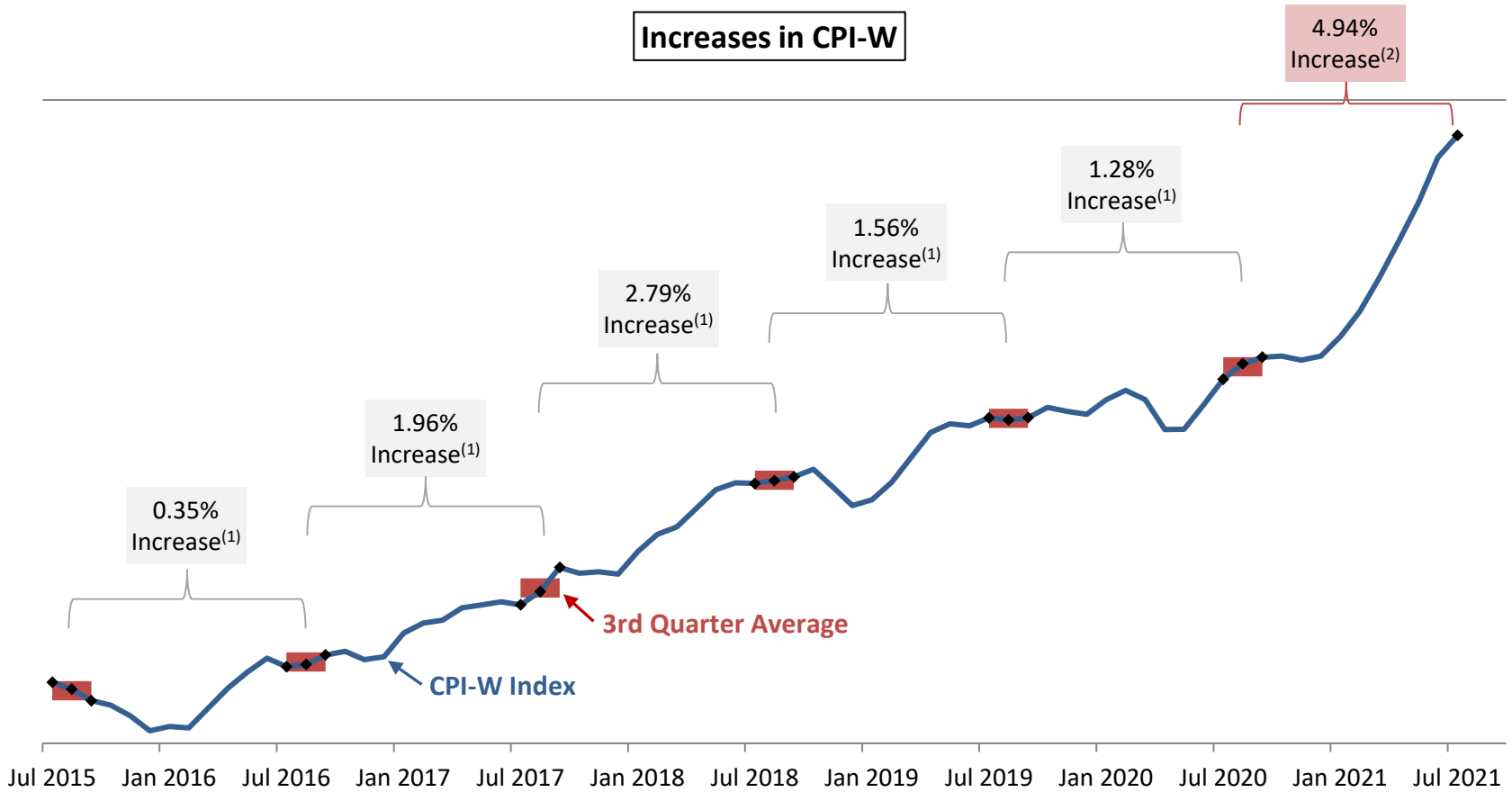
| Net Investment Return<br>FYE June 30, 2021 | Baseline<br>FVFR | COLA<br>Range <sup>(2)</sup> | Final<br>FVFR | Applicable Conditions                     |
|--|------------------|------------------------------|---------------|---|
| <= (7.0%)                                  | 80.0%            | NO COLA                      | <100%         | Corrective Action Recommendation Required |
| (6.9%)                                     | 80.4%            | 0% to 0.01%                  | 100%          | Restricted Maximum COLA                   |
| 6.5%                                       | 92.3%            | 0% to 1.44%                  | 100%          |   |
| 15.2%                                      | 99.9%            | 0% to 2.24%                  | 100%          |   |
| 15.3%                                      | 100.0%           | 0% to 3.50%                  | 100%          | Full COLA Range                           |
| 22.0%                                      | 105.9%           | 0% to 3.50%                  | 106%          | 120% Benefit Improvement Threshold Met    |
| 38.0%                                      | 120.0%           | 0% to 3.50%                  | 120%          |   |

