



# 2021 Annual Economic Forecast

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Strome College of Business  
Old Dominion University

January 27, 2021



# 2021 National and Virginia Economic Forecast

## COVID-19, Vaccines, and the Promise of Recovery

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# Section 1

## COVID-19



# The Dark Winter Peaks

7-Day Moving Average of Daily COVID-19 Infections  
United States, January 28, 2020 – January 26, 2021



Source: New York Times. Data are current as of January 26, 2021.

# The Daily Toll Continues

7-Day Moving Average of Daily COVID-19 Deaths  
United States, January 28, 2020 – January 26, 2021

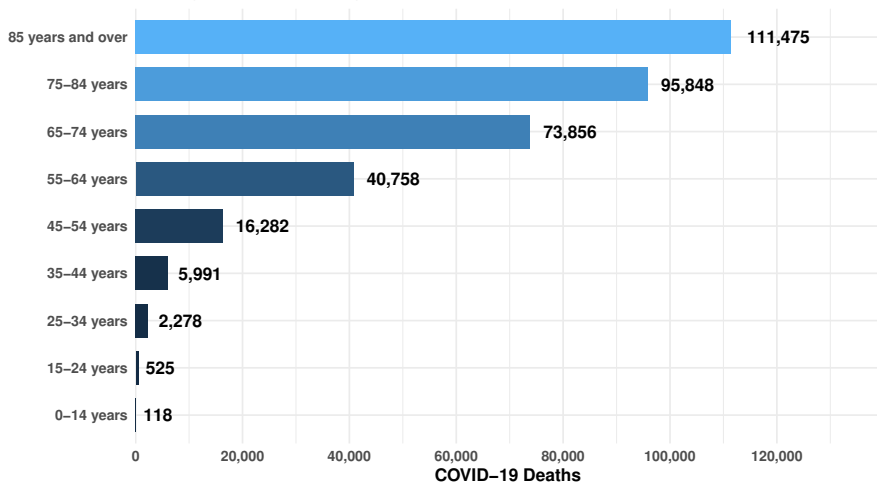


Source: New York Times. Data are current as of January 26, 2021.

# The Demographics of COVID-19

## SARS-COV-2 (COVID-19) Deaths By Age Group, United States

*January 1, 2020 to January 16, 2021*



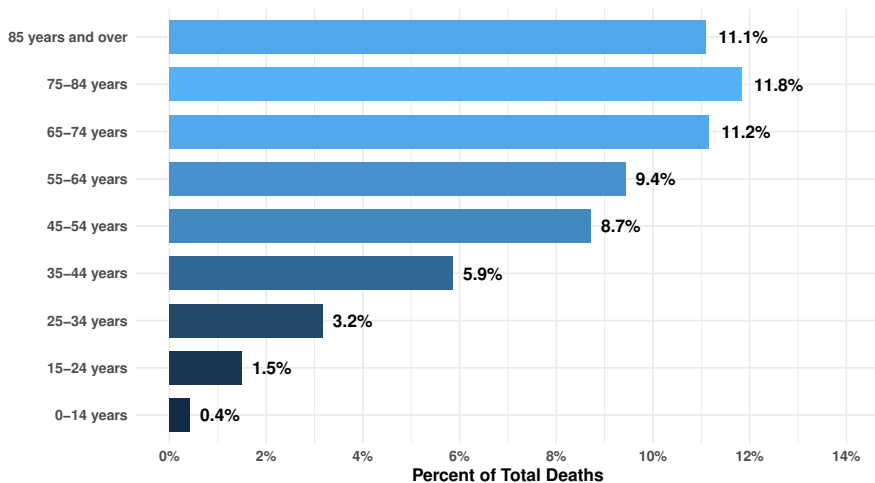
Source: Centers for Disease Control and Prevention, Provisional Death Counts for COVID-19.



# COVID-19 Deaths by Age Group

## SARS-COV-2 (COVID-19) Deaths as Percent of Total Deaths, United States

January 1, 2020 to January 16, 2021

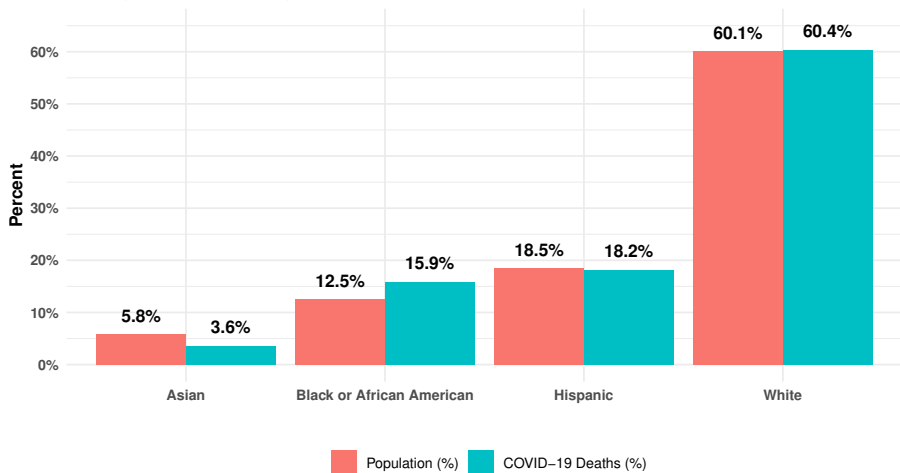


Source: Centers for Disease Control and Prevention, Provisional Death Counts for COVID-19.

# COVID-19 Deaths by Race

## SARS-COV-2 (COVID-19) Deaths By Race, United States

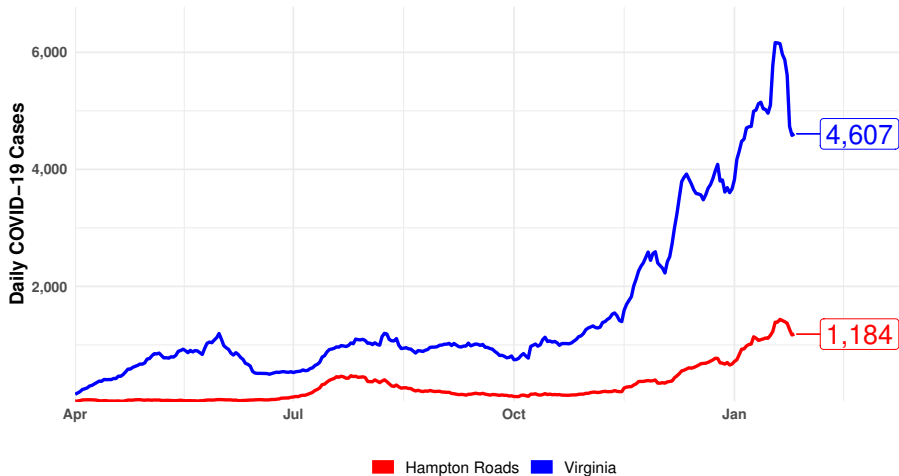
January 1, 2020 to January 16, 2021



Source: Centers for Disease Control and Prevention, Provisional Death Counts for COVID-19.

# Cases in Virginia and Hampton Roads

7-Day Moving Average of Daily COVID-19 Infections  
Hampton Roads and Virginia, April 1, 2020 – January 26, 2021

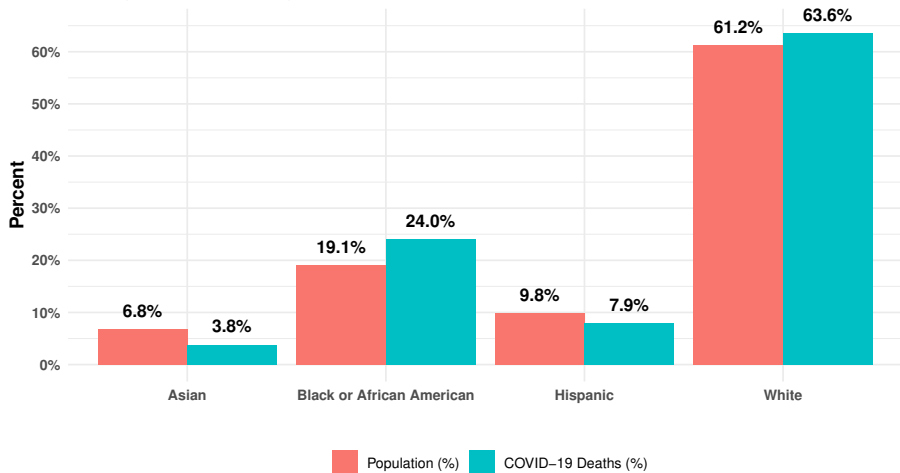


Source: Virginia Department of Health. Data are current as of January 26, 2021.

# COVID-19 Deaths by Race in Virginia

## SARS-COV-2 (COVID-19) Deaths By Race, Virginia

January 1, 2020 to January 16, 2021

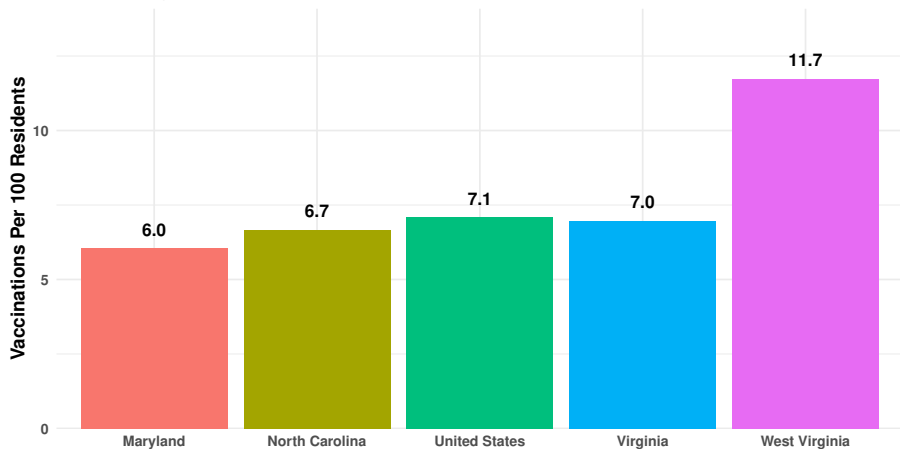


Source: Centers for Disease Control and Prevention, Provisional Death Counts for COVID-19.

# Vaccinations Increase

## Total COVID-19 Vaccinations Delivered Per 100 Residents

*As of January 26, 2021*

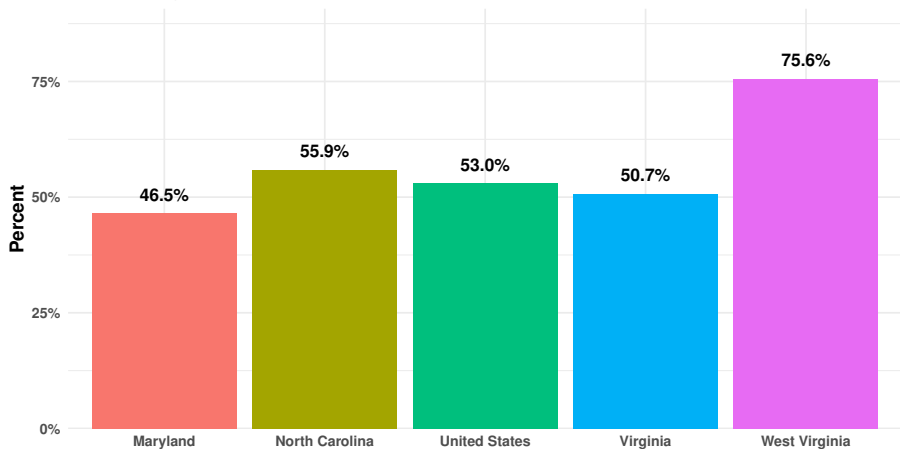


Source: CDC and Our World in Data. Total vaccinations represent total shots and may not reflect the number of fully vaccinated individuals depending on the number of required doses.

# Vaccine Logistics Are Key

## Vaccines Administered as Share of Vaccines Shipped

*As of January 26, 2021*



Source: CDC and Our World in Data. Share of vaccination doses administered among those recorded as shipped in CDC's Vaccine Tracking System.

## Section 2

# Labor Markets Continue to Battle Headwinds



# Civilian Labor Force: A Slowing Recovery

## Civilian Labor Force, United States

January 2010 to December 2020

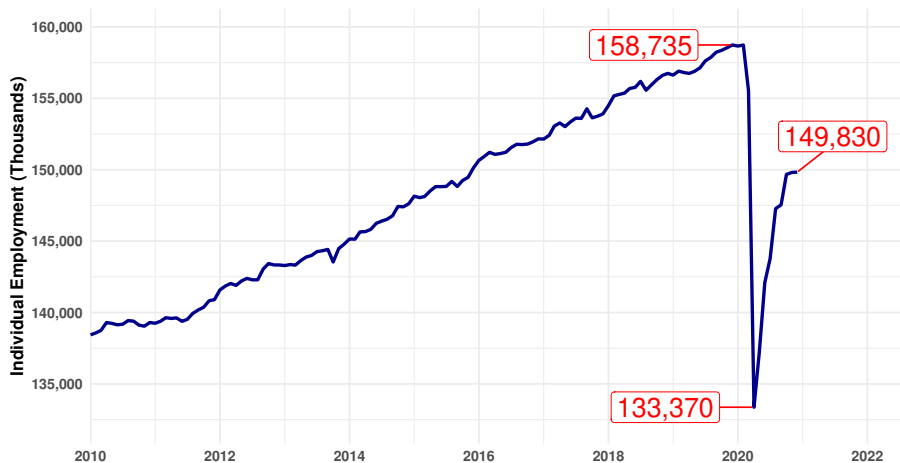


Source: Bureau of Labor Statistics, thousands of individuals. Seasonally adjusted data.

# Civilian Employment: A Slowing Recovery

## Civilian Employment Level, United States

January 2010 to December 2020



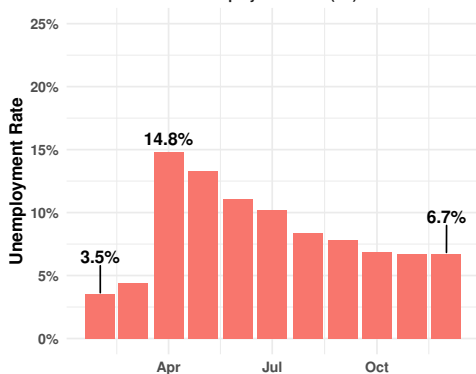
Source: Bureau of Labor Statistics, thousands of individuals. Seasonally adjusted data.

# Unemployment Rate

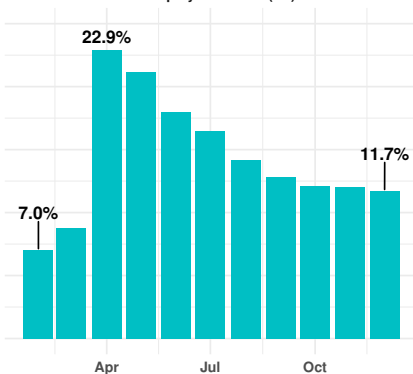
## Unemployment Rate

United States, February 2020 – December 2020

Unemployment Rate (U3)



Unemployment Rate (U6)



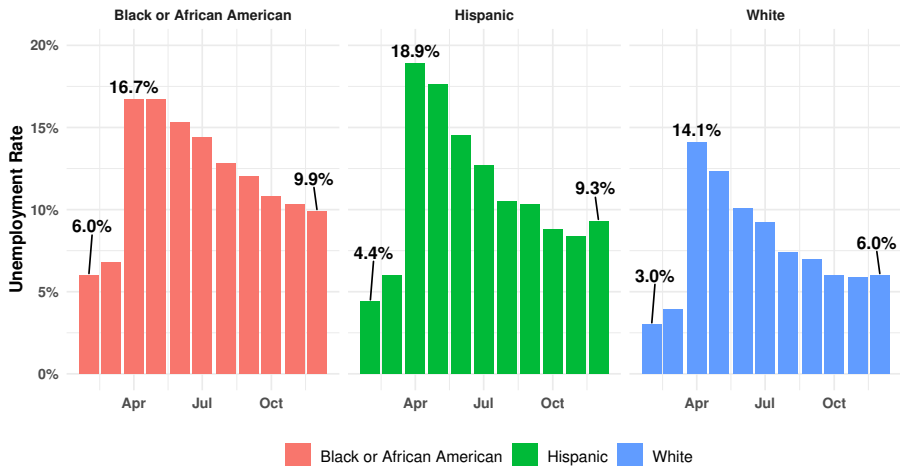
Unemployment Rate (U3) Unemployment Rate (U6)

Source: Bureau of Labor Statistics. Seasonally adjusted data. The U6 rate is the broadest measure of unemployment and includes persons marginally attached to the labor force and persons working part time for economic reasons.

