INFLATION, UNCERTAINTY, AND VOLATILITY UNDERMINE VIRGINIA'S RECOVERY

"It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness, it was the epoch of belief, it was the epoch of incredulity, it was the season of light, it was the season of darkness, it was the spring of hope, it was the winter of despair."

– Charles Dickens, Tale of Two Cities

As Virginians prepare for the new year, the opportunity presents itself to reflect on how the Commonwealth has fared this decade and to ask whether the future holds promise or despair. To say that the first 36 months of this decade have been distinctive would be an understatement. In 2020, the uncertainty surrounding the emergence of the COVID-19 virus led to restrictions on business and social activity throughout the Commonwealth. These restrictions, when combined with similar policies across the nation, produced a historical contraction in economic activity. The Federal Reserve responded by lowering the discount rate to 0.25% and created trillions of dollars in liquidity.[1] At the same time, the federal government provided trillions of dollars in stimulus to consumers and business, including expanded unemployment programs, direct payments to households, and forgivable loans to businesses. An equally historic recovery in economic activity started in the second half of 2020 and continued apace in 2021. Consumers increased their spending, business activity recovered swiftly in many industries, and employers sought to hire for positions shed in the early days of the pandemic.

As Virginia entered 2022, the prospects for a continued recovery remained strong, although there were warning signs on the horizon. Prices were rising more rapidly than prior to the pandemic although there was hope among some (specifically the Federal Reserve) that these

1 The discount rate is the interest rate charged to commercial banks and other depository institutions on loans received from their regional Federal Reserve Bank's lending facility—the discount window.

increases were transitory and would dissipate as the economy returned to "normal." Russia's invasion of Ukraine in February 2022 roiled global commodity markets, fueling a sharp rise in energy prices. Yet, even as inflation increased and real Gross Domestic Product decreased in the first two quarters of 2022, businesses continued to hire, profits remained strong, consumers kept spending, and home values continued to rise. It appeared to many that the economy was going in two directions at once, neither a full-blown recession nor a vigorous recovery.

As Virginia prepares to enter 2023, the question is how do we navigate these uncertain and volatile times? Can the Commonwealth put aside partisan differences, which are increasingly determined by geography, to foster growth across the state? An uneven and fitful recovery from the pandemic in 2022 has highlighted the need to create incentives for entrepreneurship and innovation across the state. If job growth and innovation are increasingly concentrated in Northern Virginia and, to a lesser extent, Richmond, then the sharp partisan divides that we have witnessed over the last decade will likely only increase. While wise investments in infrastructure and public schools can help improve Virginia's business climate, the increasing threat of sea level rise poses an existential challenge to the future of the state's economy. Improving economic resiliency is no longer a buzzword; it is a necessity for addressing how the Commonwealth will grow in the future.

We would be naïve to say these conversations will be easy or that change will be overnight. The relatively tepid growth of Virginia's civilian labor force requires solutions ranging from dealing with the opioid crisis to improving flows from institutions of higher education to the workforce. Outmigration of younger workers has been offset in the past by immigration, but immigration flows remain below pre-COVID levels. Institutions of higher education are facing an "enrollment cliff" in the next decade due to the demographic shifts in the population. We can hope that these problems resolve themselves or we can determine where we stand, where we want to go, and how to get there. Our work seeks to inform, to provide the common ground upon which to stand, so that we may work together for a better Virginia.

This chapter reviews the performance of the Virginia economy over the past 36 months and identifies challenges to growth in 2023 and beyond. We first discuss how the pandemic continues to shape our lives. We explore how inflation has challenged business and consumers and how rising interest rates will likely affect housing markets in the coming year. We explore changes in defense spending and how Russia's invasion of Ukraine highlighted Virginia's dependence on the production of legacy weapons systems. Lastly, we conclude with thoughts on how Virginia can address its challenges in the coming years.

Covid-19 Continues To Shape The Commonwealth

In previous reports, we highlighted the impact of COVID-19 on the lives of Virginians and economic activity in the Commonwealth. A cursory examination of public discourse in 2022, however, would suggest that many Virginians and Americans have "moved on" from COVID-19, even though it remains part of our daily lives. As attention on the disease has waned, data have become less reliable, especially regarding infections, due to the prevalence of at-home testing. A recent Ipsos survey found that 88% of respondents agreed with the statement that COVID-19 changed Americans' lives forever, and 85% of respondents believed that the virus would not be eradicated in their lifetimes.[2] The same survey found that 65% of respondents said there was little or no risk in returning to their normal, pre-pandemic lives.

Even though many of us may view COVID-19 as a virus in the rear-view mirror, data from the Centers for Disease Control and Prevention (CDC) and the Virginia Department of Health (VDH), suggest that it continues to change the lives of Virginians. According to the VDH, more than 53,000 hospital admissions could be attributed to COVID-19 from 2020 to mid-October 2022. More than 18,000 Virginians died from COVID-19 with another 3,700 cases being suspected as attributable to COVID-19.[3] Almost

2 https://www.ipsos.com/en-us/news-polls/axios-ipsos-coronavirus-index
3 https://www.vdh.virginia.gov/coronavirus/see-the-numbers/covid-19-in-virginia/

500 Virginians were hospitalized in mid-October 2022 for COVID-19, with 67 of those patients in intensive care units across the state.[4]

Graph 1 provides insight into how COVID-19 has impacted the lives of Virginians, using data from the Centers for Disease Control and Prevention (CDC) from January 2020 to October 2022. African Americans comprised 19.1% of Virginians over this period and accounted for 23.0% of deaths attributable to COVID-19. Virginians who identified as white, on the other hand, accounted for 60.8% of the Commonwealth's population and 68.1% of all COVID-19 deaths over the same period.

Were we to examine how these proportions have changed over time, however, we would reveal how the impact of COVID-19 has changed in Virginia. In the fall of 2020, African Americans and whites accounted for approximately 28.0% and 58.0% of COVID-19 deaths in Virginia, respectively. By the fall of 2021, African Americans accounted for 25.0% of deaths from COVID-19 in the Commonwealth while the proportion of white deaths increased to 64.8%. In the latest data, African Americans in Virginia accounted for 23.0% of all COVID-19 deaths while white Virginians accounted for 68.1% deaths. One explanation is that, early in the pandemic, deaths were concentrated in more densely populated areas of the Commonwealth. As the pandemic progressed, and vaccines became widely available, deaths per capita declined in more densely populated areas while increasing in less densely populated areas.[5]

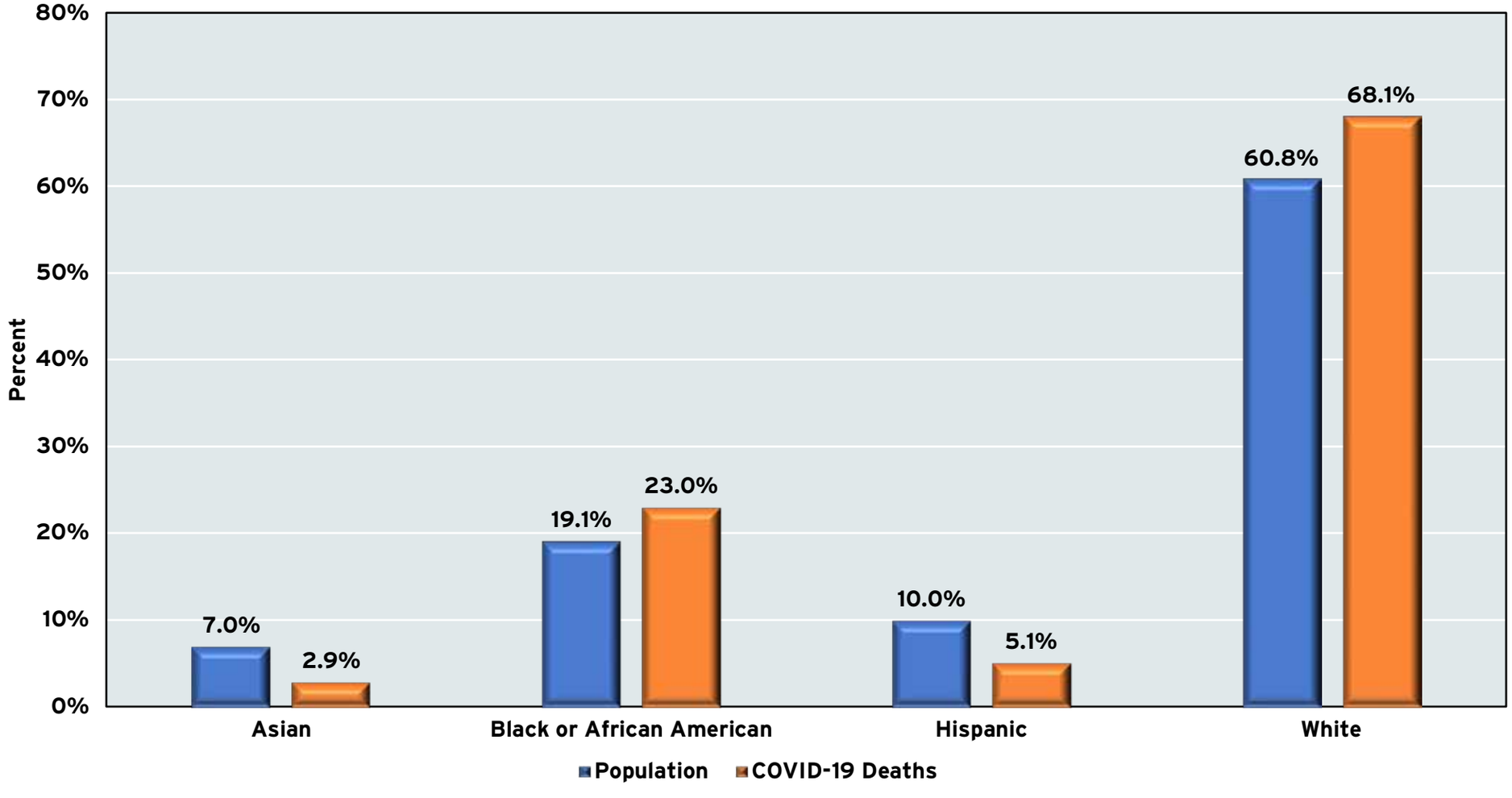
Graph 2 presents data from the Kaiser Family Foundation on vaccinations by race for Virginia and for 36 states (including Virginia).[6] The data provide insight into what proportion of the population has received at least one dose of a COVID-19 vaccine. Across all 36 states, from late April 2021 to mid-July 2022, the gap in vaccination rates between white and Black Americans declined by 14 percentage points. For Virginia, there was no longer any discernable difference in vaccination rates in the latest data.

