



2022 Midyear Economic Forecast

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Dragas Center for Economic Analysis and Policy

Strome College of Business

Old Dominion University

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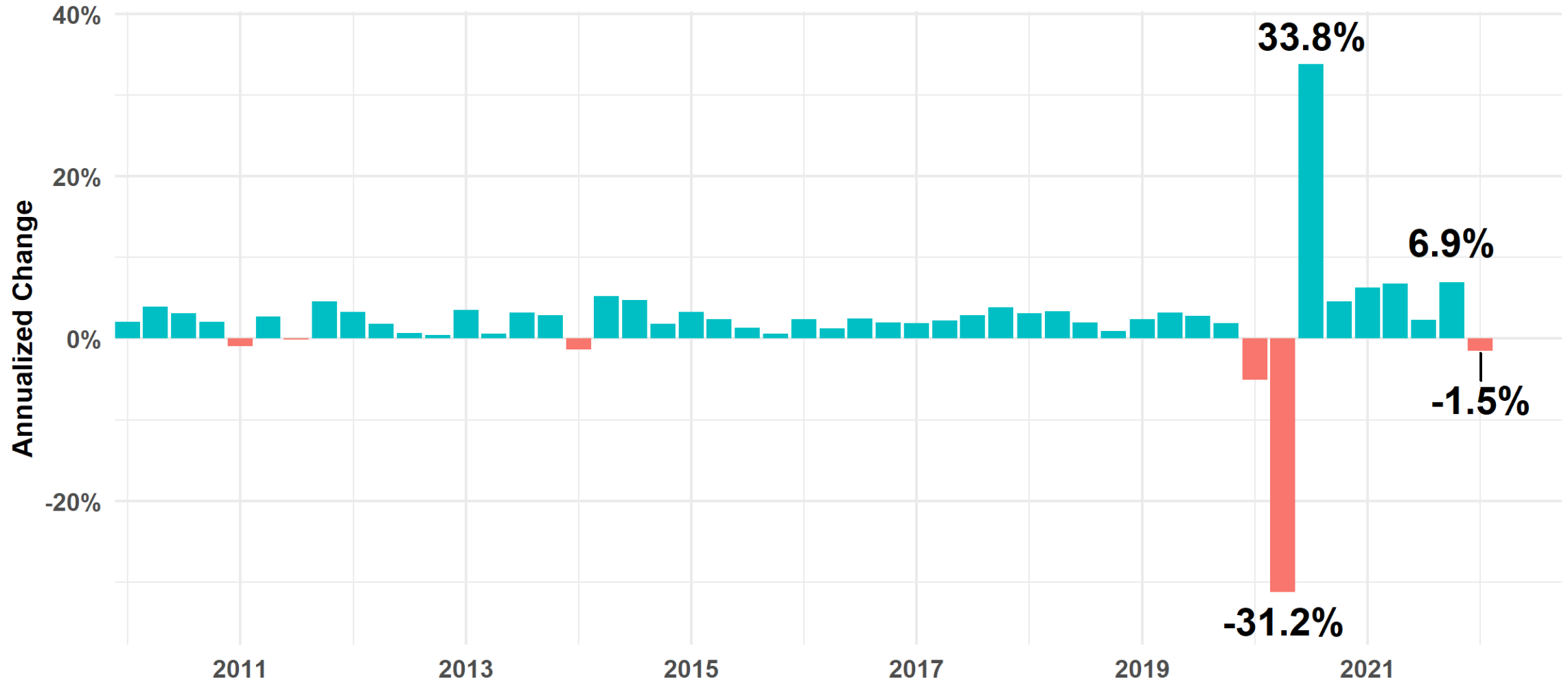


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GDP and Inflation

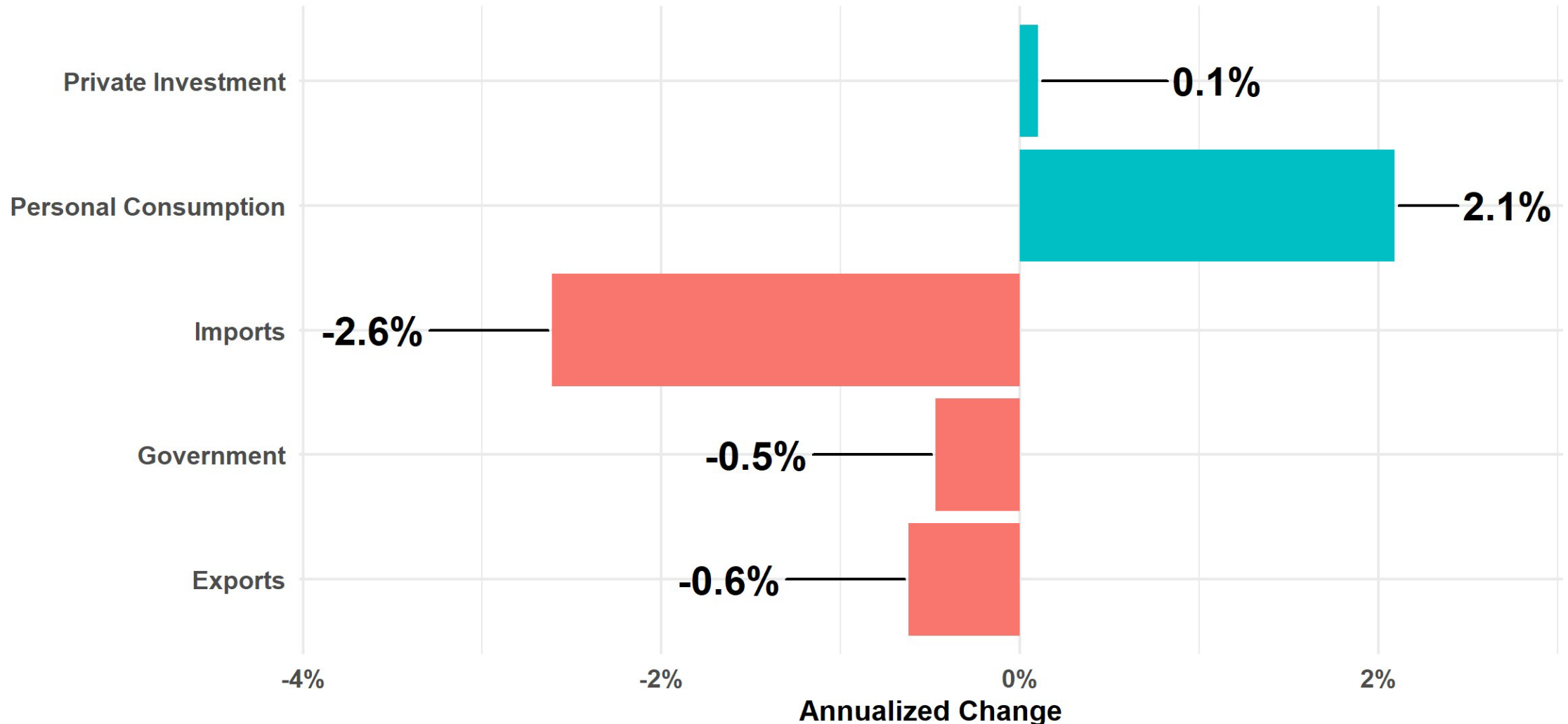


Real Gross Domestic Product United States, Q1 2010 - Q1 2022



Source: U.S. Bureau of Economic Analysis and Dragas Center for Economic Analysis and Policy.
Compounded annual rate of change, seasonally adjusted annual rate.

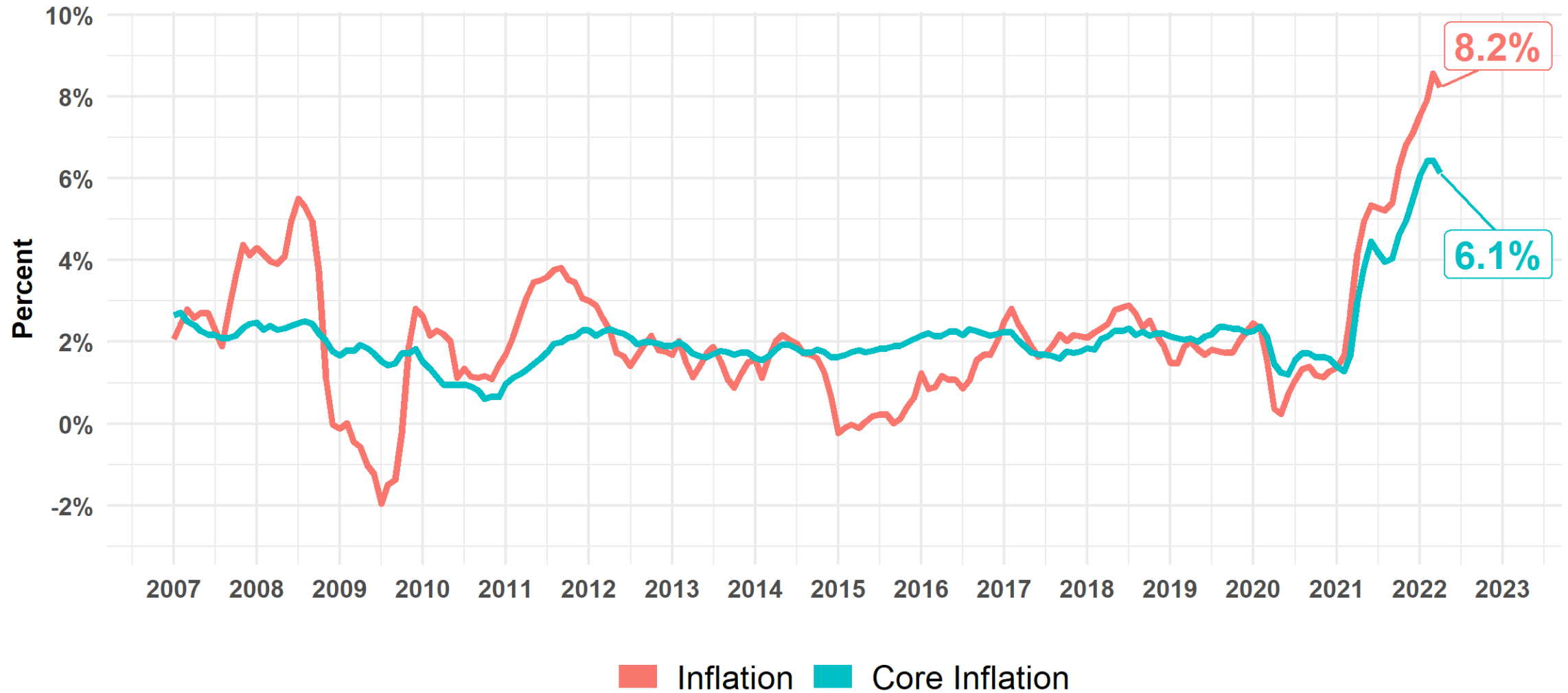
Contributions to Percent Change in Real Gross Domestic Product United States, 2021 Q4 - 2022 Q1



Source: U.S. Bureau of Economic Analysis and the Dragas Center for Economic Analysis and Policy.
Compounded annual rate of change, seasonally adjusted annual rate.

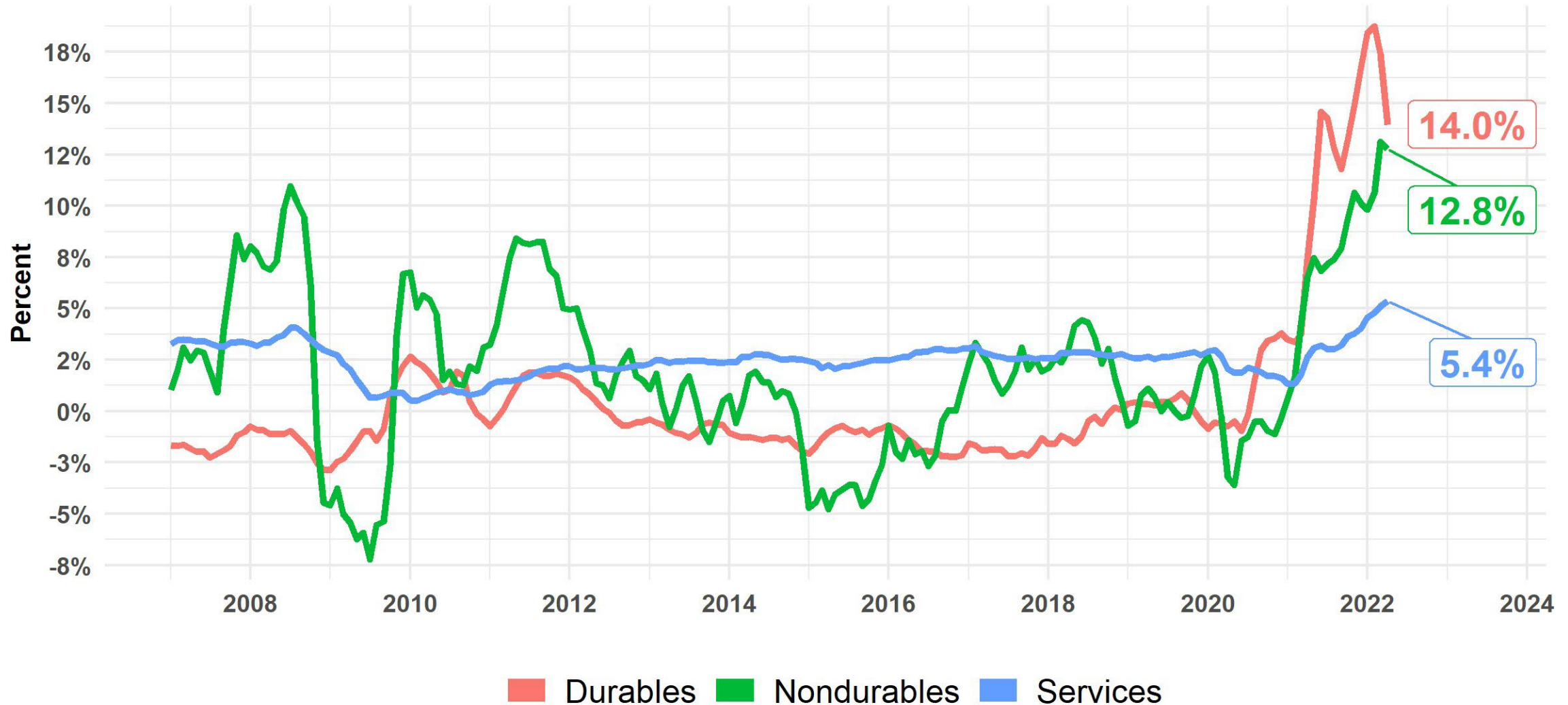
Monthly Inflation

United States, January 2007 - April 2022



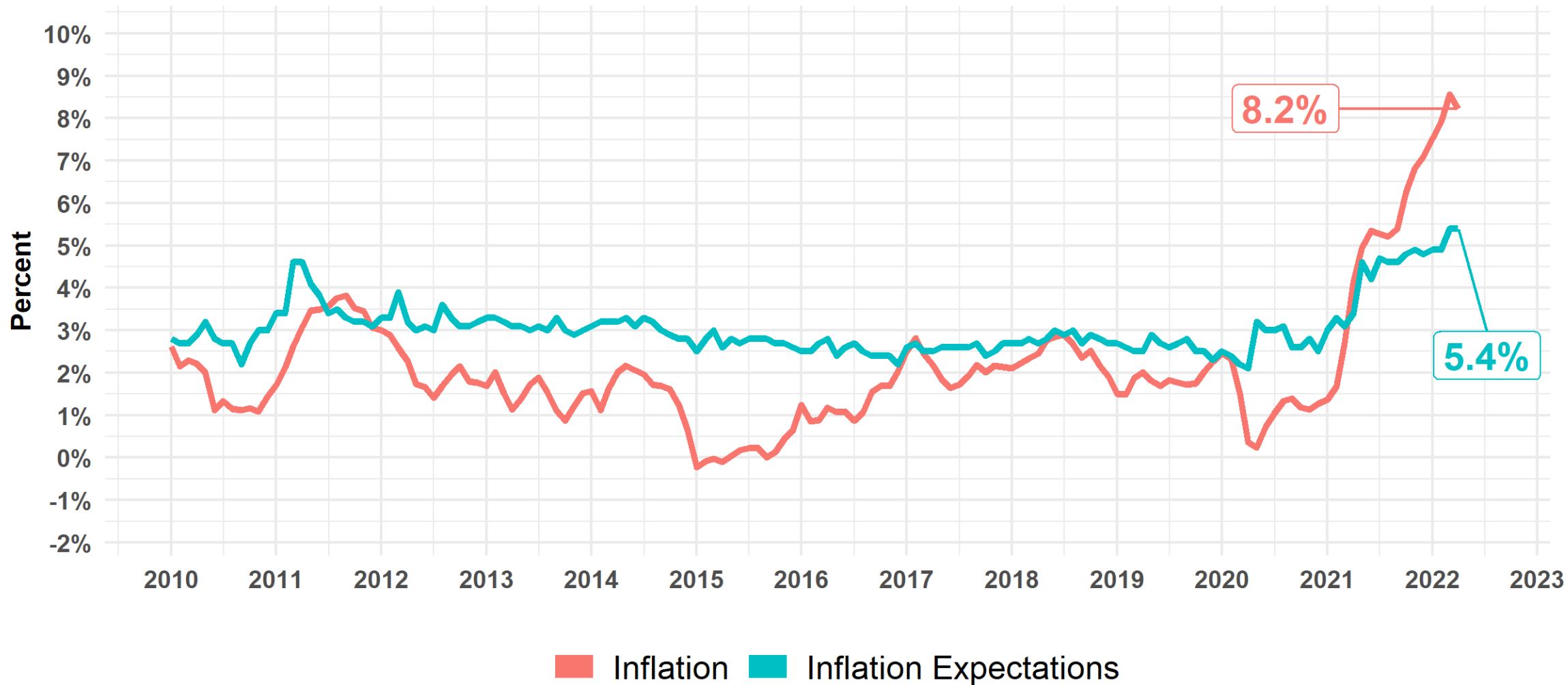
Source: Bureau of Labor Statistics, seasonally adjusted data.
Core inflation does not include the food and energy sectors.

Monthly Inflation in Durables, Nondurables, and Services United States, January 2007 - April 2022



Source: Bureau of Labor Statistics, seasonally adjusted data.

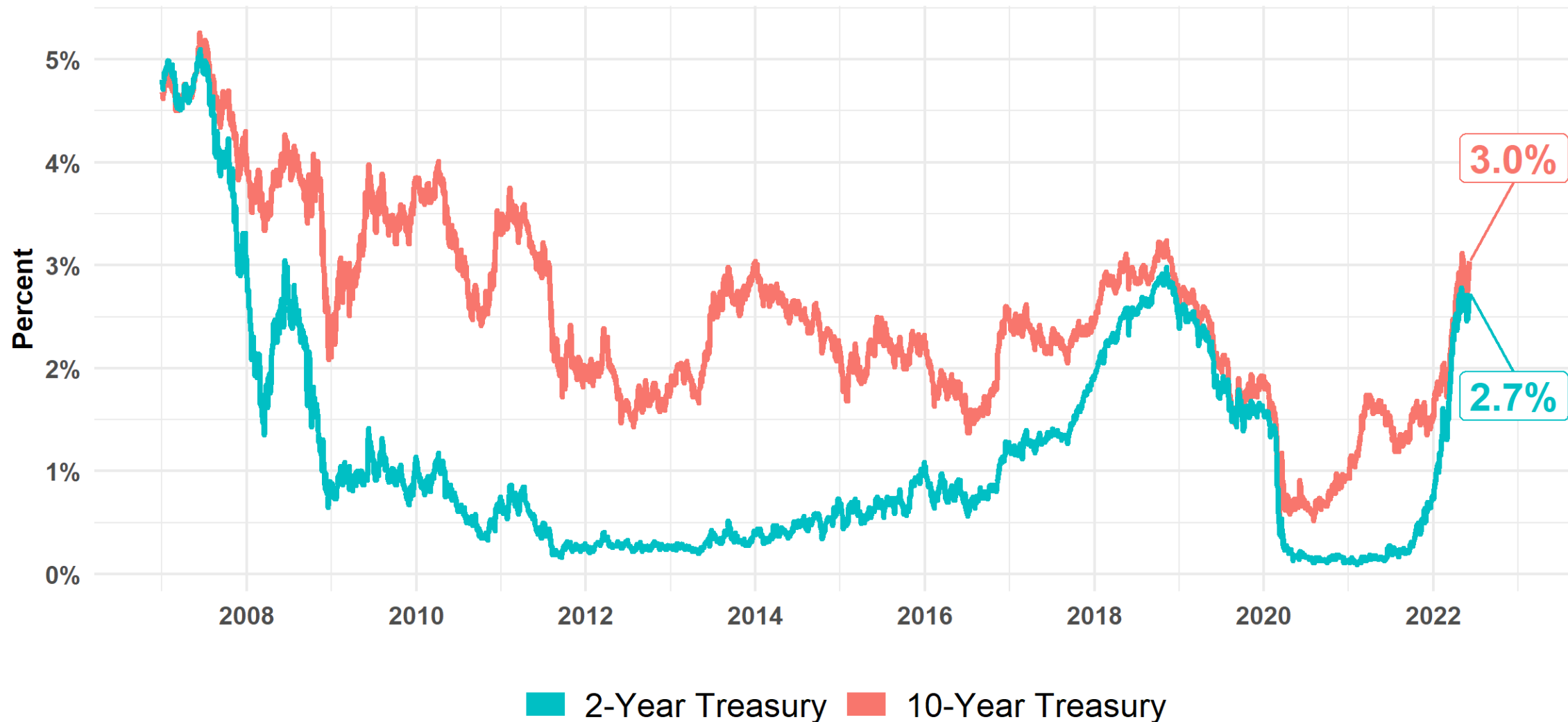
Monthly Inflation and Inflationary Expectations United States, January 2010 - April 2022



Source: Bureau of Labor Statistics, seasonally adjusted data;
University of Michigan, Inflationary Expectations, not seasonally adjusted data.

