

# Forecasting in a Changing Economic Environment (Post-pandemic):

## Making and Measuring Assumptions State of South Carolina

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Frank A. Rainwater, Executive Director  
South Carolina Revenue and Fiscal Affairs Office  
1000 Assembly Street  
Rembert Dennis Building, Suite 402  
Columbia, SC 29201  
(803) 734-2265  
[www.rfa.sc.gov](http://www.rfa.sc.gov)

**“It is difficult to make predictions, especially about the future.”**

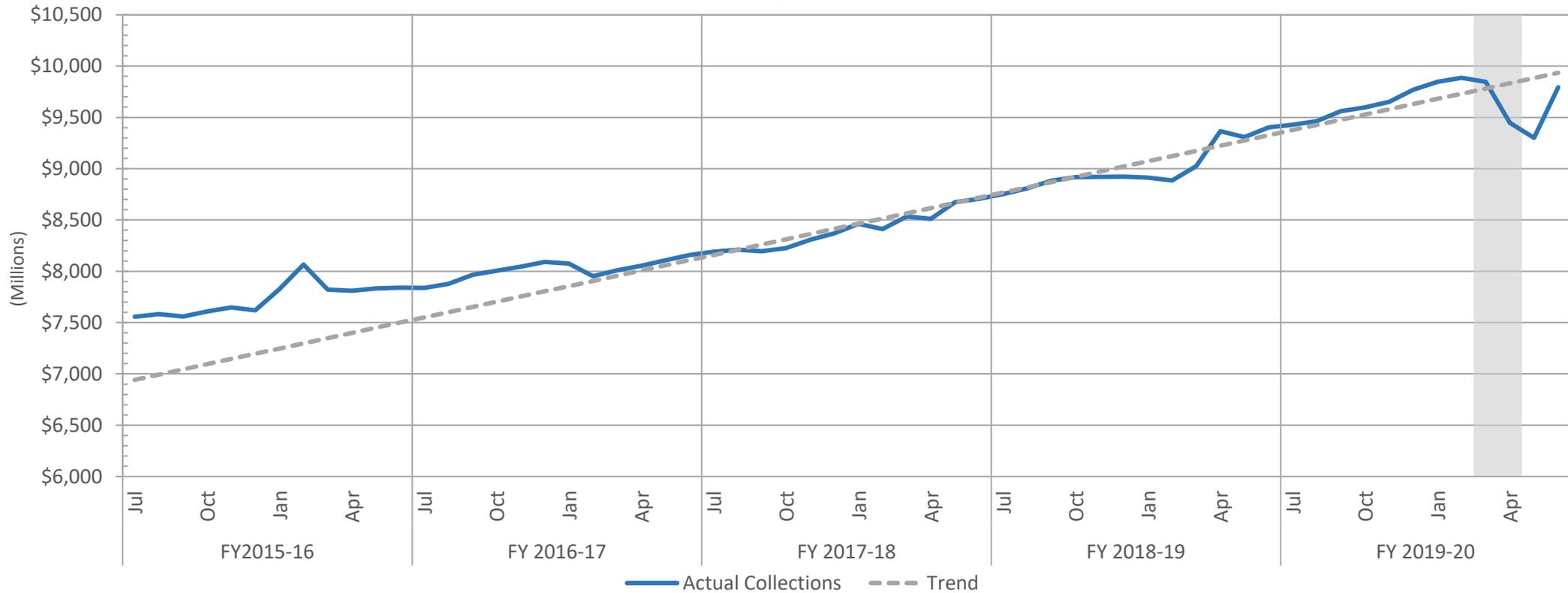
**- MLB Hall of Fame Player Yogi Berra**

# Fiscal Year General Fund Revenue - FY 20

Prior to the pandemic, revenue growth was consistent with the long-term trend; however, an expected surplus of \$191 million (over revised estimates) in February 2020 turned into a shortfall of \$106 million by June

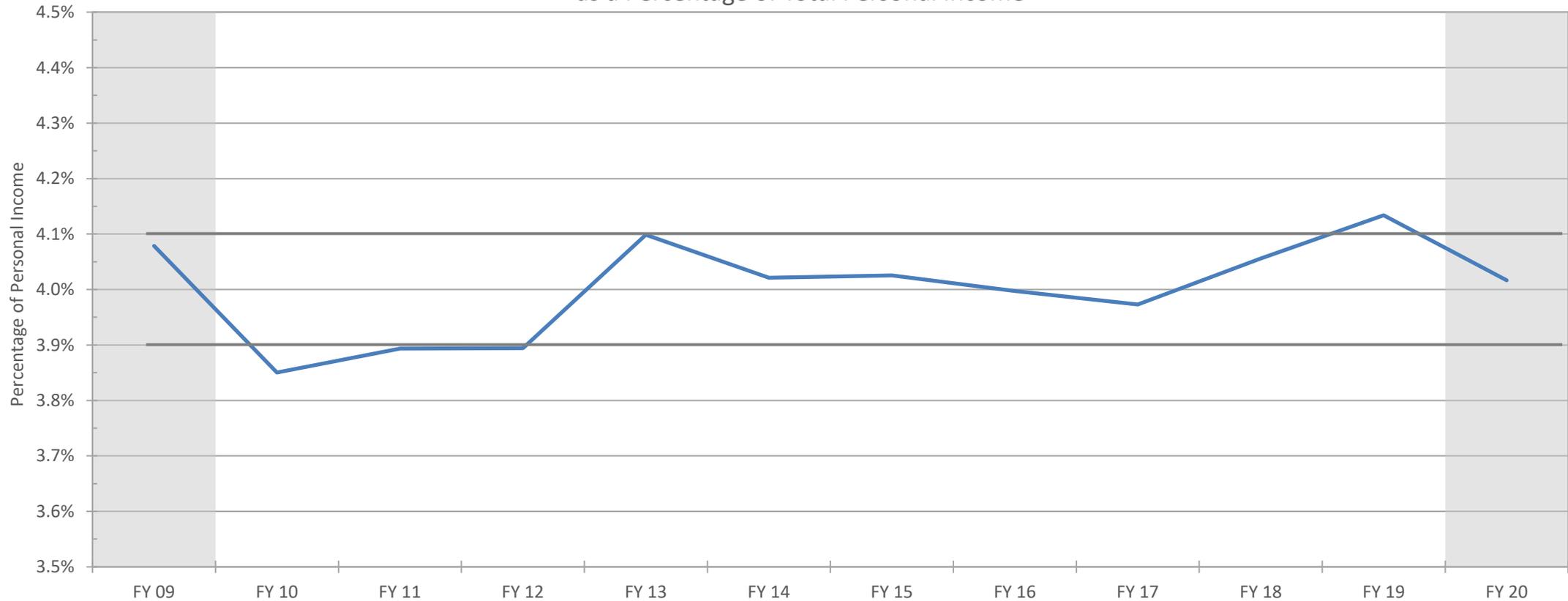
## ROLLING FISCAL YEAR - GENERAL FUND

Actual, Estimate, and Pre-COVID Long-term Trend - FY 2015-16 to FY 2019-20



# General Fund Revenue and Personal Income – Pre-Pandemic Relationship was steady as GFR ranged between 3.9% and 4.1% of income