Moving forward, COVID-19 will likely become a part of the tapestry of the Commonwealth and the nation instead of the dominant theme of our lives as it was in 2020. The costs of the pandemic, however, will continue to emerge over the coming years. We continue to observe higher levels of need for mental health services in emergency departments. Test scores highlight the learning losses due to extended school closures. As we discuss in the coming sections, there is increasing evidence that COVID-19 has impacted the ability of some Virginians to participate in the labor force. Domestic migration continues to be negative, that is, Virginians are leaving the state in greater numbers than residents of other states are moving to the Commonwealth. International migration remains well below pre-pandemic levels.[7] Whether we want to discuss it or not, COVID-19 will shape our lives in the years to come.

4 https://www.vdh.virginia.gov/coronavirus/see-the-numbers/covid-19-in-virginia/vhha-hospitalizations/
5 Hsueh-Fen Chen, Saleema A Karim, "Relationship between political partisanship and COVID-19 deaths: Future implications for public health," *Journal of Public Health*, Volume 44, Issue 3, September 2022, Pages 716–723, https://doi.org/10.1093/pubmed/fdab136 and https://www.pewresearch.org/politics/2022/03/03/the-changing-political-geography-of-covid-19-over-the-last-two-years/
6 https://www.kff.org/coronavirus-covid-19/issue-brief/latest-data-on-covid-19-vaccinations-by-race-ethnicity/
7 https://www.census.gov/data/tables/time-series/demo/popest/2020s-state-total.html

GRAPH 1

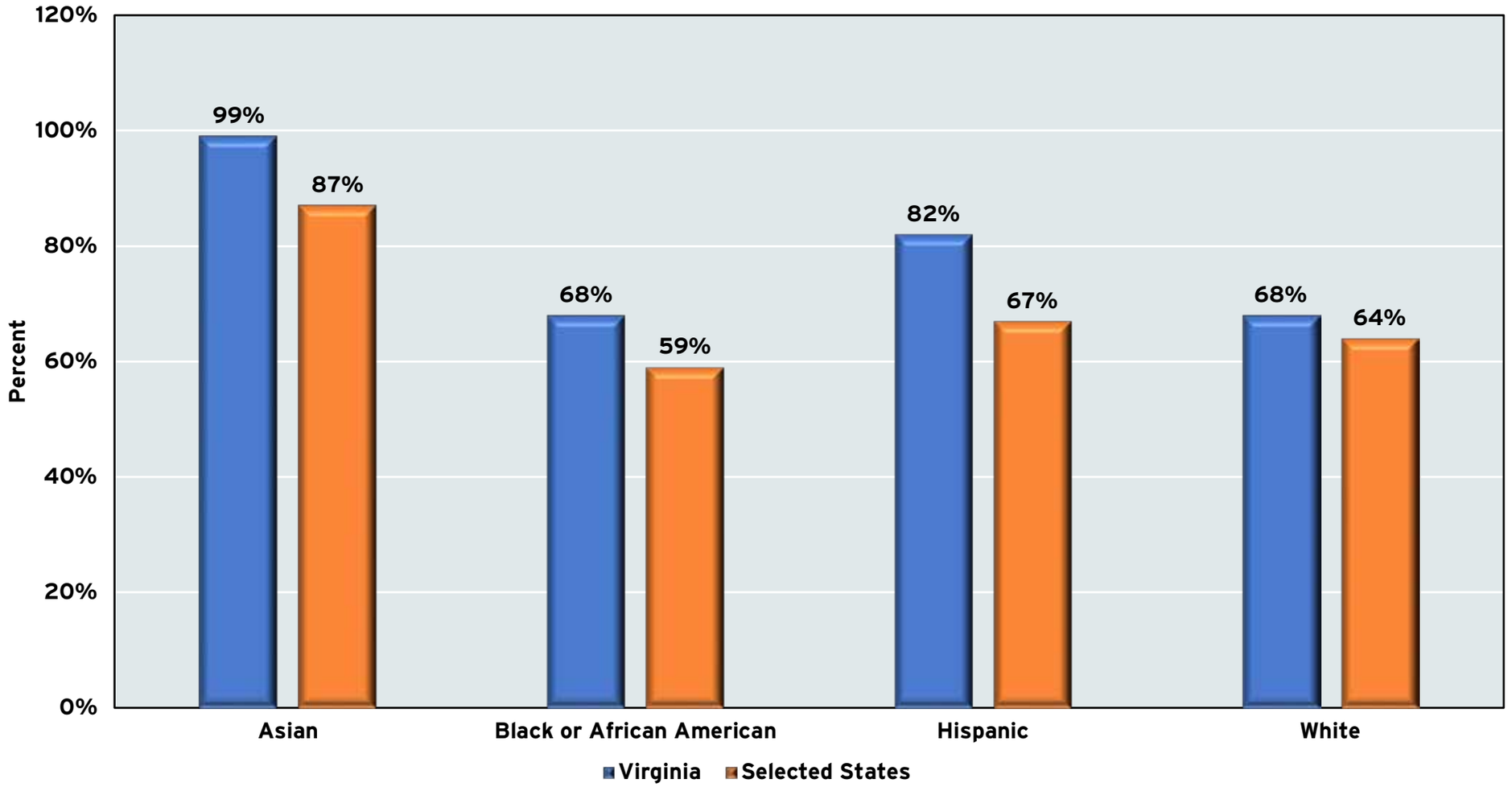
DISTRIBUTION OF POPULATION AND COVID-19 DEATHS BY RACE
VIRGINIA, JANUARY 2020 - OCTOBER 2022



Source: Centers for Disease Control and Prevention (2022) and Dragas Center for Economic Analysis and Policy, Old Dominion University.

GRAPH 2

VACCINATIONS BY RACE, VIRGINIA AND 36 SELECTED STATES AS OF JULY 11, 2022



Source: Kaiser Family Foundation (2022).

Gross Domestic Product: The Recovery Slows

Gross domestic product (GDP) is one of the headline measures of economic performance, as it estimates the dollar value of final goods and services produced in an area during a given period of time. GDP is an imperfect measure in that it does not capture nonmarket transactions (barter, for example), may understate the extent of the "gig economy," and does not place a value on household production. National data typically lag two to three months from the end of the most recent quarter. State data can lag four to six months from the end of the previous quarter. Quarterly data are also somewhat noisy (the data tend to have greater variation than annual data) and subject to revision, especially at the state level.

In Graph 3, we present data for nominal and real (inflation-adjusted) GDP for Virginia from the first quarter of 2005 to the second quarter of 2022. In the first quarter of 2005, Virginia's real GDP was approximately $405.4 billion, growing to about $493.8 billion in the fourth quarter of 2019. While the Commonwealth's real GDP did decline to $453.5 billion at the end of the second quarter of 2020, the recovery was swift. By the end of the first quarter of 2021, real GDP had recovered and continued to climb through the fourth quarter of 2021. However, economic activity in the state declined in the first two quarters of 2022.

Graph 4 shows the annualized quarterly change in real GDP for Virginia from the first quarter of 2019 to the second quarter of 2022. Prior to the onset of the pandemic, the Virginia economy had grown 13 out of the previous 14 quarters. In the first quarter of 2020, the economy contracted at an annualized rate of 3.9%. In the second quarter, when the restrictions on business and social activity were the most stringent, real economic activity in the state contracted at an annualized rate of approximately 26.0%. This historic shock was followed by a rapid recovery, with six straight quarters of positive growth. In the first two quarters of 2022, economic activity contracted at an annualized rate of 3.3% in the first quarter and 0.9% in the second quarter. Persistent inflation, geopolitical shocks, and continued supply chain woes will likely continue through the remainder of 2022.

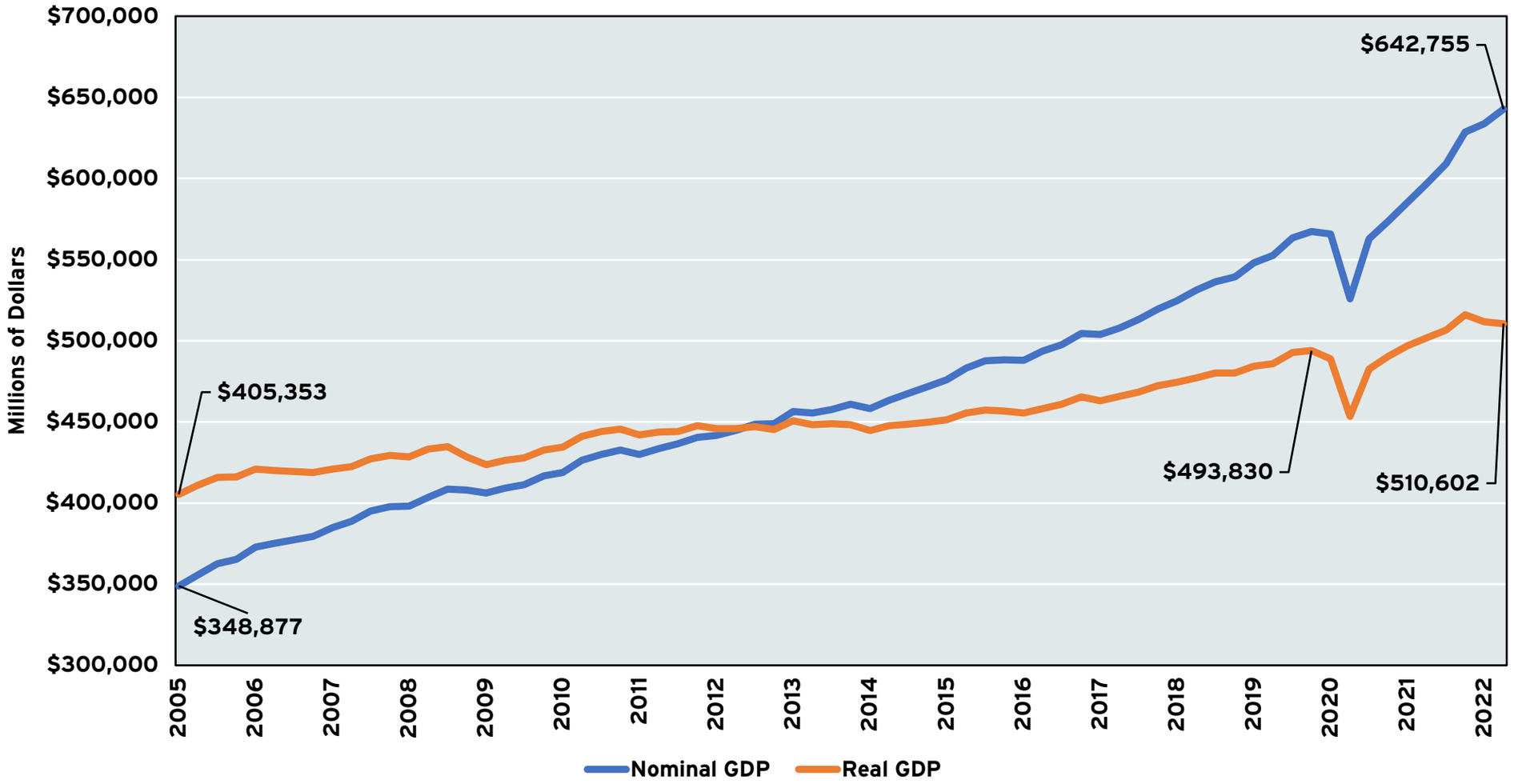
Graph 5 displays the performance of the Virginia economy relative to the states of North Carolina and Maryland as well as the nation from the first quarter of 2006 to the second quarter of 2022. In the decade prior to the pandemic, Virginia's economic performance was eclipsed by North Carolina, Maryland, and the nation. After the economic shock of 2020, North Carolina and the United States recovered at a faster pace than the Commonwealth. While Maryland's performance has fallen behind Virginia's recently, this is due more to a slowing recovery in Maryland than a faster pace of economic activity in Virginia.