Constant Maturity Rates of U.S. Treasuries

January 2, 2007 - June 6, 2022

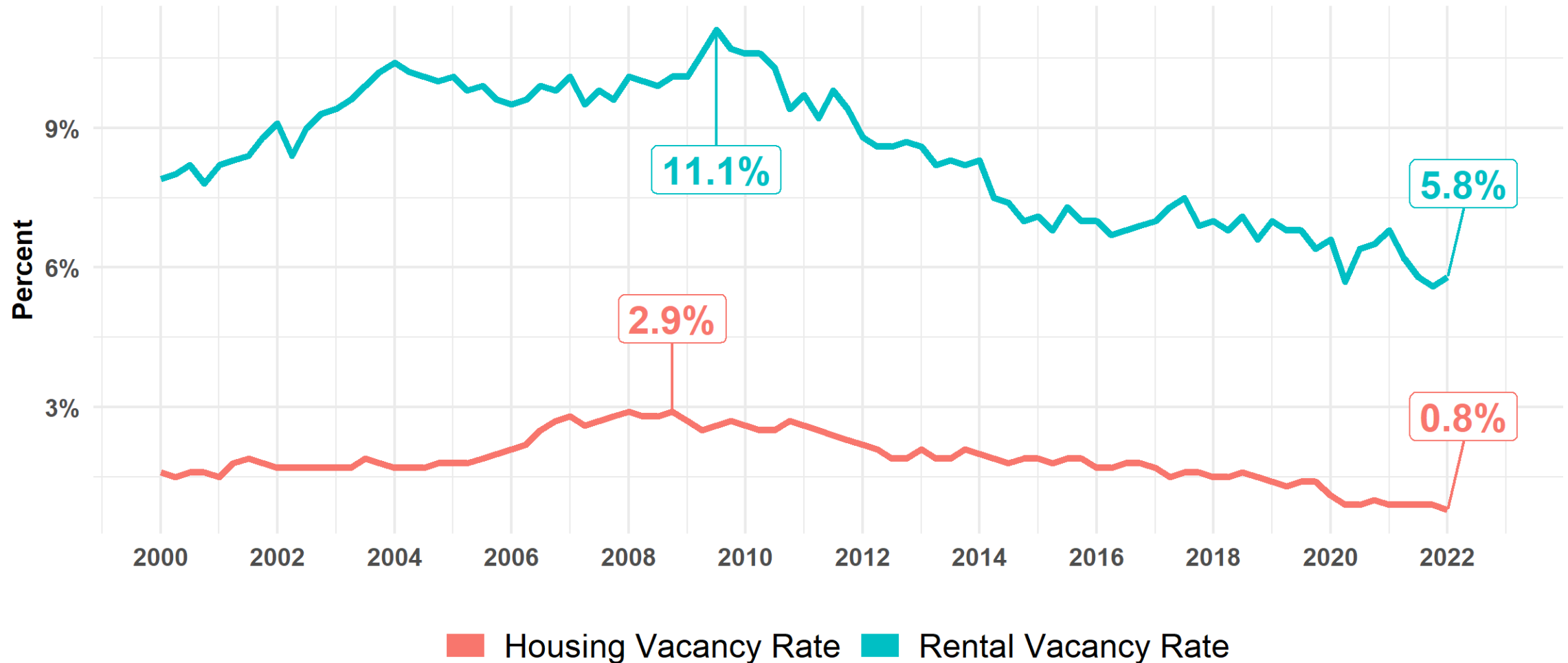


Source: Board of Governors of the Federal Reserve System, not seasonally adjusted data.

Housing Markets Tighten

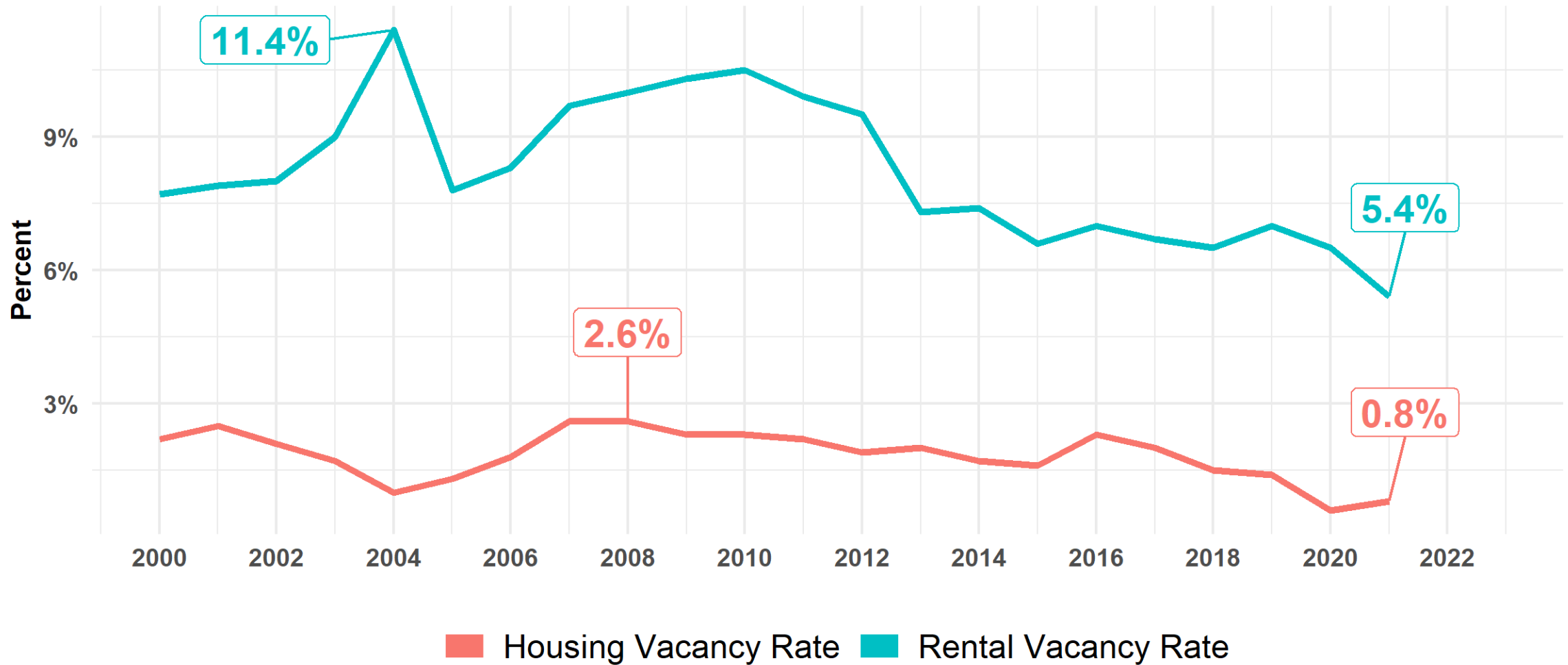


Homeowner and Rental Vacancy Rate United States, Q1 2000 - Q1 2022



Source: U.S. Census Bureau, Housing Vacancies and Homeownership, not seasonally adjusted data.
The rental vacancy rate is the proportion of the rental inventory that is vacant for rent.
The homeowner vacancy rate is the proportion of the homeowner inventory that is vacant for sale.

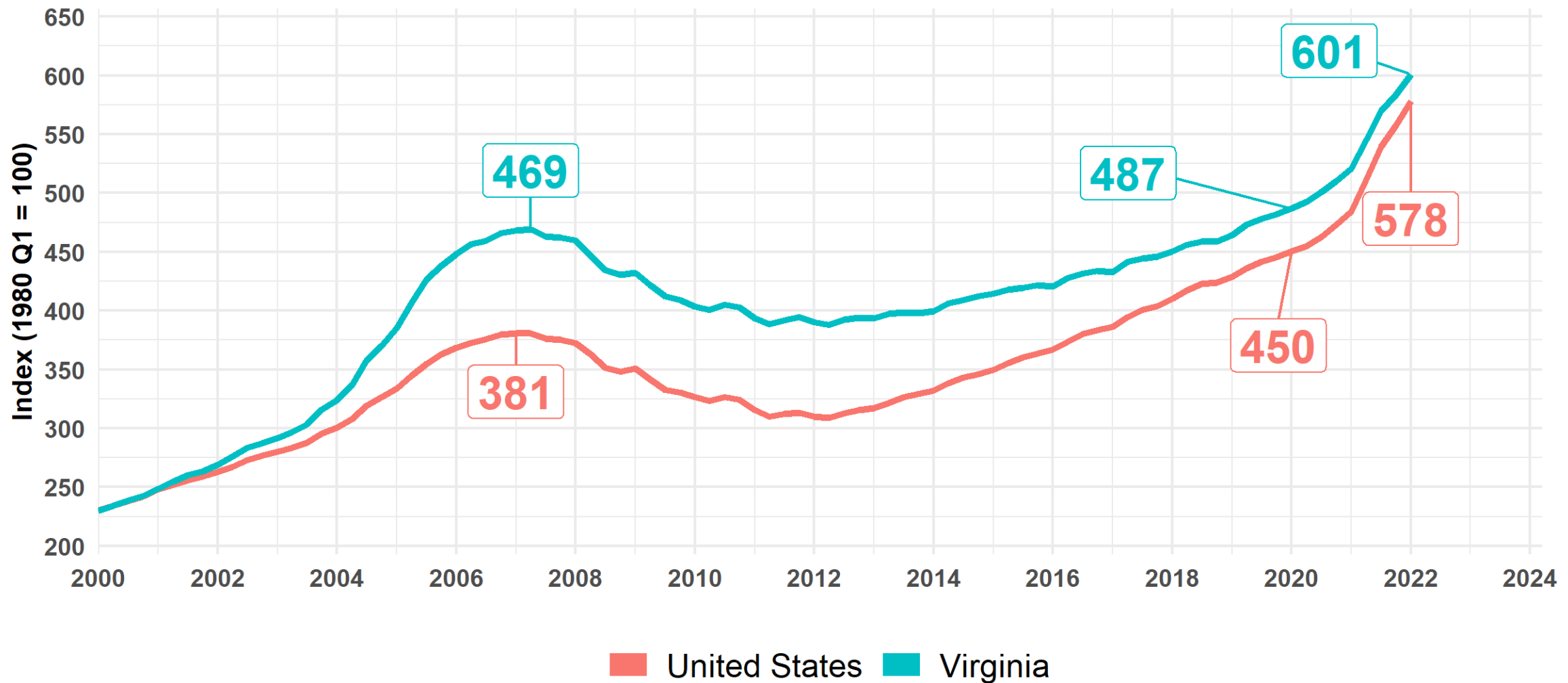
Homeowner and Rental Vacancy Rate Virginia, 2000 - 2021



Source: U.S. Census Bureau, Residential Vacancies and Homeownership Annual Statistics, not seasonally adjusted data.
The rental vacancy rate is the proportion of the rental inventory that is vacant for rent.
The homeowner vacancy rate is the proportion of the homeowner inventory that is vacant for sale.

All Transactions House Price Index

United States and Virginia, Q1 2000 - Q1 2022

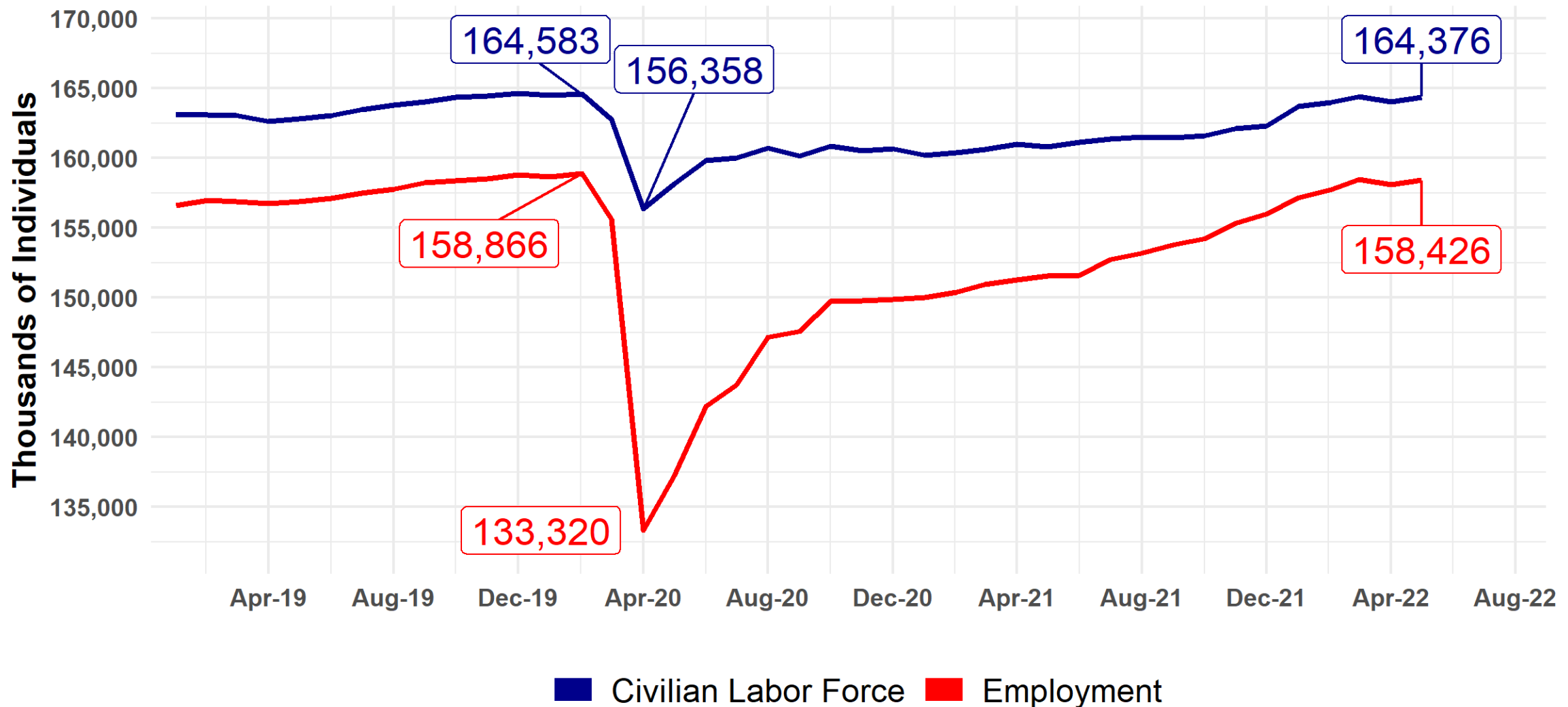


Source: U.S. Federal Housing Finance Agency, not seasonally adjusted data. Index estimated using sales prices and appraisal data. Base year is chained (1980 Q1=100).

Labor Markets Recover



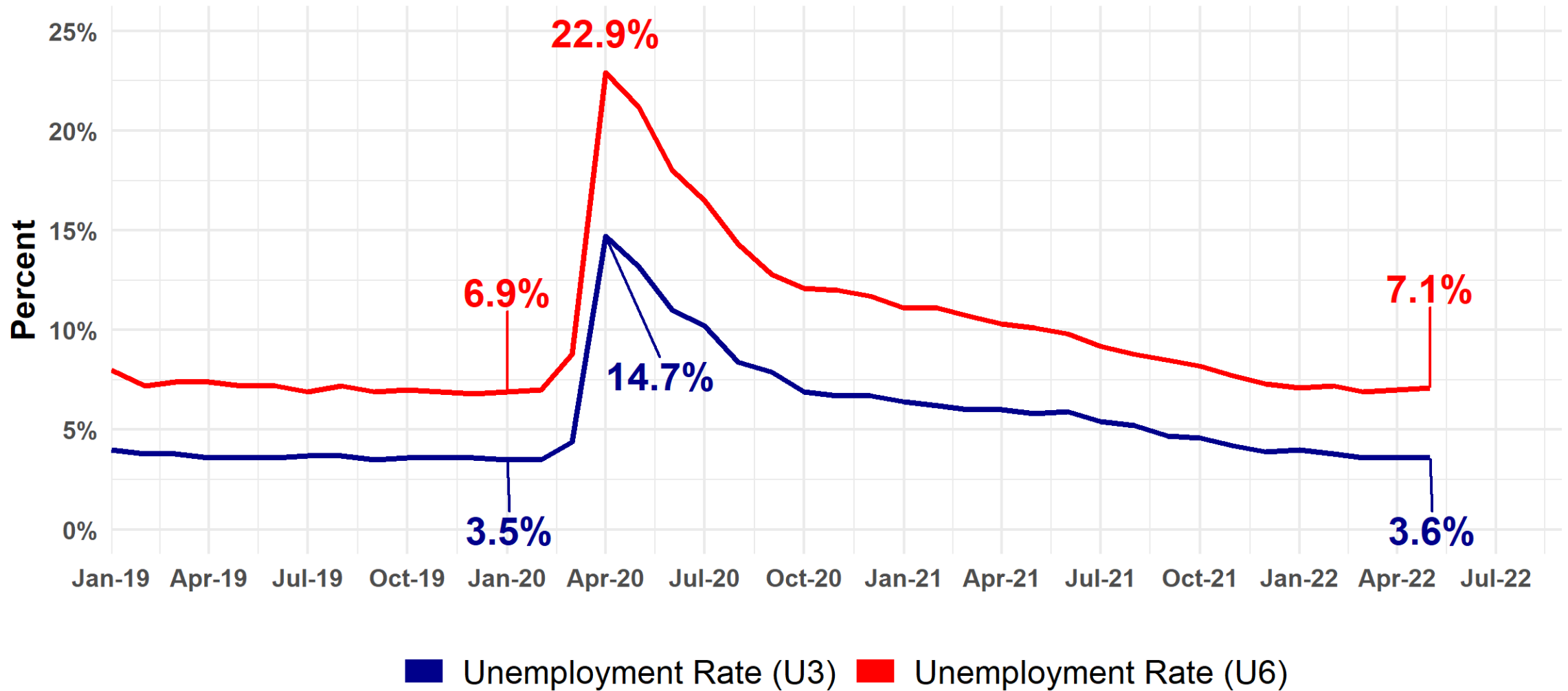
Civilian Labor Force and Individual Employment United States, January 2019 - May 2022



Source: Bureau of Labor Statistics, seasonally adjusted data.