# Unemployment by Race

## Unemployment Rate by Race and Hispanic Origin

United States, February 2020 – December 2020

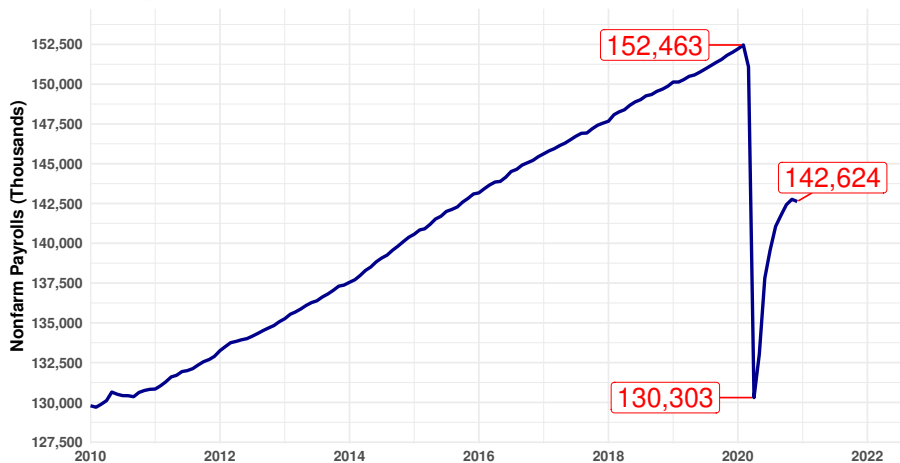


Source: Bureau of Labor Statistics. Seasonally adjusted data.

# Payrolls - Job Growth Slows as Infections Continue

## Nonfarm Payrolls (Jobs), United States

January 2010 to December 2020

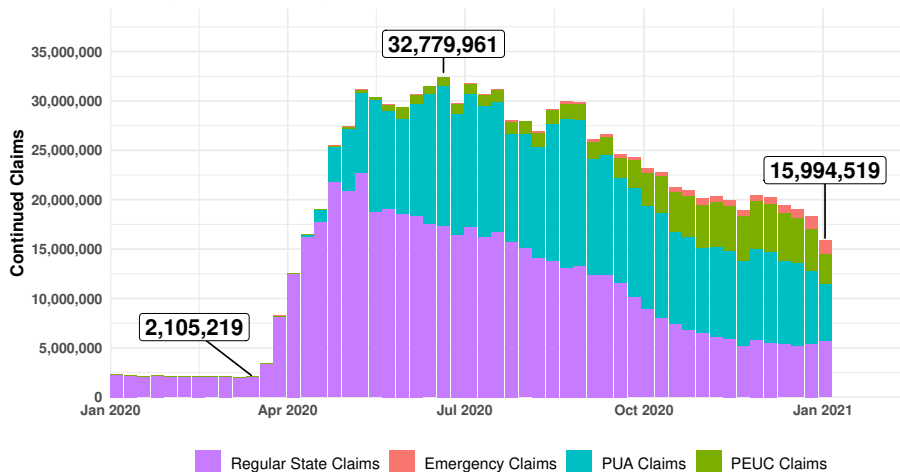


Source: Bureau of Labor Statistics, thousands of individuals. Seasonally adjusted data.

# Continued Unemployment Claims

## Continued Unemployment Insurance Claims in the United States

January 4, 2020 – January 2, 2021



Source: U.S. Department of Labor. Weekly nonseasonally adjusted data.

# Labor Force Shrinks, Employment Falls in Virginia

## Departures from the Labor Force and Employment, Virginia

Change from January 2020 to December 2020

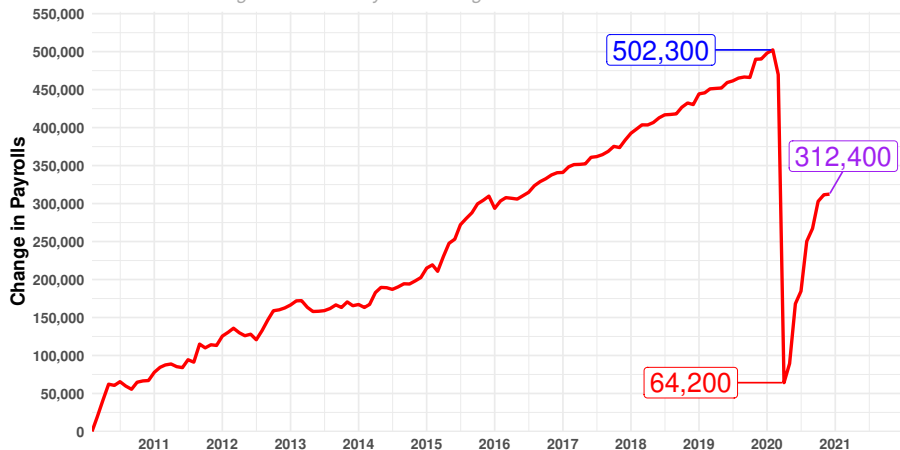


Source: Bureau of Labor Statistics. Seasonally adjusted data

# A Slowing Jobs Recovery

## Nonfarm Payrolls in Virginia, February 2010 – December 2020

*Cumulative Change from February 2010 Trough*



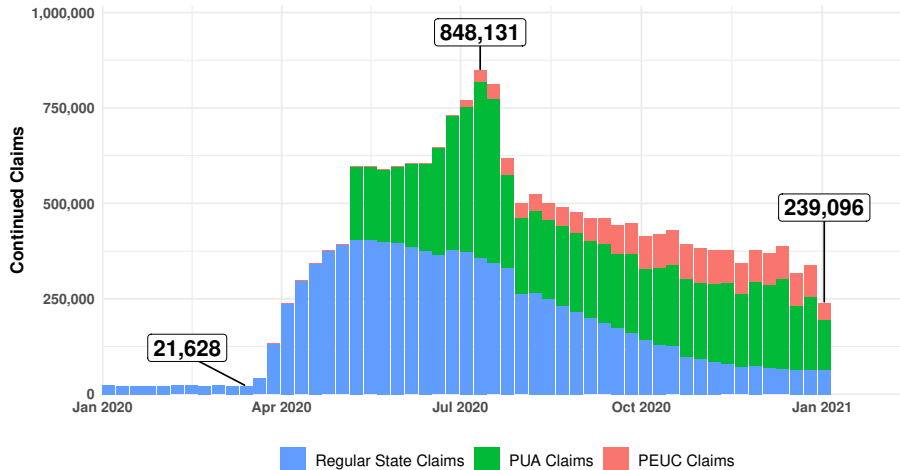
Source: Bureau of Labor Statistics. Seasonally adjusted data.  
Trough in employment after the 2007 – 2009 recession is February 2010.



# Continued Claims Fall in Virginia

## Continued Unemployment Insurance Claims in Virginia

January 4, 2020 – January 2, 2021



Source: U.S. Department of Labor. Weekly nonseasonally adjusted data.

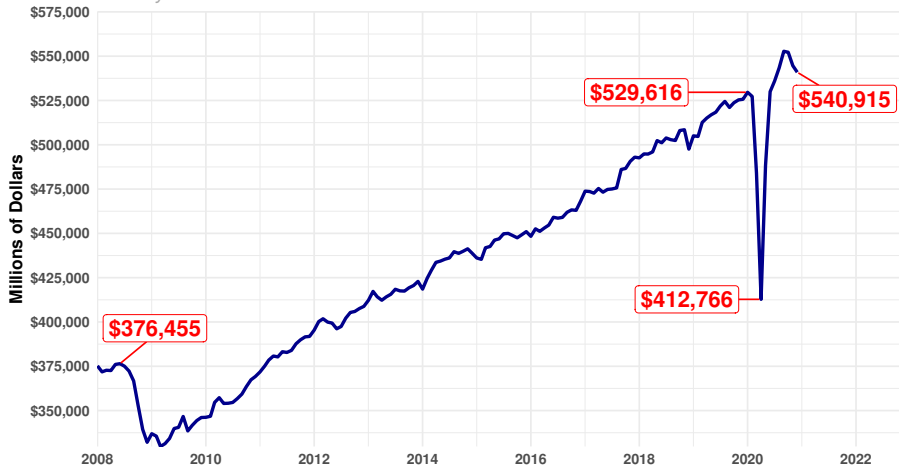
## Section 3

# Signs of Recovery and Challenges Ahead

# Retail Sales Rebound

## Advance Retail and Food Services, United States

January 2008 – December 2020

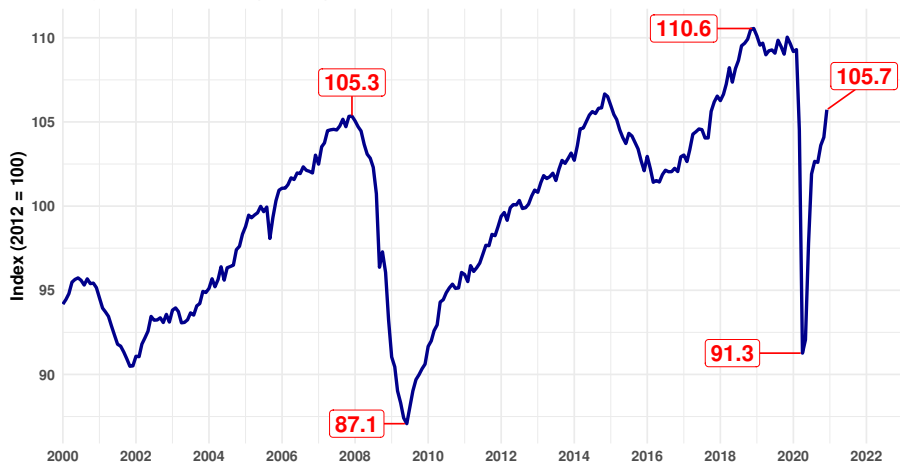


Source: U.S. Census Bureau, Advance Monthly Retail Trade Report. Seasonally adjusted data.

# Industrial Production (Mostly) Recovers

## Industrial Production Index, United States, January 2000 – December 2020

*Output of Manufacturing, Mining, and Electric and Gas Utilities*

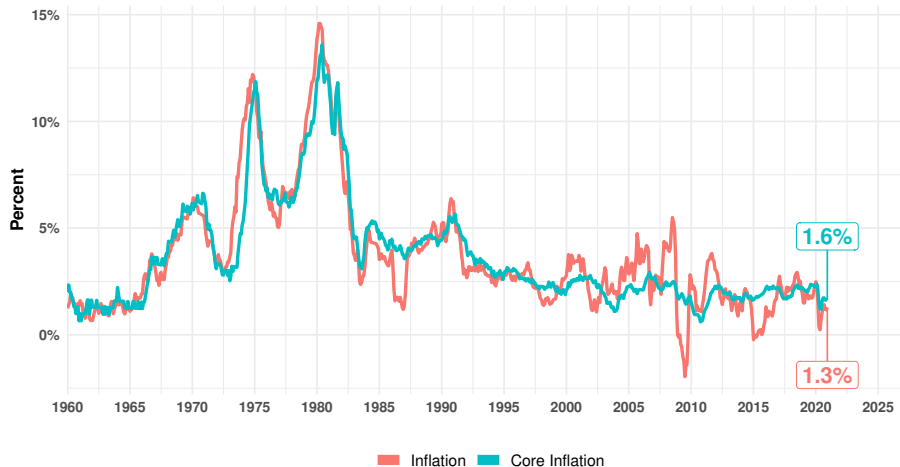


Source: Board of Governors of the Federal Reserve System. Seasonally adjusted data.

# Inflation Remains Low

## Monthly Inflation, United States, January 1960 – December 2020

*Monthly Change in the Consumer Price Index*

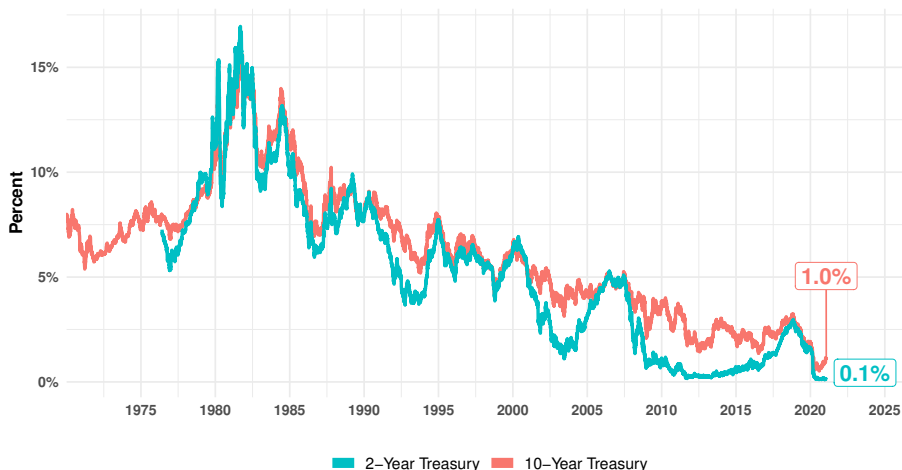


Source: Bureau of Labor Statistics. Seasonally adjusted data.

# Bond Markets Are Not Signaling Concern

## Constant Maturity Rates of U.S. Treasuries, January 1970 – January 2021

*2-Year and 10-Year U.S. Treasuries*

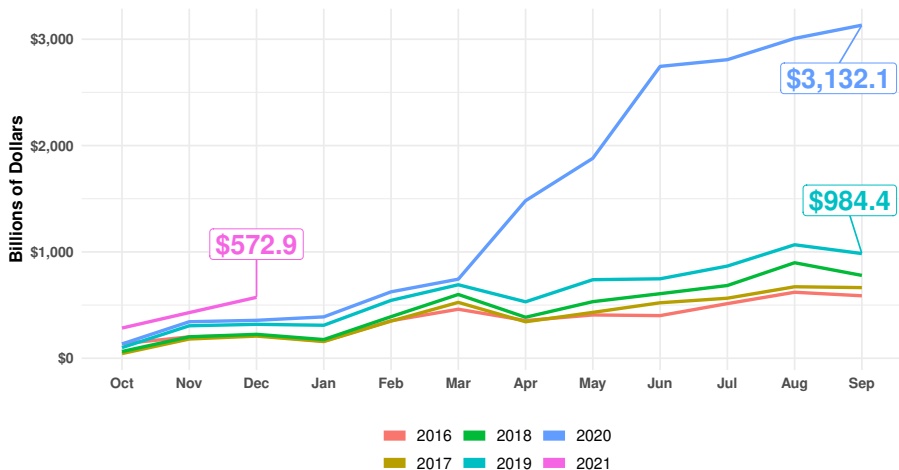


Source: Board of Governors of the Federal Reserve System.

# The Federal Deficit Explodes

## Cumulative U.S. Federal Government Deficit by Month, October 2015 – December 2020

*Billions of nominal dollars, Fiscal Years*



Source: Congressional Budget Office, U.S. Treasury.

# A Recovery - But COVID Gets A Vote

## Quarterly U.S. Real Gross Domestic Product, 2019:Q1 – 2021:Q4

*Actual and Forecasted GDP*



Sources: Bureau of Economic Analysis and Dragas Center for Economic Analysis and Policy.  
Billions of 2012 Chained Dollars. Seasonally adjusted data. Forecasted from 2020 Q4 forward.



## Section 4

### 2021 and Beyond

# An (Evolving) Optimistic Scenario

- Infections rise, but case-mortality continues to decline in 2021.
- Vaccine production rises and supply chains improve by Spring 2021.
- Vaccine hesitancy declines rapidly through the end of 2021.
- Over 70% of population acquires immunity by late 2021.
- Daily cases and deaths rapidly decline in late Spring 2021.
- Employment recovers by mid-2021, a housing crisis is averted.
- Inflation remains moderate, allowing the Fed to unwind its liabilities.
- A global expansion emerges in the 2nd half of 2021.

## An (Evolving) Pessimistic Scenario

- COVID-19 remains unchecked in early 2021.
- Case-mortality falls, but deaths exceed 500,000 by Spring 2021.
- Supply chain issues continue to limit vaccine distribution.
- Vaccine resistance remains significant through 2021.
- Economic activity stagnates as virus becomes endemic.
- Political violence escalates throughout the United States.
- Evictions, foreclosures, and poverty continue to rise in 2021.
- Complete recovery does not occur until the 2nd half of the decade.

## An (Updated) Most Likely Scenario

- Infections and deaths continue in the first half of 2021.
- Production and supply chain constraints ease in Spring 2021.
- More vaccinations -> lower infections -> more jobs -> more vaccinations.
- Vaccine hesitancy leads to immunization requirements by many employers.
- Single shot vaccines become prevalent by late-2021.
- Interest rates and inflation remain low for the foreseeable future.
- A strong expansion emerges in the second half of 2021.
- Political violence ebbs, but sharp partisan divisions remain.