To say that forecasting economic activity over the last 36 months has been challenging would be an understatement. In 2021, we forecast that Virginia would grow in the last two quarters of the year, but we also admit that we underestimated growth in the fourth quarter of 2021. Russia's invasion of Ukraine, OPEC's recent pivot to curtail production, and China's continued pursuit of a "zero COVID" policy continue to influence the pace of economic activity in Virginia and the United States. Domestically, the Federal Reserve's effort to rein in inflation will slow economic activity in 2023 and potentially into 2024. Whether domestic political uncertainty will increase as a result of the 2022 midterms also remains to be seen, as the new Congress may be even more unable to conduct its basic functions than any in recent memory.

In Table 1, we present our forecasts for real GDP for the nation and the Commonwealth for the remainder of 2022. We project that economic activity will increase slightly in the last two quarters of 2022, although we remain skeptical of whether these increases can be sustained in 2023. If anything, the contraction in the first two quarters of 2022 should be a cautionary tale for state and local governments. The revenue surpluses of 2021 and 2022 can disappear swiftly in the face of a recession.

GRAPH 3

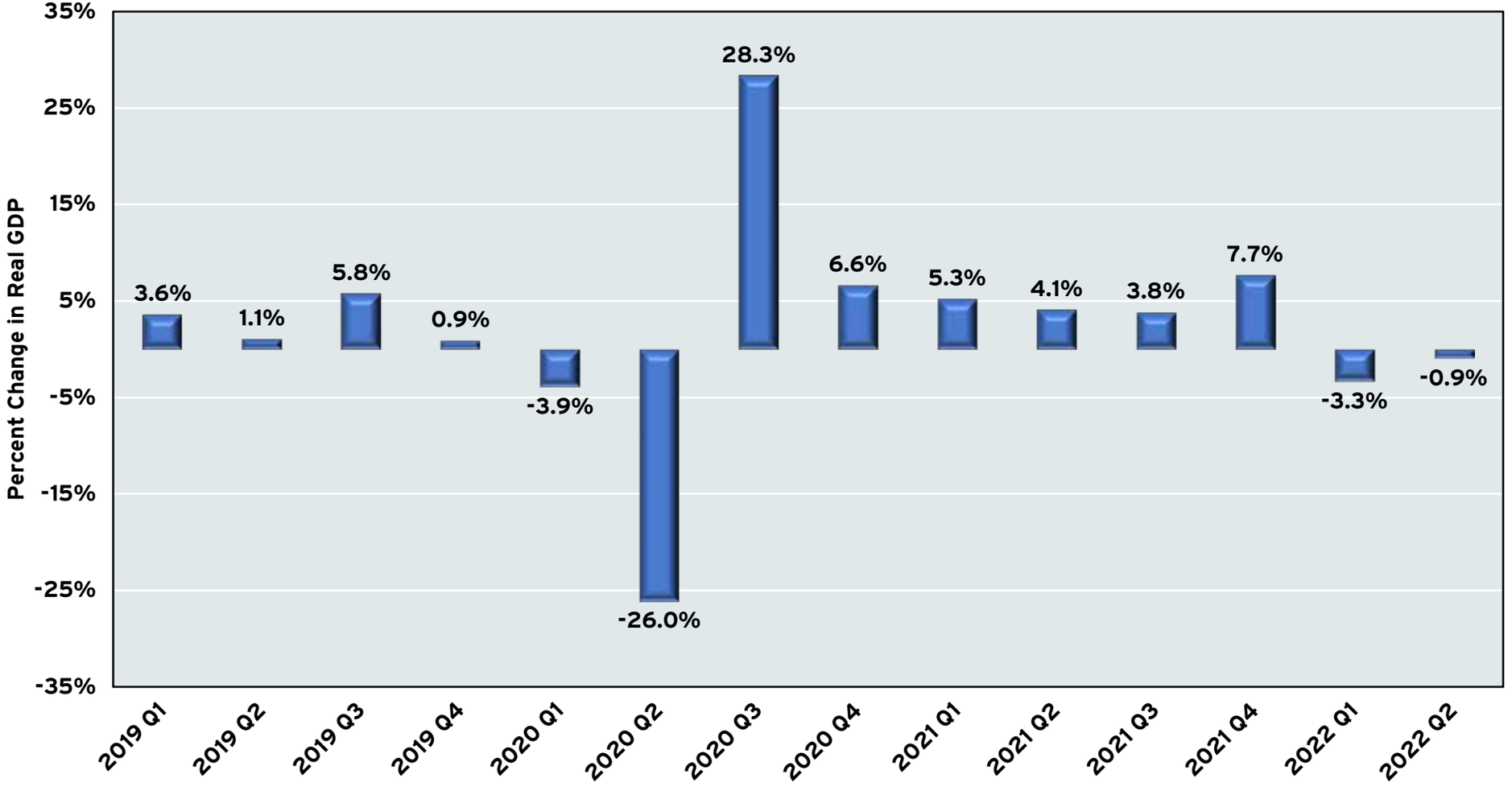
NOMINAL AND REAL GROSS DOMESTIC PRODUCT
VIRGINIA, 1ST QUARTER 2005 - 2ND QUARTER 2022



Source: Bureau of Economic Analysis (2022). Seasonally adjusted data at annual rate.

GRAPH 4

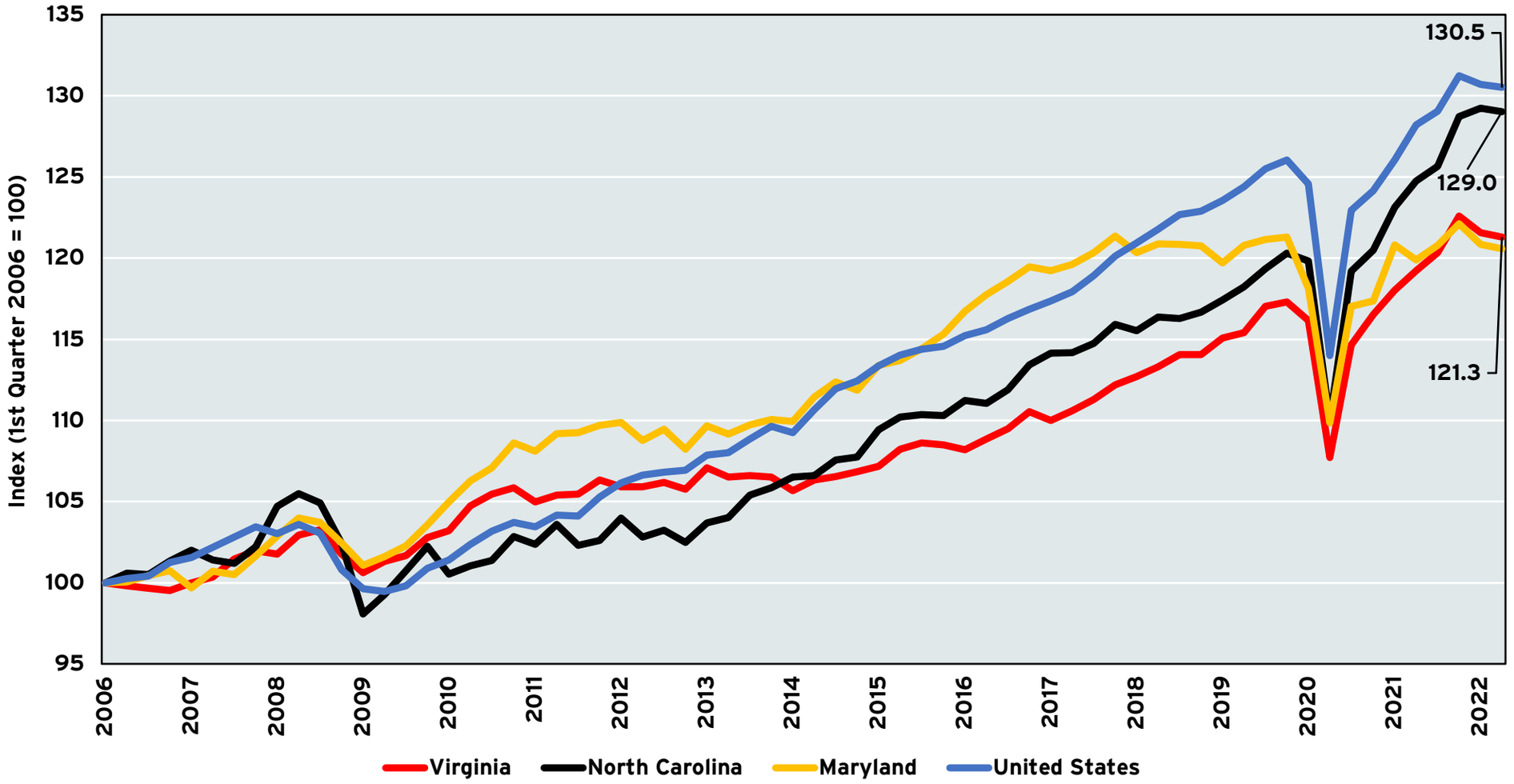
ANNUALIZED PERCENTAGE CHANGE IN QUARTERLY REAL GROSS DOMESTIC PRODUCT: VIRGINIA, 1ST QUARTER 2019 TO 2ND QUARTER 2022



Sources: Bureau of Economic Analysis, 2022, and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Table SQGDP9, real GDP by state. Millions of chained 2012 dollars.