Unemployment Rate

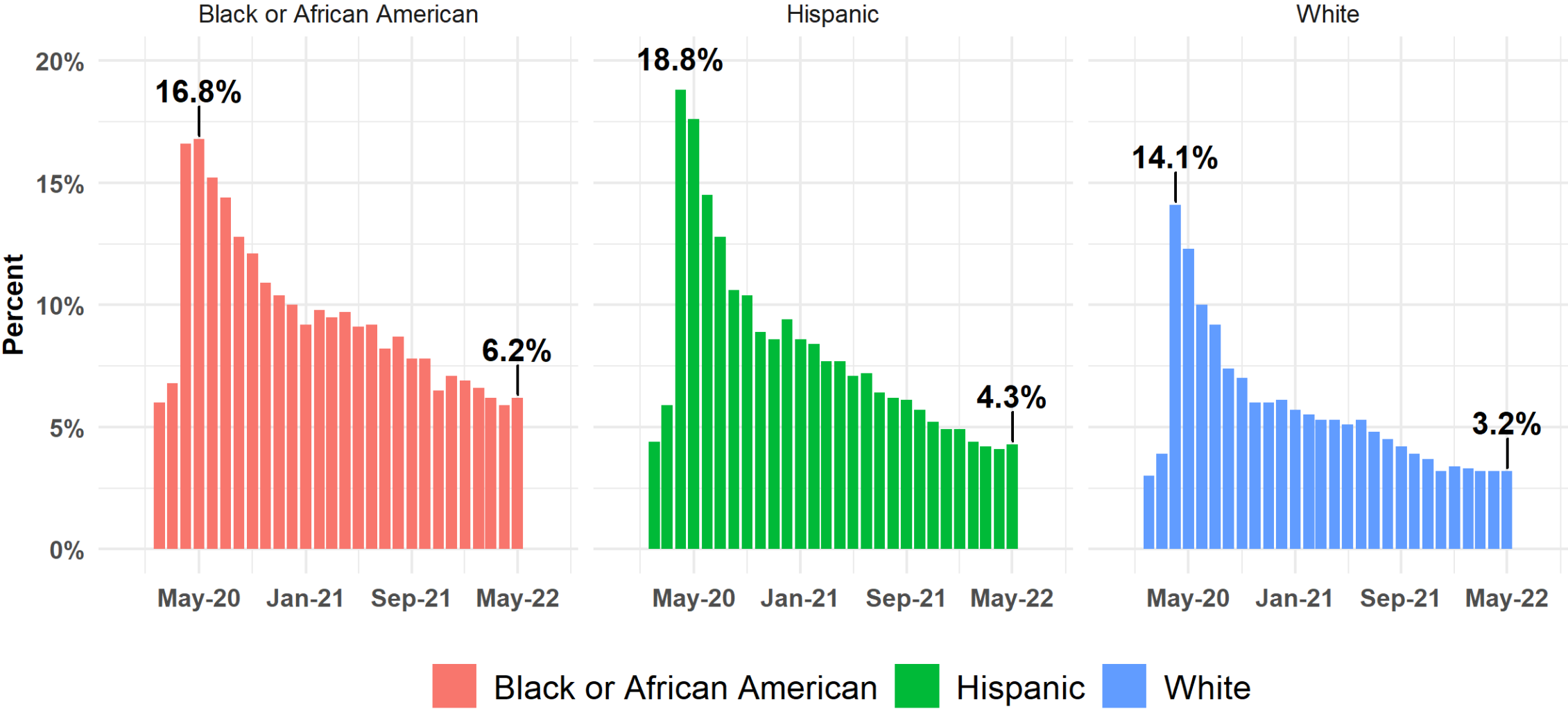
United States, January 2019 - May 2022



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.

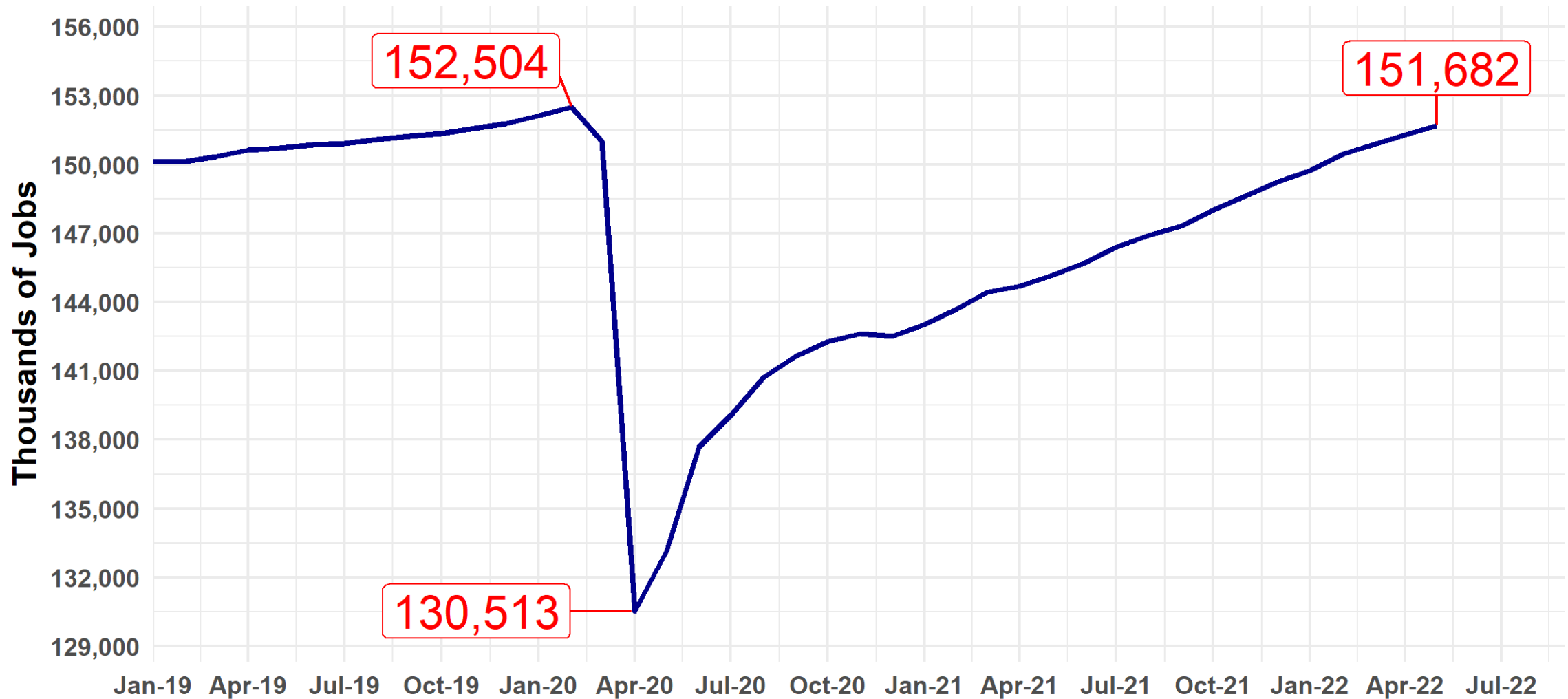
Unemployment Rate by Race and Ethnicity

United States, February 2020 - May 2022



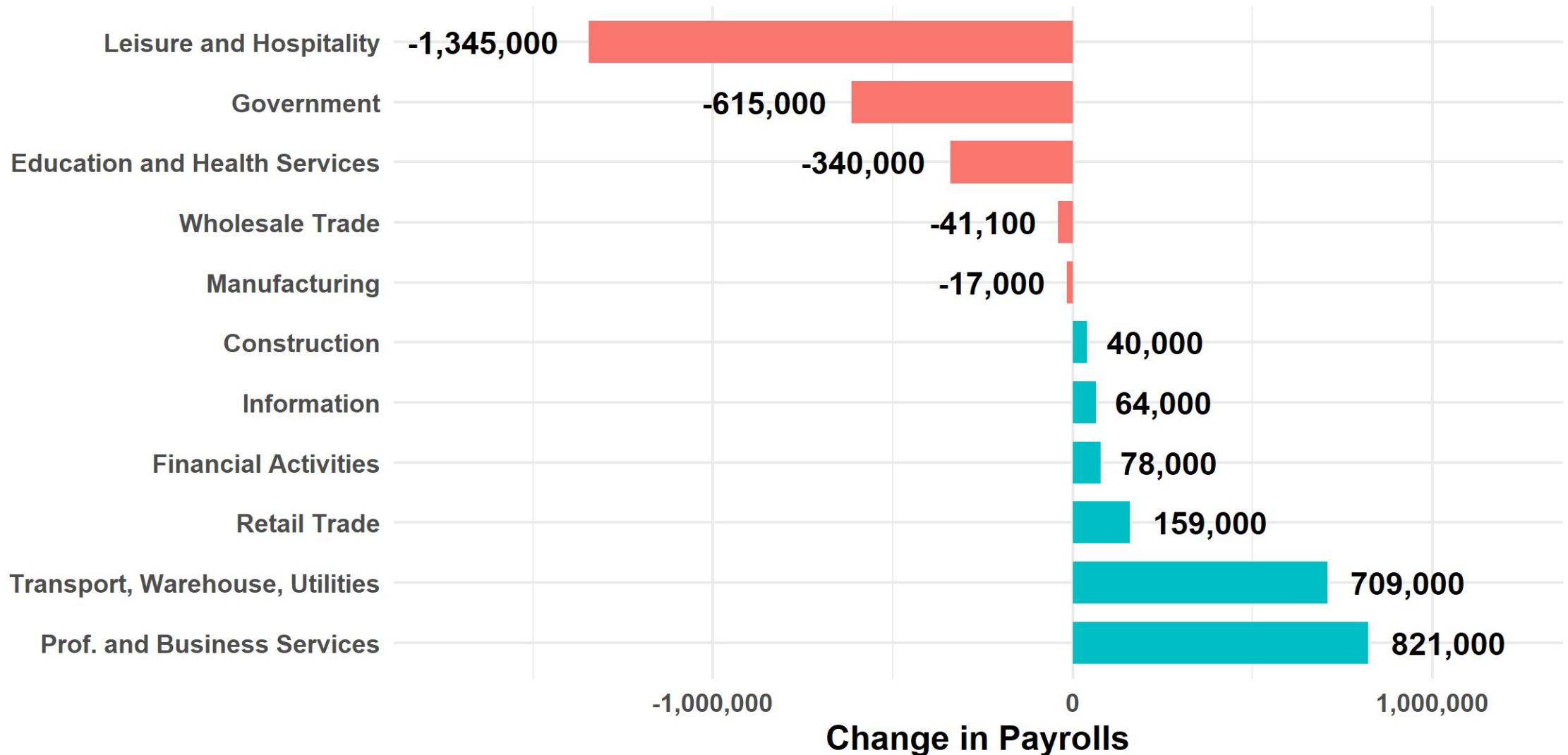
Source: Bureau of Labor Statistics, seasonally adjusted data.

Nonfarm Payrolls (Jobs) United States, January 2019 - May 2022



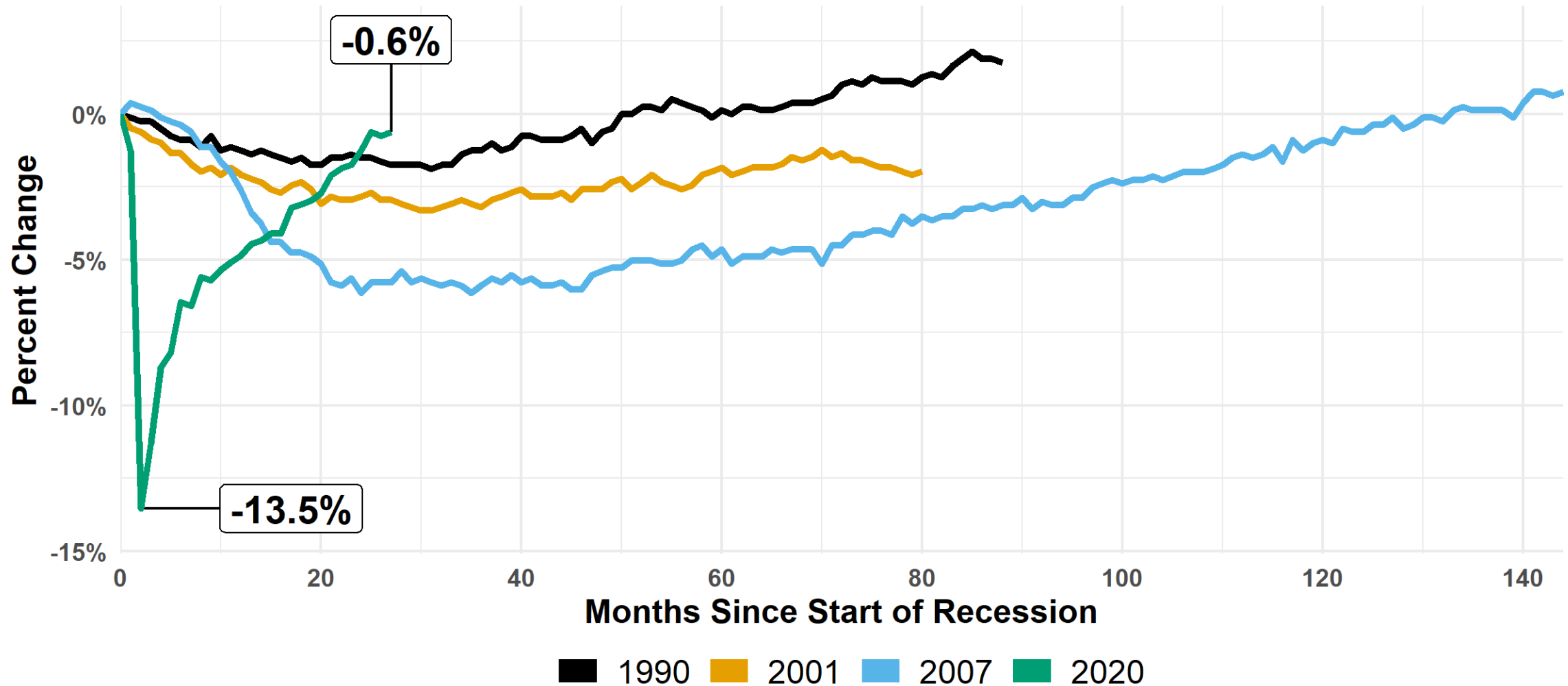
Source: Bureau of Labor Statistics, seasonally adjusted data.

Change in Nonfarm Payrolls (Jobs) United States, February 2020 - May 2022



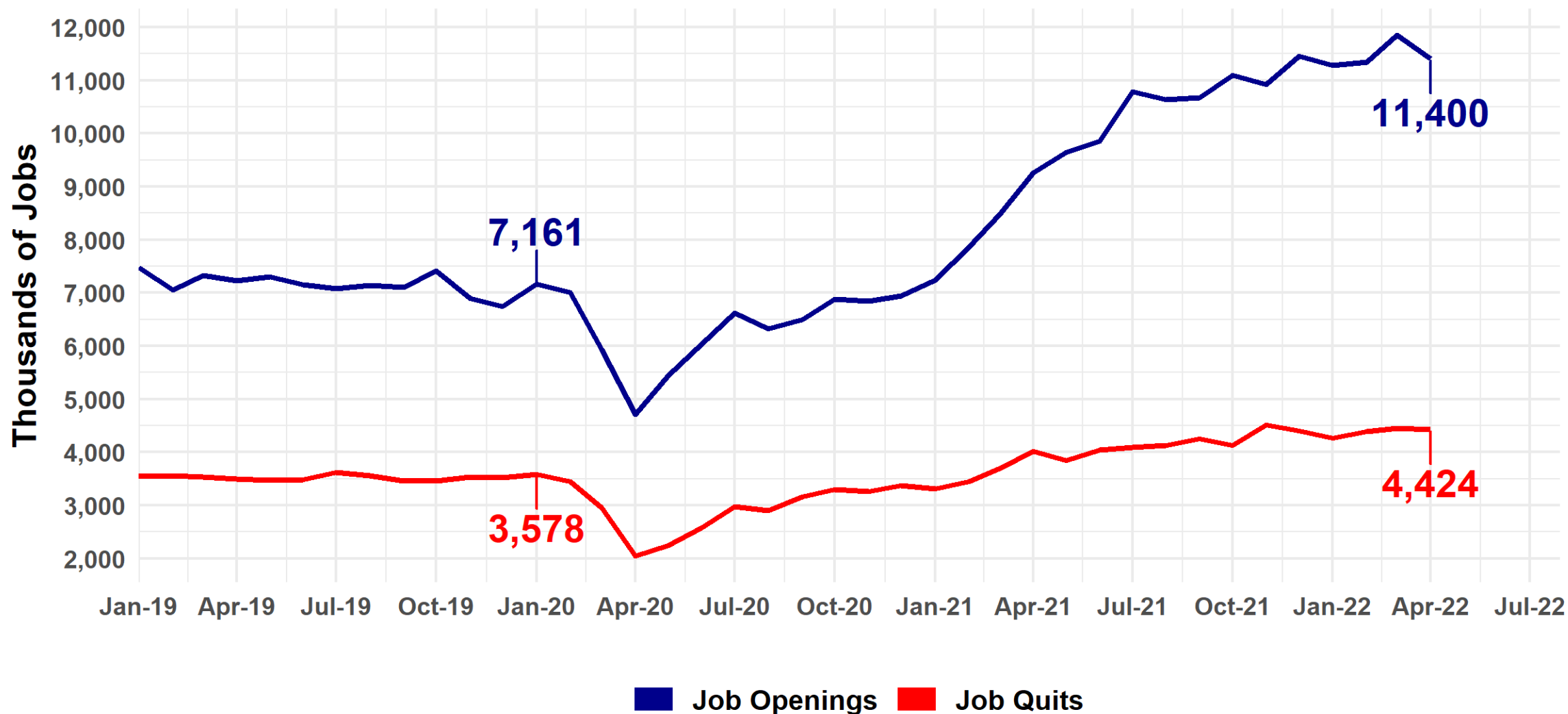
Source: Bureau of Labor Statistics, seasonally adjusted data.

Employment-Population Ratio for Workers Aged 25 to 54 United States, Recessions of 1990, 2001, 2007, and 2020



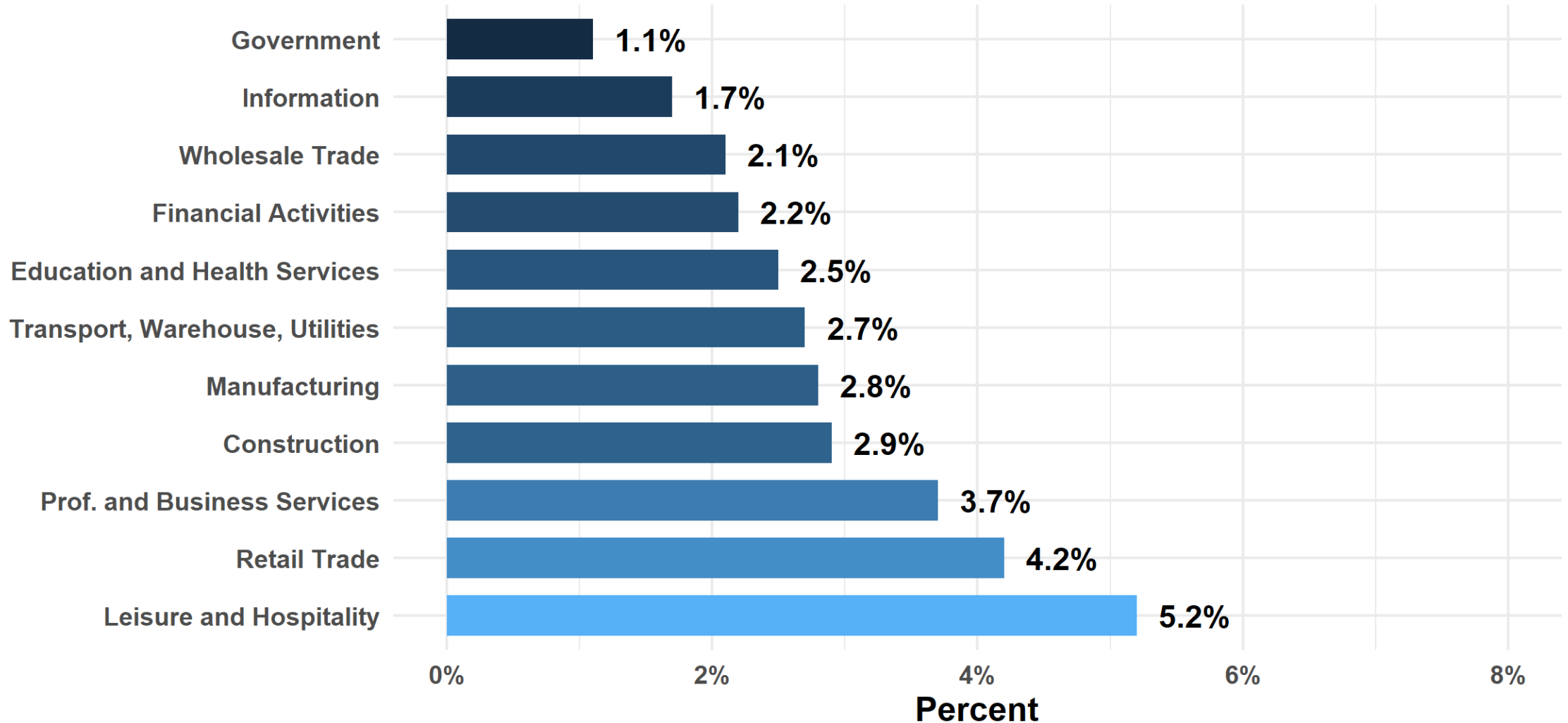
Source: Bureau of Labor Statistics, seasonally adjusted data.
Change in employment-population ratio from the start of each recession.