(1) Before consideration of liability gains/losses for FYE June 30, 2021. June 30, 2020 Baseline FVFR: 91.9% and COLA Range: 0.5% to 1.41%.

(2) Reflecting 0% minimum COLA.



# Inflation Measurement for Social Security and SDRS COLAs

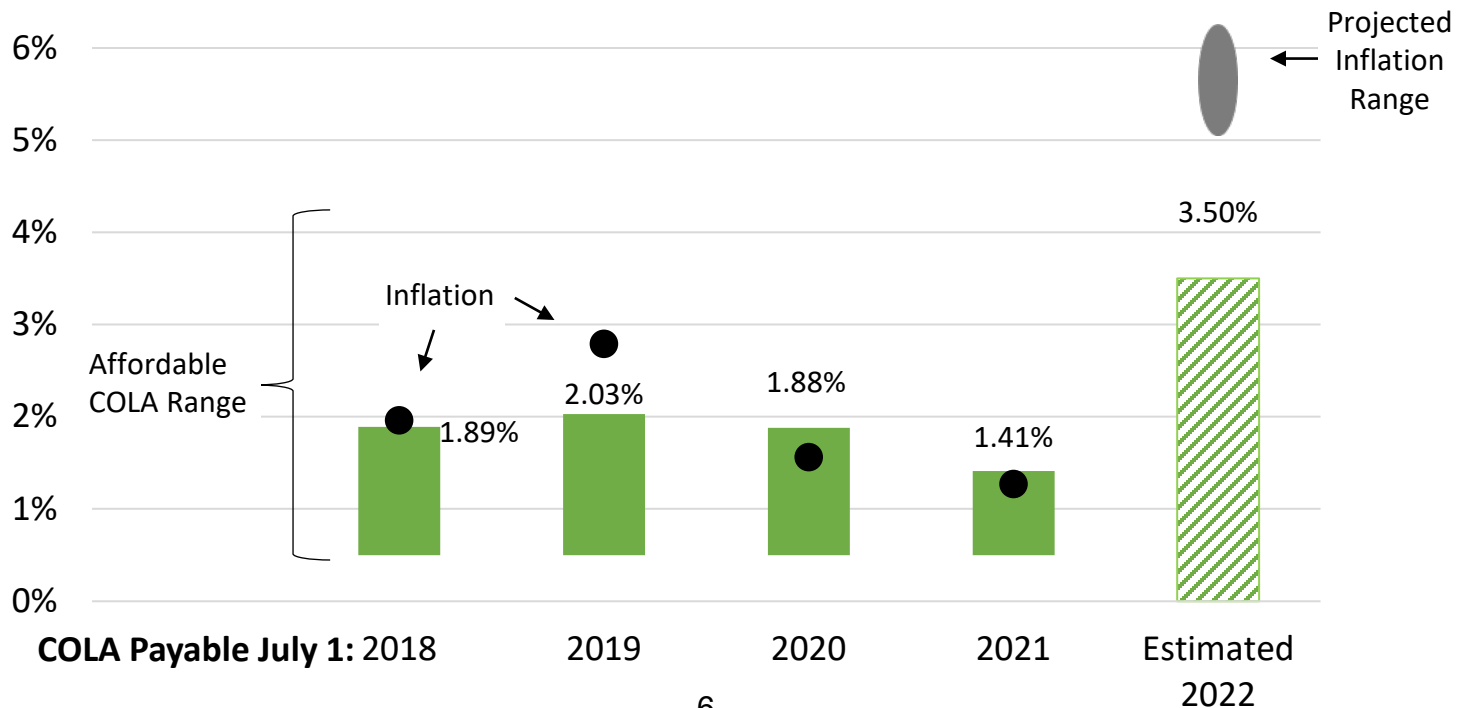


- (1) Increase in the third calendar quarter average over the prior highest third calendar quarter average – the specified inflation measurement for the Social Security COLA effective the following January and the SDRS COLA effective the following July.
- (2) Increase in most recent three-month average (May to July 2021) over July to September 2020 average. Current trend indicates a 5.3% to 6.0% increase for the year, depending on projection method used.