GRAPH 5

INDEX OF REAL GROSS DOMESTIC PRODUCT:
VIRGINIA, NORTH CAROLINA, MARYLAND, AND THE UNITED STATES
1ST QUARTER 2006 – 2ND QUARTER 2022



Sources: Bureau of Economic Analysis, 2022, and the Dragas Center for Economic Analysis and Policy, Old Dominion University. U.S. data from Table T10106 of the National Income and Product Accounts. State data from Table SQGDP9, real GDP by state.

TABLE 1

QUARTERLY REAL GROSS DOMESTIC PRODUCT: VIRGINIA AND THE UNITED STATES, 1ST QUARTER 2019 TO 4TH QUARTER 2022 (MILLIONS OF DOLLARS)

Year	United States	Annualized Quarterly Real GDP Growth	Virginia	Annualized Quarterly Real GDP Growth
2019 Q1	18,835,411	2.2%	484,485	3.6%
2019 Q2	18,962,175	2.7%	485,794	1.1%
2019 Q3	19,130,932	3.6%	492,688	5.8%
2019 Q4	19,215,691	1.8%	493,830	0.9%
2020 Q1	18,989,877	-4.6%	489,003	-3.9%
2020 Q2	17,378,712	-29.9%	453,483	-26.0%
2020 Q3	18,743,720	35.3%	482,662	28.3%
2020 Q4	18,924,262	3.9%	490,490	6.6%
2021 Q1	19,216,224	6.3%	496,830	5.3%
2021 Q2	19,544,248	7.0%	501,883	4.1%
2021 Q3	19,672,594	2.7%	506,619	3.8%
2021 Q4	20,006,181	7.0%	516,072	7.7%
2022 Q1	19,924,088	-1.6%	511,784	-3.3%
2022 Q2	19,895,271	-0.6%	510,602	-0.9%
2022 Q3	20,021,271	2.6%	512,900	1.8%
2022 Q4	20,342,069	1.6%	514,951	1.6%

Sources: Bureau of Economic Analysis, 2022, and the Dragas Center for Economic Analysis and Policy, Old Dominion University. U.S. data from Table T10106 of the National Income and Product Accounts. Virginia data from Table SQGDP9, real GDP by state. Forecasted values for US real GDP for 2022 Q4 and Virginia real GDP for 2022 Q3 and 2022 Q4.

Inflation Adds To Economic Uncertainty

If there was one dominant theme of 2022, it was how inflation impacted the lives of Virginians. Higher prices for shelter, food, and gasoline changed consumer sentiment for the worse and undermined the recovery from the pandemic. Any hopes that inflation would be transitory in 2022 quickly disappeared in the face of continued supply chain woes and geopolitical shocks.

In Graph 6, we present the monthly rates for inflation and core inflation for the United States from January 2000 to September 2022.[8] From February 2010 (the trough in economic activity following the Great Recession of 2007–2009) to February 2022 (the end of the longest peacetime expansion in the nation's history), the average monthly rates of inflation and core inflation were 1.8% and 1.9%, respectively. The Federal Reserve, weighing the relatively tepid recovery in labor markets, leaned into an accommodative monetary policy during this period.

Facing the rapid decline in economic activity in the spring of 2020, the Federal Reserve lowered the discount rate (the overnight interest rate charged to banks who borrow from the Federal Reserve) from 2.25% to 1.75% on March 4, 2020, then again to 0.25% on March 16, 2020 (Table 2). Over the coming months, the Federal Reserve and federal government would inject trillions of dollars of stimulus in the economy to stave off a prolonged contraction in economic activity. By all accounts, these efforts, while at times inefficient, were successful as evidenced by the recoveries in real GDP and labor markets.

There is, as the saying goes, no such thing as a free lunch. Relatively low interest rates, coupled with the sudden shift of many high-income workers to work-at-home, increased the demand for single-family housing. Supply chain disruptions rippled throughout the economy, leading to more dollars chasing fewer goods, fueling inflation. In Graph 7, we present the monthly rate of inflation from the Bureau of Labor Statistics and a measure of

8 The Consumer Price Index (CPI) measures the average change in the prices paid by urban consumers for a market basket of consumer goods and services. The monthly inflation rate is equal to the percentage change in the CPI index over the previous 12 months. The core inflation rate represents the percentage change in the CPI index less food and energy.

inflationary expectations from the University of Michigan Survey of Consumers.[9] In February 2020, monthly inflation was 2.3% and consumers expected that inflation in February 2021 would be 2.4%. As inflation surged in 2021 and into 2022, consumer sentiments about future inflation soured. In September 2022, consumers expected inflation to be 4.7% in August 2023, illustrating how the Federal Reserve must work to get ahead of expectations.

One significant piece of evidence that the Federal Reserve is playing "catch up" is how quickly the discount rate has changed in 2022. On December 16, 2008, at the onset of the Great Recession, the Federal Reserve lowered the discount rate to 0.50%. It would take almost 10 years for the discount rate to rise 250 basis points (2.5%) on December 20, 2018. On March 16, 2020, at the onset of the pandemic, the Federal Reserve lowered the discount rate to 0.25%. Two years later, the Federal Reserve increased the discount rate by 25 basis points to 0.50%. Between May 5, 2022, and November 2, 2022, the Federal Reserve increased the discount rate 350 basis points, that is, the Federal Reserve has raised the discount rate more in 2022 than it did in the decade during and after the Great Recession.

While it may be popular among cable news hosts and politicians to claim that inflation in the United States is due to the policies of one administration or another, the data tell a different story. In Graph 8, we compare the annualized rate of inflation in January 2020 with the latest data available for several countries. The energy price shock is particularly acute in Europe, where prices of electricity and natural gas have been most significantly impacted by Russia's invasion of Ukraine and its subsequent attempts to wield its energy exports as a foreign policy weapon. Central banks have reacted by raising the cost of money. The European Central Bank (ECB), for example, maintained a **negative interest rate** on its deposit facility from June 11, 2014, to July 27, 2022.[10] However, on July 27, 2022, the ECB raised the deposit facility rate from -0.50% to 0.00% and again to 0.75% on September 14, 2022.[11] On November 2, 2022, the ECB increased the deposit facility rate to 1.5% (along with other rates) in the face of increasing inflation.

TABLE 2

DISCOUNT RATE, UNITED STATES
DECEMBER 16, 2008 – NOVEMBER 2, 2022

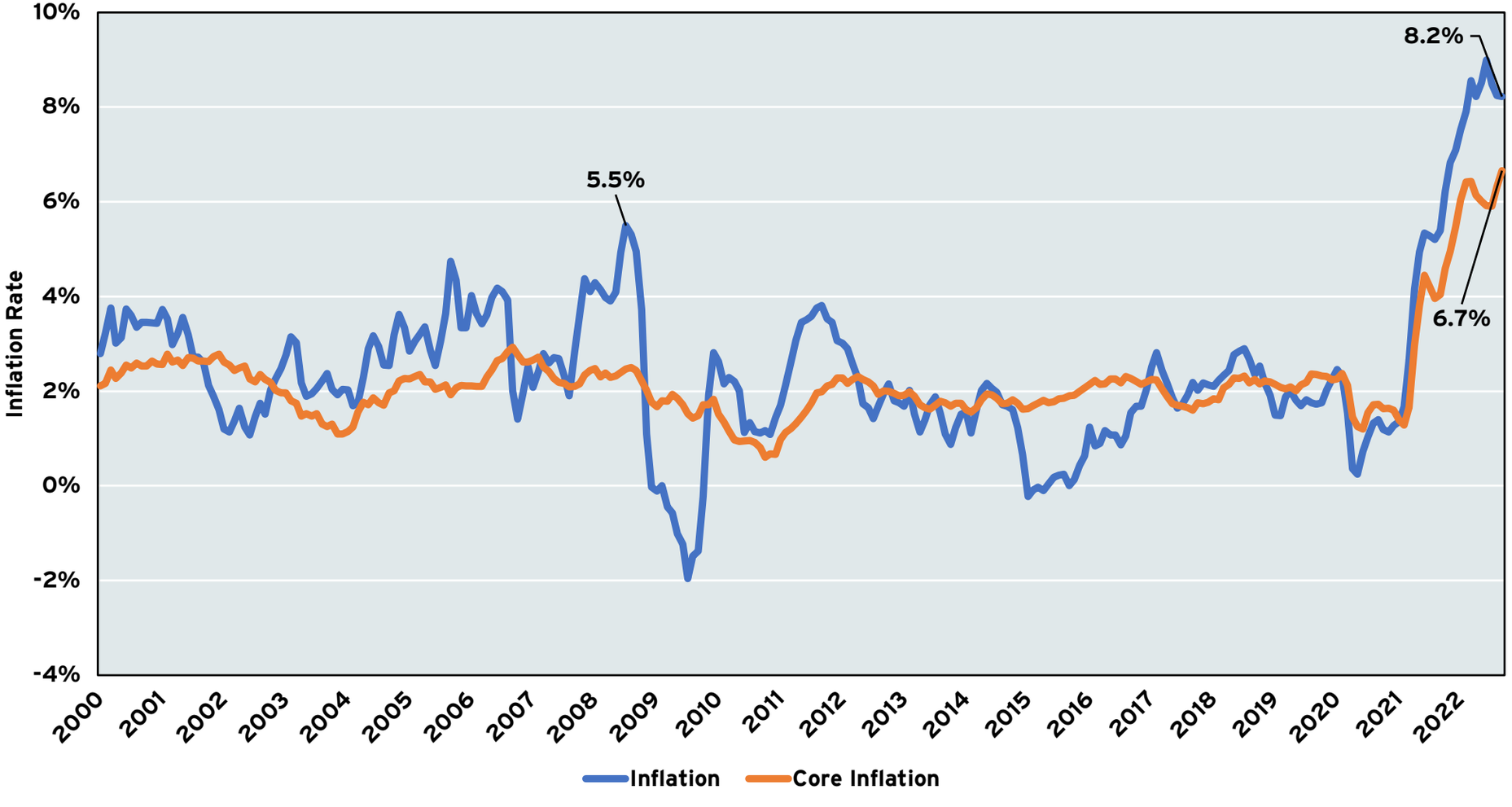
Date	Discount Rate (% per annum)
December 16, 2008	0.50%
February 29, 2012	0.75%
December 17, 2015	1.00%
December 15, 2016	1.25%
March 16, 2017	1.50%
June 15, 2017	1.75%
December 14, 2017	2.00%
March 22, 2018	2.25%
June 14, 2018	2.50%
September 27, 2018	2.75%
December 20, 2018	3.00%
August 1, 2019	2.75%
September 19, 2019	2.50%
October 31, 2019	2.25%
March 4, 2020	1.75%
March 16, 2020	0.25%
March 17, 2022	0.50%
May 5, 2022	1.00%
June 17, 2022	1.75%
July 28, 2022	2.50%
September 22, 2022	3.25%
November 2, 2022	4.00%

Source: Federal Reserve Bank, Discount Window. The discount rate is the interest rate on advances to member banks.