Job Openings and Quits United States, January 2019 - April 2022



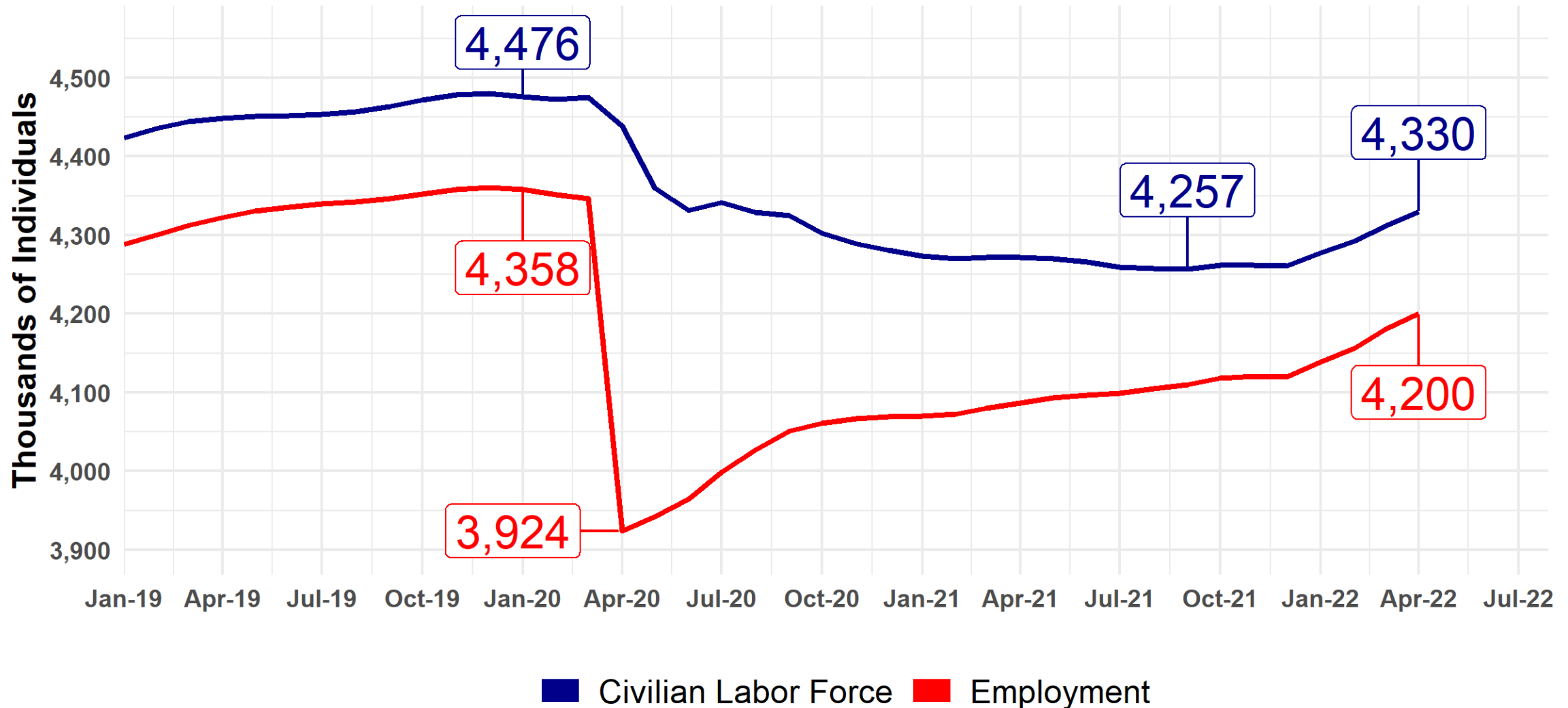
Source: Bureau of Labor Statistics, seasonally adjusted data.

Rate of Job Quits by Industry United States, April 2022



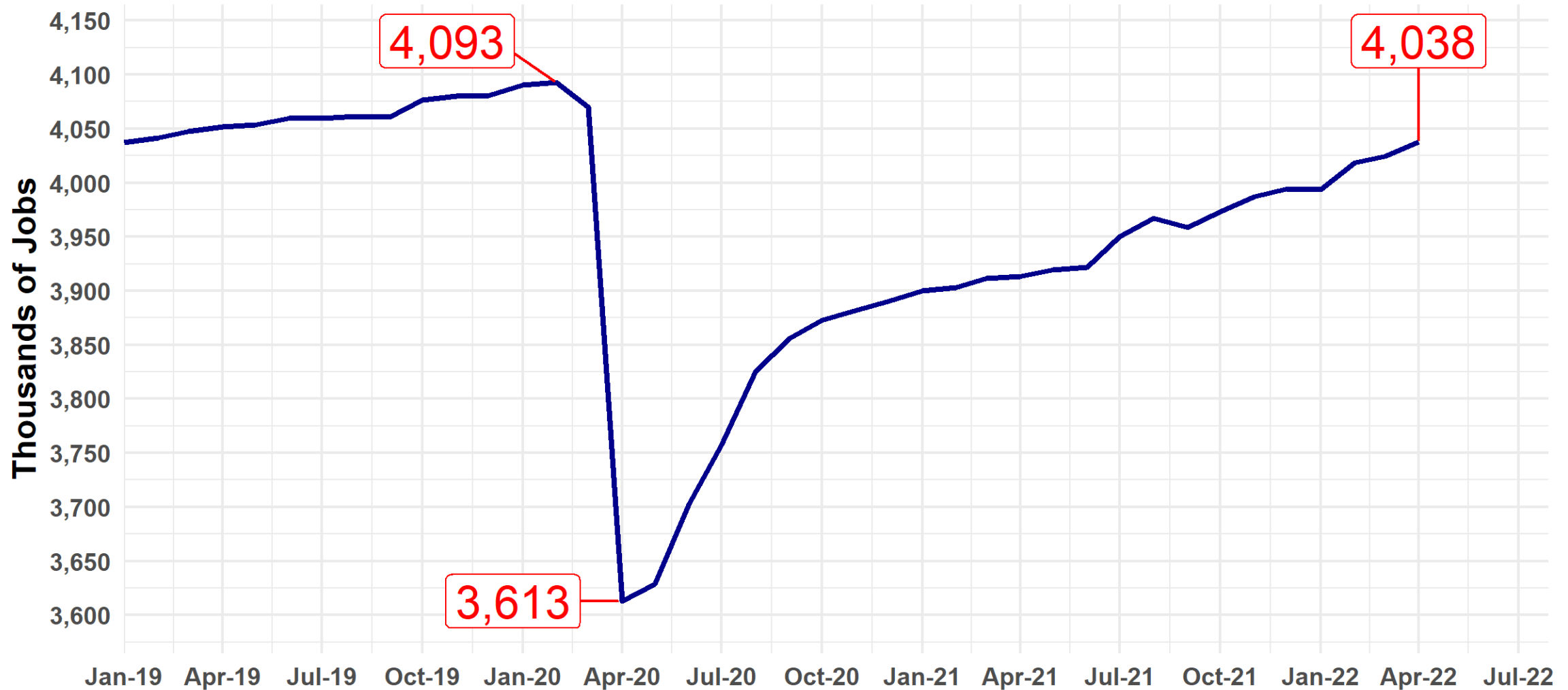
Source: U.S. Department of Labor, seasonally adjusted data.
The quit rate is equal to ratio of total quits to total employment in each industry.

Civilian Labor Force and Individual Employment Virginia, January 2019 - April 2022



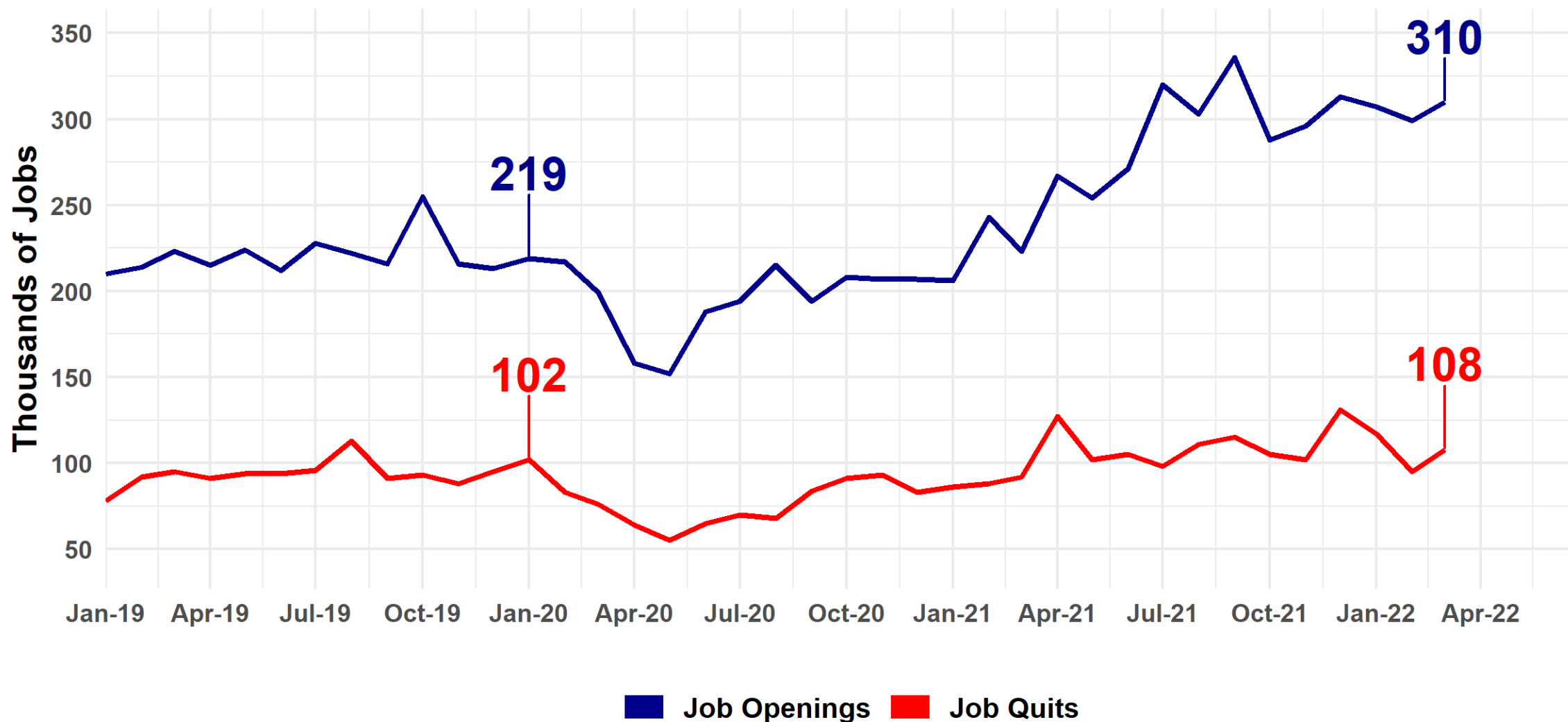
Source: Bureau of Labor Statistics, seasonally adjusted data.

Nonfarm Payrolls (Jobs) Virginia, January 2019 - April 2022



Source: Bureau of Labor Statistics, seasonally adjusted data.

Job Openings and Quits Virginia, January 2019 - March 2022



Source: Bureau of Labor Statistics, seasonally adjusted data.

Looking Ahead

- Supply-chain shocks continue to challenge consumers and businesses into 2023.
- Russia's invasion of Ukraine continues to roil commodity markets in the near-term.
- Slower growth in housing markets as interest rates rise. New housing supply remains below Great Recession levels.
- Inflationary expectations continue to harden as fuel and food prices continue to rise.
- Expect several 50-basis point increases in the discount rate by the Federal Reserve. Is a 'soft landing' even possible?
- Higher inflation remains persistent as growth slows in the second half of 2022.

National and Virginia Forecast

	2020	2021	2022	2023
U.S. Real GDP Growth	-3.70%	5.20%	2.20%	1.80%
Civilian Job Growth	-5.70%	2.70%	1.20%	0.60%
Unemployment Rate	8.10%	5.40%	3.80%	4.10%
Inflation Rate	1.20%	6.70%	6.50%	4.80%
Core Inflation Rate	1.60%	5.00%	5.50%	4.40%
Federal Funds Rate	0.25%	0.25%	1.90%	2.50%
10-year Treasury Bill	0.89%	1.45%	2.50%	3.00%
30-year Conventional Mortgage	3.11%	2.96%	5.00%	5.75%
Federal Deficit (Fiscal Year, Billions)	-\$3,132	-\$2,772	-\$1,200	-\$1,200
Virginia Real GDP Growth	-2.80%	4.00%	2.40%	2.00%
Virginia Civilian Job Growth	-5.00%	2.50%	1.20%	0.80%