SOUTH CAROLINA GENERAL FUND REVENUE  
as a Percentage of Total Personal Income



Source: U.S. Department of Commerce, Bureau of Economic Analysis; SC Revenue and Fiscal Affairs Office 34F-kav/09/29/2023



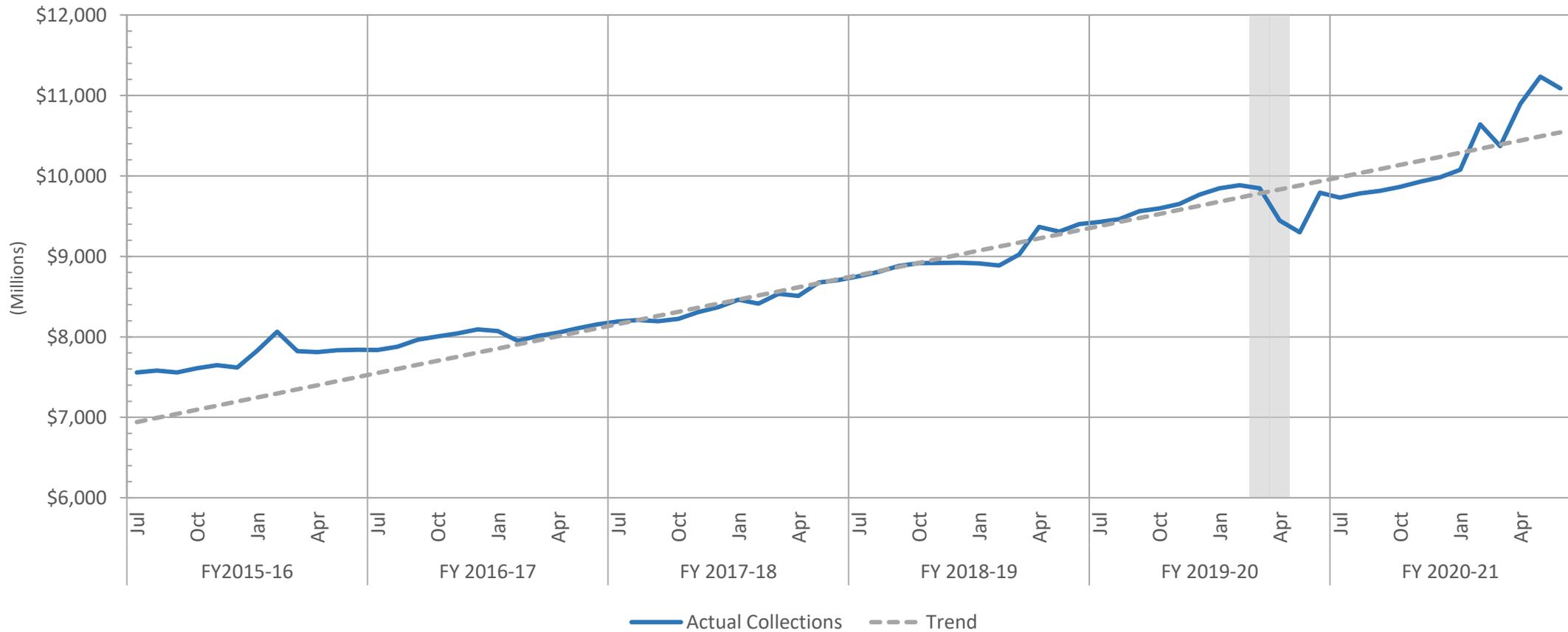
# Initial Assumptions About the Impact of the Pandemic - Spring 2020

- No one really knew what was going to happen
    - Degree and depth of the virus (summer or longer)
    - Response by businesses and consumers
    - Fiscal and monetary policy actions
      - First stimulus programs replaced lost income
  - Conclusion/Assumptions
    - Non-economic factor causing the shock
    - Temporary effect, but magnitude and duration were unknown
    - Assumed income and revenues would return to long-term trend
  - FY 21 revenue growth was estimated at 1.7%
- \* *Managing the risk was more important than getting the estimate right***

# General Fund Revenue - FY 21

## Revenue grew 13.2%, well above 1.7% estimate

ROLLING FISCAL YEAR - GENERAL FUND  
Actual, Estimate, and Pre-COVID Long-term Trend, FY 2015-16 to FY 2020-21