9 The inflationary expectations measure is the median expected price change for the next 12 months. For more information, see https://data.sca.isr.umich.edu/.
10 The deposit facility rate is the interest rate for banks that make overnight deposits with the Eurosystem.
11 https://www.ecb.europa.eu/stats/policy_and_exchange_rates/key_ecb_interest_rates/html/index.en.html

GRAPH 6

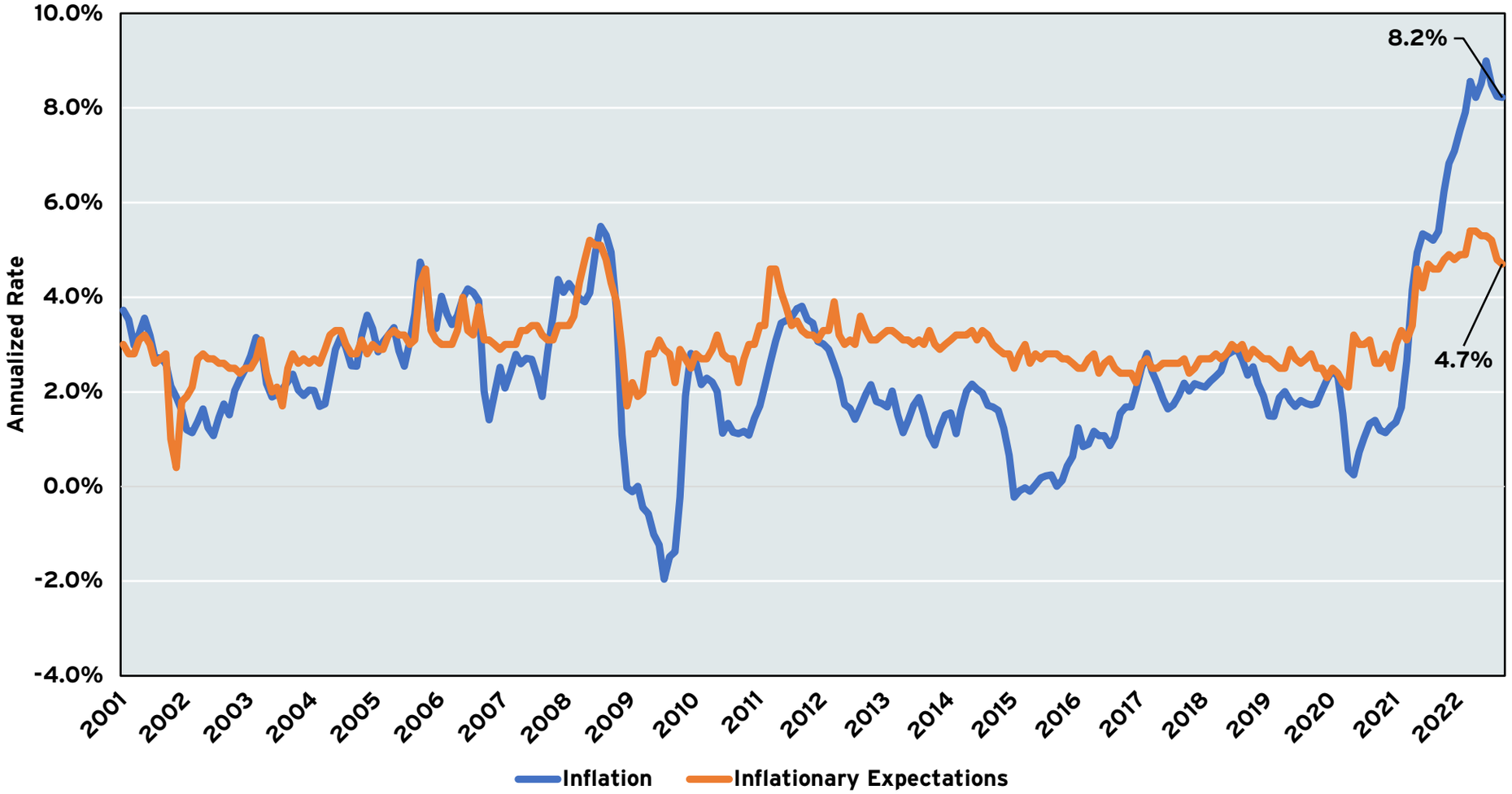
INFLATION AND CORE INFLATION, UNITED STATES
JANUARY 2000 - SEPTEMBER 2022



Source: Bureau of Labor Statistics. Data are seasonally adjusted.

GRAPH 7

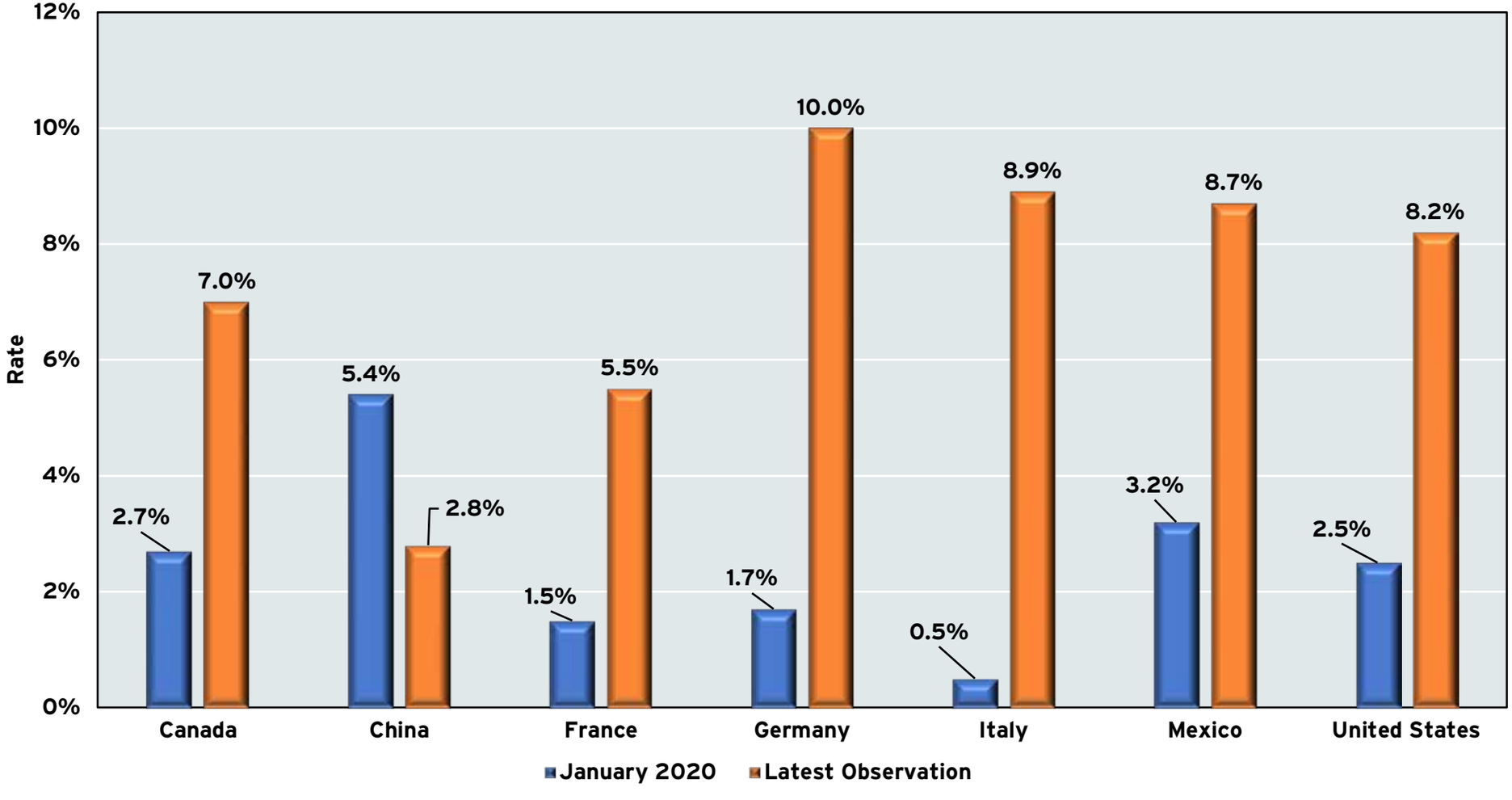
INFLATION AND INFLATIONARY EXPECTATIONS, UNITED STATES
JANUARY 2000 - SEPTEMBER 2022



Source: University of Michigan, Survey of Consumers and Bureau of Labor Statistics. Inflationary expectations are the median expected price change for the next 12 months.

GRAPH 8

INFLATION IN SELECTED COUNTRIES
JANUARY 2020 AND SEPTEMBER 2022



Source: World Bank, Bureau of Labor Statistics, and National Statistics Offices. Latest observations are all for September 2022. Annual percentage change in consumer price index.

One notable exception to the global rise of inflation has been China. While monthly inflation was lower in China in September 2022 than January 2020, this is more attributable to the attempts to maintain a "zero-COVID" policy than stellar macroeconomic management. The zero-COVID policy has required mass testing, stringent lockdowns involving millions of citizens, and even more draconian measures to limit public discourse. Shanghai endured a two-month lockdown in 2022,[12] reducing the pace of economic growth and contributing to supply-chain disruptions across the globe. However, even in China, draconian policies may have a limit. Even though the most recent Community Party Congress reaffirmed the commitment to a slate of zero-COVID policies, the resulting display of civil unrest across several major cities led to an unprecedented turn of events. In early December, China rolled back several zero-COVID policies, including forcing individuals with mild infections to be housed in large (and often unsafe) quarantine centers.[13] However, the government may still require entire buildings to be isolated in the case of an outbreak and the open question is whether, once infections start to rise, the government will revert to its previous slate of policies.