# Forecast

| Variable                                | 2018   | 2019   | 2020     | 2021     |
|-----------------------------------------|--------|--------|----------|----------|
| U.S. Real GDP Growth                    | 3.0%   | 2.2%   | -3.5%    | 4.0%     |
| Civilian Job Growth                     | 1.6%   | 1.4%   | -5.7%    | 5.2%     |
| Unemployment Rate                       | 3.9%   | 3.5%   | 6.7%     | 5.0%     |
| Inflation Rate                          | 2.4%   | 1.8%   | 1.2%     | 1.7%     |
| Core Inflation Rate                     | 2.1%   | 2.2%   | 1.7%     | 1.8%     |
| 3-month Treasury Bill                   | 2.4%   | 1.6%   | 0.1%     | 0.4%     |
| 10-year Treasury Bill                   | 2.9%   | 1.9%   | 0.9%     | 1.2%     |
| 30-year Treasury Bill                   | 3.1%   | 2.3%   | 1.6%     | 2.0%     |
| 30-year Conventional Mortgage           | 4.5%   | 3.8%   | 2.7%     | 3.0%     |
| Federal Deficit (Fiscal Year, Billions) | \$-779 | \$-984 | \$-3,132 | \$-2,500 |
| Virginia Real GDP Growth                | 2.3%   | 2.1%   | -2.5%    | 3.5%     |
| Virginia Civilian Job Growth            | 1.3%   | 1.2%   | -4.3%    | 4.0%     |

# **2021 Hampton Roads Economic Forecast**

## **COVID-19 and Prospects for the Regional Economy**



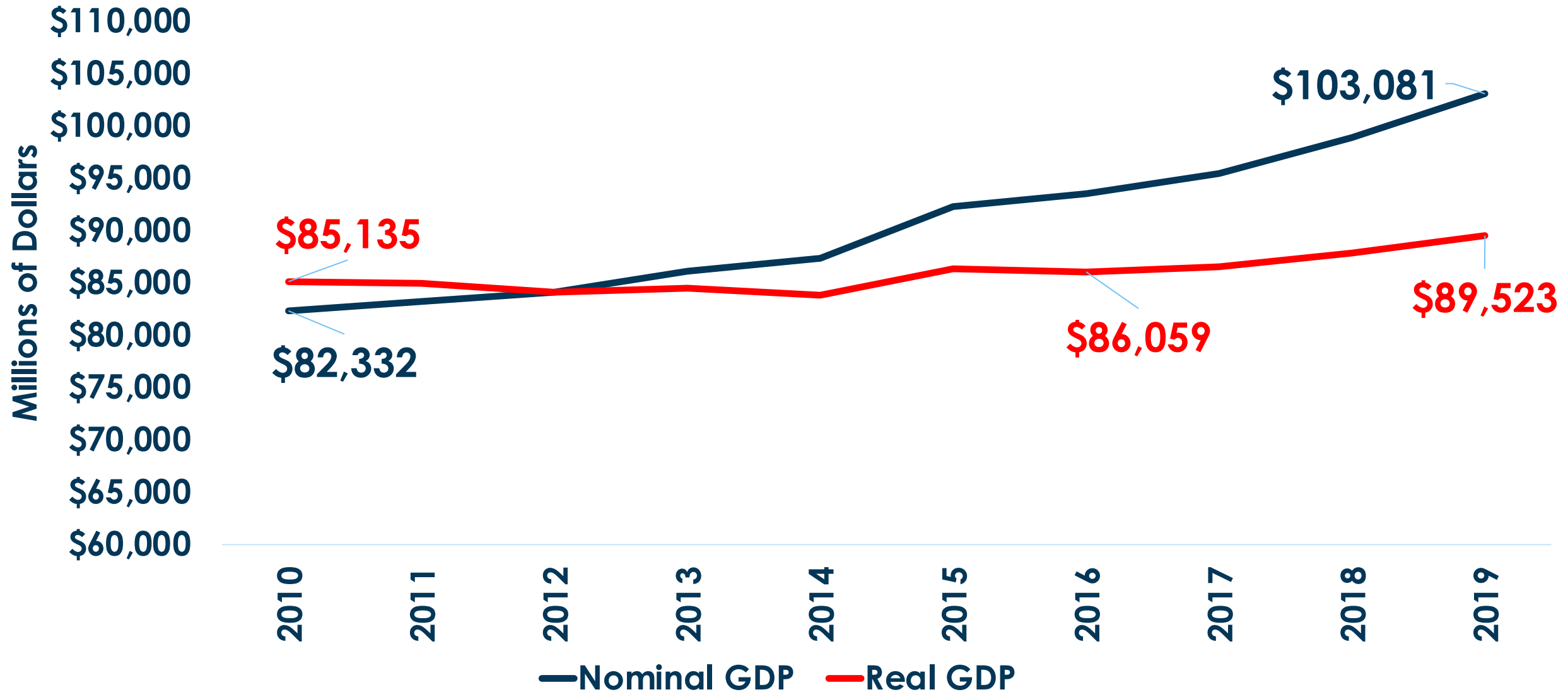




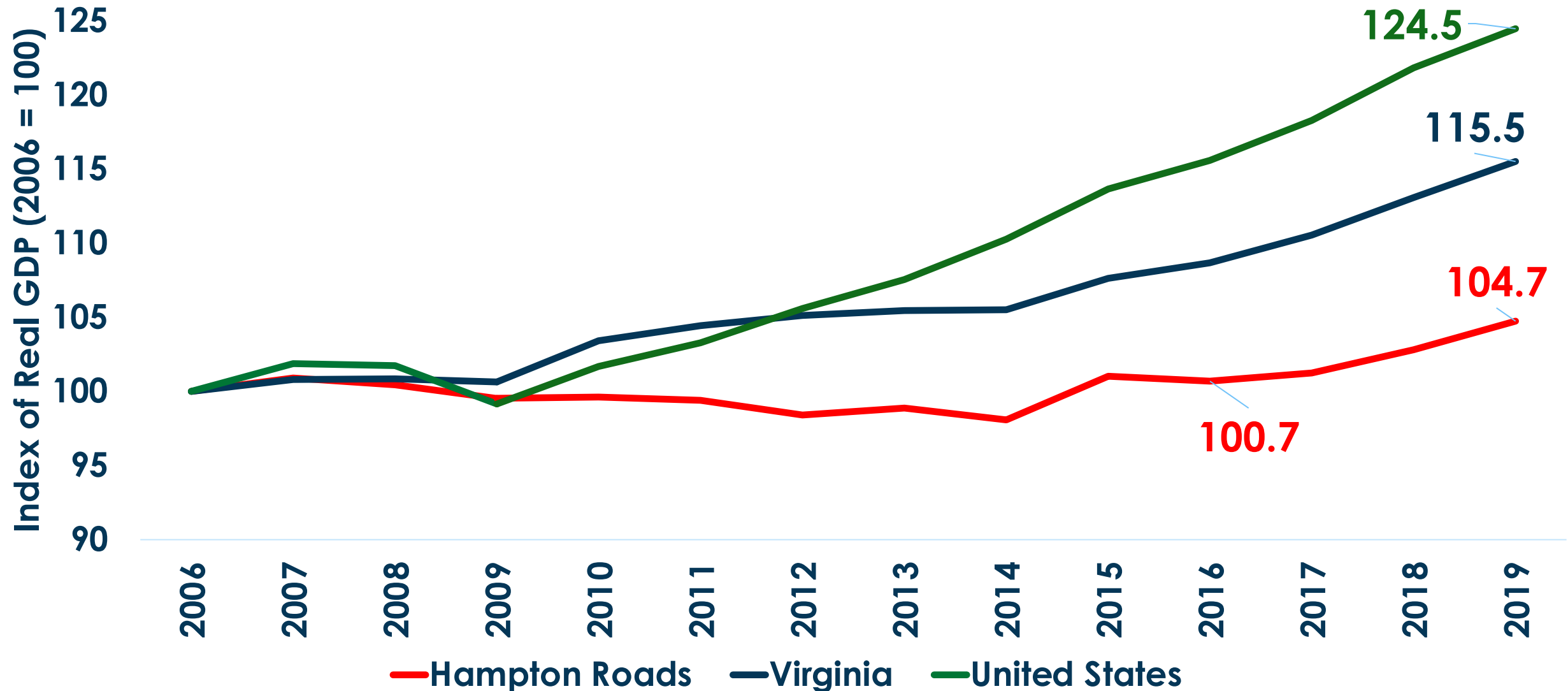
# The Expansion Through 2019



# Nominal and Real Gross Domestic Product (GDP): Hampton Roads, 2010 – 2019

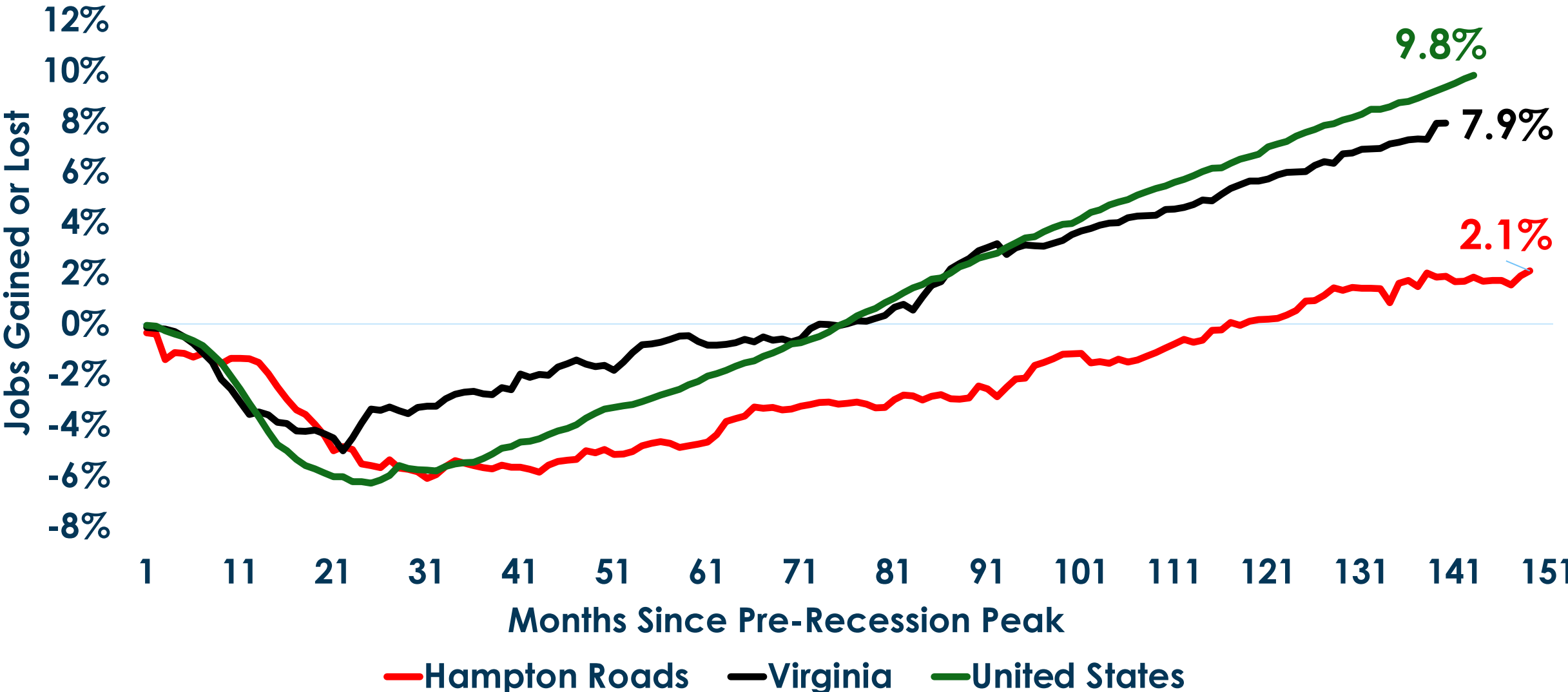


# Index of Annual Real GDP, 2006 – 2019: Hampton Roads, Virginia, and the United States



# Recovery from the Great Recession

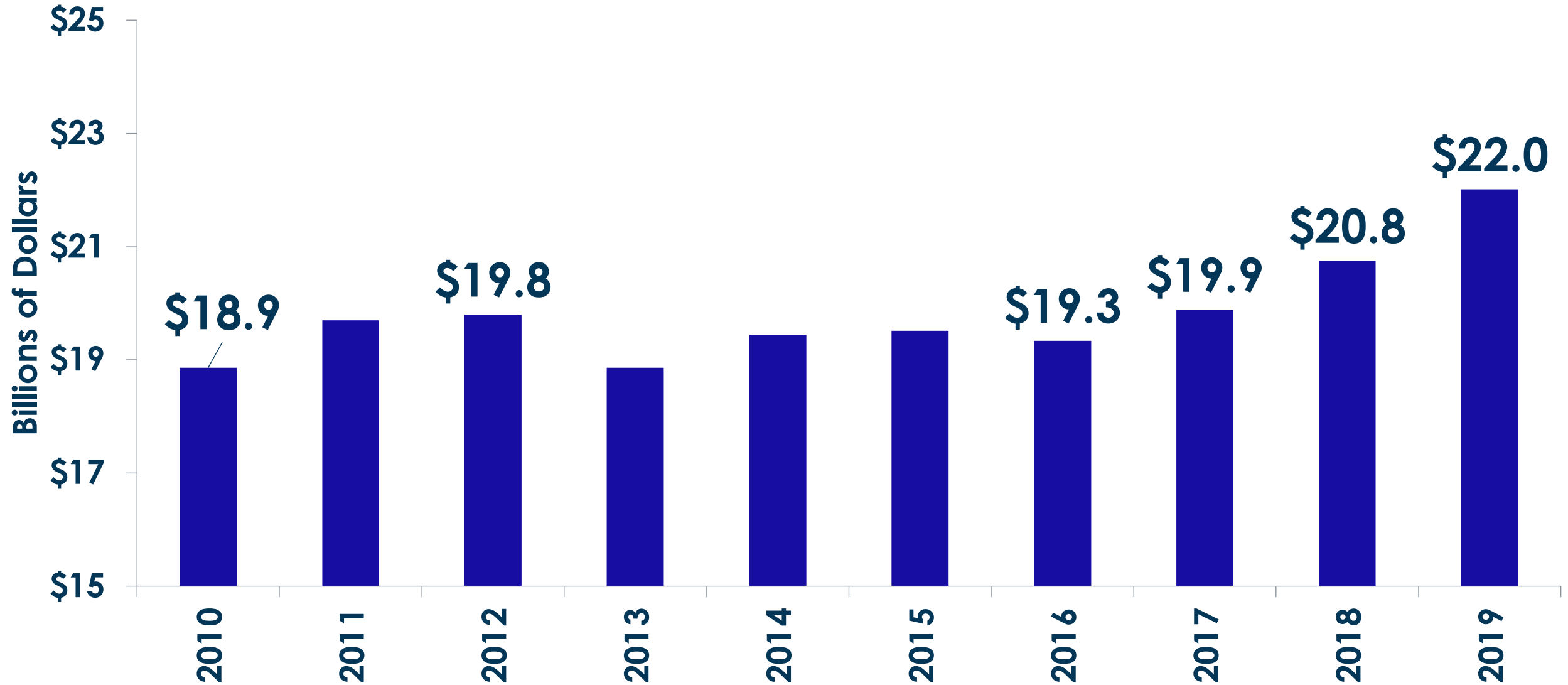
## Measured in Total Jobs Restored, through December 2019



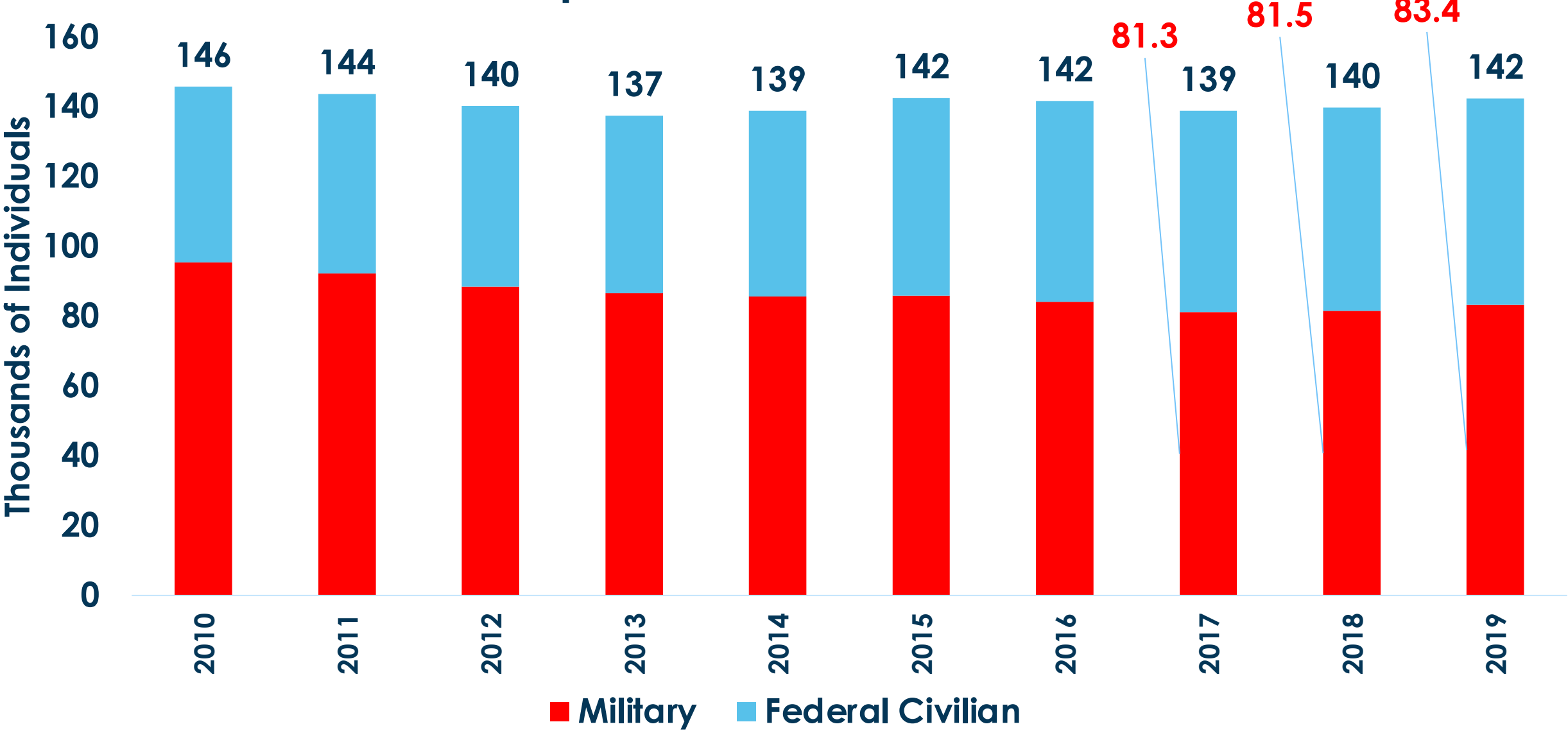


# Defense Spending in Hampton Roads Through 2019

# Estimated Direct Department of Defense Spending Hampton Roads, 2010 to 2019



# Military and Federal Civilian Employment Hampton Roads, 2010 - 2019



## Estimated Average Nominal Compensation Hampton Roads, Selected Categories

|                                             | <u>2018</u>      | <u>2019</u>      | <u>Change in<br/>Average<br/>Compensation</u> |
|---------------------------------------------|------------------|------------------|-----------------------------------------------|
| <b>Military</b>                             | <b>\$97,063</b>  | <b>\$100,764</b> | <b>3.81%</b>                                  |
| <b>Federal Civilian<br/>Govt. Employees</b> | <b>\$115,544</b> | <b>\$118,211</b> | <b>2.31%</b>                                  |
| <b>State and Local<br/>Govt. Employees</b>  | <b>\$63,691</b>  | <b>\$65,304</b>  | <b>2.53%</b>                                  |
| <b>Private Nonfarm</b>                      | <b>\$43,388</b>  | <b>\$44,338</b>  | <b>2.19%</b>                                  |