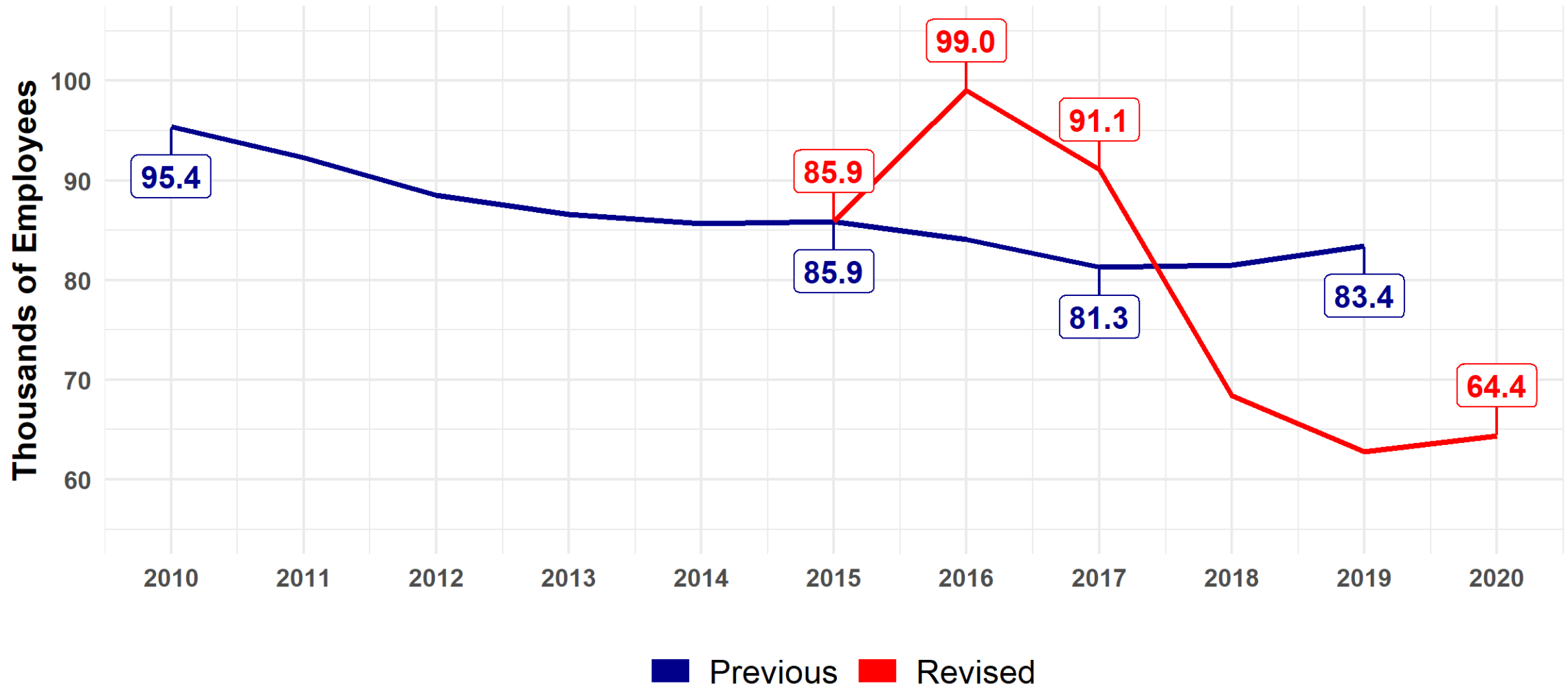
2022 Hampton Roads Economic Forecast



Defense Spending In Hampton Roads

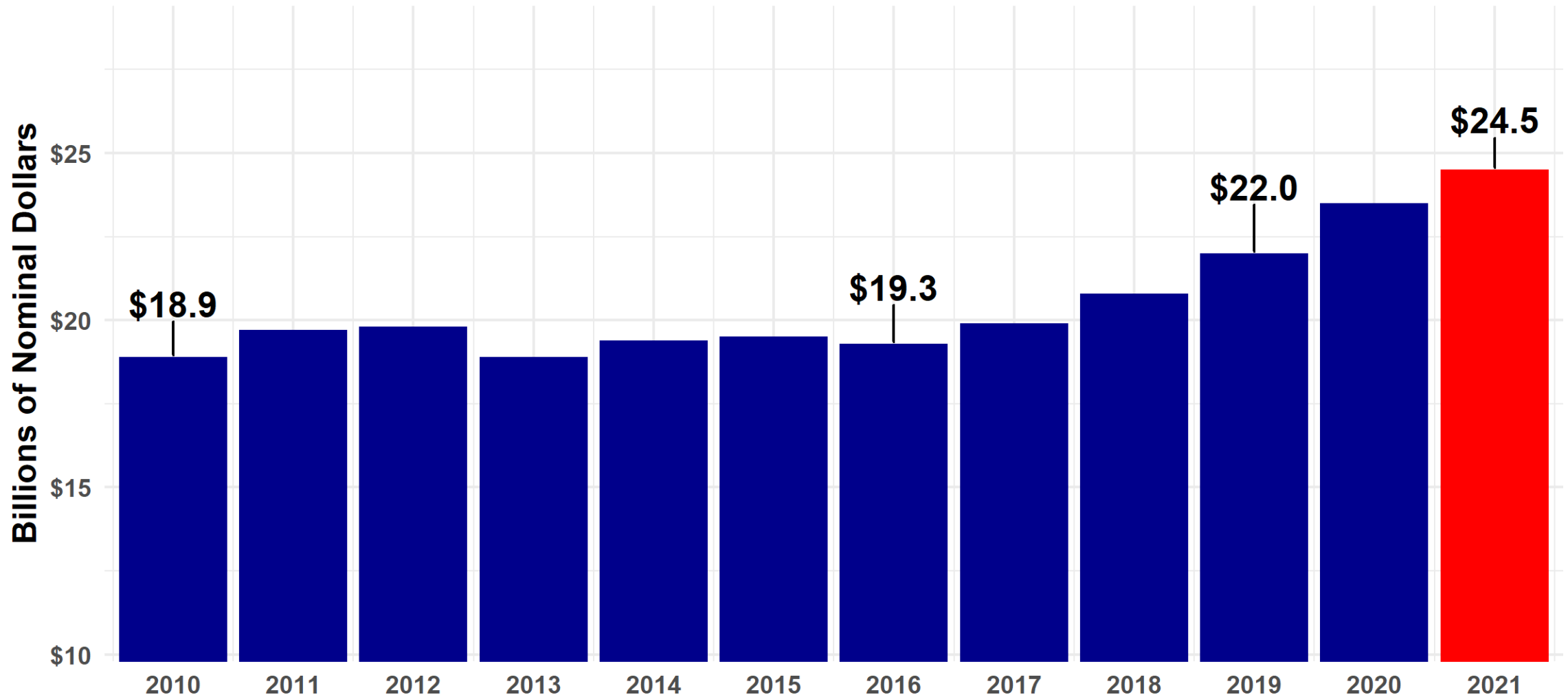


Military Employment Hampton Roads, 2010 - 2020



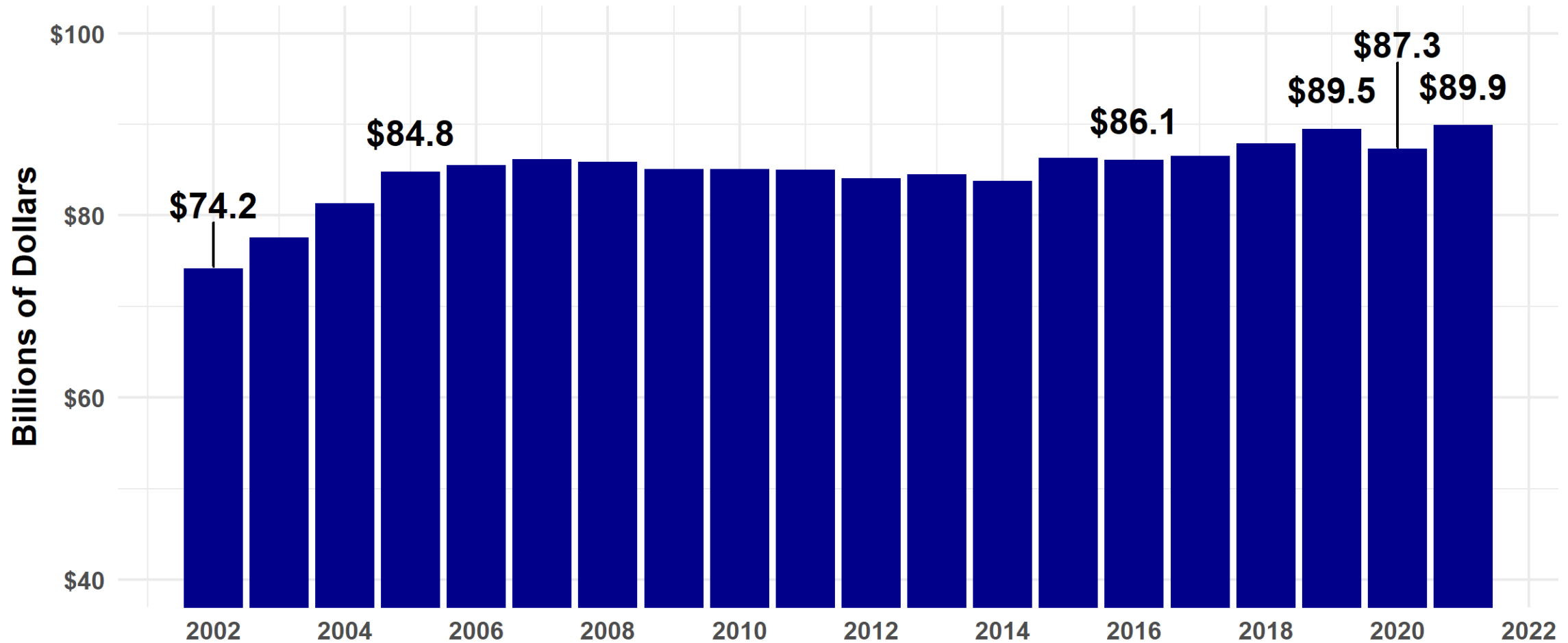
Sources: U.S. Bureau of Economic Analysis and the Dragas Center for Economic Analysis and Policy.
Previous series updated on November 17, 2020; revised series released on November 16, 2021.

Estimated Direct Department of Defense Spending Hampton Roads, 2010 - 2021*



Sources: U.S. Department of Defense and the Dragas Center for Economic Analysis and Policy. *2021 is an estimate.

Real Gross Domestic Product (GDP) Hampton Roads, 2002 - 2021



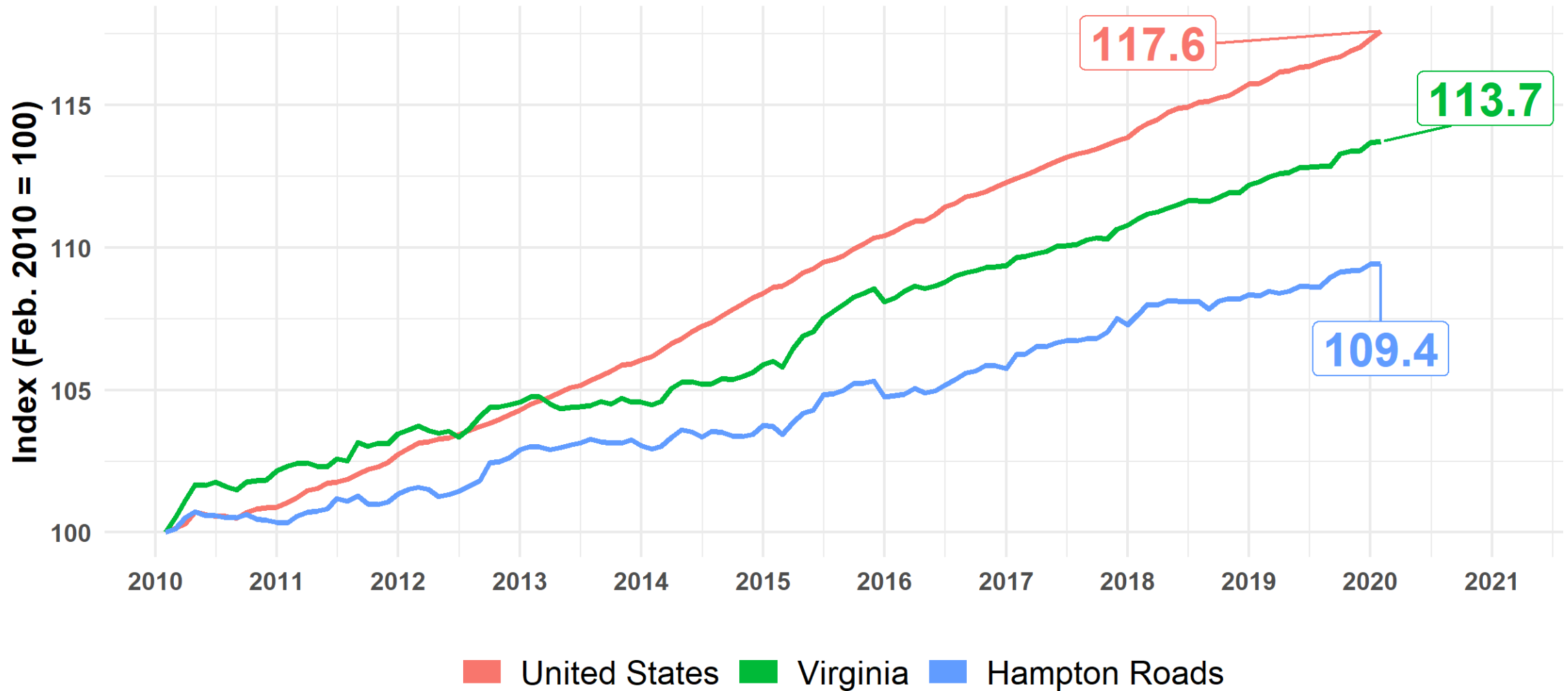
Sources: Bureau of Economic Analysis and the Dragas Center for Economic Analysis and Policy.
Data on GDP incorporates BEA revisions in December 2020. Data for 2020 and 2021 for Hampton Roads are our estimate. Real GDP in 2012 Chained Dollars.

Jobs and Employment



Nonfarm Payrolls (Jobs)

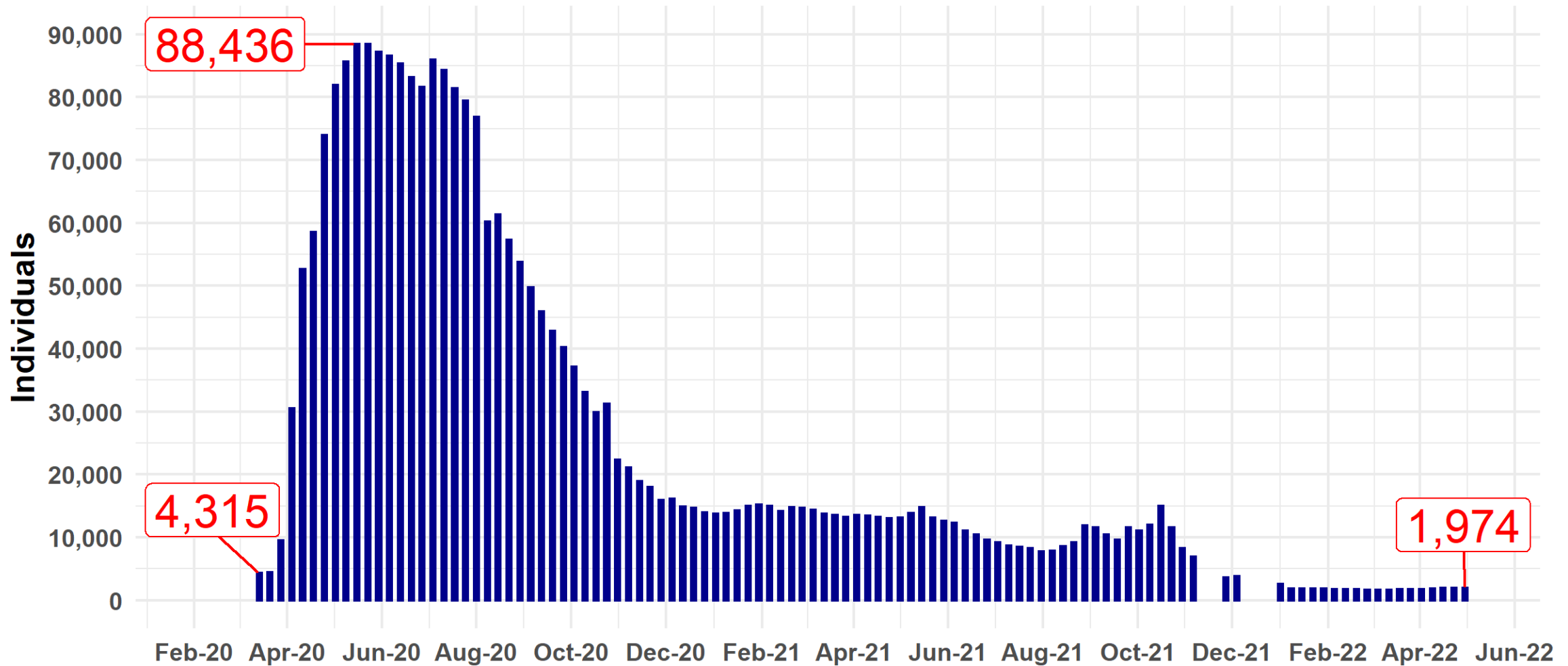
Hampton Roads, Virginia, and the United States, February 2010 - February 2020



Source: Bureau of Labor Statistics, seasonally adjusted data.

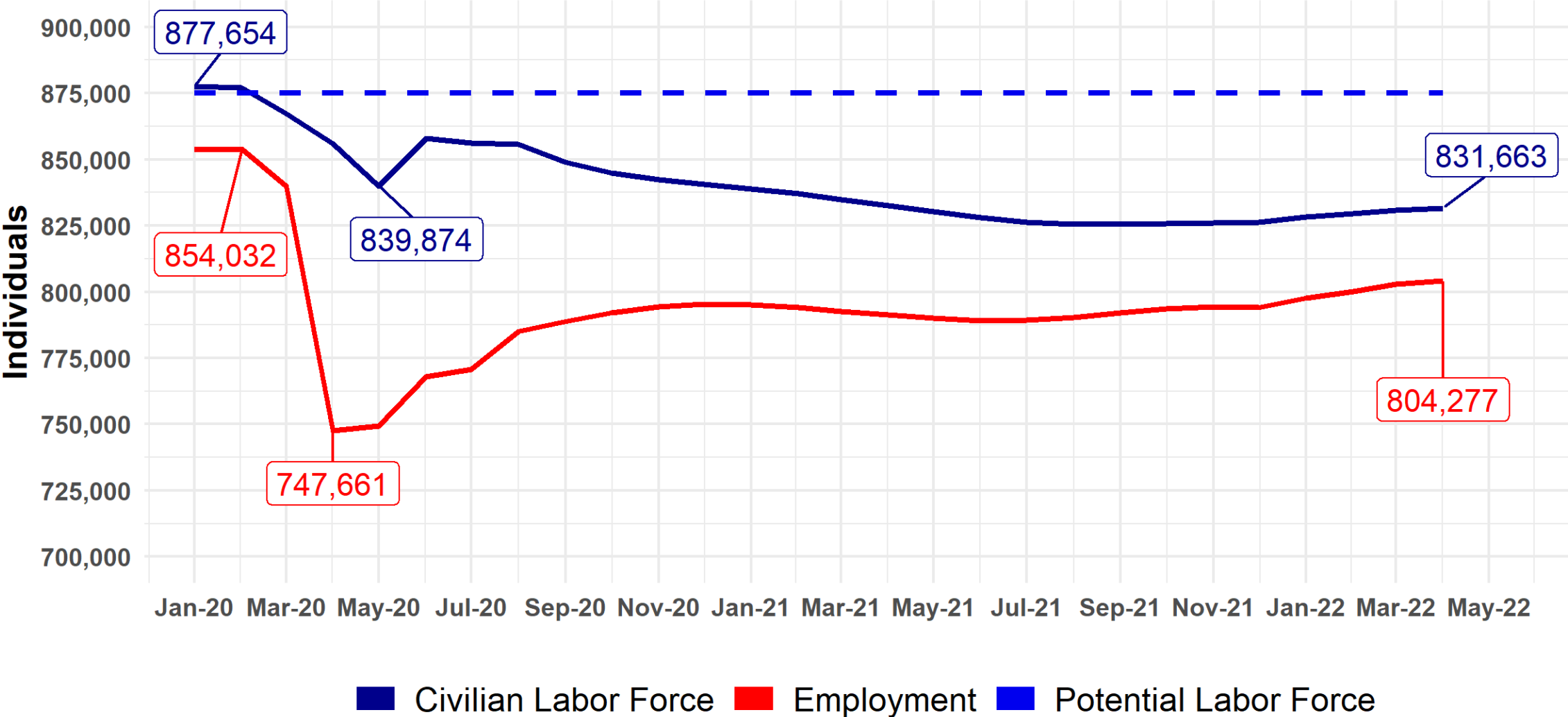
February 2010 was the trough of nonfarm payrolls for the United States, Virginia, and Hampton Roads.

Continued Claims for Unemployment Insurance Hampton Roads, March 14, 2020 - April 30, 2022



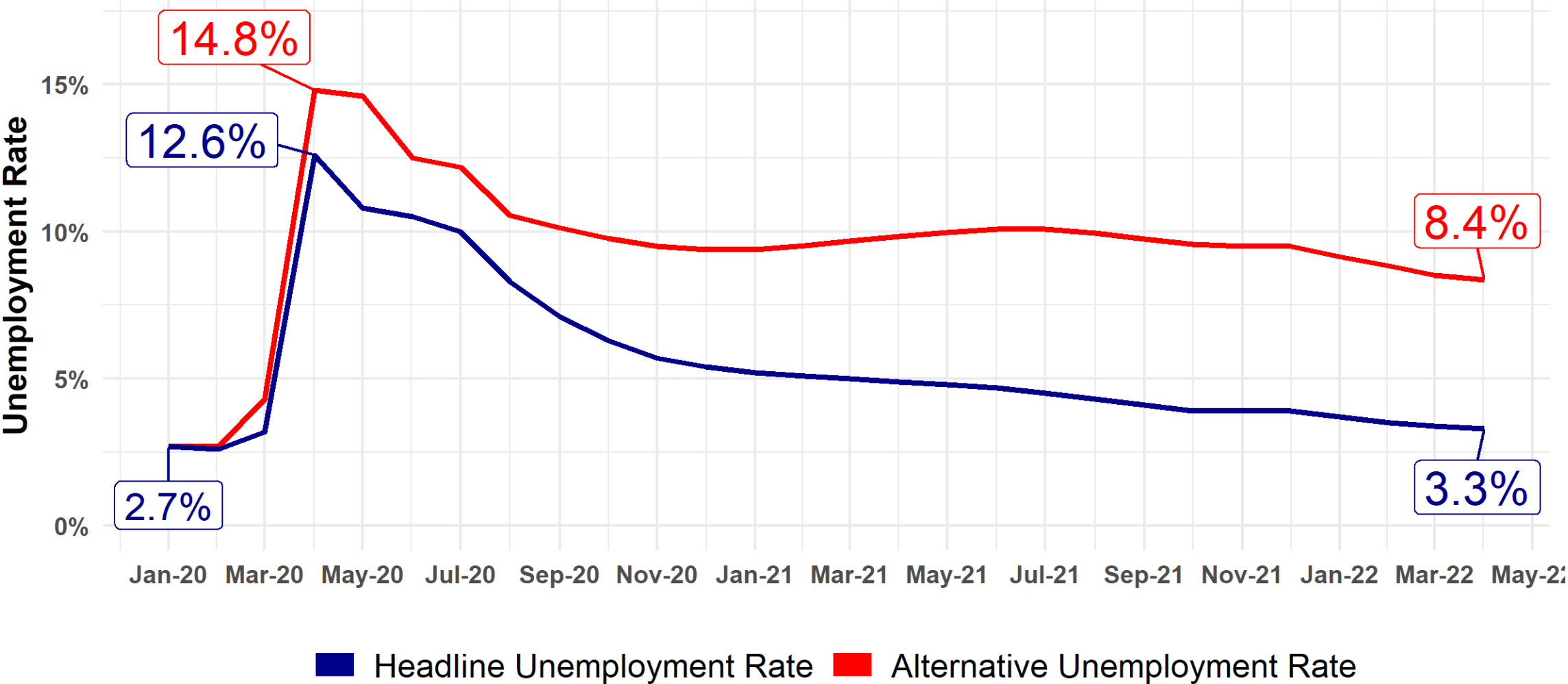
Source: Virginia Employment Commission, non-seasonally adjusted data. Virginia cities and counties in MSA.
Continued claims data in 2021 for weeks ending Nov. 13, Nov. 20, Dec. 11, Dec. 18, and Dec. 25 are not available.

Civilian Labor Force and Employment Hampton Roads, January 2020 - April 2022



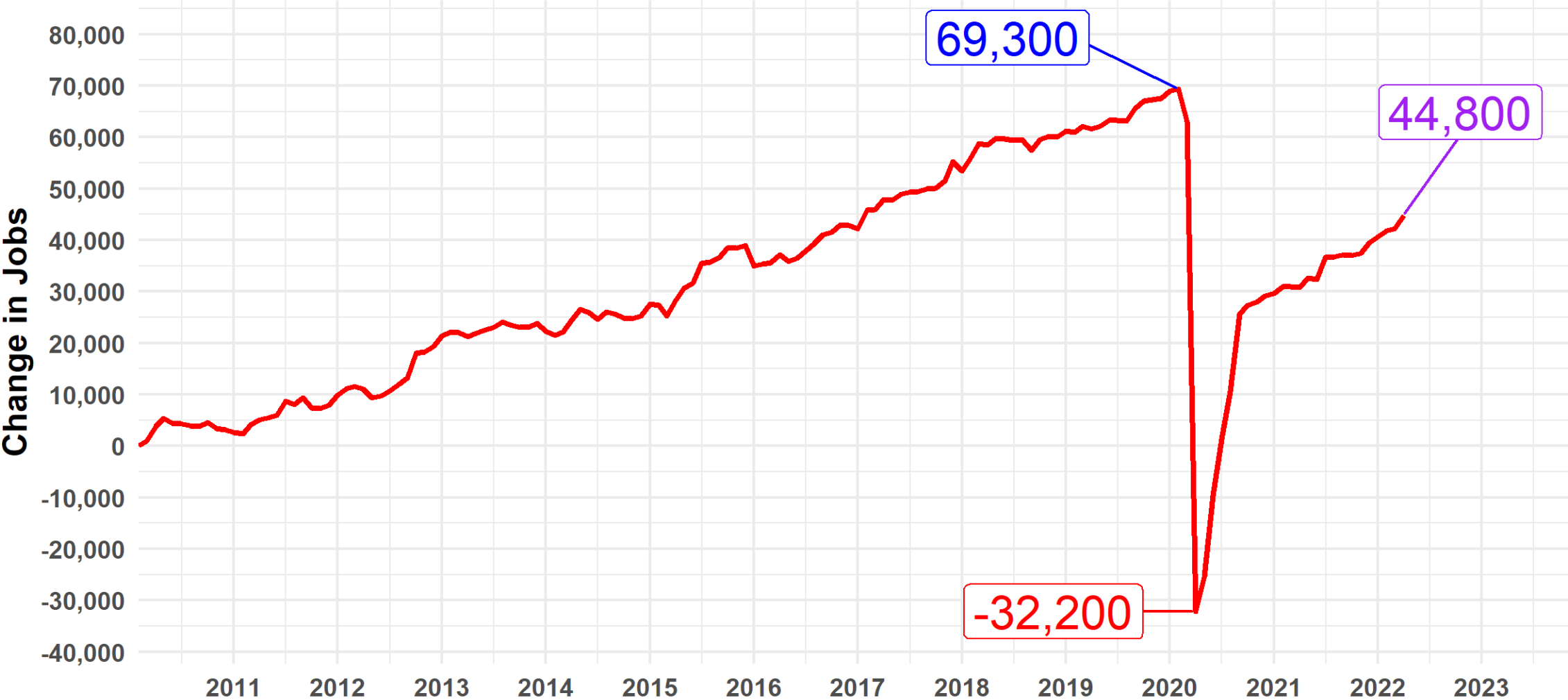
Source: Bureau of Labor Statistics, seasonally adjusted data.