The question now is not whether the Federal Reserve will keep raising the discount rate, but rather by how much? We project continued increases until core inflation falls below 2%. We expect the Federal Reserve to increase the discount rate by another 75 to 125 basis points over the next six months unless there is a significant negative economic shock. Given that there is a substantial lag between raising interest rates and declines in consumer demand and economic activity, there is a high likelihood the Federal Reserve will "overshoot" and then tip the economy into a sustained recession. While we would prefer to be wrong on this point, we believe the Federal Reserve will accept higher unemployment and lower real GDP as the cost of breaking inflationary expectations.

Individual employment and establishment employment data attempt to measure how many people are working at a given time. These data are from two different surveys: the Current Population Survey (CPS) and the Current Establishment Survey (CES). The CPS asks the civilian noninstitutionalized population whether they are working, looking for work or not attached to the labor force. The civilian labor force represents the civilian noninstitutionalized population that is either working or actively looking for work, while individual employment reflects those in the labor force who are working. The CES asks employers about their employees. There is an important difference between the CPS and CES. An individual can only be employed once in the CPS – that is, an individual either is working, unemployed or not seeking to work. In the CES, an individual can show up multiple times if he or she has different jobs with different employers. For clarity, we present the CPS data as "individual employment" and the CES data as "jobs."

12 https://www.economist.com/china/2022/10/13/china-shows-few-signs-of-loosening-its-zero-covid-policy
13 https://apnews.com/article/health-business-china-covid-economy-e5559f6062cf052a71ad6ba1ceece693

An Incomplete Recovery as the Threat of Recession Looms

Graph 9 illustrates the civilian labor force and individual employment in the Commonwealth from January 2019 to September 2022. In December 2019, both the labor force and individual employment set records at 4.48 million and 4.36 million Virginians, respectively. We benchmark our analysis to February 2020, however, as this is generally accepted as the last month before the impact of the pandemic across the United States. We note that while individual employment declined rapidly in the spring of 2020, it also began its recovery in the summer months. On the other hand, the civilian labor force continued to trend downward in 2020 and into 2021, reaching its nadir in September 2021. In September 2022, the civilian labor force and individual employment in Virginia were 2.8% and 2.7% lower than February 2020.

The headline unemployment rate measures the ratio of unemployed individuals to the civilian labor force. In Virginia, the unemployment rate jumped from 2.7% in February 2020 to 11.6% in April 2020 (Graph 10). This was the highest recorded unemployment rate for the Commonwealth in recent memory. However, the sharp increase in the unemployment rate was short lived. By January 2021, the unemployment rate had declined to 4.8% and was 3.3% by the end of 2021. In 2022, the unemployment rate in the Commonwealth continued to decline, reaching 2.6% in September 2022. Unless there is a dramatic shift in economic fortunes, Virginia's unemployment rate will remain below 3% into the first half of 2023.

However, the unemployment rate can misrepresent the state of the labor market. In the best case, the civilian labor force is expanding, and the number of unemployed individuals is contracting. The unemployment rate also can decline because individuals drop out of the labor force or even never join it. This phenomenon has been occurring nationally. The percentage of adults employed or actively seeking a job fell from 67.2% in January 2001 to 62.3% in September 2022.

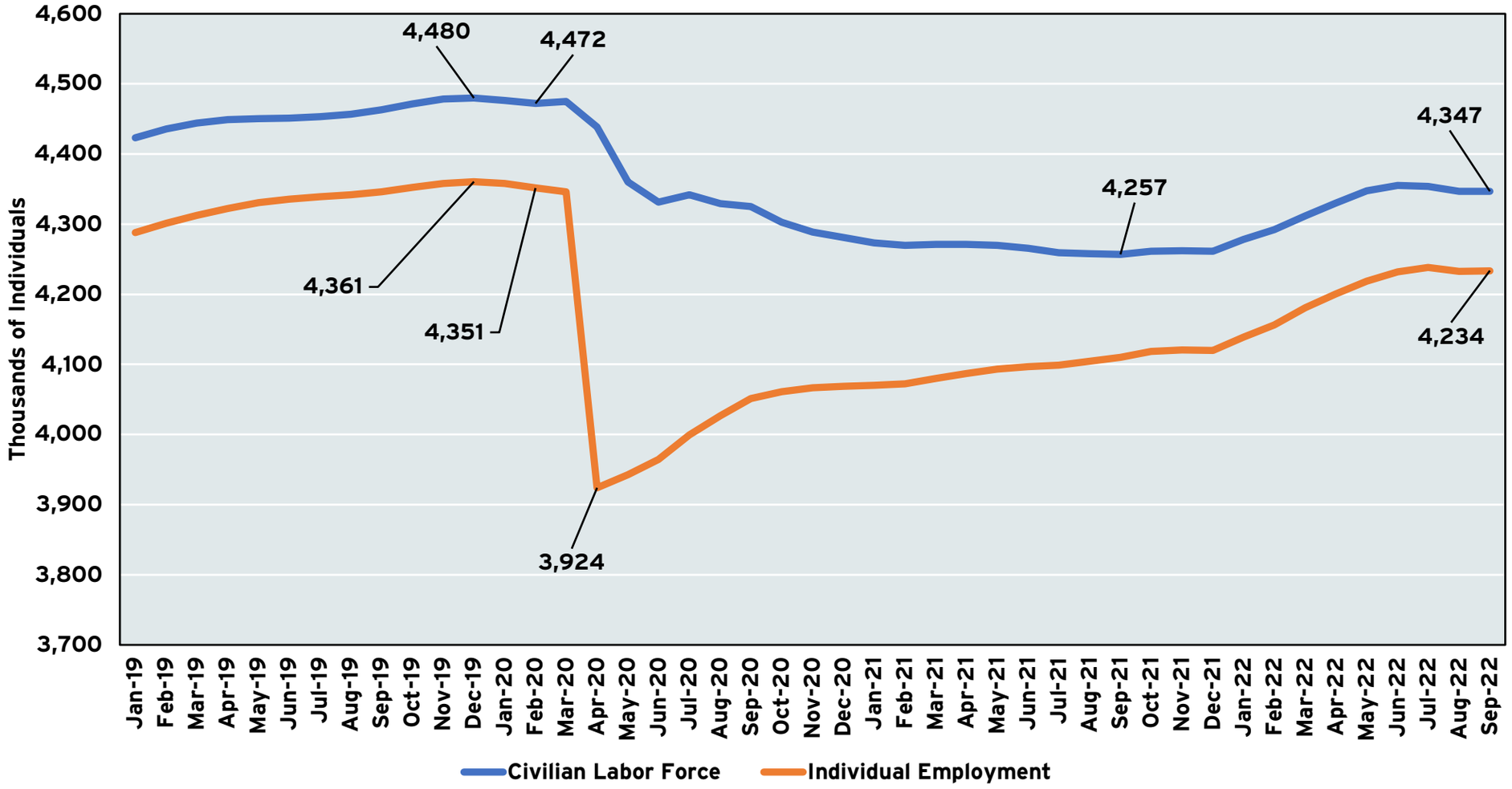
The unemployment rate can also decline when the civilian labor force declines and the number of unemployed individuals falls. This is what has occurred in Virginia. A smaller labor force and a smaller number of unemployed individuals masks the potential extent of unemployment.

In Graph 10 we suggest an alternative measure of unemployment that provides insight into this phenomenon. We treat exits from the labor force as unemployed individuals instead of removing them from the labor force entirely. While we understand that some departures from the labor force may be permanent (retirees, health conditions), this alternative measure provides an upper-bound on the extent of unemployment in the Commonwealth. In September 2022, the official unemployment rate was 2.6%. Treating departures from the labor force as unemployed yields an alternative measure of 5.3%. The true extent of unemployment in Virginia likely lies between these two data points, reflecting the challenge of inducing Virginians to return to the labor force and gainful employment.

How has Virginia fared relative to neighboring states and the nation? In Graph 11, we compare the labor force recoveries of Virginia with Maryland, North Carolina, West Virginia, and the United States. Virginia's labor force has recovered more fully than Maryland's but remains below pre-pandemic levels. West Virginia's labor force (-0.4%) nearly recovered but still lags the nation (0.1%), which saw more individuals in the labor force in September 2022 than February 2020. North Carolina's recovery stands out, with a labor force that was 2.2% higher in September 2022 than February 2020. If Virginia's labor force recovery continues to lag that of North Carolina, then its economic fortunes are likely to lag as well in the coming years.