## Updated Assumptions One Year Later – Spring 2021

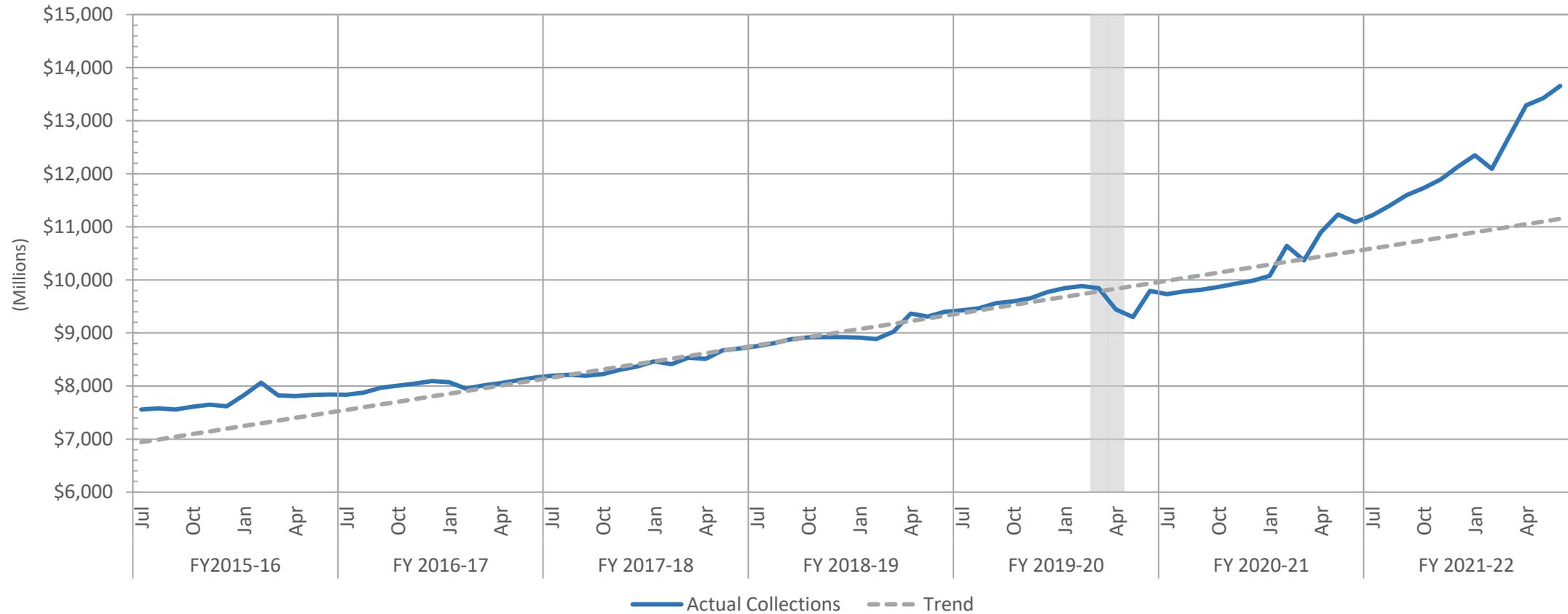
- FY 20 revenue was affected marginally; lost growth and expected surplus, but revenues did not crash
- FY 21 revenue experienced significant growth of 13.2%
- Reasons for revenue growth
  - Two stimulus programs in FY 21 boosted income (but still a one-time event)
  - Consumers changed behavior and shifted spending from services (non-taxable) to goods (taxable)
- Assumptions for FY 22
  - Personal income would decline from peak and return to long-term trend
  - Consumer spending would return to normal patterns
  - Revenue would also decline from spiked levels and return to long-term trends
- FY 22 revenues were still expected to return to long-term trend; estimated decline of 1.3%

# General Fund Revenue – FY 22

Revenues did not decline 1.3%, but grew 23.1%, or \$2.57 billion

## ROLLING FISCAL YEAR - GENERAL FUND

Actual, Estimate, and Pre-COVID Long-term Trend, FY 2015-16 to FY 2021-22



## Updated Assumptions Two Years Later – Spring 2022

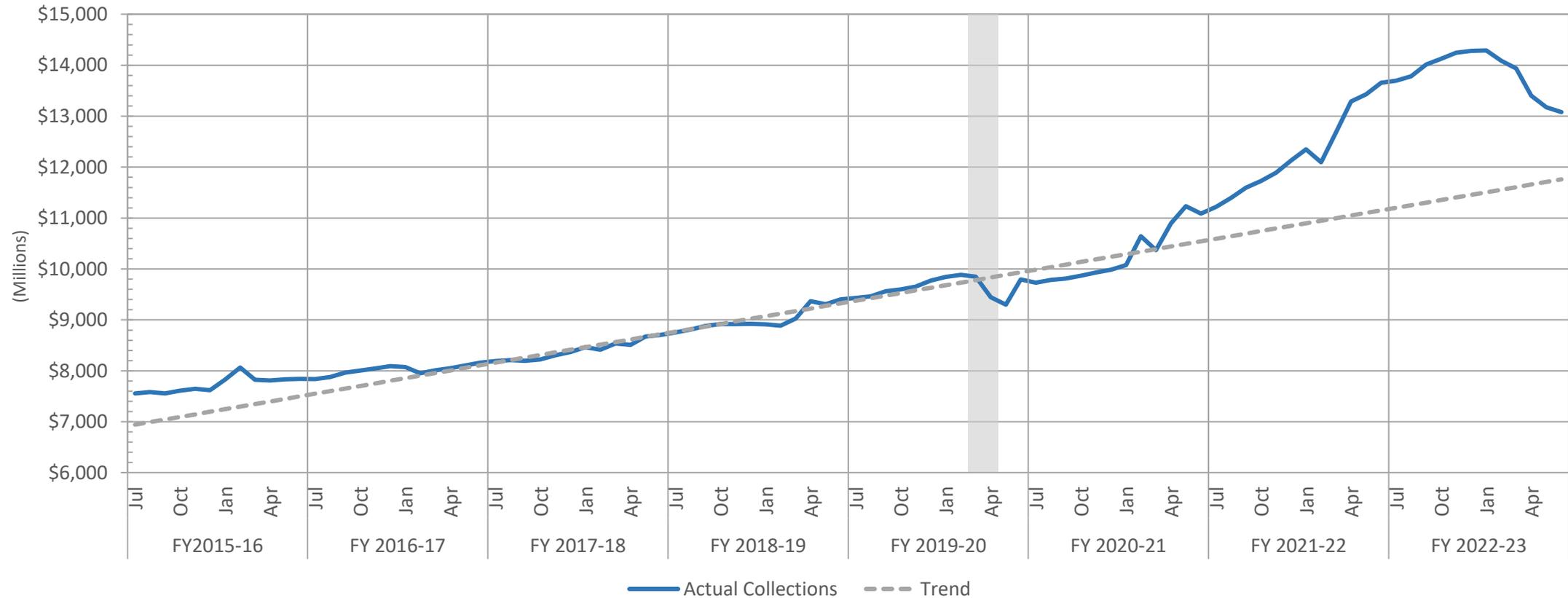
- Personal income was still expected to return to long-term trend but maybe not as quick
- Revenues would also return to long-term trend but a little later than first expected
- FY 23 revenues were expected to see an underlying revenue decline of 7.0%
- However, the base budget for FY 22 was far below FY 23 expected revenues and created an opportunity for income tax reform
- FY 23 revenues, net of tax reform, were estimated to decline 11.7%

# General Fund Revenues – FY 23

Revenues, even after tax reform, only declined 4.6%; actual revenues were within 0.5%, or \$61 million, of final estimate