Headline and Alternative Unemployment Rate Hampton Roads, January 2020 - April 2022



Source: Bureau of Labor Statistics, seasonally adjusted data.
Alternative unemployment rate includes departures from the labor force and counted as unemployed.

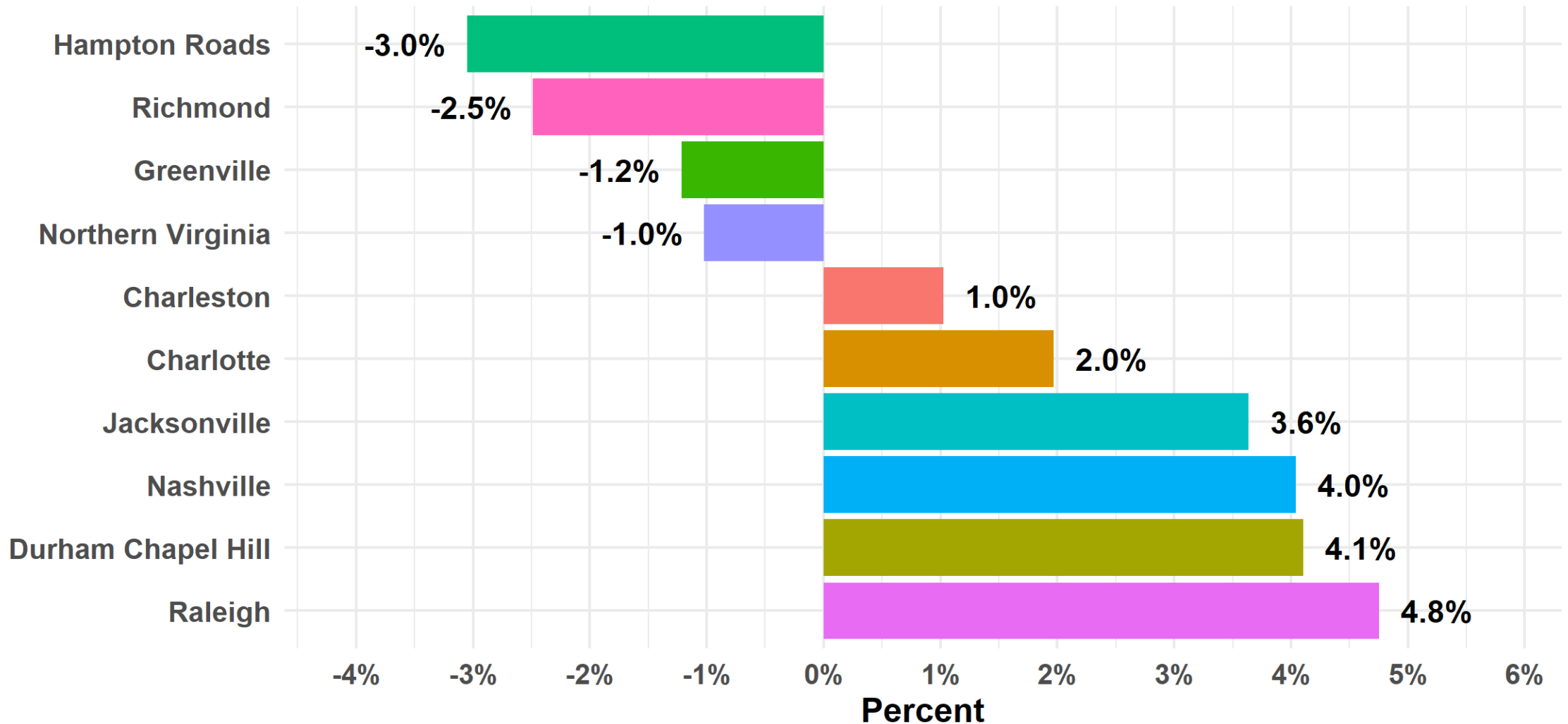
Change in Nonfarm Payrolls (Jobs)
Hampton Roads, February 2010 - April 2022



Source: Bureau of Labor Statistics, seasonally adjusted data.

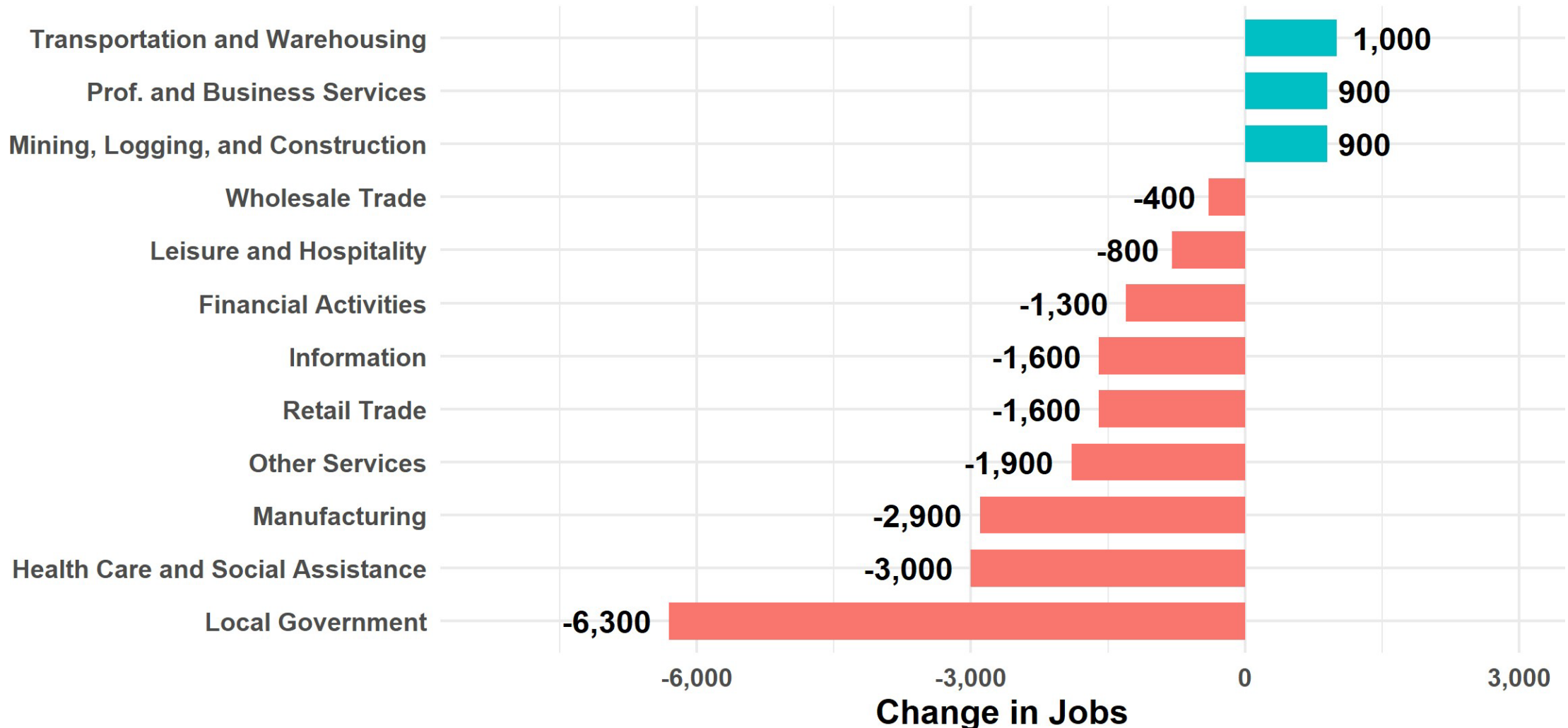
Growth in Nonfarm Payrolls

Selected Metropolitan Areas, February 2020 - April 2022



Sources: Bureau of Labor Statistics, seasonally adjusted data,
and the Dragas Center for Economic Analysis and Policy.

Civilian Jobs Gained/Lost Selected Sectors in Hampton Roads, April 2019 - April 2022

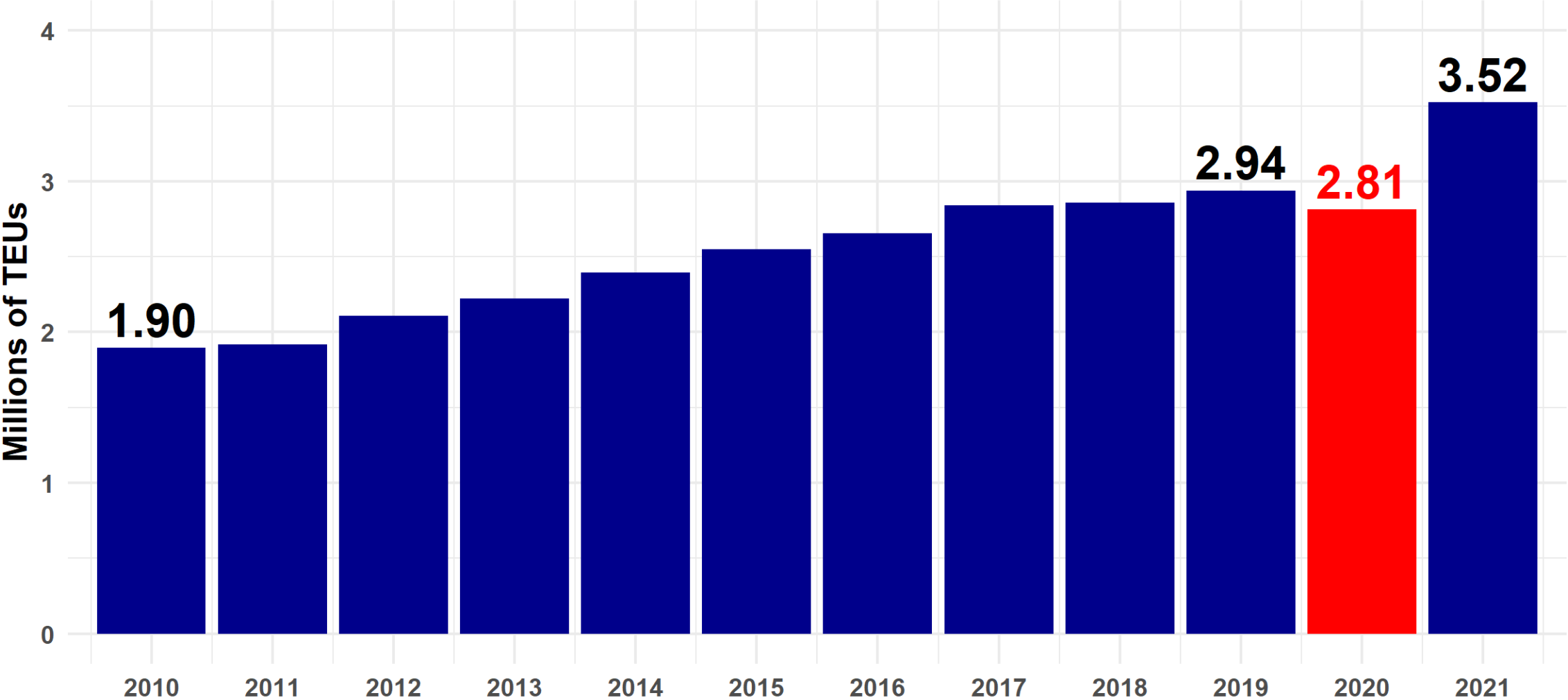


Sources: Bureau of Labor Statistics, non-seasonally adjusted data,
and the Dragas Center for Economic Analysis and Policy.

The Port of Virginia: Significant Growth in 2021

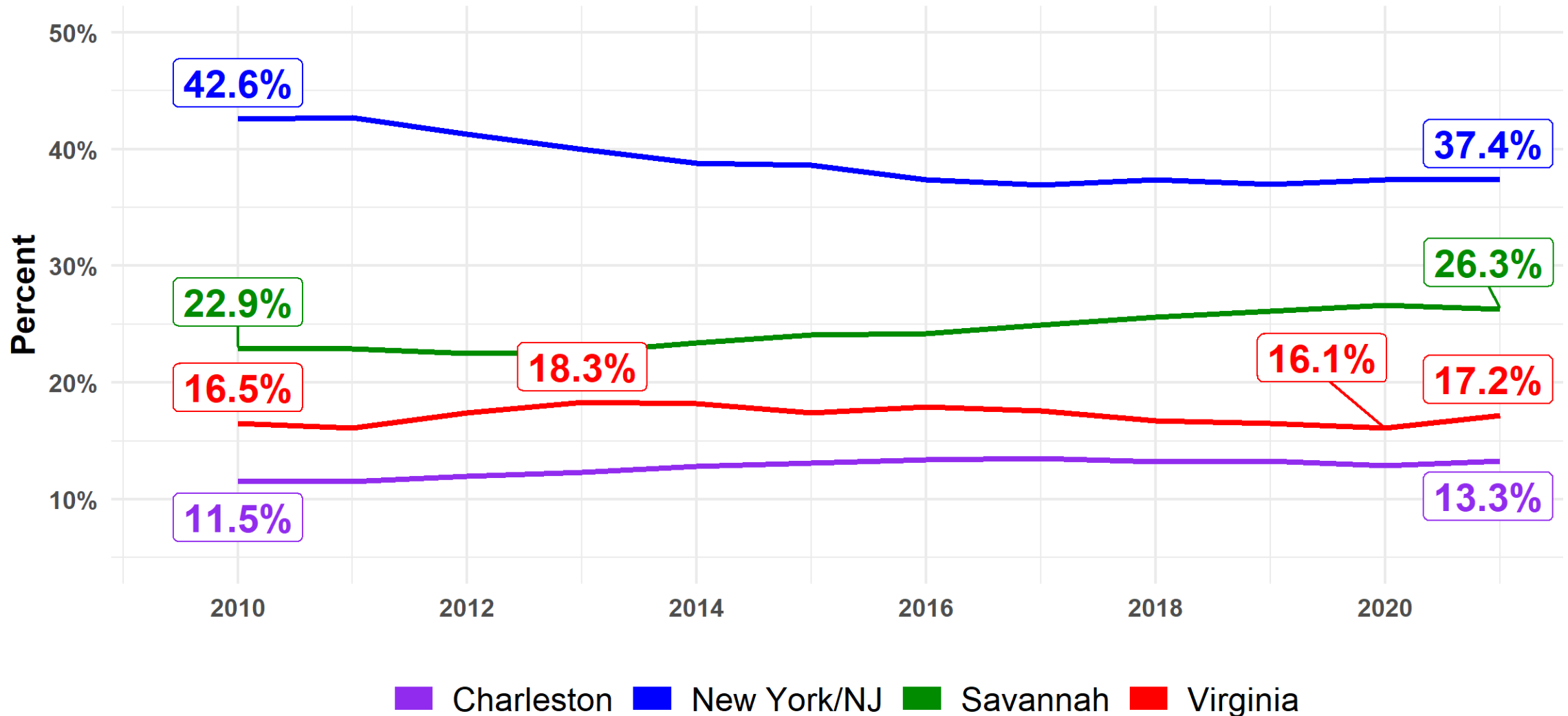


Twenty Foot Equivalent Container Units (TEUs)
Port of Virginia, 2010 - 2021



Sources: Virginia Port Authority and the Dragas Center for Economic Analysis and Policy.

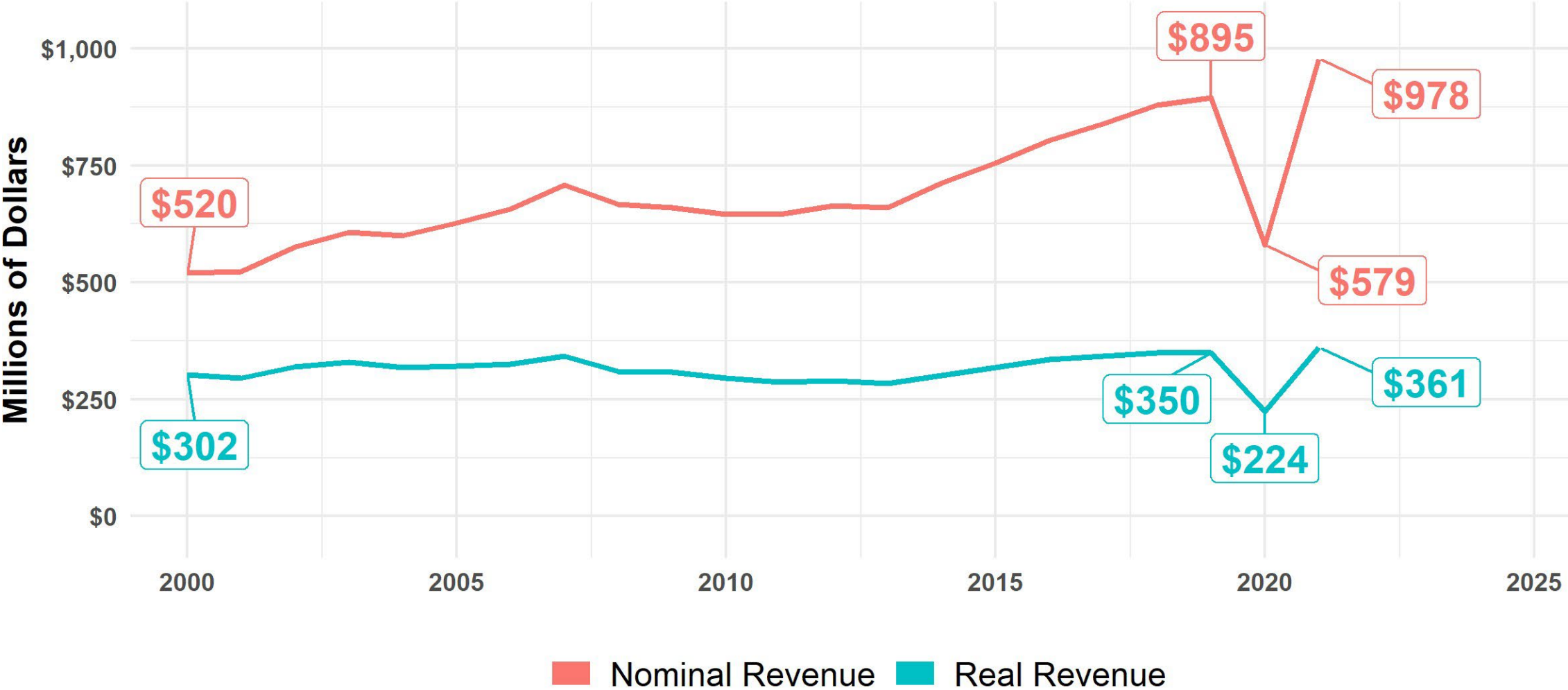
Shares of Total Loaded TEUs Selected East Coast Ports, 2010 - 2021



Hotels Rebound but Challenges Remain



Nominal and Real (Inflation-Adjusted) Hotel Revenue
Hampton Roads, 2000 - 2021



Sources: STR Trend Reports January 2018 (for data through 2012) and January 2022 (for data beginning 2013), Bureau of Labor Statistics (base year is chained; 1982-84=100), and the Dragas Center for Economic Analysis and Policy.