# 2020 Collapse, Reopening, Recovery?

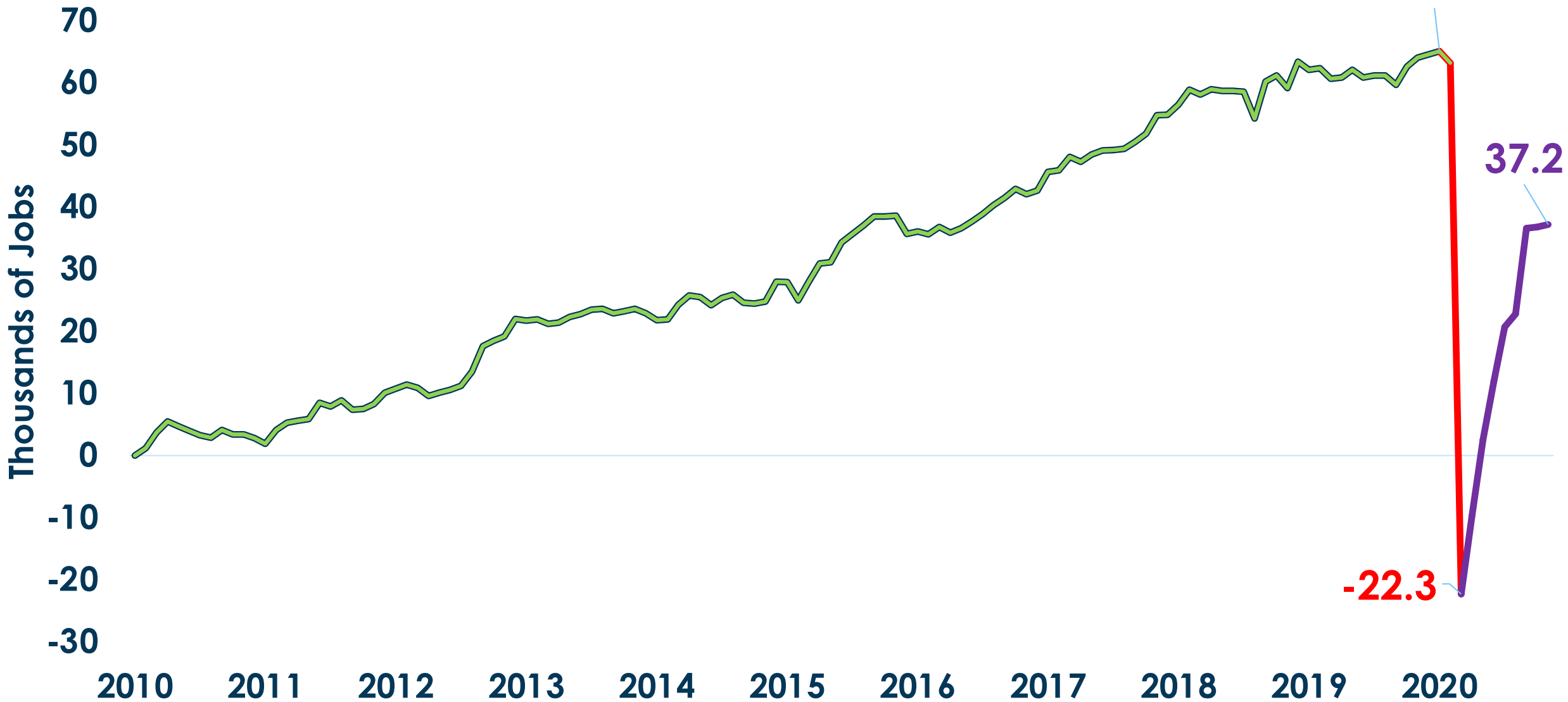




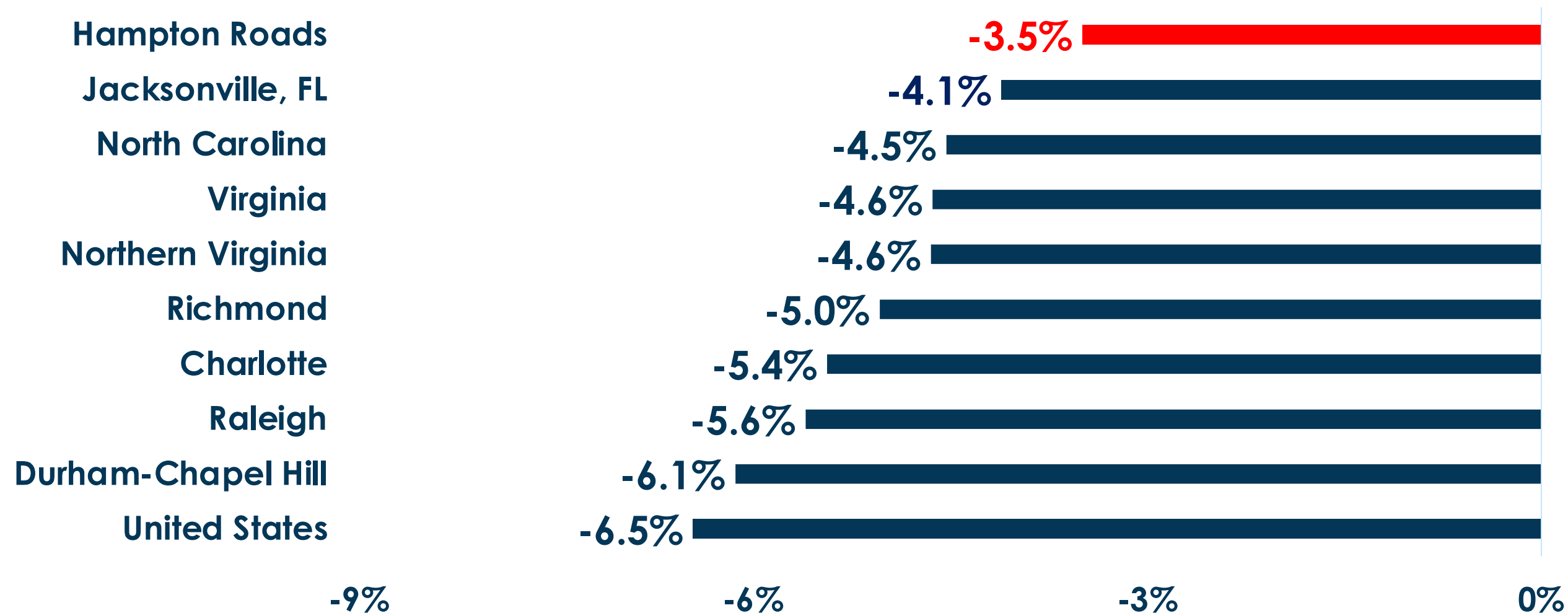
# Jobs and Employment

# Cumulative Growth in Nonfarm Payrolls

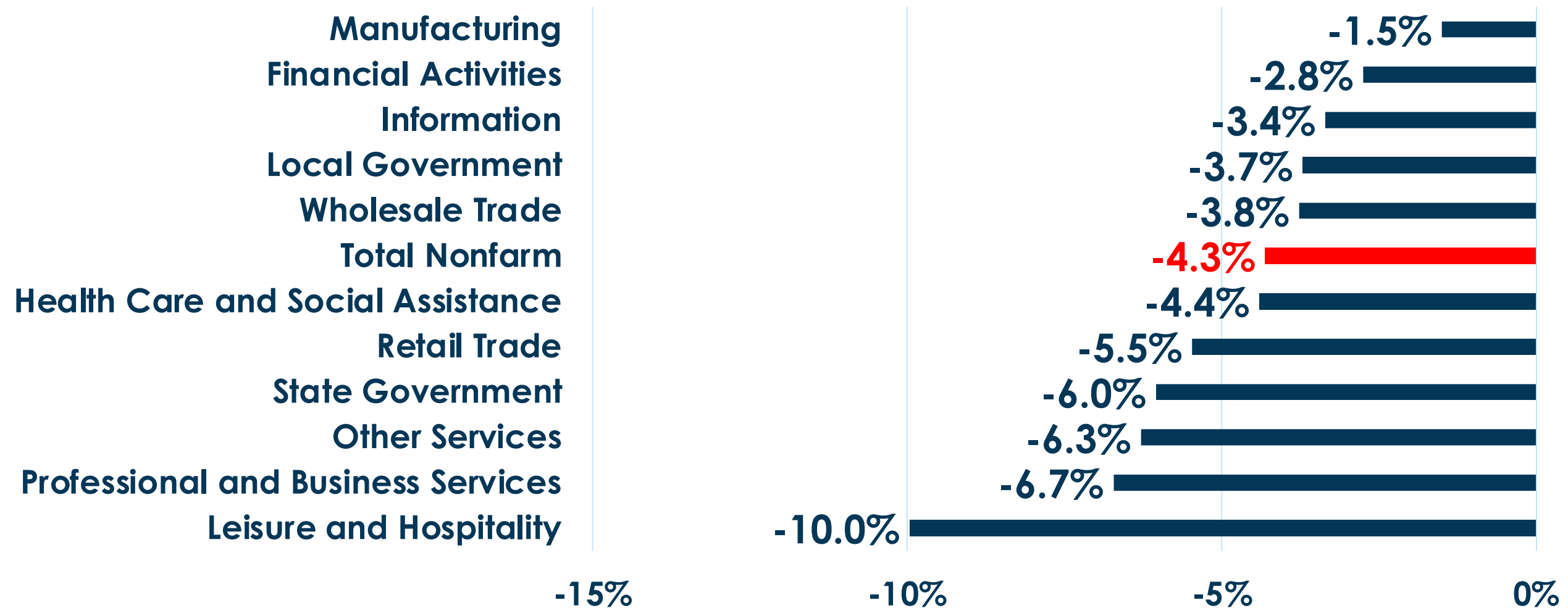
## Hampton Roads, February 2010 – December 2020



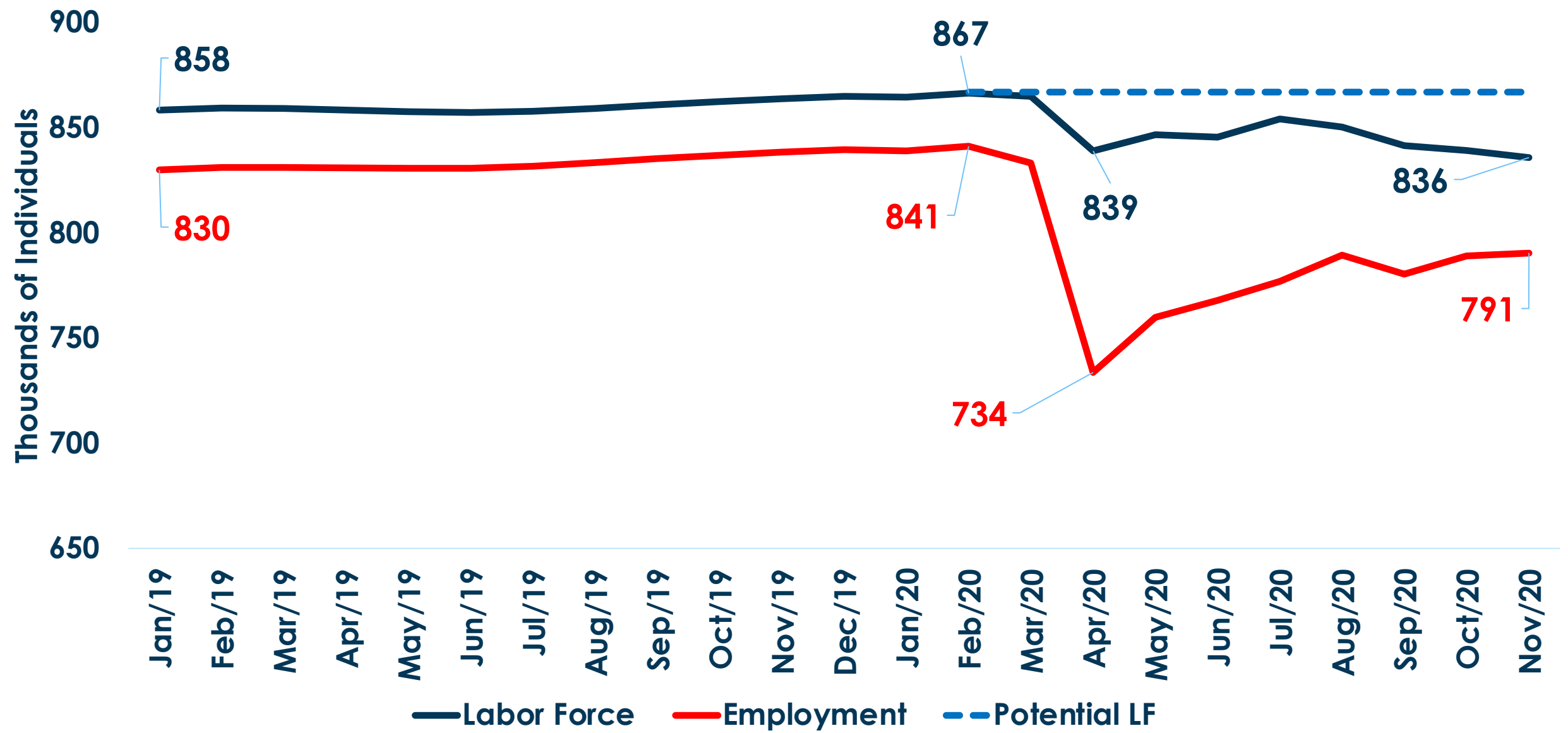
# Percent of Civilian Jobs Lost: Selected Metropolitan Areas, Virginia, North Carolina, and United States: February 2020 to December 2020



## Percent of Civilian Jobs Lost in Selected Sectors in Hampton Roads 2019 to 2020



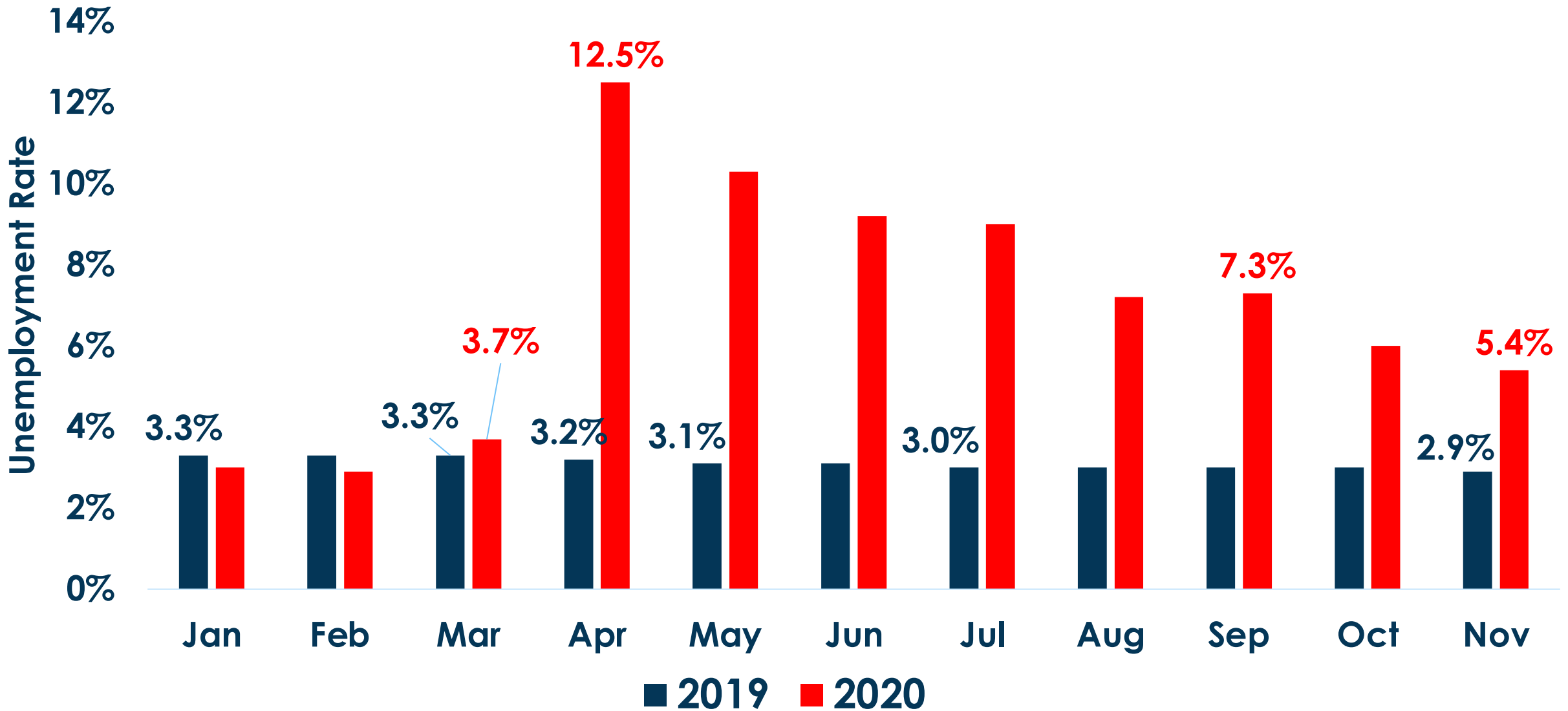
# Civilian Labor Force and Individual Employment Hampton Roads, January 2019 – November 2020