## ROLLING FISCAL YEAR - GENERAL FUND

Actual, Estimate, and Pre-COVID Long-term Trend, FY 2015-16 to FY 2022-23



**So, what happened to the assumptions?**

**Spring 2023 – Three years later**

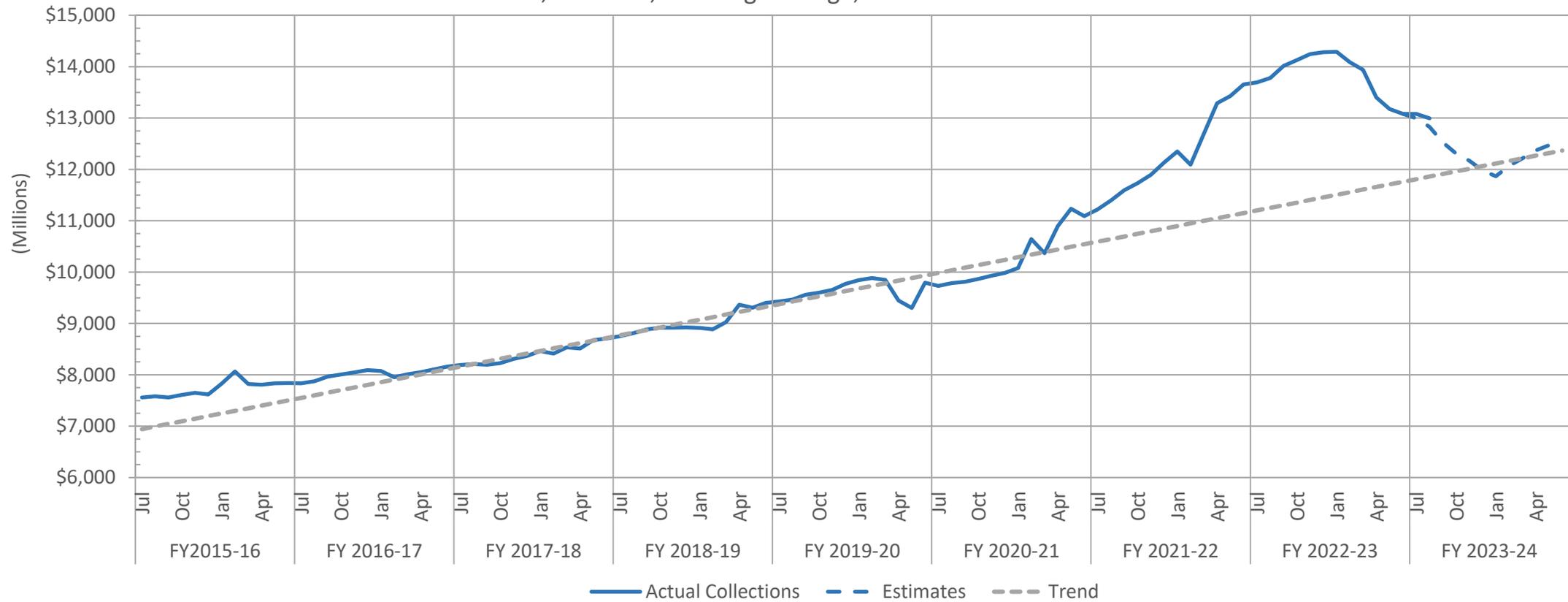
**“The only function of economic forecasting is to make astrology  
look respectable.”**

**- John Kenneth Galbraith**

# Assumptions on General Fund Revenues – FY 24

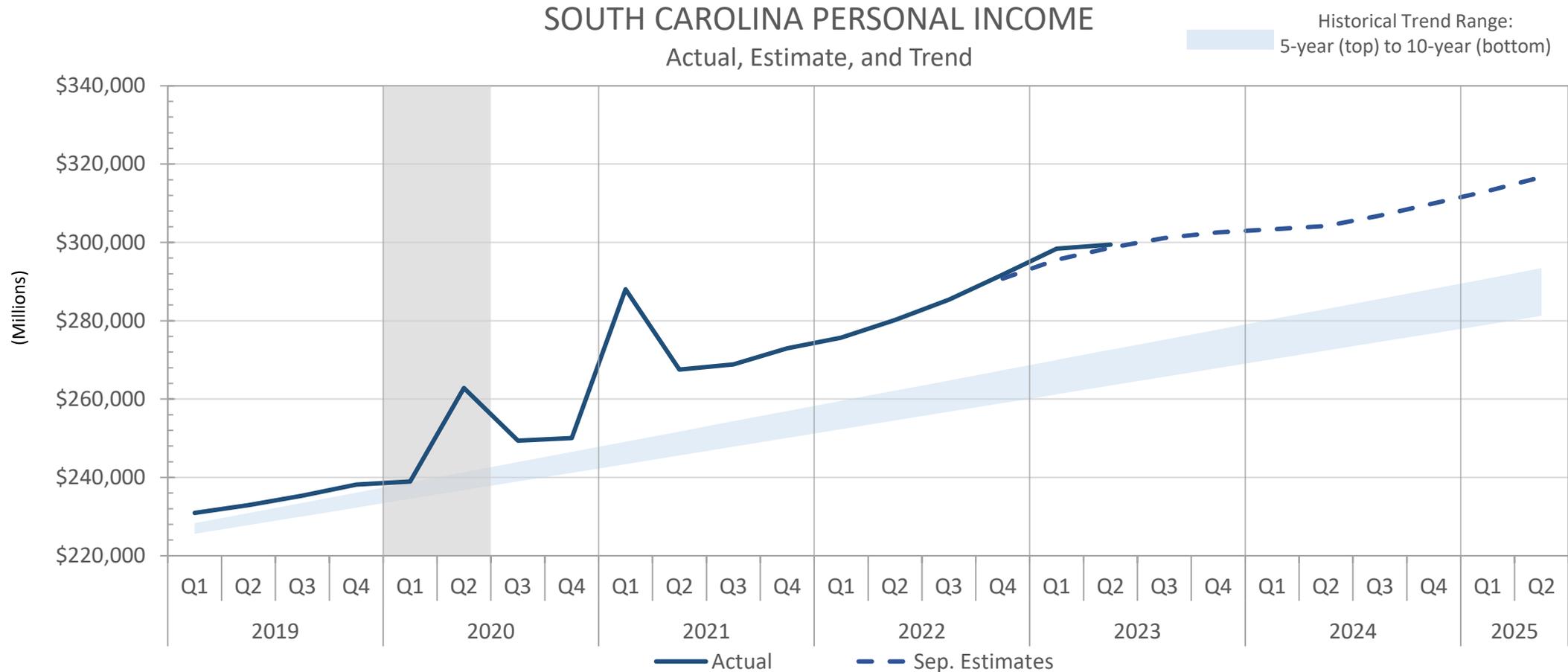
Revenues are estimated to decline 4.9%; recession expectations and tax cuts are pushing revenues toward trend