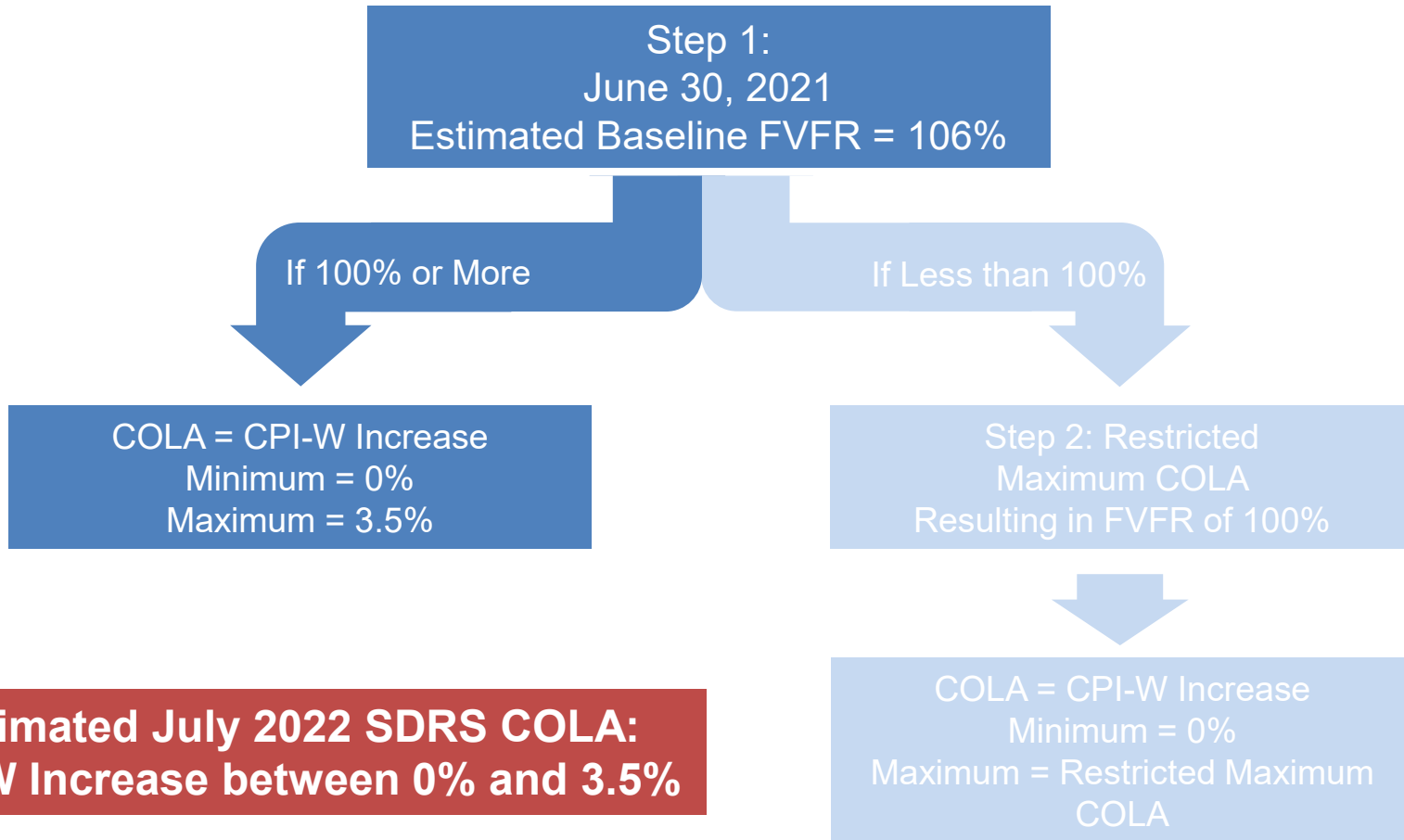
# Historical COLA Ranges

- Recent investment experience prior to FY 2021 had reduced the affordable COLA range
- FY 2021 investment returns will likely permit the **full COLA range** for the first time since the 2017 legislation changing the COLA methodology





# COLA Process: Estimated July 2022 COLA Calculation<sup>(1)</sup>



**Estimated July 2022 SDRS COLA:  
CPI-W Increase between 0% and 3.5%**

(1) Before consideration of liability gains/losses for FYE June 30, 2021. Final COLA range and inflation will not be known until mid October 2021. Current trend indicates a 5.3% to 6.0% inflation increase for the year, depending on projection method used.