Percent Change in Selected Key Performance Indicators of Hotels in USA, Virginia, and Hampton Roads: 2019 to 2020

	<u>Hotel Revenue</u>	<u>RevPAR</u>	<u>Hotel Rooms Sold</u>
USA	-49.5%	-47.4%	-35.9%
Virginia	-48.0%	-46.7%	-34.3%
Hampton Roads	-35.2%	-34.7%	-23.3%
Chesapeake/Suffolk	-21.3%	-21.3%	-11.4%
Newport News/Hampton	-28.7%	-29.2%	-15.5%
Norfolk/Portsmouth	-32.7%	-34.2%	-20.7%
Virginia Beach	-28.9%	-30.3%	-20.5%
Williamsburg*	-64.5%	-61.2%	-53.8%

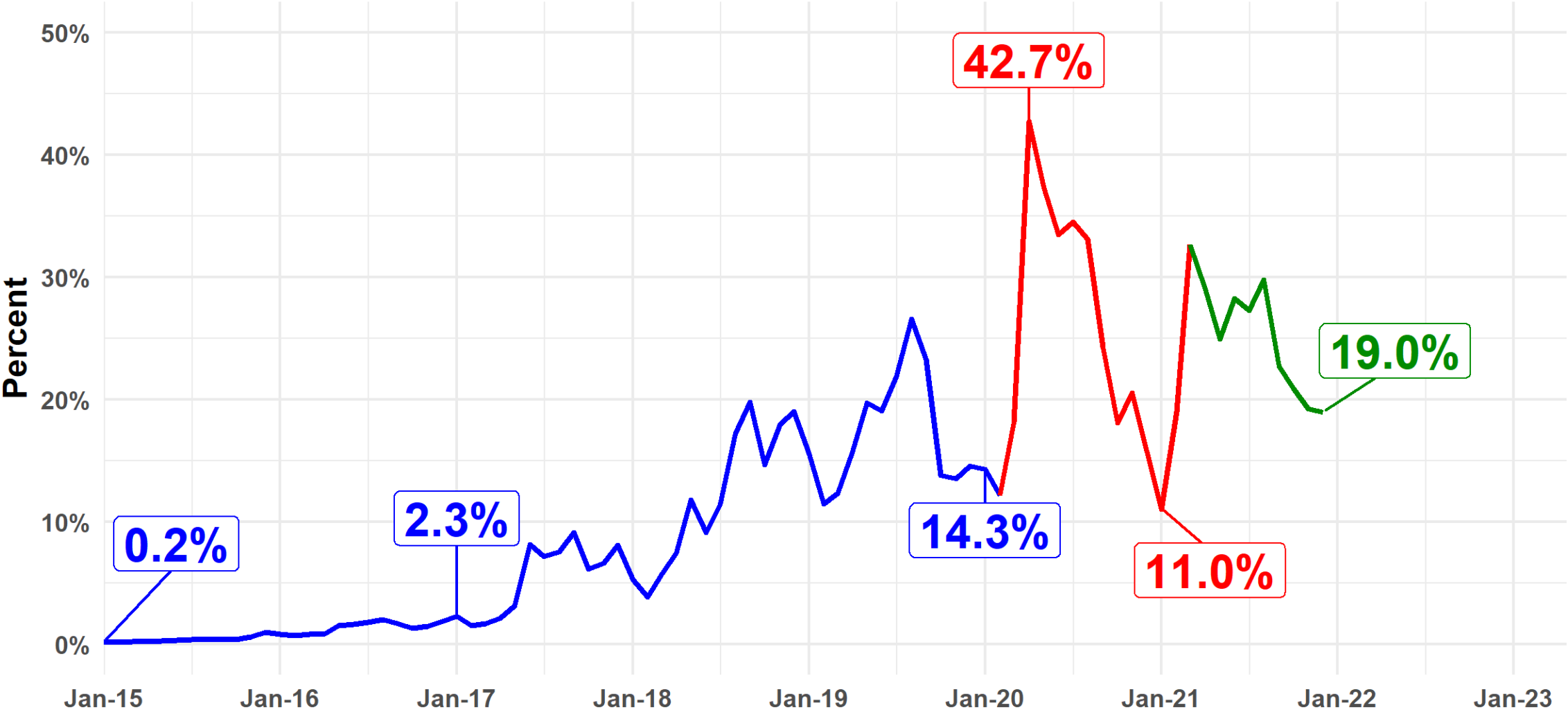
* Williamsburg market includes City of Williamsburg and James City County. Sources: STR Trend Report January 2022, and the Dragas Center for Economic Analysis and Policy.

Percent Change in Selected Key Performance Indicators of Hotels in USA, Virginia, and Hampton Roads: 2019 to 2021

	<u>Hotel Revenue</u>	<u>RevPAR</u>	<u>Hotel Rooms Sold</u>
USA	-16.0%	-16.8%	-11.8%
Virginia	-17.9%	-18.0%	-11.4%
Hampton Roads	9.3%	7.7%	-1.4%
Chesapeake/Suffolk	11.4%	11.4%	4.9%
Newport News/Hampton	0.5%	0.6%	-3.9%
Norfolk/Portsmouth	5.2%	-0.9%	2.8%
Virginia Beach	21.2%	14.4%	2.0%
Williamsburg*	-6.0%	-0.7%	-15.5%

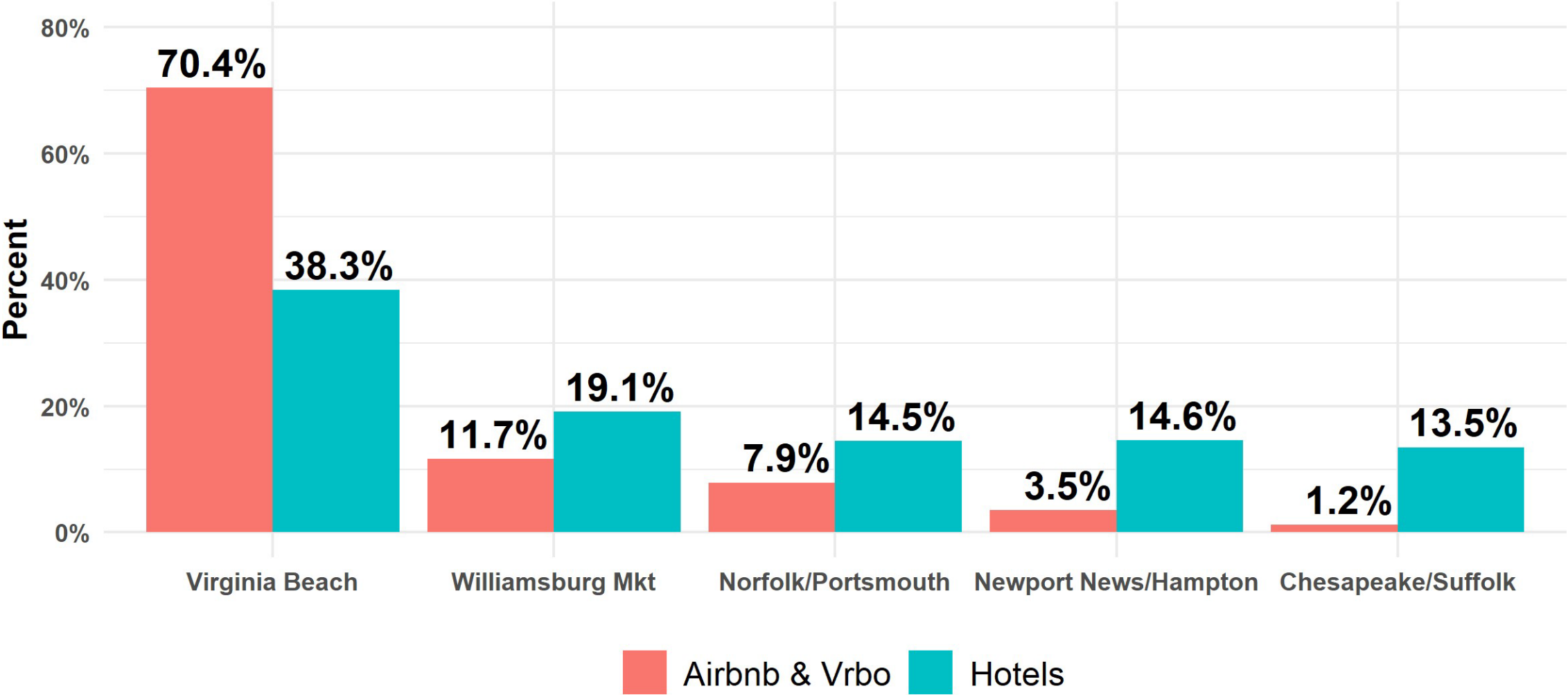
* Williamsburg market includes City of Williamsburg and James City County. Sources: STR Trend Report January 2022, and the Dragas Center for Economic Analysis and Policy.

Airbnb & Vrbo Revenue as a Percent of Hotel Revenue
Hampton Roads, January 2015 - December 2021



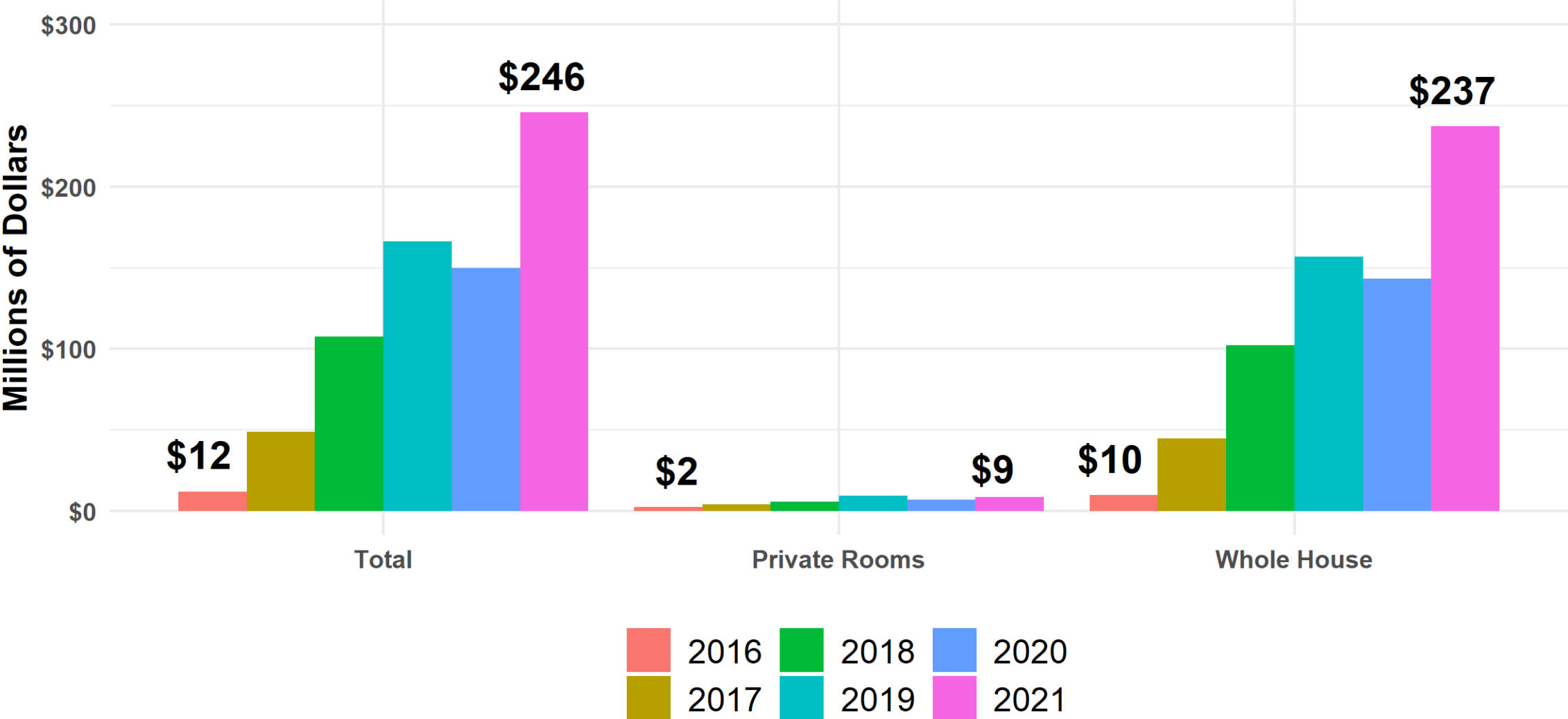
Sources: STR Trend Report January 2022 and AirDNA data received in January 2022.
AirDNA data exclude shared rooms.

Shares of Hotel and Airbnb & Vrbo Revenue
Hampton Roads Sub-Markets, 2019



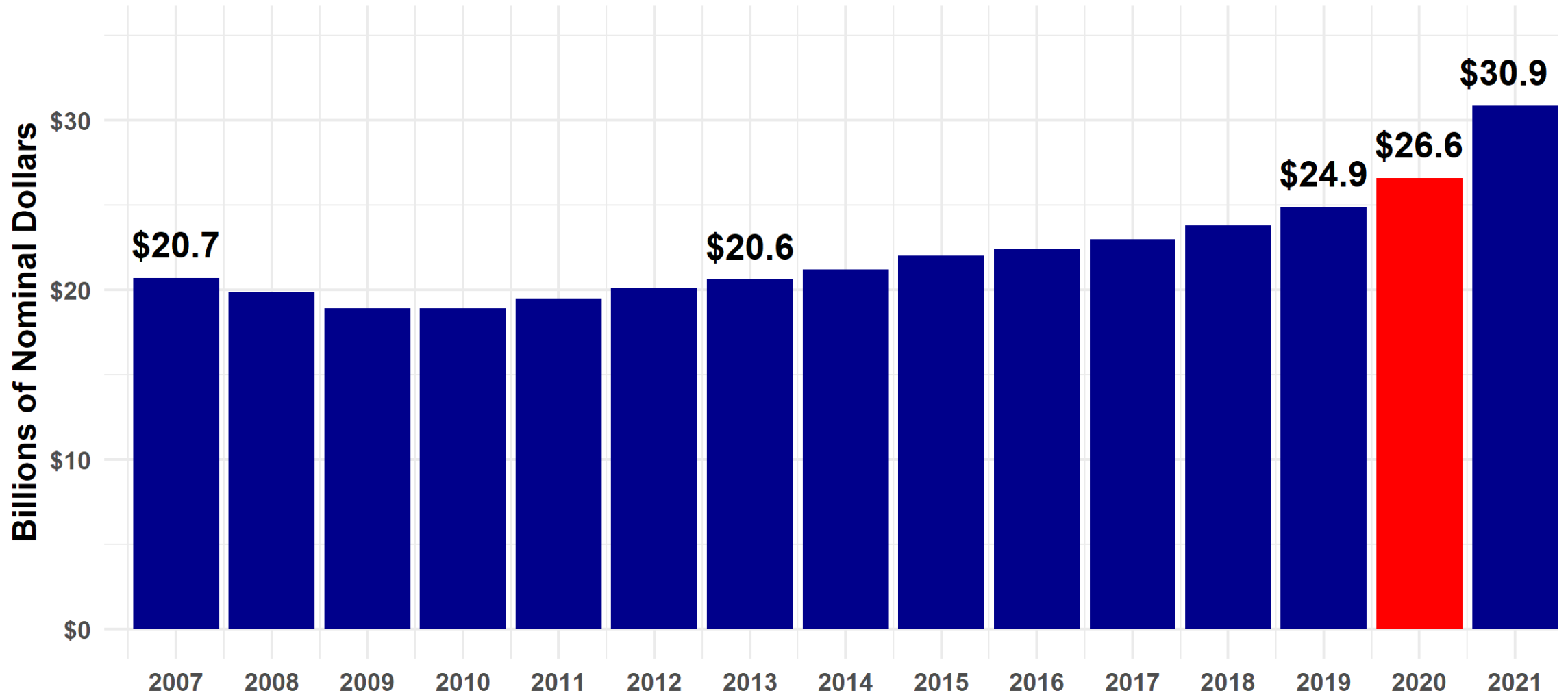
Sources: STR Trend Report January 2022, AirDNA data received in January 2022, and the Dragas Center for Economic Analysis and Policy.

Annual Revenue of Airbnb & Vrbo Private Rooms and Whole House Rentals
Hampton Roads, 2016 - 2021



Source: AirDNA data received in January 2022; excludes shared rooms.

Taxable Sales Hampton Roads, 2007 - 2021

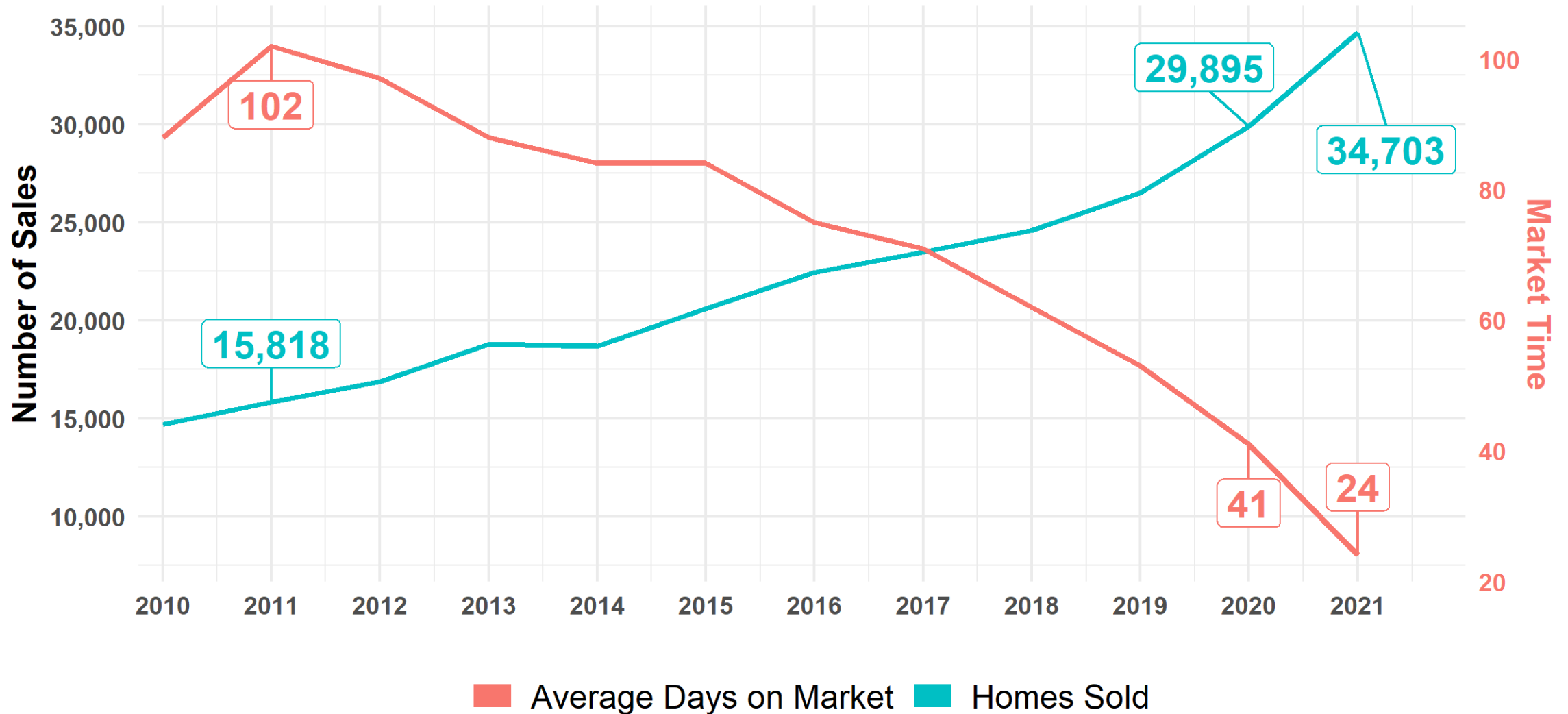


Sources: Virginia Department of Taxation and the Dragas Center for Economic Analysis and Policy.