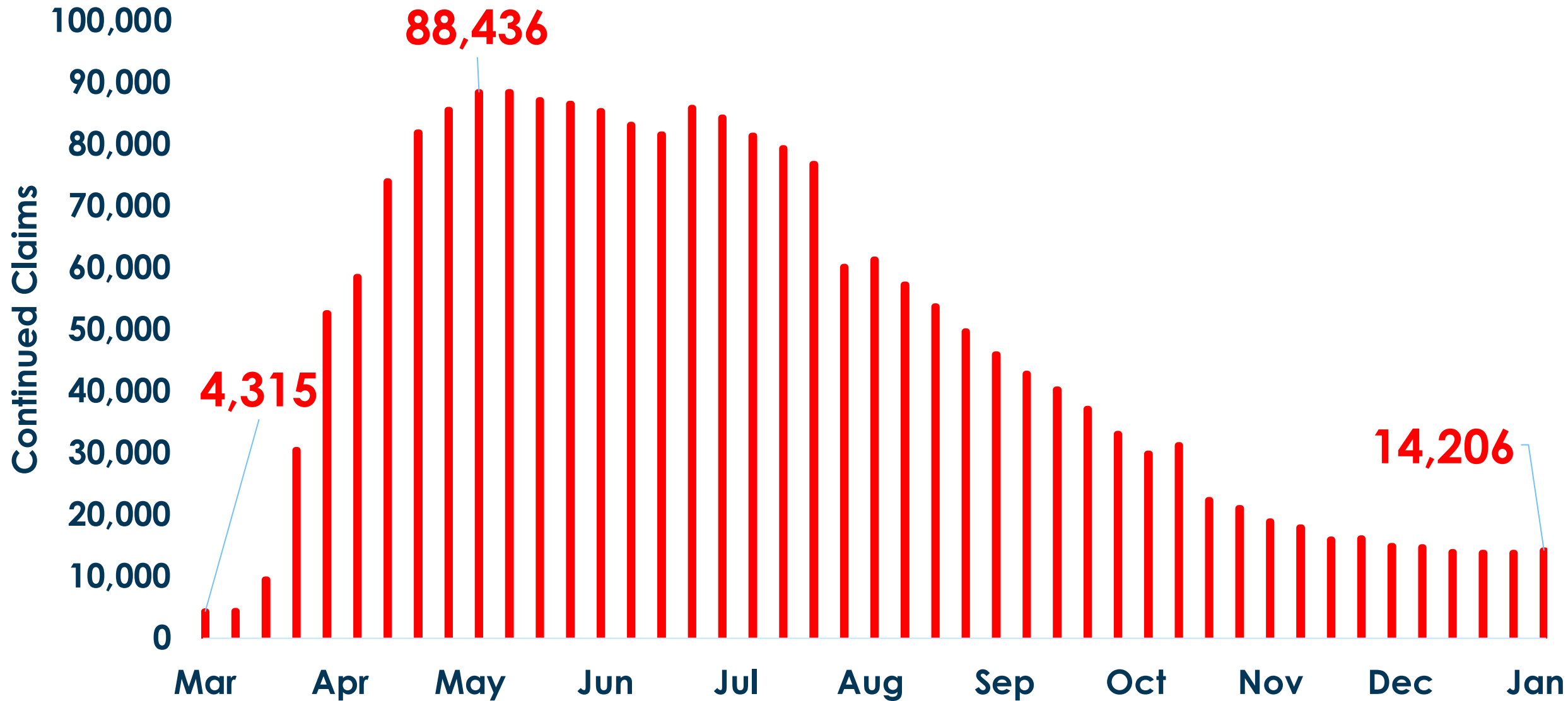
Sources: Bureau of Labor Statistics and Dragas Center for Economic Analysis and Policy. Seasonally adjusted data. Next update on February 3, 2021.

# Unemployment Rate

## Hampton Roads , January 2019 – November 2020



# Continued Claims for Regular State Unemployment Insurance Hampton Roads, March 14, 2020 – January 16, 2021



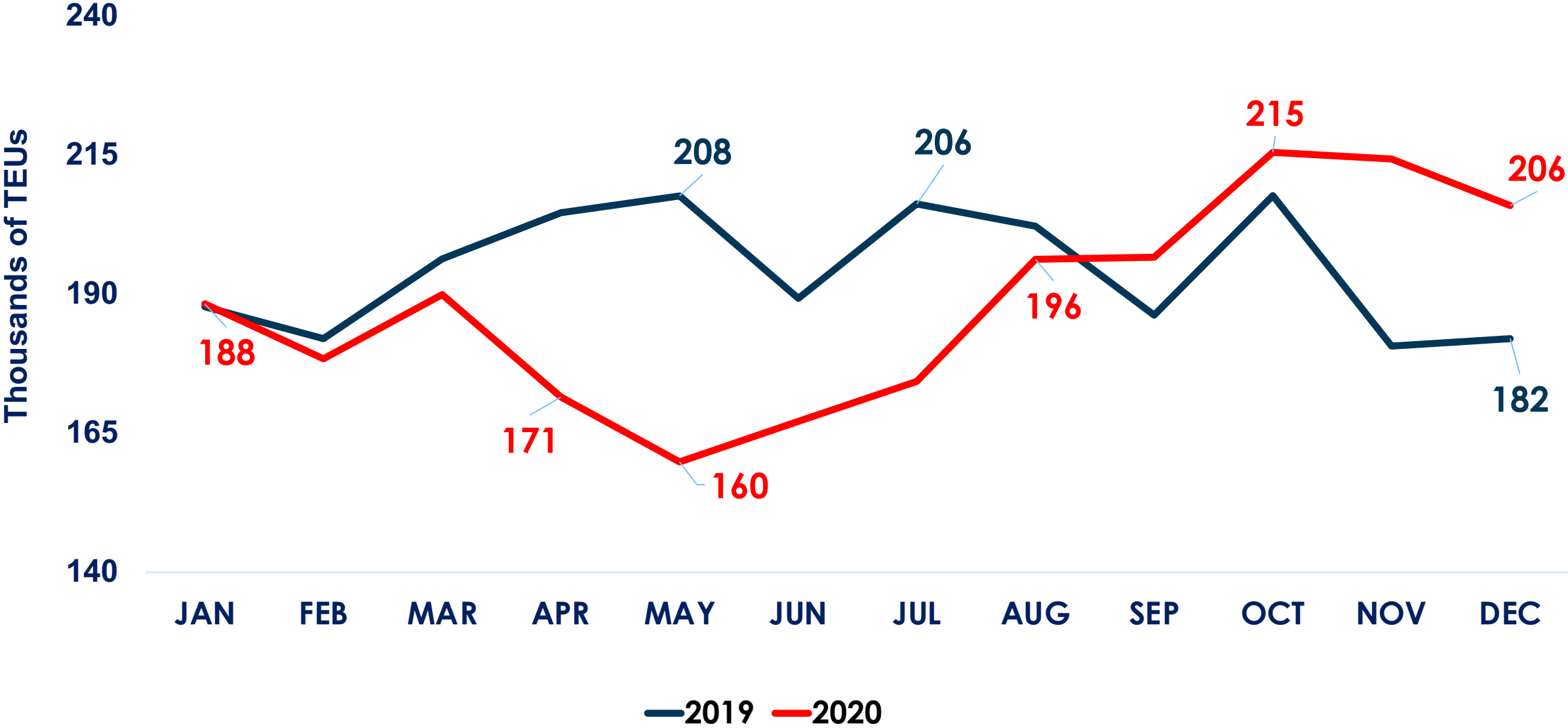




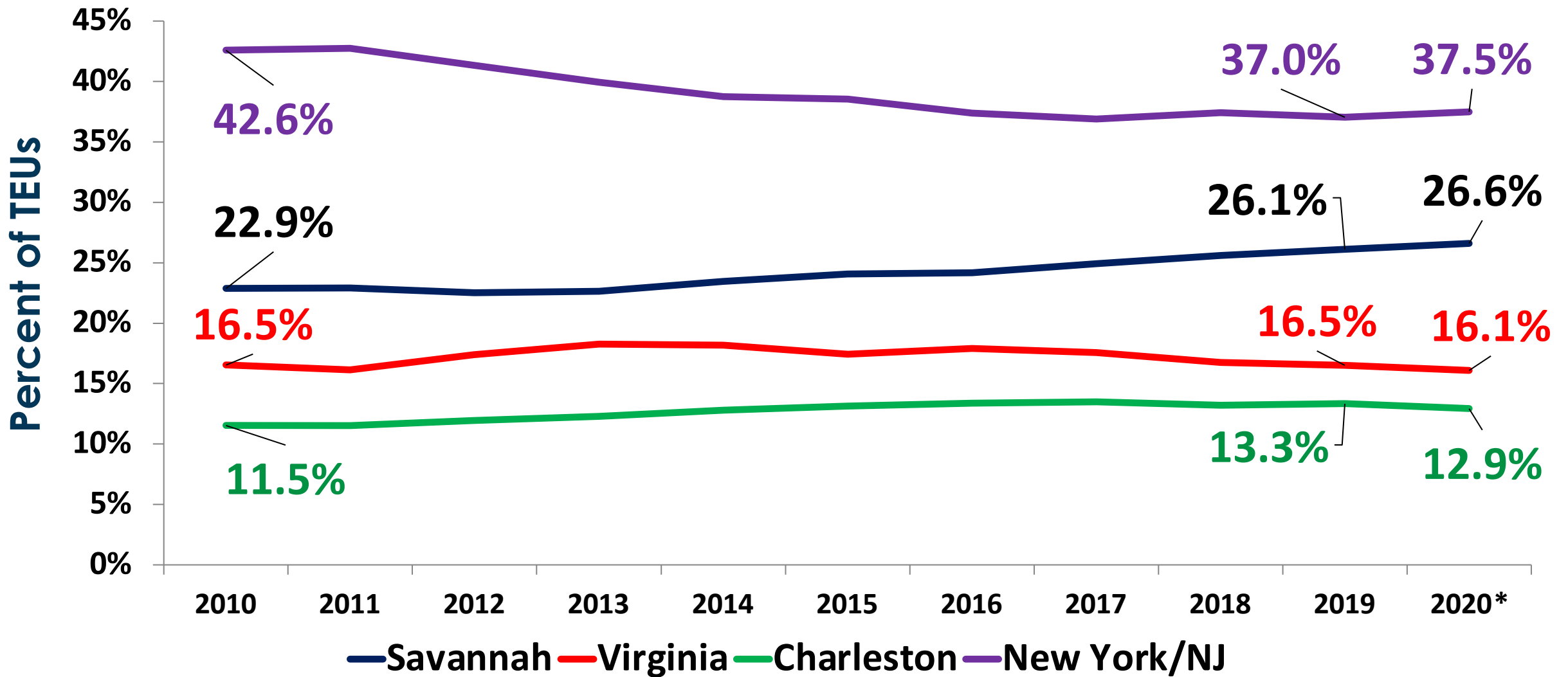
# Port and Cargo



# Total Loaded Twenty-Foot Equivalent Container Units (TEUs): Port of Virginia, 2019 and 2020



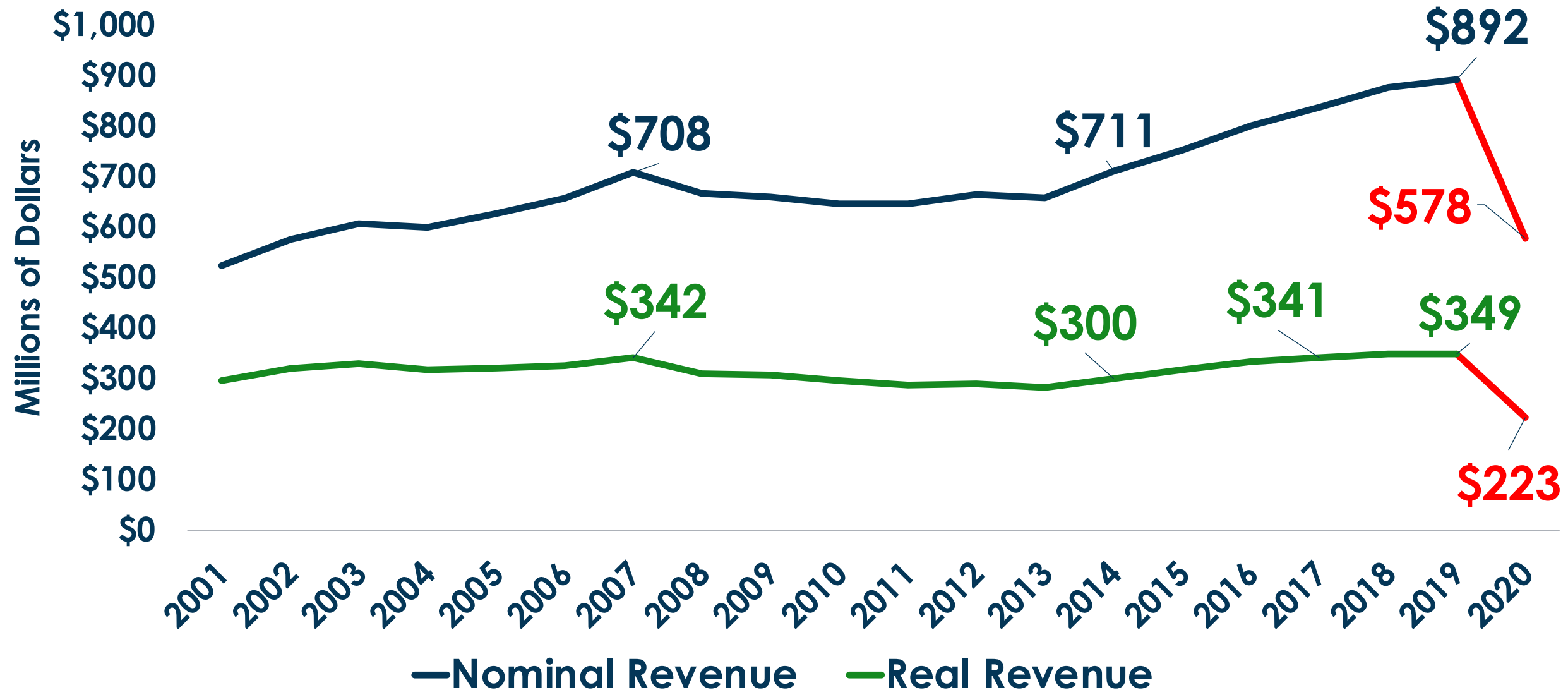
# Shares of Total Loaded TEUs for Selected East Coast Ports, 2010-2020\*