ROLLING FISCAL YEAR - GENERAL FUND  
Actual, Estimate, and Target Range, FY 2015-16 to FY 2023-24



# Assumption on Personal Income

Personal income will not return to long-term trend; income settled at a higher base due to wage inflation and other factors

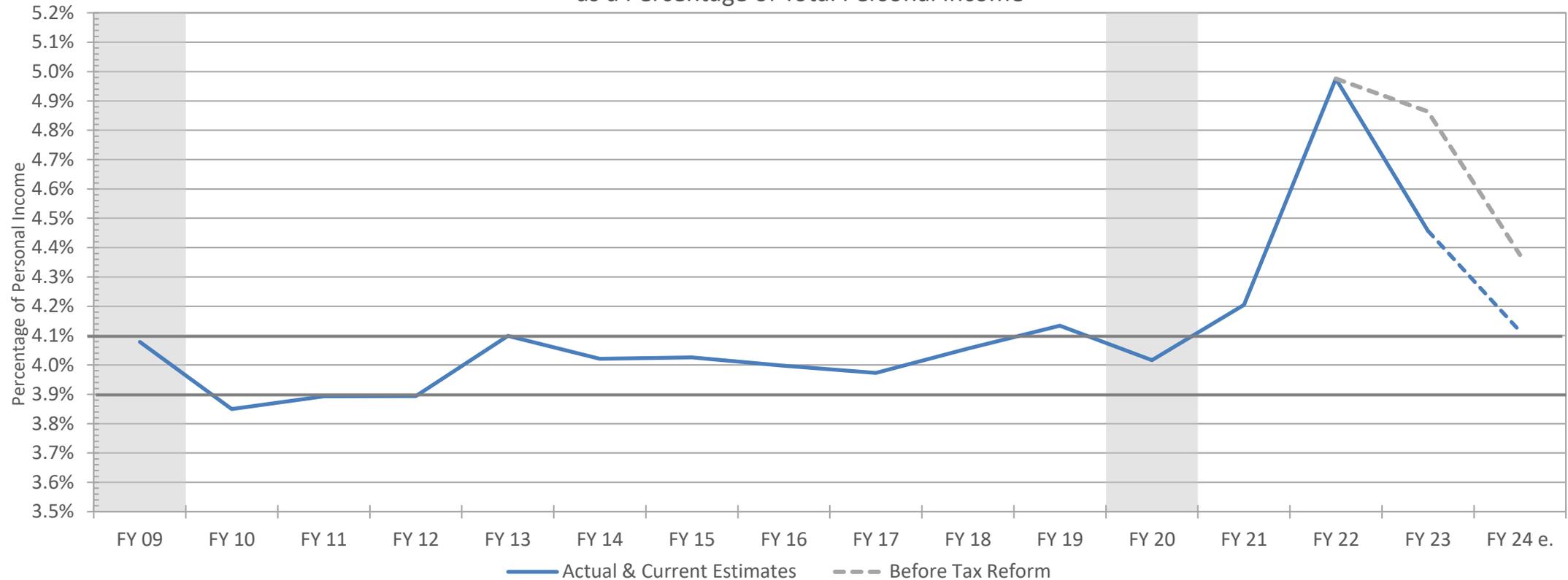


Data Source: U.S. Department of Commerce, Bureau of Economic Analysis; S.C. Board of Economic Advisors-RFA/lhj/09/29/2023

# Assumption on Historical Relationship – Income and Revenues

Post-pandemic relationship jumped 1.1% in FY 22, adding approximately \$2.9 billion; FY 23 results moved half-way back to historical range (tax reform)