GRAPH 9

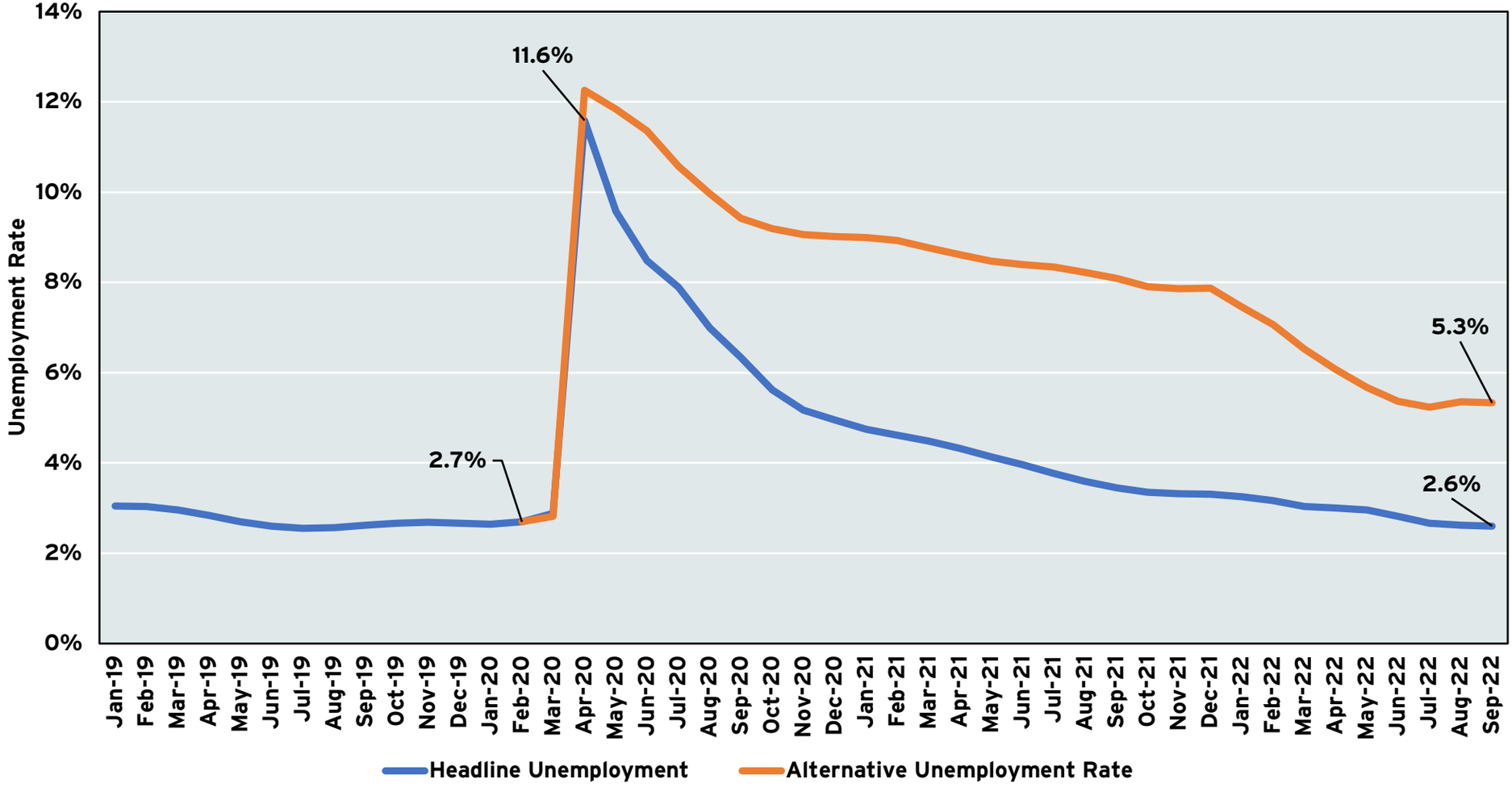
CIVILIAN LABOR FORCE AND INDIVIDUAL EMPLOYMENT: VIRGINIA, JANUARY 2019 TO SEPTEMBER 2022



Sources: Bureau of Labor Statistics and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Data are seasonally adjusted.

GRAPH 10

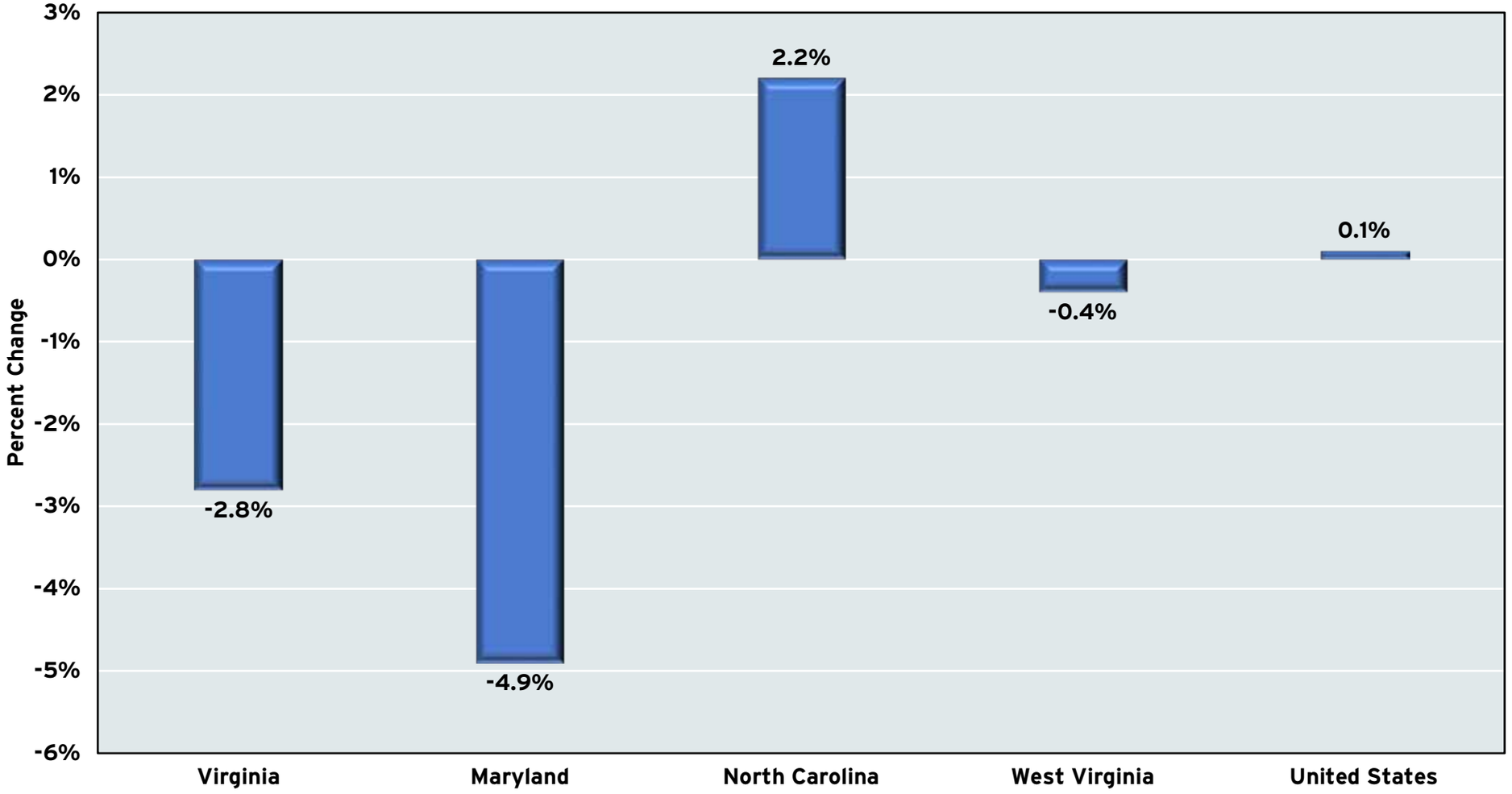
HEADLINE UNEMPLOYMENT RATE (U3) AND ALTERNATIVE MEASURE OF UNEMPLOYMENT
VIRGINIA, JANUARY 2019 TO SEPTEMBER 2022



Sources: Bureau of Labor Statistics and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Data are seasonally adjusted.

GRAPH 11

PERCENT CHANGE IN CIVILIAN LABOR FORCE
VIRGINIA, SELECTED STATES, AND THE UNITED STATES
FEBRUARY 2020 TO SEPTEMBER 2022



Sources: Bureau of Labor Statistics and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Data are seasonally adjusted.

Where Are The Workers?

In 2020 and into 2021, some pundits and politicians pointed to the slow recovery in the civilian labor force and attributed it to expanded unemployment benefits and stimulus payments. However, these benefits have long since expired, and refrains that those stimulus payments somehow continue to inhibit labor force participation are, at best, naïve. What could explain the relatively tepid recovery of the civilian labor force in Virginia?

One possibility is that Virginia is merely returning to the path it found itself on prior to the pandemic. After the Great Recession, Virginia grew slower than its peers and the nation. The Commonwealth was (and continues to be) relatively dependent on federal government spending and thus was less responsive to surges in private sector economic activity. This argument would apply especially to Hampton Roads, where federal government spending accounts for approximately 40% of regional GDP.

Another emerging possibility is that some Virginians are experiencing long COVID and the symptoms of long COVID are inhibiting their ability to return or remain in the civilian labor force. First, we must caveat our discussion with the fact that there appears to be no specific definition of long COVID, and instead it is a collection of symptoms associated with post-COVID infection.[14] When researchers examined more than 2 million electronic health records, they found a marked difference between those who had been diagnosed with COVID-19 and those who never had been diagnosed with COVID-19. Among those who were diagnosed with the disease, 38% of patients reported symptoms associated with a long COVID diagnosis. For those not diagnosed with COVID-19, only 16% reported symptoms associated with long COVID. Another recent study of 3,800 patients who were thought to have long COVID found that symptoms persisted more than 35 weeks for more than 90% of patients.[15]

For those suffering with long COVID, the symptoms appear to undermine their ability to work. A 2021 study of long COVID patients found that 23% reported that they were unable to work and 46% reduced their work hours because of sickness. A 2022 study by the Brookings Institution estimated that long COVID reduced the civilian labor force in the United States by approximately 1.6 million full-time workers at any given time in the first 20 months of the pandemic. The Brookings study estimated that another 500,000 full-time jobs were empty due to long COVID causing reduced work hours.[16]

Following the Brookings methodology, we can estimate the number of working-age Virginians who have potentially left the labor force due to long COVID. The Census Bureau's Household Pulse Survey asks respondents whether they have had COVID and whether they are experiencing the symptoms of long COVID. In the September 2022 survey, approximately 7.2% (6.7% to 7.7% confidence interval) of adult Americans and 6% (4.1% to 8.5% confidence interval) of adult Virginians experienced long COVID. Given there were approximately 5.35 million Virginians in 2021 between the ages of 18 and 64 and using the lower bound of 4.1% of adults in Virginia with long COVID, we arrive at an estimate of 219,350 working-age Virginians with long COVID. **Given Virginia's average labor force participation rate was 62.9% in 2021, we estimate that approximately 138,000 working Virginians might be impacted by symptoms of long COVID.**

Continuing to follow the Brooking's methodology, we use the Federal Reserve Bank of Minneapolis' estimate that 25.9% of workers with long COVID reduced working hours and an estimate from the Lancet that approximately 22% of workers were unable to work due to ill health associated with long COVID. Pulling these estimates together, we find the number of working-age Virginians working reduced hours due to long COVID and the number of working-age Virginians who have exited the labor force entirely.[17] We must caveat that our results are indicative rather

14 Source: Post-COVID Conditions Among Adult COVID-19 Survivors Aged 18–64 and ≥65 Years — United States, March 2020–November 2021 by Bull-Otterson et al (2022).
15 Characterizing long COVID in an international cohort: 7 months of symptoms and their impact. DOI:https://doi.org/10.1016/j.eclinm.2021.101019
16 https://www.brookings.edu/research/new-data-shows-long-covid-is-keeping-as-many-as-4-million-people-out-of-work/
17 We recognize that this is an imperfect estimate, based on the use of other estimates. We use the lower bound of the confidence interval of Virginians experiencing long COVID symptoms to bias out estimates downward. We also use the annual average labor force participation rate from 2021, which is lower than the observed labor force participation rate in the summer and fall of 2022. We argue this conservative approach likely yields a more reasonable estimate of the number of working age Virginians impacted by long COVID.

than authoritative, but we are seeking insight into why there are fewer Virginians in the labor force now than prior to the pandemic.