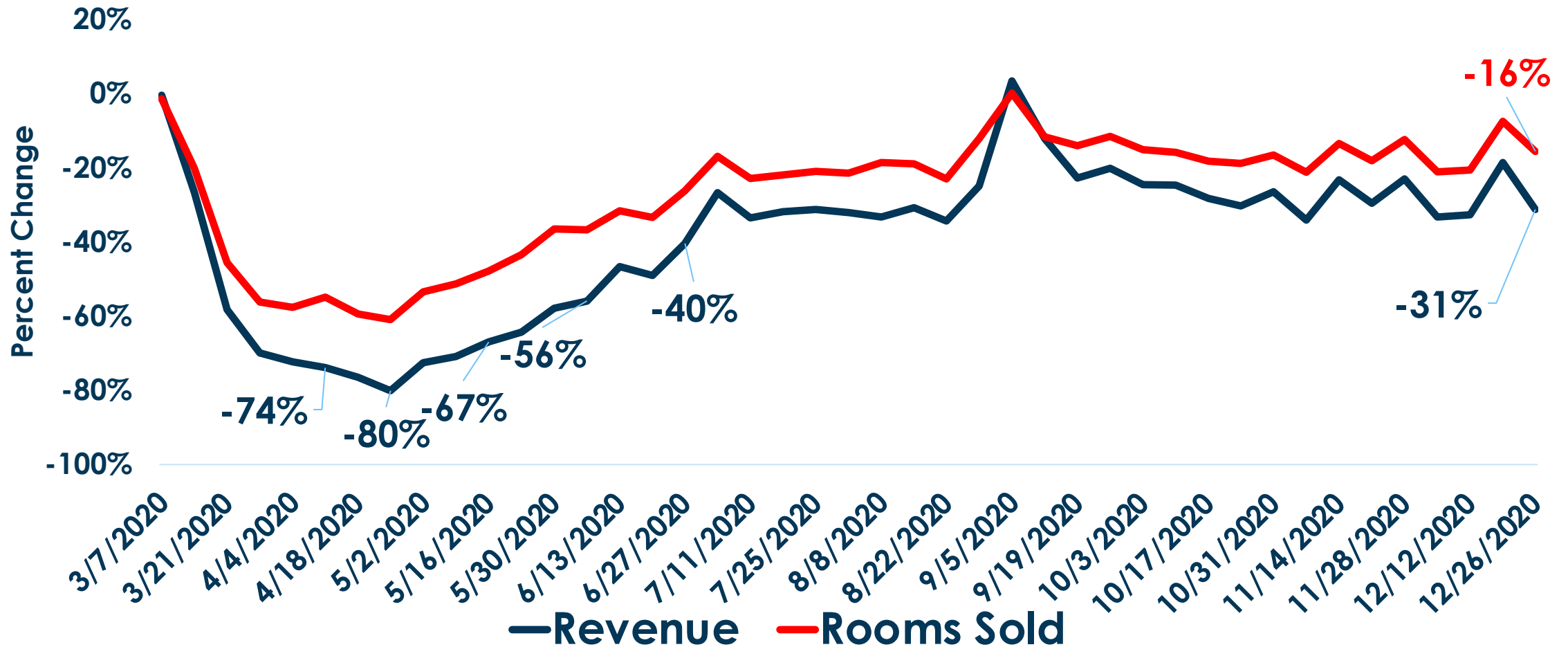
# Hotel Industry and Retail Sales

# Nominal and Real (Inflation-Adjusted) Hotel Revenue Hampton Roads, 2001-2020

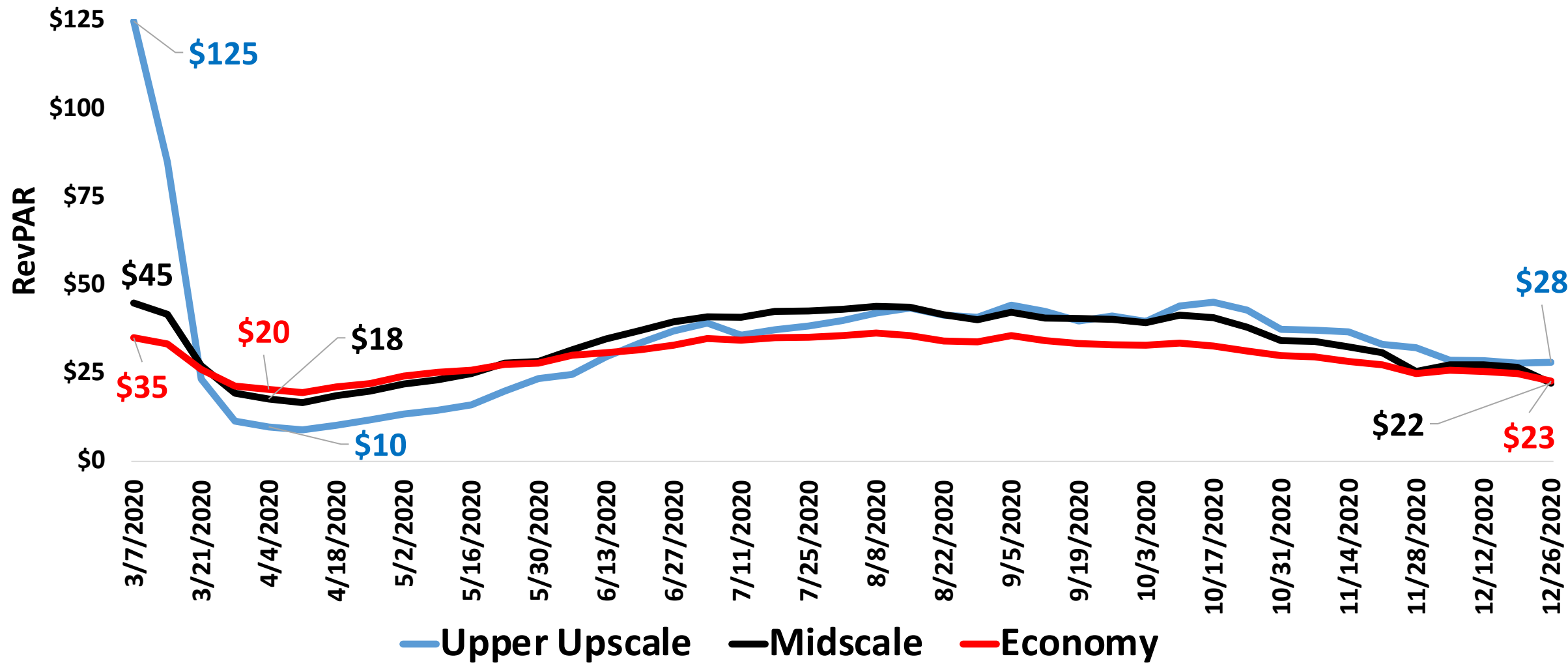


Sources: STR Trend Reports January 2017 and January 2021, Bureau of Labor Statistics (base year is chained; 1982-84=100), and the Old Dominion University Economic Forecasting Project.

# Year-over-Year Percent Decline in Weekly Hotel Revenue and Rooms Sold in Hampton Roads: March 7, 2020 to December 26, 2020

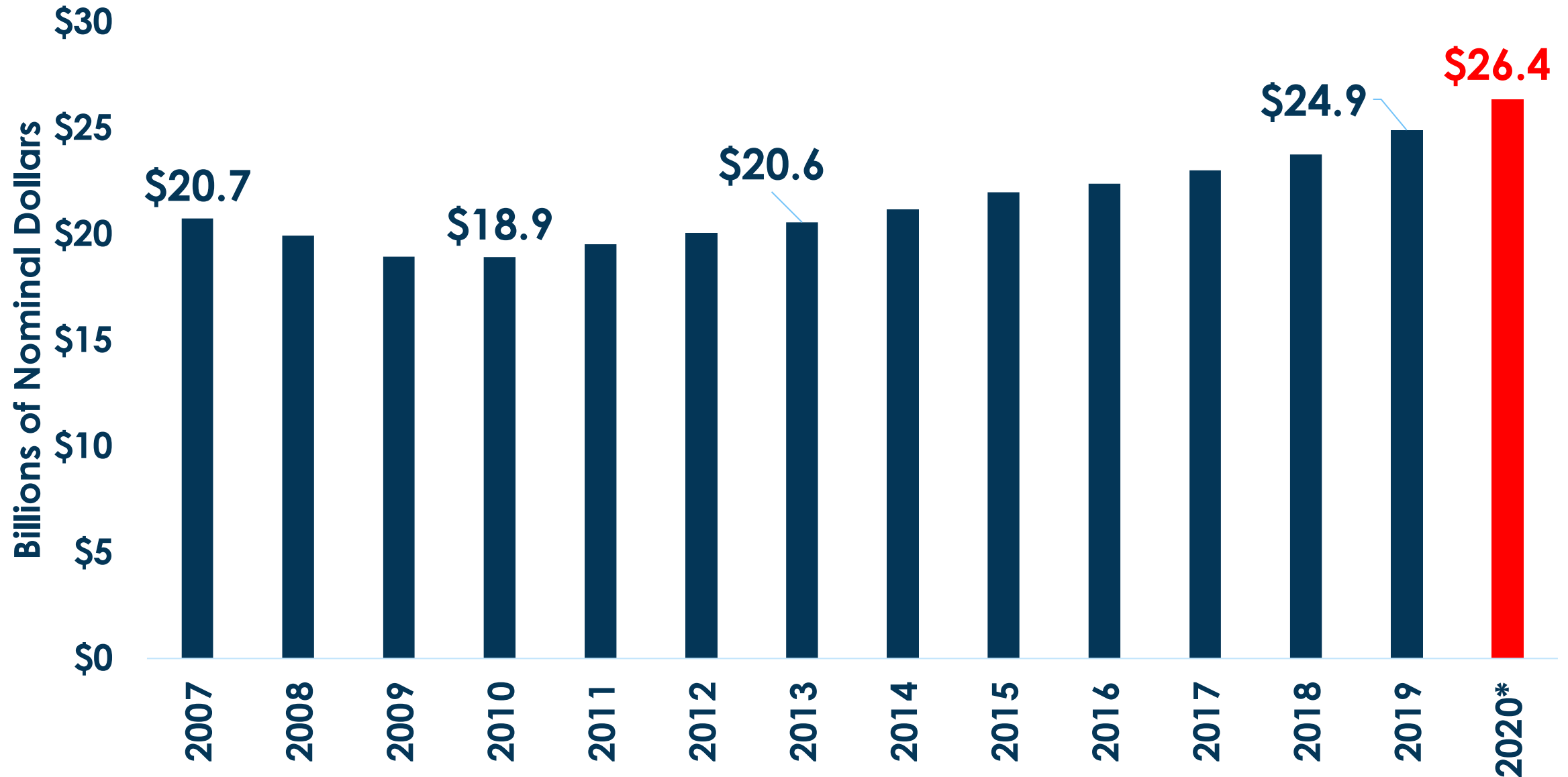


# Comparison of Weekly Revenue per Available Room (RevPAR) in Upper Upscale, Midscale, and Economy Chain Hotels in the United States: March 7, 2020 to December 26, 2020