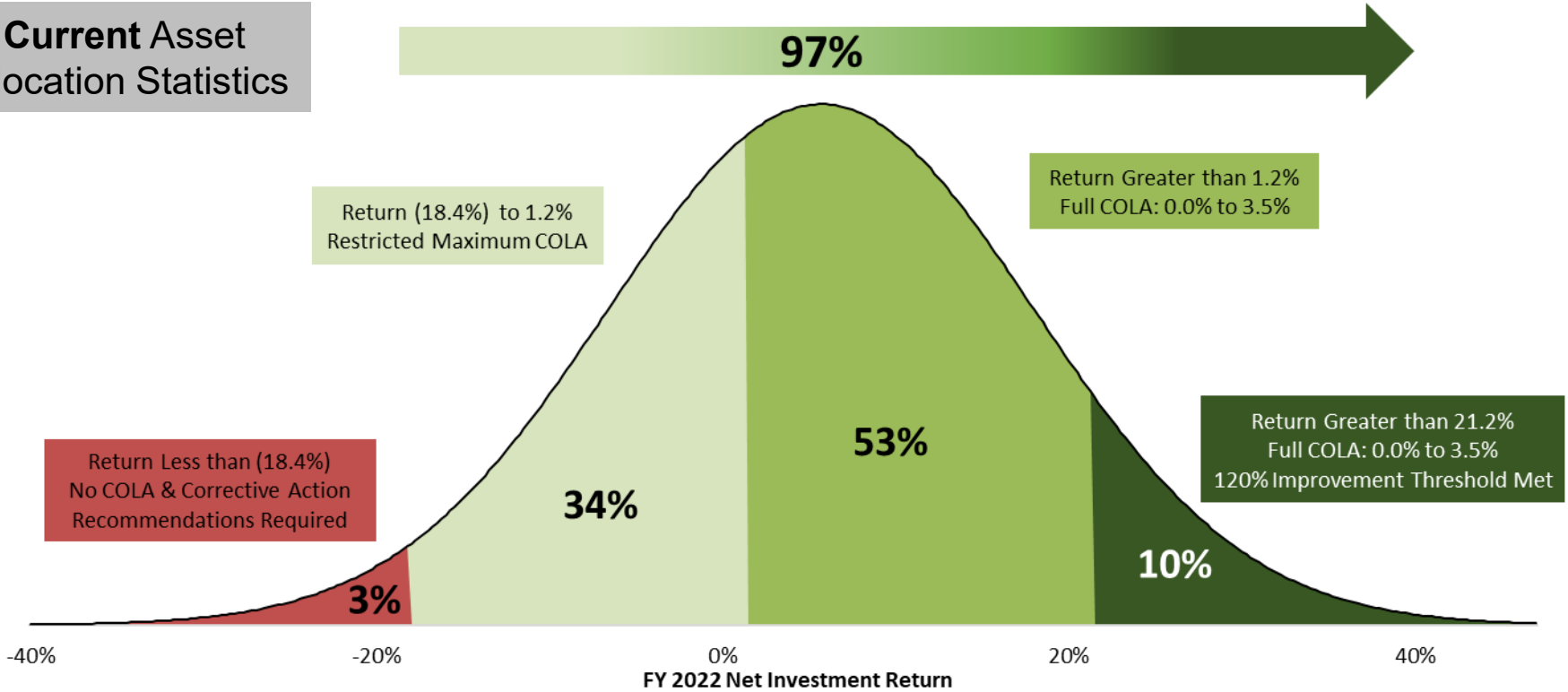
# Risk Analysis

- 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 shows the one-year likelihood of COLA restrictions, corrective action requirements, and benefit improvement possibilities from June 30, 2021 **recognizing the 22% net return for FY 2021**