SOUTH CAROLINA GENERAL FUND REVENUE  
as a Percentage of Total Personal Income

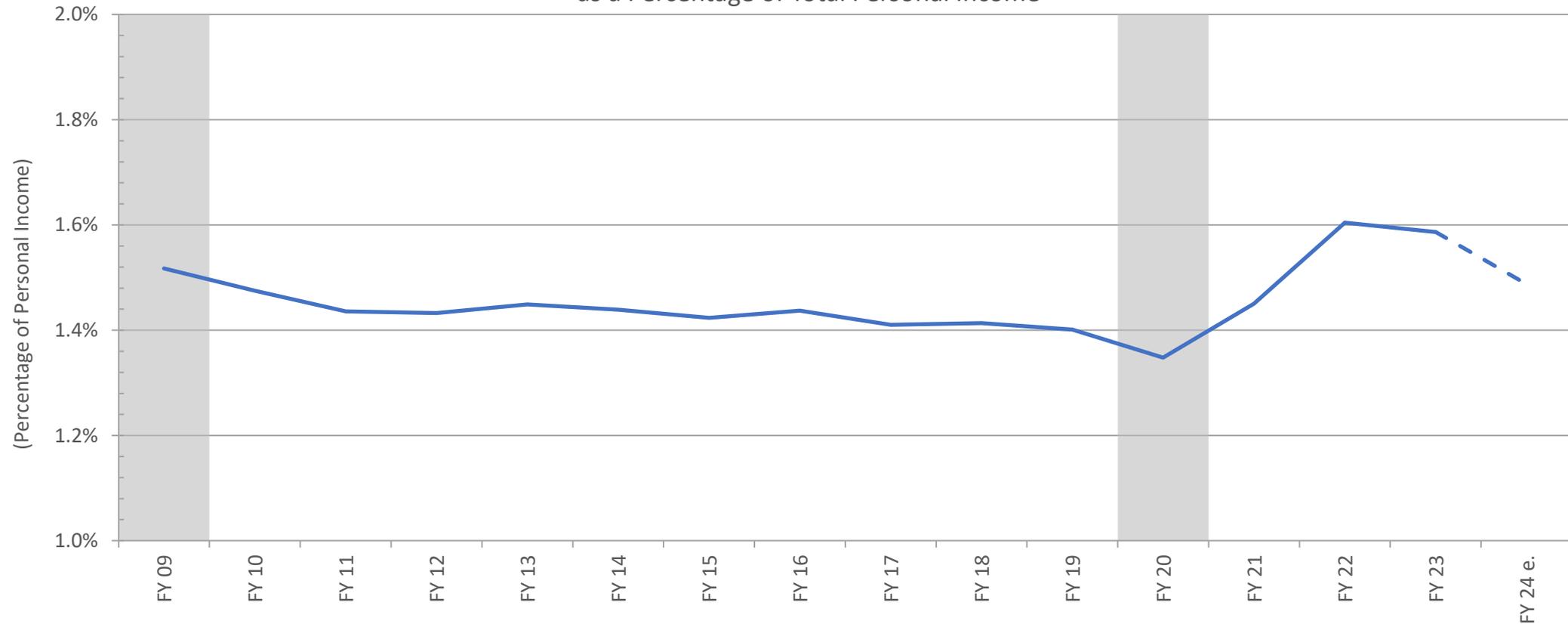


Source: U.S. Department of Commerce, Bureau of Economic Analysis; SC Revenue and Fiscal Affairs Office 34F-kav/09/29/2023

# Sales Tax and Personal Income

Relationship maintained higher levels in FY 23; expect decrease in FY 24

SOUTH CAROLINA GENERAL FUND SALES TAX COLLECTIONS  
as a Percentage of Total Personal Income



Source: U.S. Department of Commerce, Bureau of Economic Analysis; SC Revenue and Fiscal Affairs Office 32-kav09/29/2023