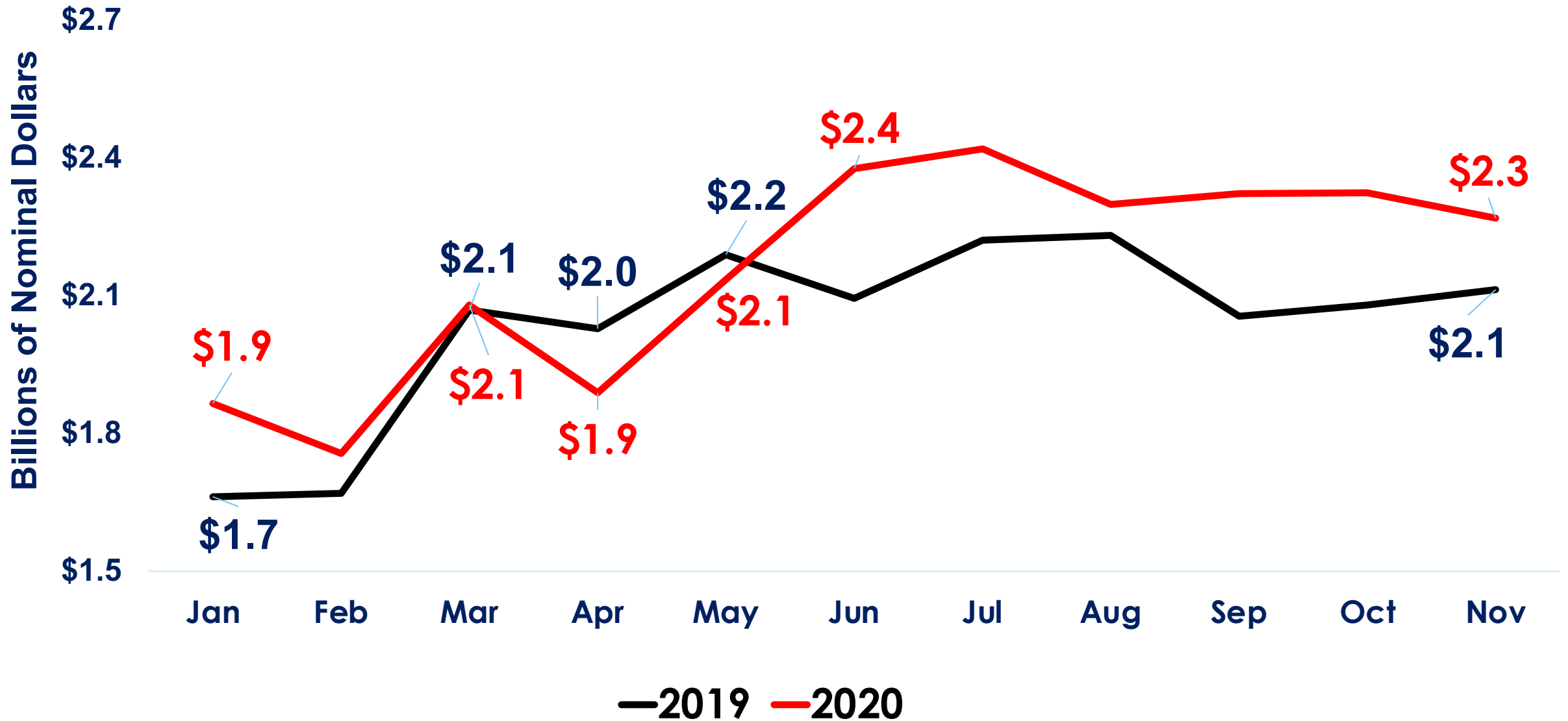




# Taxable Sales in Hampton Roads: 2007 to 2020



# Taxable Sales in Hampton Roads: 2019 and 2020

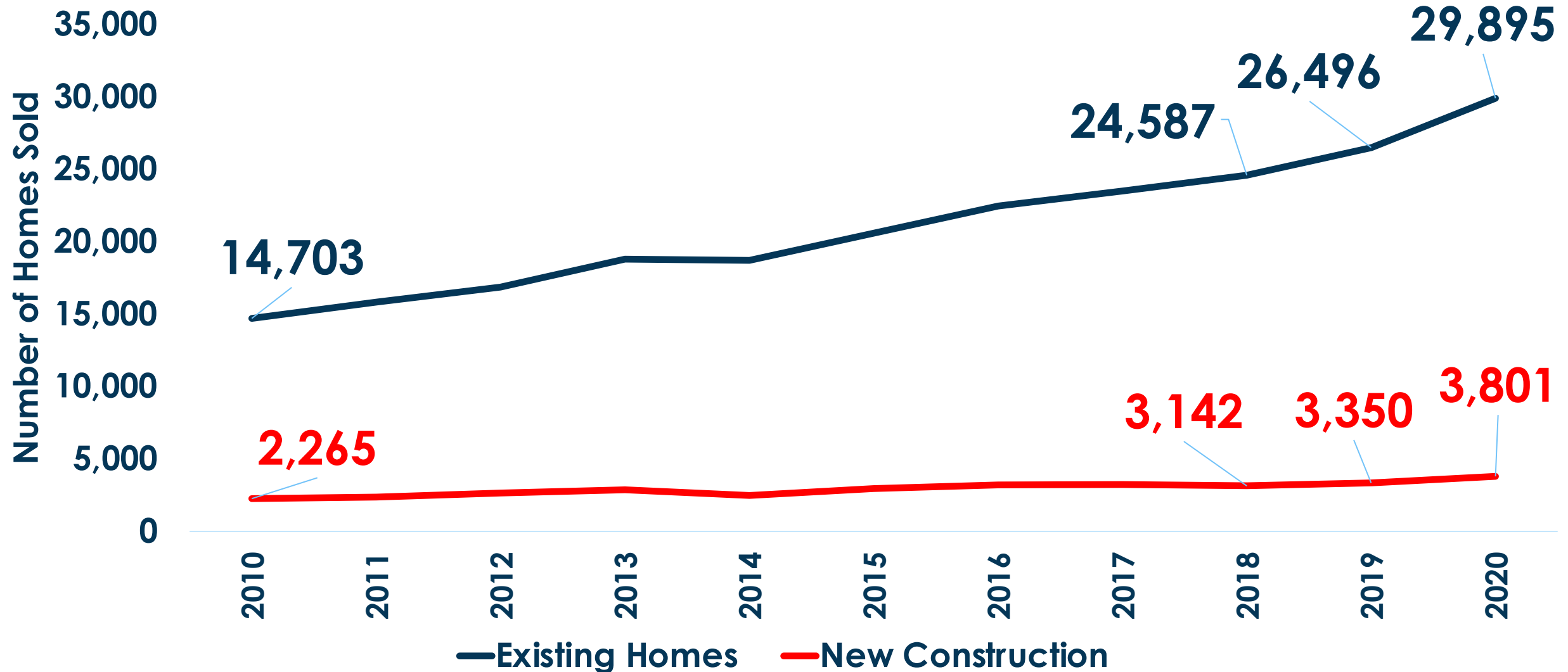




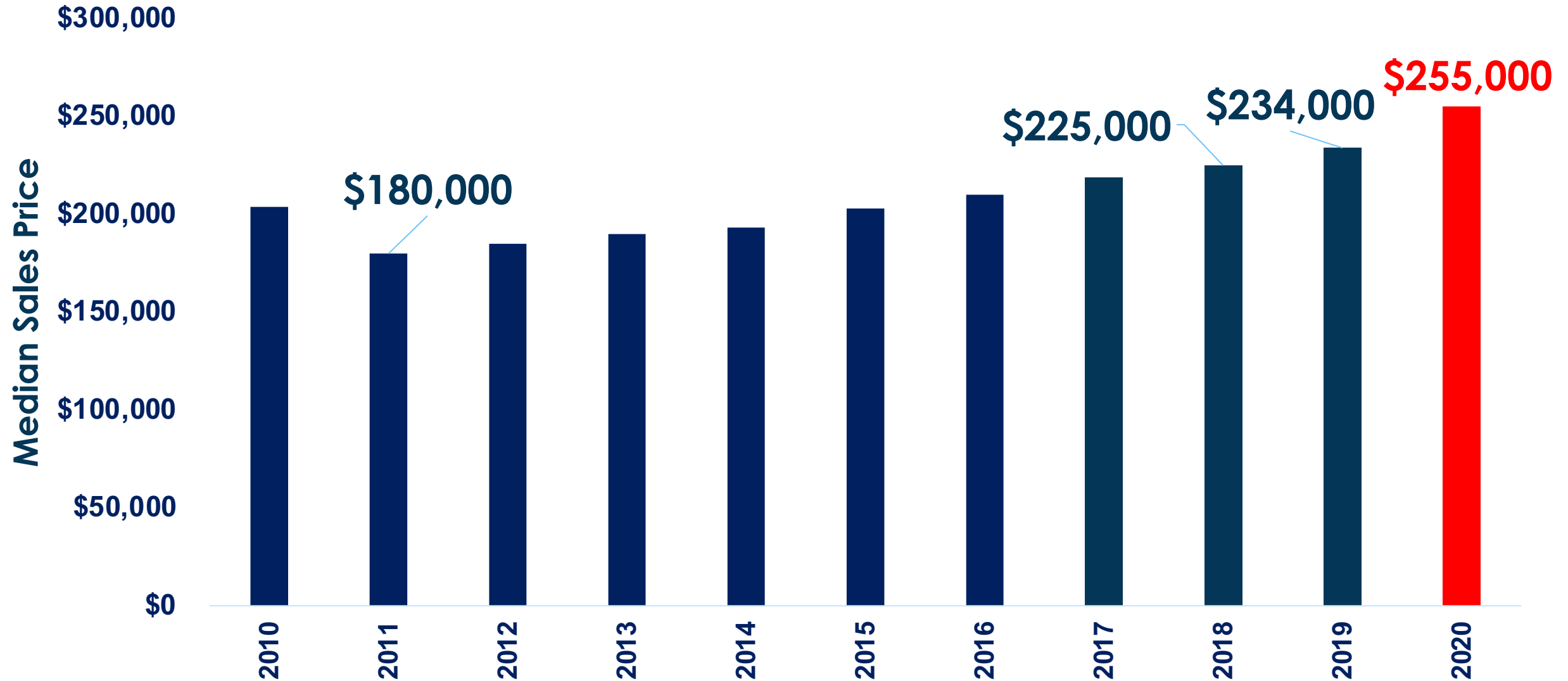


# Residential Housing and COVID-19

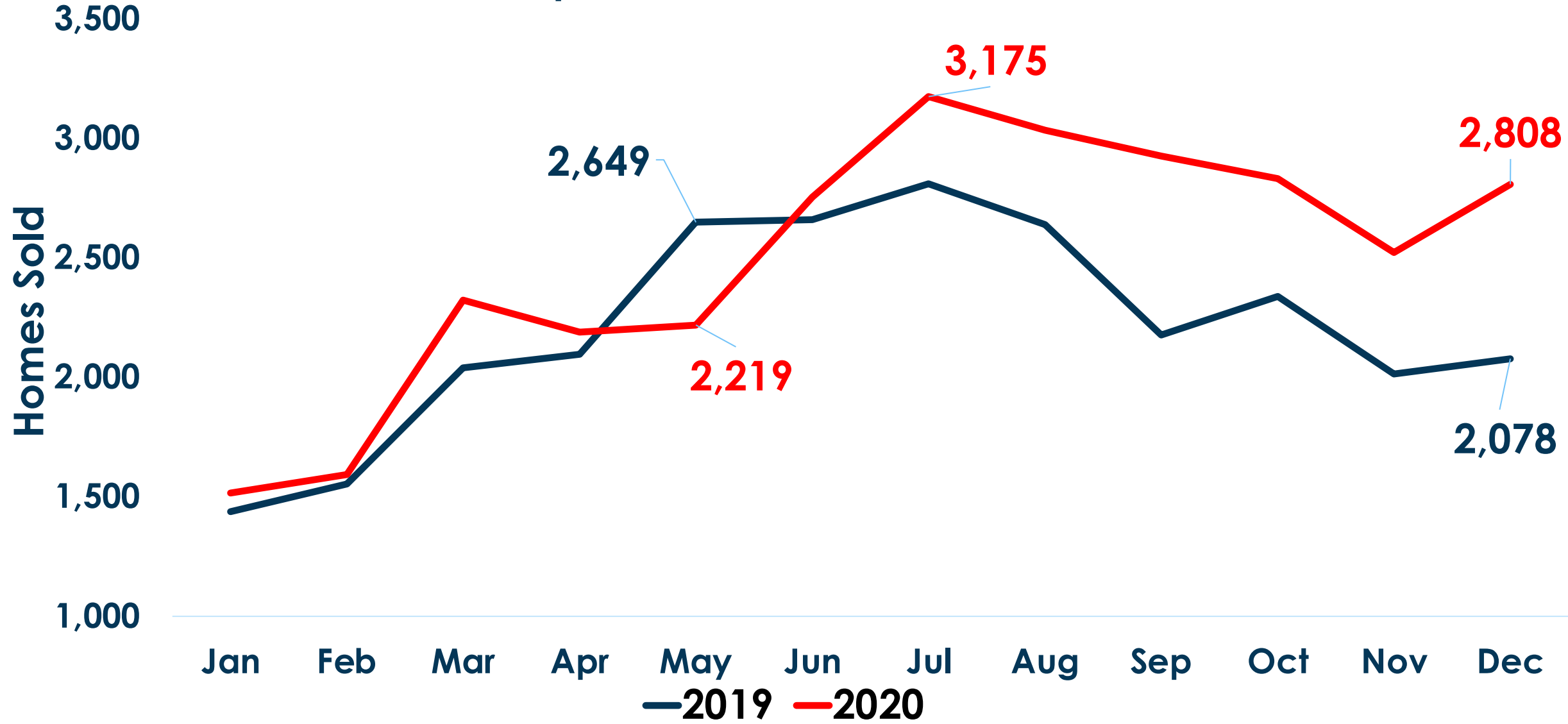
# Number of Existing and New Construction Home Sales Hampton Roads, 2010-2020



# Median Sales Price of Existing Homes Hampton Roads, 2010-2020

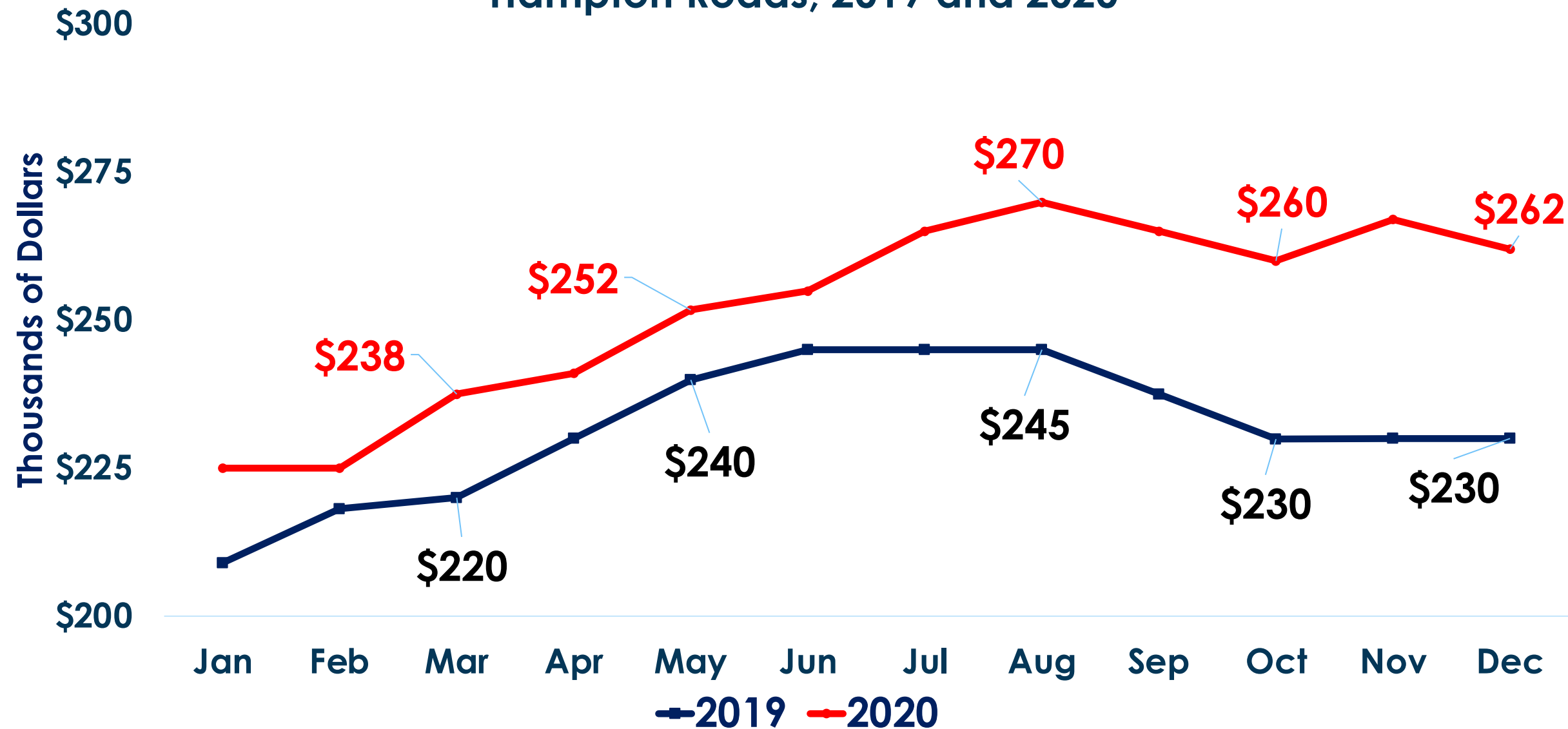


# Number of Existing Residential Homes Sold Hampton Roads, 2019 and 2020



Sources: Real Estate Information Network Inc. and the Old Dominion University Economic Forecasting Project. Information Deemed Reliable But Not Guaranteed.

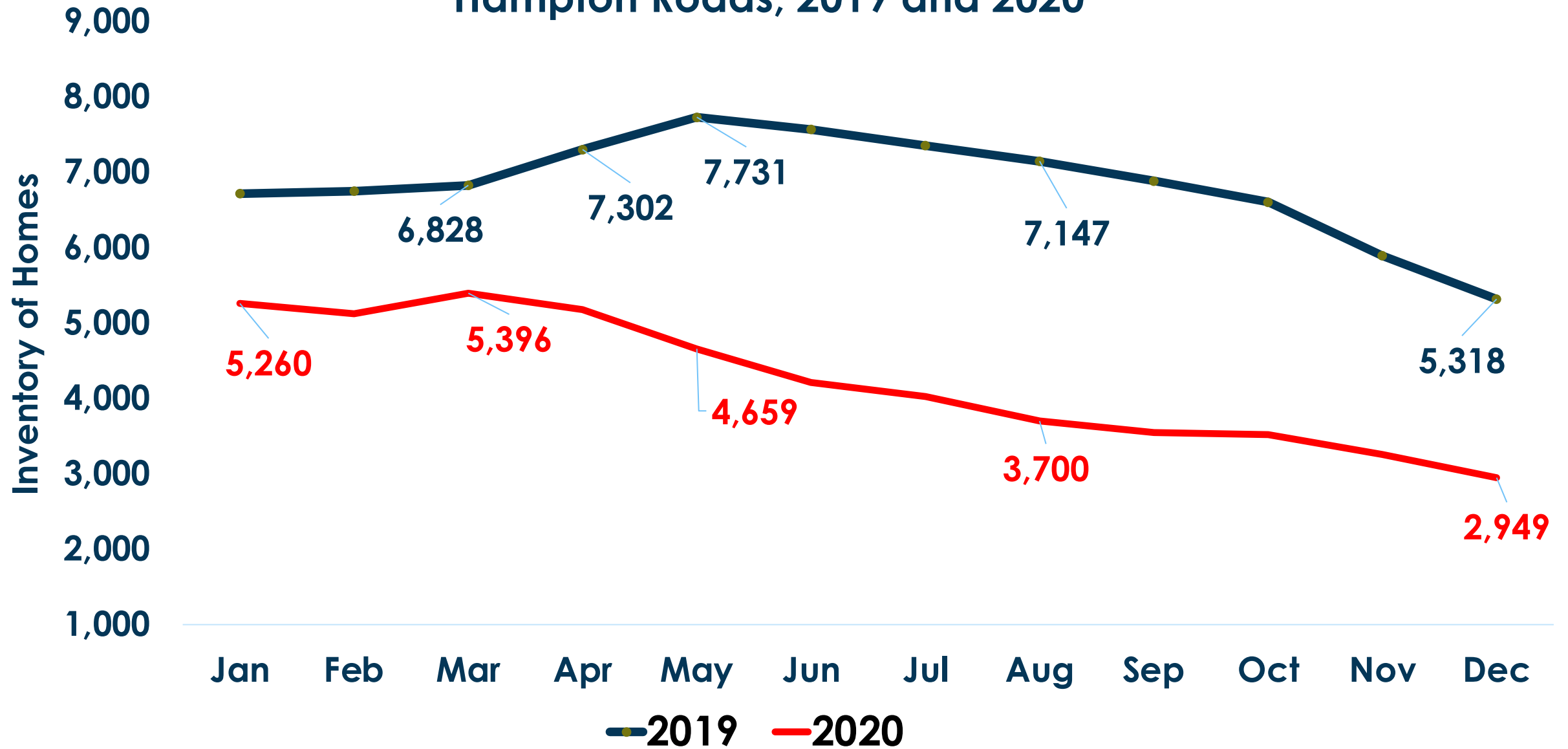
# Median Price of Existing Residential Homes Hampton Roads, 2019 and 2020



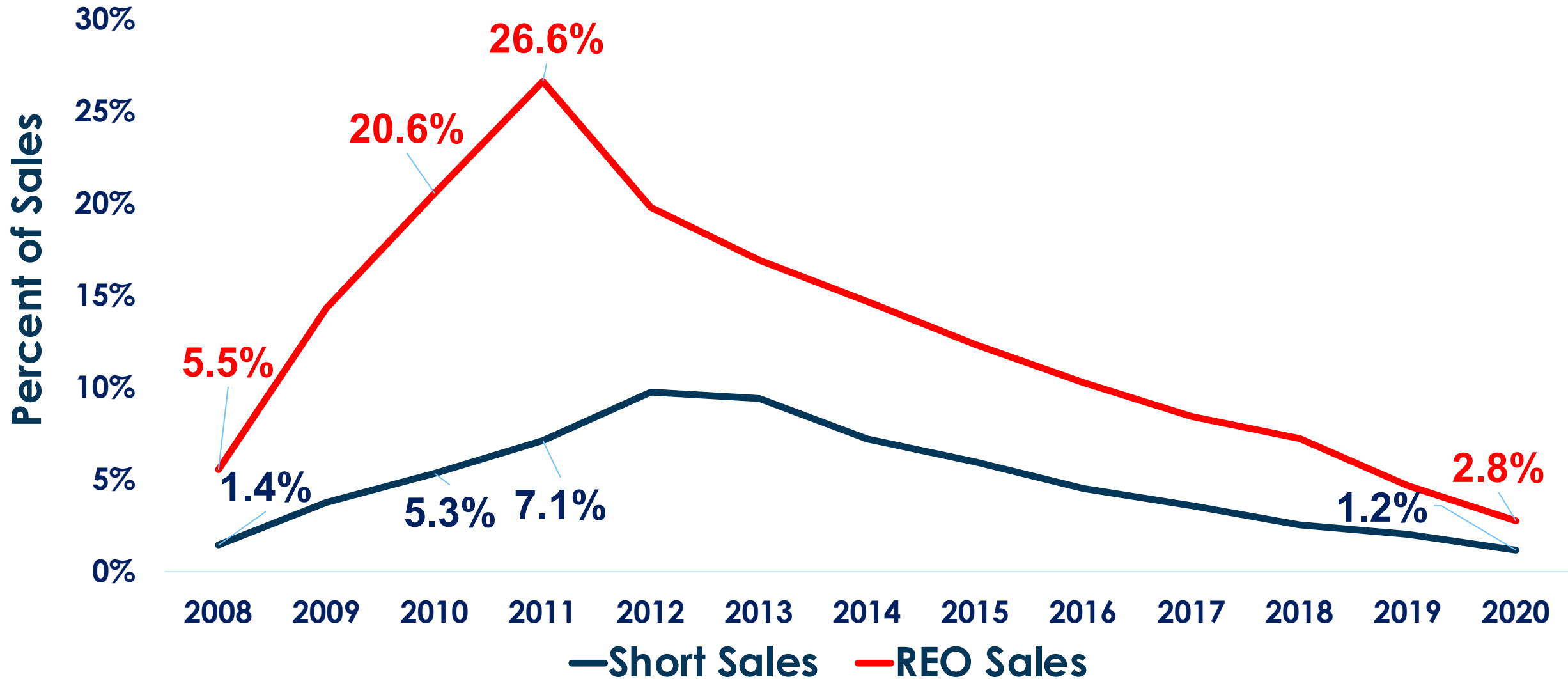
# Median Sales Price of Existing Residential Homes for Selected Cities: Hampton Roads, 2019 and 2020

| <u>City</u>    | <u>2019</u> | <u>2020</u> | <u>Percent Change</u> |
|----------------|-------------|-------------|-----------------------|
| Chesapeake     | \$265,000   | \$282,000   | 6.4%                  |
| Hampton        | \$173,250   | \$193,000   | 11.4%                 |
| Newport News   | \$185,000   | \$209,000   | 13.0%                 |
| Norfolk        | \$208,000   | \$229,000   | 10.1%                 |
| Portsmouth     | \$166,000   | \$182,250   | 9.8%                  |
| Suffolk        | \$252,750   | \$275,000   | 8.8%                  |
| Virginia Beach | \$263,000   | \$285,000   | 8.4%                  |
| Williamsburg*  | \$295,000   | \$323,000   | 9.5%                  |
| Hampton Roads  | \$234,000   | \$255,000   | 9.0%                  |