# 1-Year Outlook from June 30, 2021 Recognizing 22% Net Return for FY 2021

## Current Asset Allocation Statistics



- **Ignoring FY 2022 investment returns to date**, the preliminary likelihoods for **July 2023 COLA ranges**, primarily driven by FY 2022 investment returns, are:
  - 3% likelihood: No COLA and corrective action recommendations required
  - 34% likelihood: COLA equals CPI-W increase between 0.0% and a restricted COLA maximum
  - 63% likelihood: COLA equals CPI-W increase between 0.0% and 3.5%; 10% likelihood 120% benefit improvement threshold met

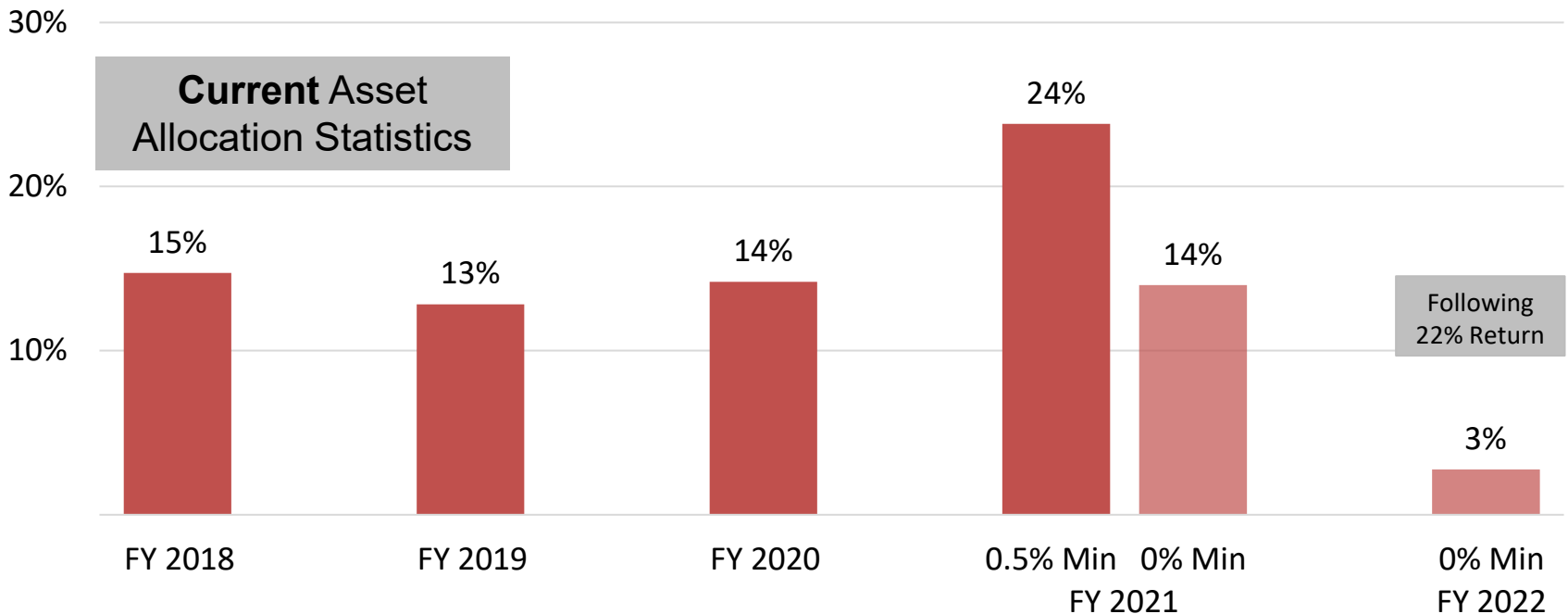
Before consideration of liability gains/losses. Likelihoods based on SDIC **2021 current** asset allocation investment portfolio statistics (mean = 5.30%, standard deviation = 12.3%).



# 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





# Projected Funded Status and Risk Analysis Summary

- Recent investment experience prior to FY 2021 less than the 6.5% assumption had reduced the maximum COLA and increased the likelihood of required corrective action recommendations
- FY 2021 investment returns will likely make the **full COLA range affordable for the 2022 COLA**, but the COLA is likely to be less than inflation
- FY 2022 returns below approximately negative 19% would require a corrective action recommendation
- FY 2022 returns of at least approximately 0.4% would keep the **full COLA range affordable** for the 2023 COLA
- June 30, 2022 funding measurements and COLA range may change based on **reassessment of actuarial assumptions**