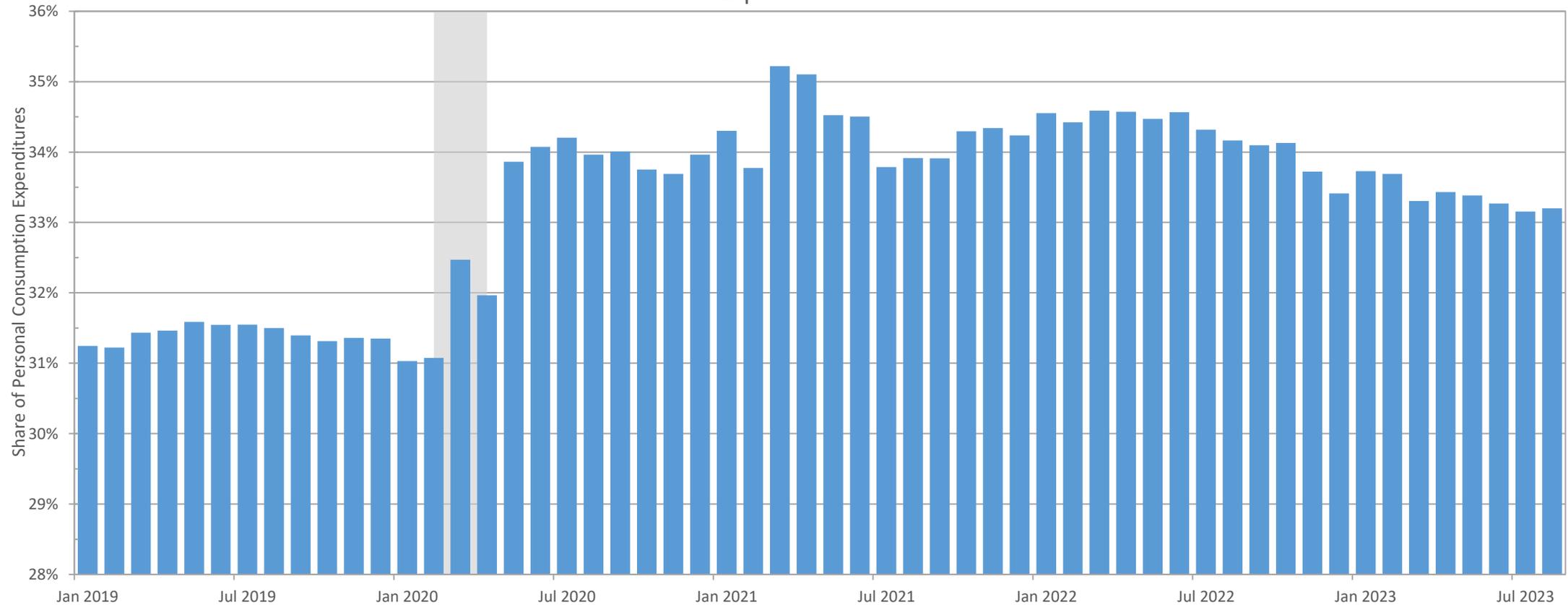


# Change in Consumer Behavior

COVID shock included big swing from services spending to goods spending

## NATIONAL PERSONAL CONSUMPTION EXPENDITURES

Share of Expenditures on Goods

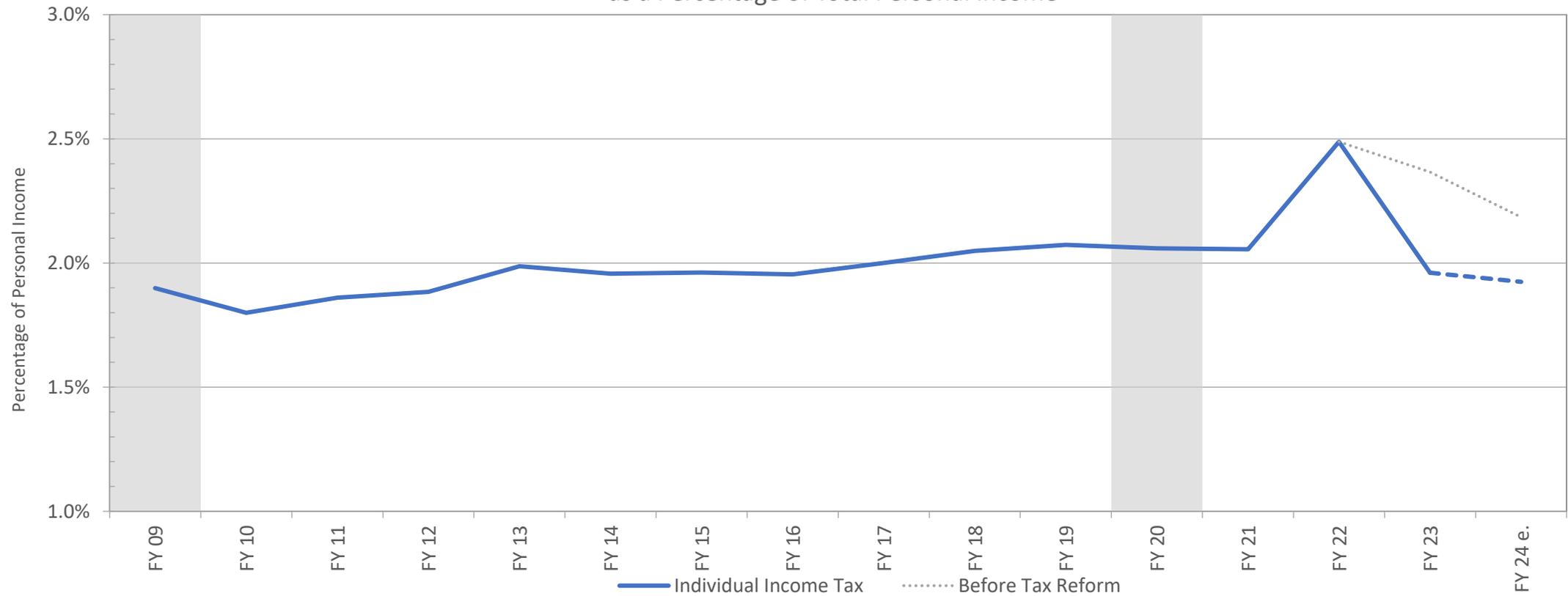


Source: U.S. Bureau of Economic Analysis, retrieved from FRED, Federal Reserve Bank of St. Louis; 299-RFA/kav/09/29/2023

# Individual Income Tax and Personal Income

Relationship spiked in FY 22 but declined in FY 23 to historical levels due to tax reform; expected to remain constant in FY 24

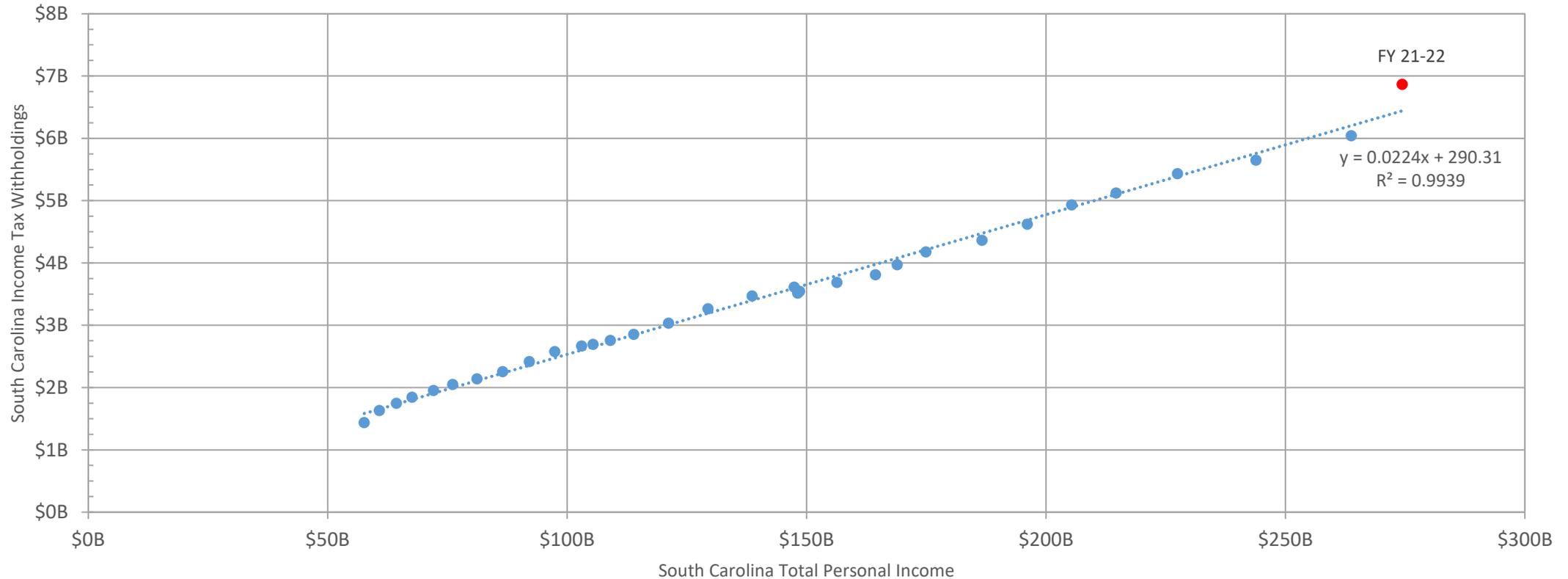
SOUTH CAROLINA INCOME TAX COLLECTIONS  
as a Percentage of Total Personal Income



Source: U.S. Department of Commerce, Bureau of Economic Analysis; SC Revenue and Fiscal Affairs Office 34-kav09/29/2023

# Is FY 22 an outlier for Individual Withholdings?

PERSONAL INCOME VS. INCOME TAX WITHHOLDINGS  
FY 1990-91 through FY 2021-22



Source: US Department of Commerce, Bureau of Economic Analysis; SC Revenue and Fiscal Affairs Office kav/09/29/2023