# Inventory of Existing Residential Homes Hampton Roads, 2019 and 2020

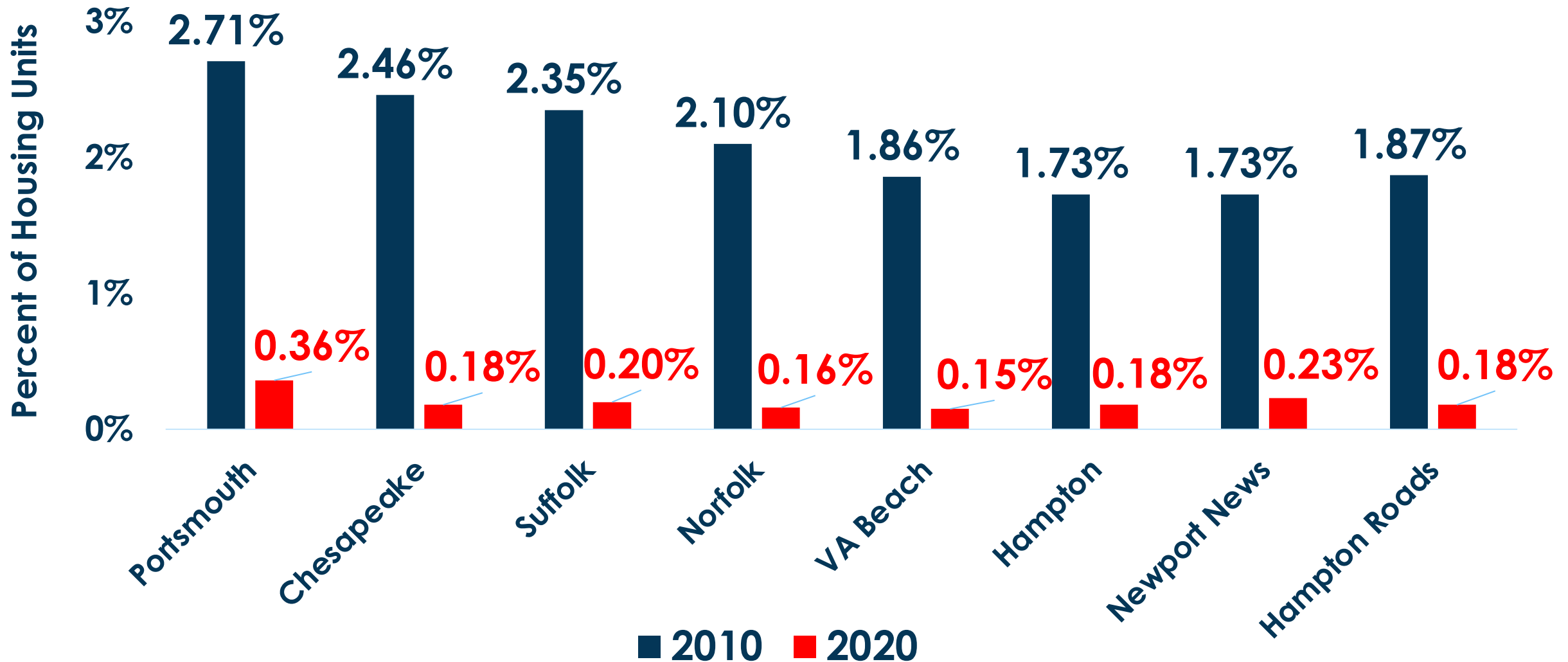


# Short Sales and Bank-Owned Sales as Percent of Existing Home Sales: Hampton Roads, 2008-2020

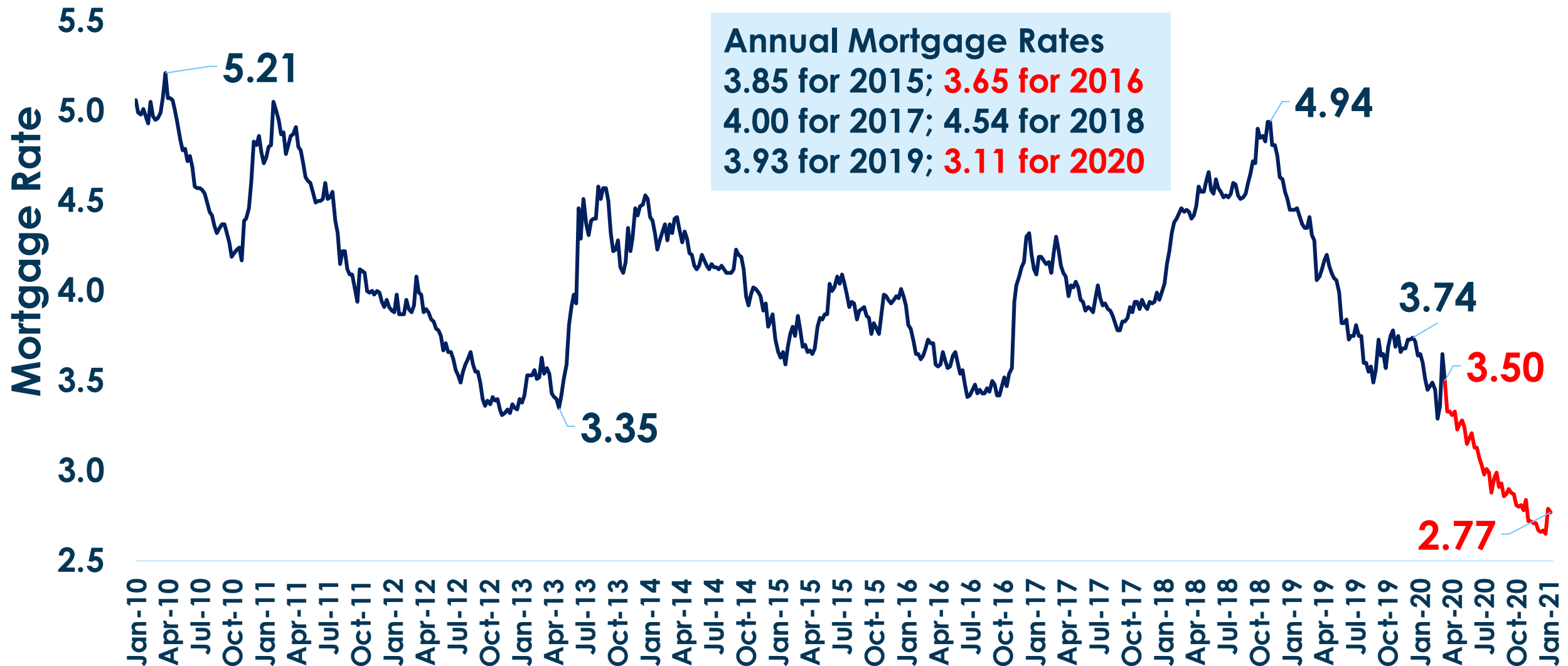




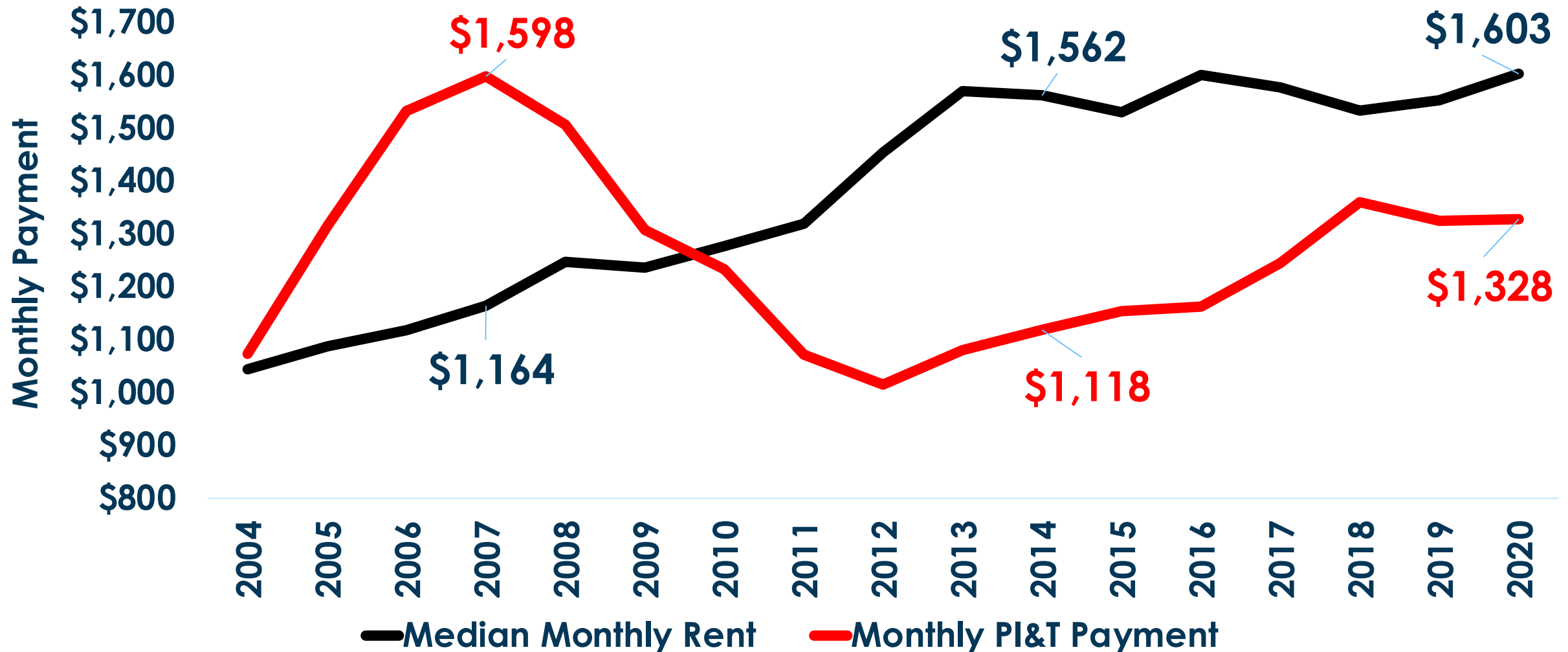
# Percent of Housing Units with Foreclosure Filings for Selected Cities: Hampton Roads, 2010 and 2020



## 30-Year Fixed Mortgage Rate (Weekly, ending Thursday), January 7, 2010 to January 21, 2021



# Estimated House Rental and Principal, Interest, and Taxes for a House Payment, Hampton Roads: 2004-2020

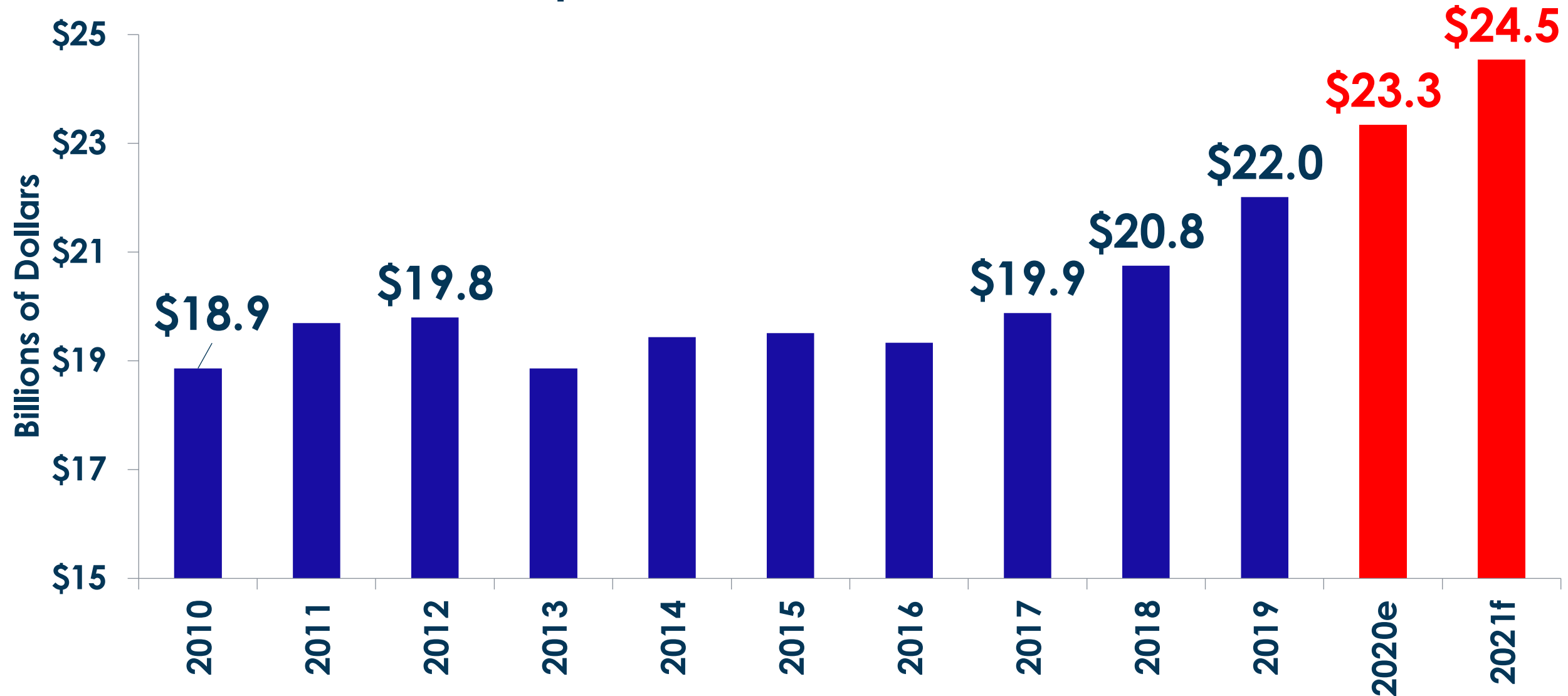


Source: H.U.D. and the Old Dominion University Economic Forecasting Project. It is assumed that real estate tax rate is 1% and the tax reduction received by homeowners would compensate homeowner's insurance and maintenance expenditures. Prevailing 30-year average mortgage rate is used for each year. For example, rate used for 2015 is 3.85 percent; for 2016 it is 3.65 percent; for 2017 it is 4.00 percent; for 2018 it is 4.54 percent; for 2019 it is 3.93 percent and for 2020 it is 3.11 percent.



# The Outlook

# Estimated Direct Department of Defense Spending Hampton Roads, 2010 to 2021



|                                              | 2019<br>Actual | 2020<br>January<br>Forecast | 2020<br>Estimated/<br>Actual | 2021<br>Forecast |
|----------------------------------------------|----------------|-----------------------------|------------------------------|------------------|
| Hampton Roads<br>Real Gross Domestic Product | 2.4%           | 2.6%                        | -2.5%                        | 4.4%             |
| Civilian Job Growth                          | 0.8%           | 0.7%                        | -4.3%                        | 4.7%             |
| Unemployment Rate                            | 3.1%           | 3.0%                        | 6.8%                         | 4.8%             |
| Taxable Sales                                | 3.3%           | 4.2%                        | 5.8%                         | 4.2%             |
| Hotel Revenue                                | 3.8%           | 2.7%                        | -35.5%                       | 18.7%            |
| General Cargo Tonnage                        | 2.0%           | 1.0%                        | -3.9%                        | 4.8%             |
| General Cargo TEUs                           | 3.6%           | 3.9%                        | -4.2%                        | 6.2%             |
| One Unit Housing Permit<br>Value             | 2.0%           | 2.0%                        | 6.2%                         | 6.8%             |

# 2021: COVID-19 and Prospects

- **2021 will be a much better year than 2020.**
- **Regional GDP growth in 2021 is forecasted to be greater than the growth in national GDP.**
- **Defense spending will provide a boost for the Hampton Roads economy.**
- **Single-family home prices in 2021 are likely to increase at a moderate pace. The distressed housing market segment appears to be clearing.**

- If you would like to receive economic updates from the Dragas Center for Economic Analysis and Policy and to have immediate access to our reports, please send us an email.
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