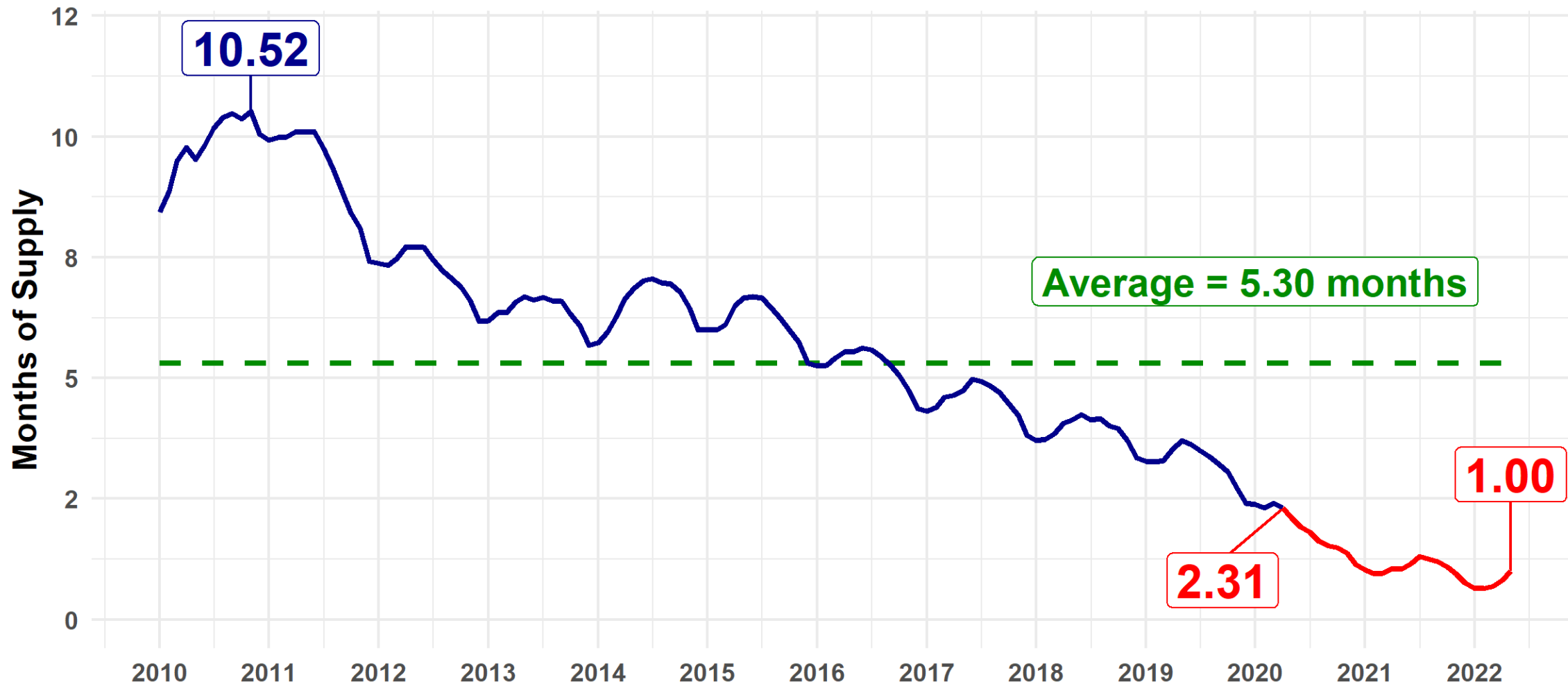
Housing Values Surge and Rents Rise



Existing Residential Homes Sold and Average Days on the Market Hampton Roads, 2010 - 2021

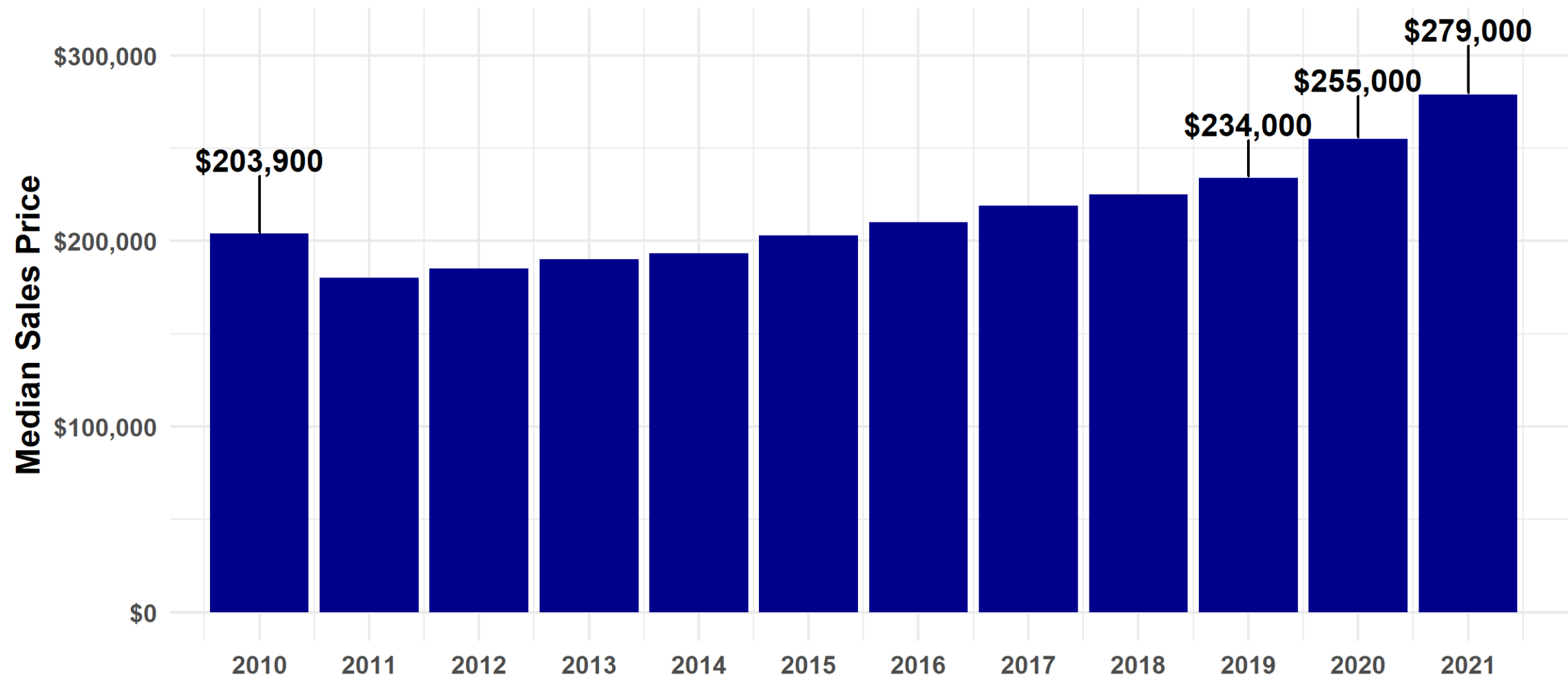


Estimated Months of Supply of Existing Homes Hampton Roads, January 2010 - May 2022



Sources: Real Estate Information Network Inc. and the Dragas Center for Economic Analysis and Policy.
Months of supply is based on average sales in the last 12 months.

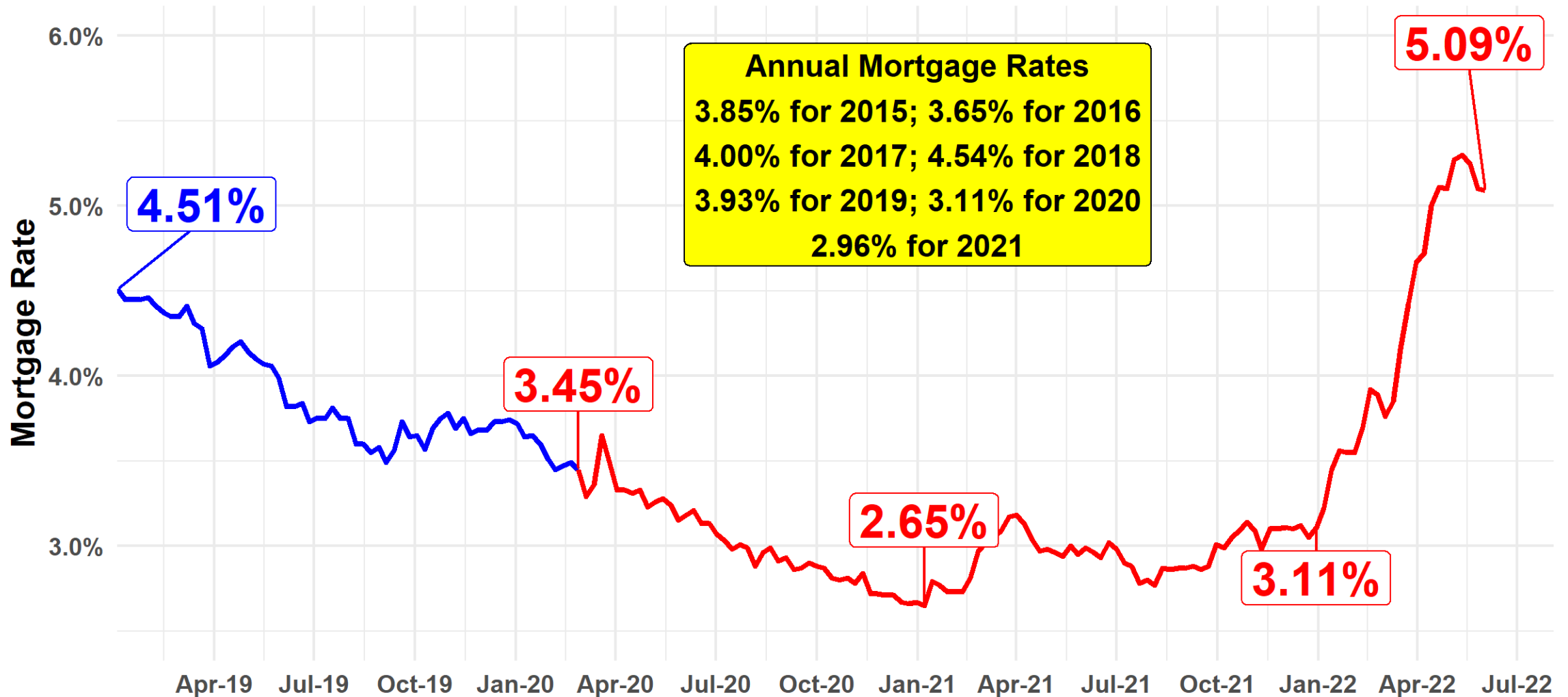
**Median Sales Price of Existing Homes
Hampton Roads, 2010 - 2021**



Sources: Real Estate Information Network Inc. and the Dragas Center for Economic Analysis and Policy.
Information deemed reliable but not guaranteed.

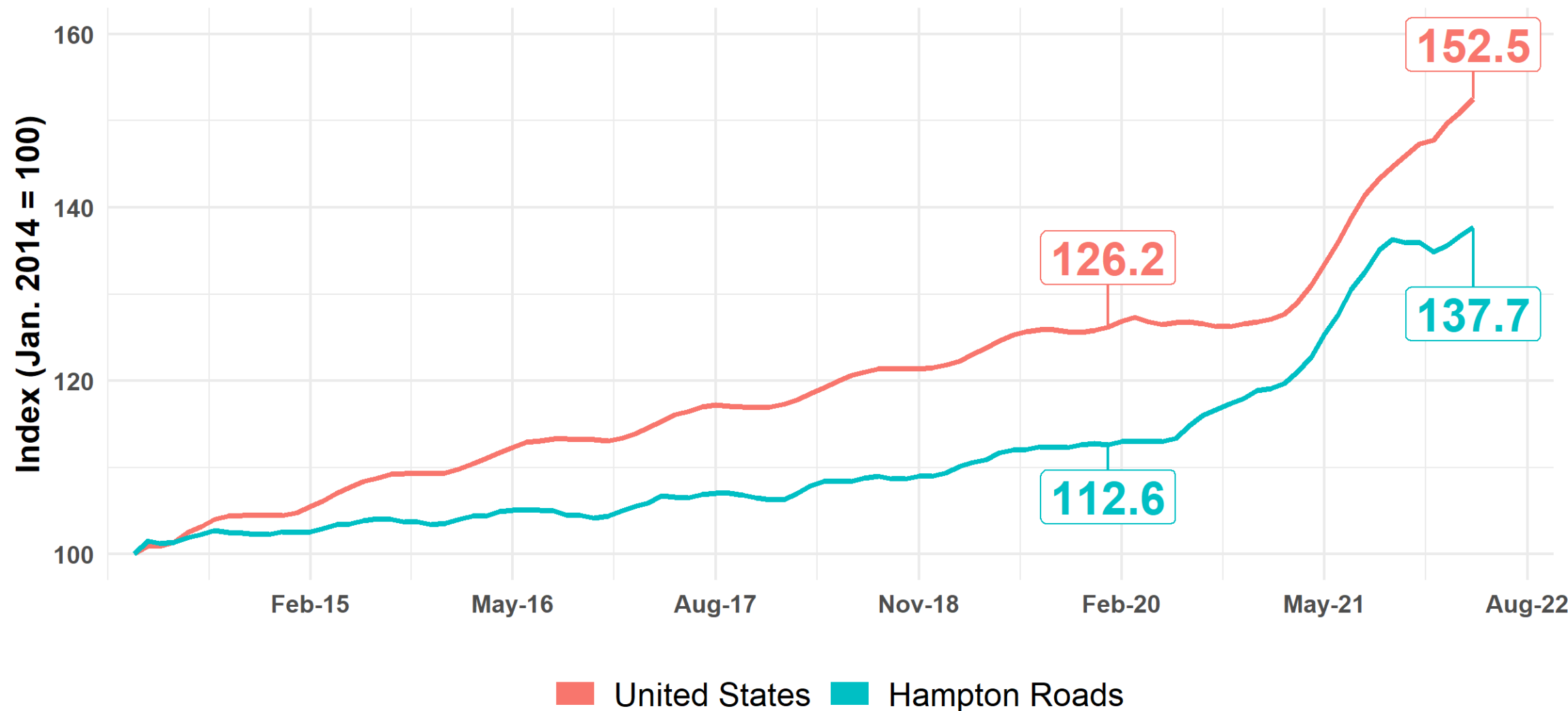
Median Sale Price of Existing Residential Homes for Selected Cities: Hampton Roads, 2020 and 2021			
<u>City</u>	<u>2020</u>	<u>2021</u>	<u>Percent Change</u>
Chesapeake	\$282,000	\$315,000	11.7%
Norfolk	\$229,000	\$258,000	12.7%
Portsmouth	\$182,250	\$210,000	15.2%
Suffolk	\$275,000	\$312,500	13.6%
Virginia Beach	\$285,000	\$310,000	8.8%
Hampton	\$193,000	\$225,000	16.6%
Newport News	\$209,000	\$230,000	10.0%
Williamsburg*	\$323,000	\$350,000	8.4%
Hampton Roads	\$255,000	\$279,000	9.4%
* Represents Poquoson, Williamsburg, James City County , York County and Gloucester County. Sources: Real Estate Information Network and the Dragas Center for Economic Analysis and Policy			

Weekly 30-Year Fixed Mortgage Rate January 3, 2019 - June 2, 2022



Sources: Freddie Mac and Federal Reserve Bank of St. Louis. Weekly rate ending Thursday of each week.

Zillow Observed Rent Index (ZORI): Hampton Roads and the United States
January 2014 - April 2022

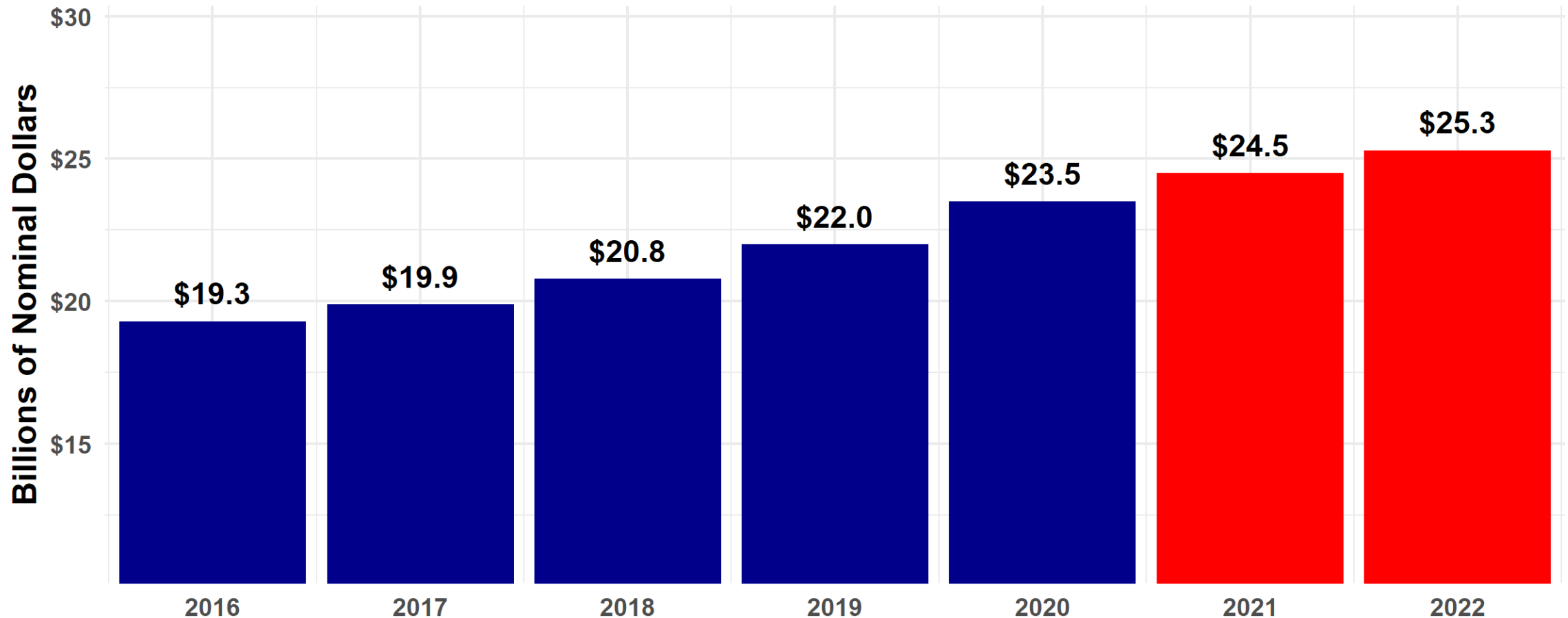


Source: Zillow Research Data All Homes Plus Multifamily Time Series, smoothed seasonally adjusted data.

The Outlook



Estimated Direct Department of Defense Spending Hampton Roads, 2016 - 2022*



Sources: U.S. Department of Defense and the Dragas Center for Economic Analysis and Policy. Includes Federal Civilian and Military Personnel and Procurement.*Data for 2020, 2021, and 2022 are estimates. Last updated on December 19, 2020. Procurement data updated on January 5, 2022.

Regional Forecast				
	2019 Actual	2020 Actual	2021 Estimated/Actual	2022 Forecast
Hampton Roads Real GDP	1.9%	-2.5%	3.0%	2.4%
Civilian Job Growth	0.6%	-5.3%	1.7%	2.2%
Unemployment Rate	3.1%	7.1%	4.5%	3.3%
Taxable Sales	4.9%	6.7%	16.8%	7.2%
Hotel Revenue	1.8%	-35.2%	68.8%	8.4%
General Cargo Tonnage	-0.2%	-3.9%	20.3%	8.7%
General Cargo TEUs	2.9%	-4.2%	25.2%	11.8%
One-Unit Housing Permit Value	3.5%	10.9%	6.7%	3.6%

2022: COVID-19 and Prospects

- Consistent with the national forecast, regional economic growth in 2022 is forecasted to be lower than its growth in 2021.
- Defense spending will continue to provide a boost for the Hampton Roads economy.
- Port of Virginia is expected to hit new cargo records in 2022.
- Despite increases in mortgage rates, single-family home prices in 2022 will continue to increase at a moderate pace.

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