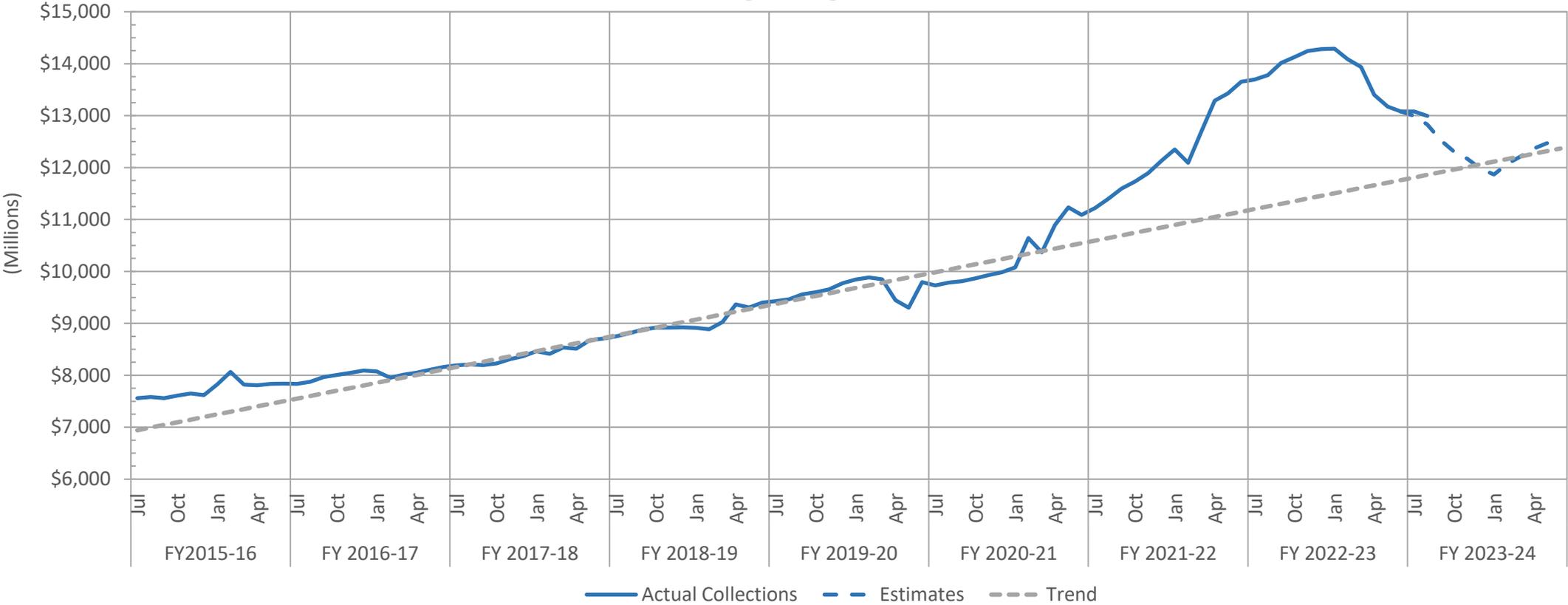
## Updated Assumptions Three Years Later - Spring 2023

- Personal income has settled at a higher base
  - Wage inflation
- Consumer spending habits are slowly returning to normal, and sales tax growth has declined from double-digits
- Funds from stimulus programs are largely gone
- Tax reform further complicates the analysis
  - Tax reductions are pushing the historical relationship back to trend, but will revenue eventually dip below?

# General Fund Revenue FY 24

September 2023 estimates reflect return to long-term trend, largely due to tax cuts and an expectation for a slowdown in FY 24

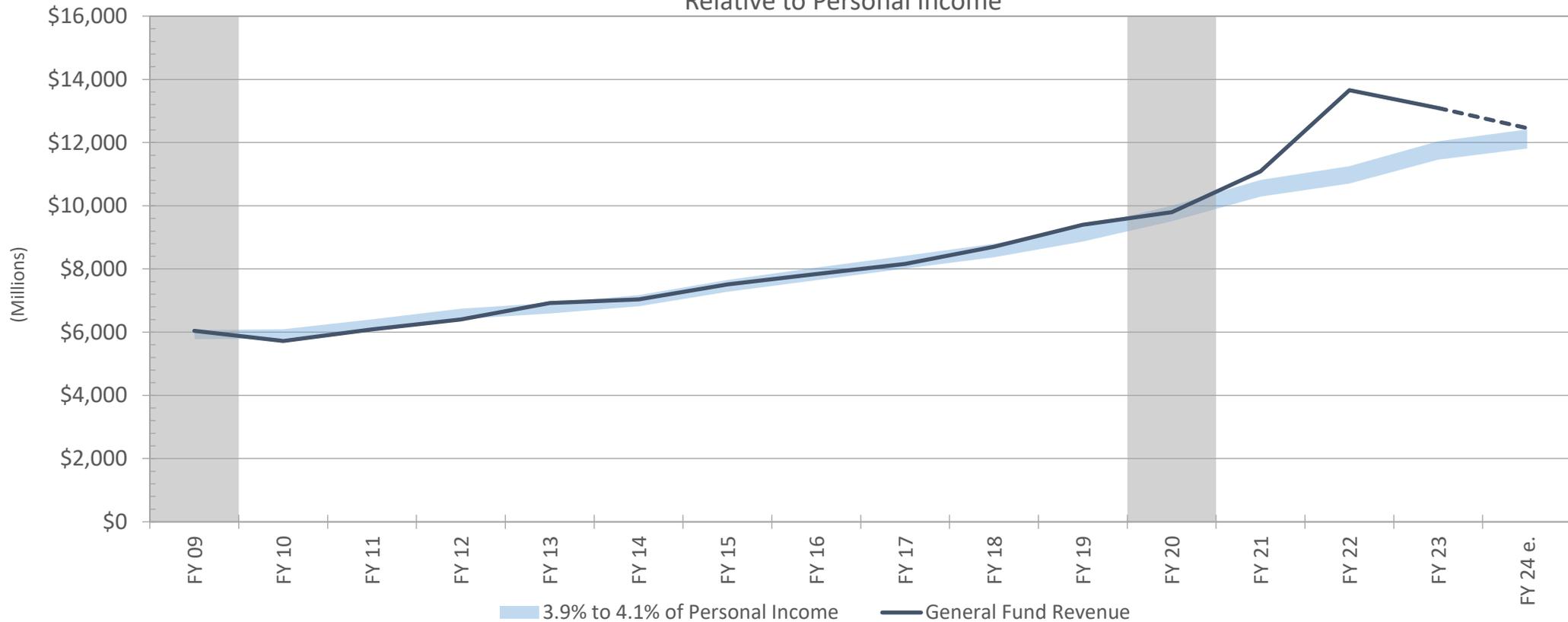
ROLLING FISCAL YEAR - GENERAL FUND  
Actual, Estimate, and Target Range, FY 2015-16 to FY 2023-24



# General Fund Revenue – Is the long-term trend still relevant? Even with higher personal income, GFR is not yet back to the 3.9% to 4.1% historical range

## SOUTH CAROLINA GENERAL FUND REVENUE

Relative to Personal Income



Source: U.S. Department of Commerce, Bureau of Economic Analysis; SC Revenue and Fiscal Affairs Office 34G-kav/09/29/2023

## Final Thoughts – What should we expect for FY 24 and beyond?

- Stimulus programs are gone but are the effects still lingering?
- Will there be a recession?
- Are consumers back to normal or still transitioning?
- Have we settled at a new higher revenue base, or will we return to historical trends?

**Any Questions?**

**Any Answers?**

**Thank you!**