In September 2022, it appears that approximately 36,000 Virginians worked reduced hours due to long COVID and another 30,000 Virginians had exited the labor force entirely. When coupled with reports of increased anxiety and depression and the continuing impact of the opioid epidemic, one can only conclude that the labor force in Virginia is under stress. While long COVID may not fully explain why Virginia's labor force has not fully recovered to pre-pandemic levels, its presence is likely to shape labor force participation in years to come.

WHERE ARE THE YOUNG WORKERS?

National level data on labor force participation by age helps shed some light on who has left the labor force since the start of the pandemic. For workers ages 25 to 54, labor force participation is almost completely recovered, with observed labor force participation in September 2022 only 0.3 percentage points below February 2020 (Graph 13). Labor force participation for workers aged 16 to 19 years was 0.1 percentage points higher in September 2022 than February 2020. Why then have workers not returned to the labor force?

The most significant declines in labor force participation are among workers 55 and older and workers 20 to 24 years old. For workers ages 55 and older, a decline in labor force participation during a pandemic does not seem unreasonable. Some older workers likely took advantage of gains in home values and equities to retire early. Some other older workers may have not returned to the labor force due to concerns about contracting COVID-19. However, the declining labor force participation among workers 20 to 24 years old is more puzzling.

The decline in labor force participation for workers ages to 20 to 24 is troubling. If these individuals were pursuing education at institutions of higher education or trade schools, this phenomenon might remedy itself in time. However, many institutions of higher education (including those in Virginia) reported declines in enrollments in the spring of 2022 and headcount enrollments in higher education have now declined 12 years in a row.[18] At the same time, the percentage of young Americans living at home with their parents has increased over the last decade.[19] There may be some truth to the claims that more young Americans are "adrift," unable to move out onto their own due to a combination of student debt, high housing prices, and the need to care for aging parents.

THE CONTINUING SEARCH FOR WORKERS

From the trough of the Great Recession in February 2010 to February 2020, Virginia added approximately 493,800 jobs (Graph 14). Within two months, the COVID-19 pandemic and associated contraction in economic activity resulted in the loss of 480,100 jobs, a decline of 11.7% from February 2020. After a sharp recovery in the summer of 2020, jobs returned, albeit at a slower pace in 2021. In 2022, job growth accelerated, and in September 2022, Virginia exceeded the pre-pandemic peak in nonfarm payrolls.

Graph 15 compares the performance of the Virginia and national economies in terms of creating jobs. If we benchmark ourselves to the trough in jobs in February 2010, we find that the Virginia economy had 13.7% more jobs in February 2020 than it did in February 2010. Nationally, there were 17.6% more jobs in February 2020 than in February 2010. However, the decline in jobs due to the pandemic was more significant nationally than in Virginia. By April 2020, job levels in the Commonwealth and nationally were essentially the same as during the trough following the Great Recession in February 2010.

In August 2022, the United States exceeded the number of jobs it had in February 2020, followed by the Commonwealth in September 2022. Essentially, with respect to the number of jobs, we have returned to the pre-pandemic starting position. Virginia's job creation performance in 2022, if sustained, would bode well for the state in 2023, allowing it to close the performance gap with the nation over the previous decade. If a recession materializes in 2023, it is likely that job losses will be lower in

18 https://www.forbes.com/sites/michaeltnietzel/2022/05/26/new-report-the-college-enrollment-decline-has-worsened-this-spring/ and Lyss Welding, U.S. College Enrollment Decline Statistics, www.bestcolleges.com/research/college-enrollment-decline

19 https://www.pewresearch.org/fact-tank/2022/07/20/young-adults-in-u-s-are-much-more-likely-than-50-years-ago-to-be-living-in-a-multigenerational-household/

the Commonwealth than the nation, due to Virginia's relatively higher dependence on federal spending. In this case, one of the limiting factors on economic growth in the Commonwealth may also buffer us during an economic downturn.

QUITS AND OPENINGS: THE GAP CONTINUES

Graph 16 displays job openings and job quits in Virginia from February 2010 to August 2022. At the trough in employment following the Great Recession in February 2010, there were almost as many job openings (75,000) as job quits (52,000). Combined with higher unemployment, this meant that employers typically had multiple applicants for every available job and were able to retain employees without offering additional compensation. As the recovery from the Great Recession continued, the number of job openings in Virginia increased, pulling ahead of job quits. By February 2020, there were approximately 216,000 job openings and 84,000 job quits across the Commonwealth.

After the initial shock of the pandemic waned, job openings surged across Virginia in 2020 while job quits remained below 100,000 a month. In 2021, there were an average of 278,000 openings a month while the job quits averaged about 104,000 a month. Through August 2022, job openings averaged approximately 321,250 a month while job quits rose slightly to an average of 104,333 a month. Another perspective is to compare the number of job openings to the number of unemployed individuals in the Commonwealth. In August 2022, there were approximately three job openings for every unemployed individual, which should be no surprise to employers who are fighting to attract and retain employees.

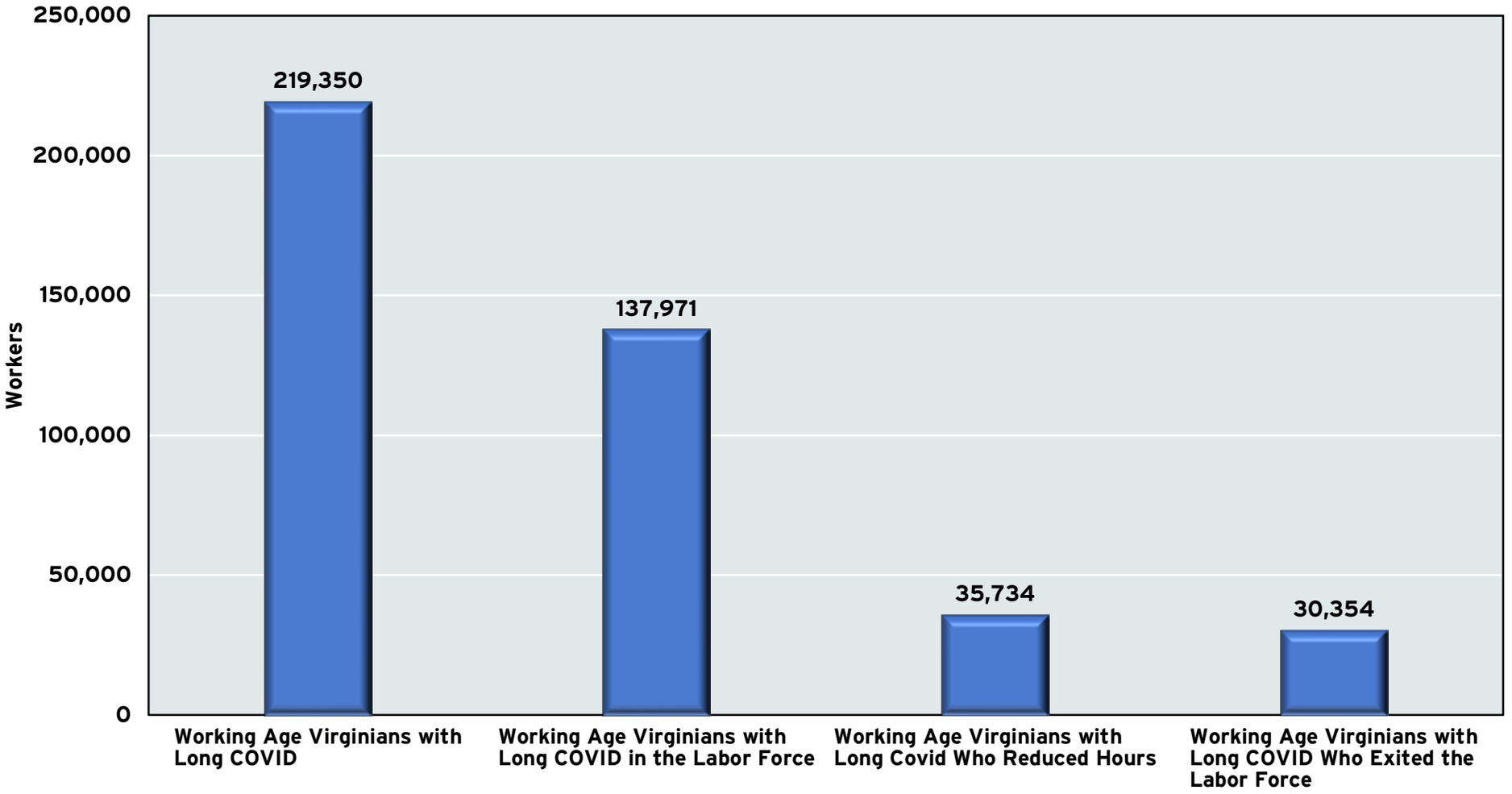
We can examine the national data on quits for insight into what sectors of the economy are experiencing the greatest number of quits. As illustrated in Graph 17, 5.3% of all employees in the leisure and hospitality industry quit their job voluntarily in September 2022. The quit rate for the leisure and hospitality industry has remained high when compared to other industries in Graph 17 since the start of the pandemic. Given the relatively low wages in the leisure and hospitality industry, low unemployment, and sustained demand of employers for employees, it should be no surprise that these workers are quitting at higher rates than other industries. However, if there is a modicum of good news for employers, it is that quit rates in September 2022 were, on average, lower than earlier in the year. If these decreases in quits are sustained, employers may find it easier to attract and retain talent in the coming months.

What are some of the possible explanations for the continued movement of employees from existing to new jobs? First, there is a strong financial incentive for some workers to move jobs. A recent Pew Research Center analysis suggested that workers who switched jobs saw inflation-adjusted wages increase by 9.7% while those who remained in current jobs saw their real wages decline by 1.7%.[20] Second, a number of workers shifted from in-office to at-home or hybrid work and do not wish to return to a full-time office environment. Third, there is a continued shortage of childcare and elder care workers (see Graph 17 for health care and social assistance quits), and some workers are searching for employers that will accommodate their other obligations. Until labor force participation recovers fully and price pressures ease, we are likely to see continued turmoil in labor markets unless there is a significant recession.

20 https://www.pewresearch.org/social-trends/2022/07/28/majority-of-u-s-workers-changing-jobs-are-seeing-real-wage-gains/

GRAPH 12

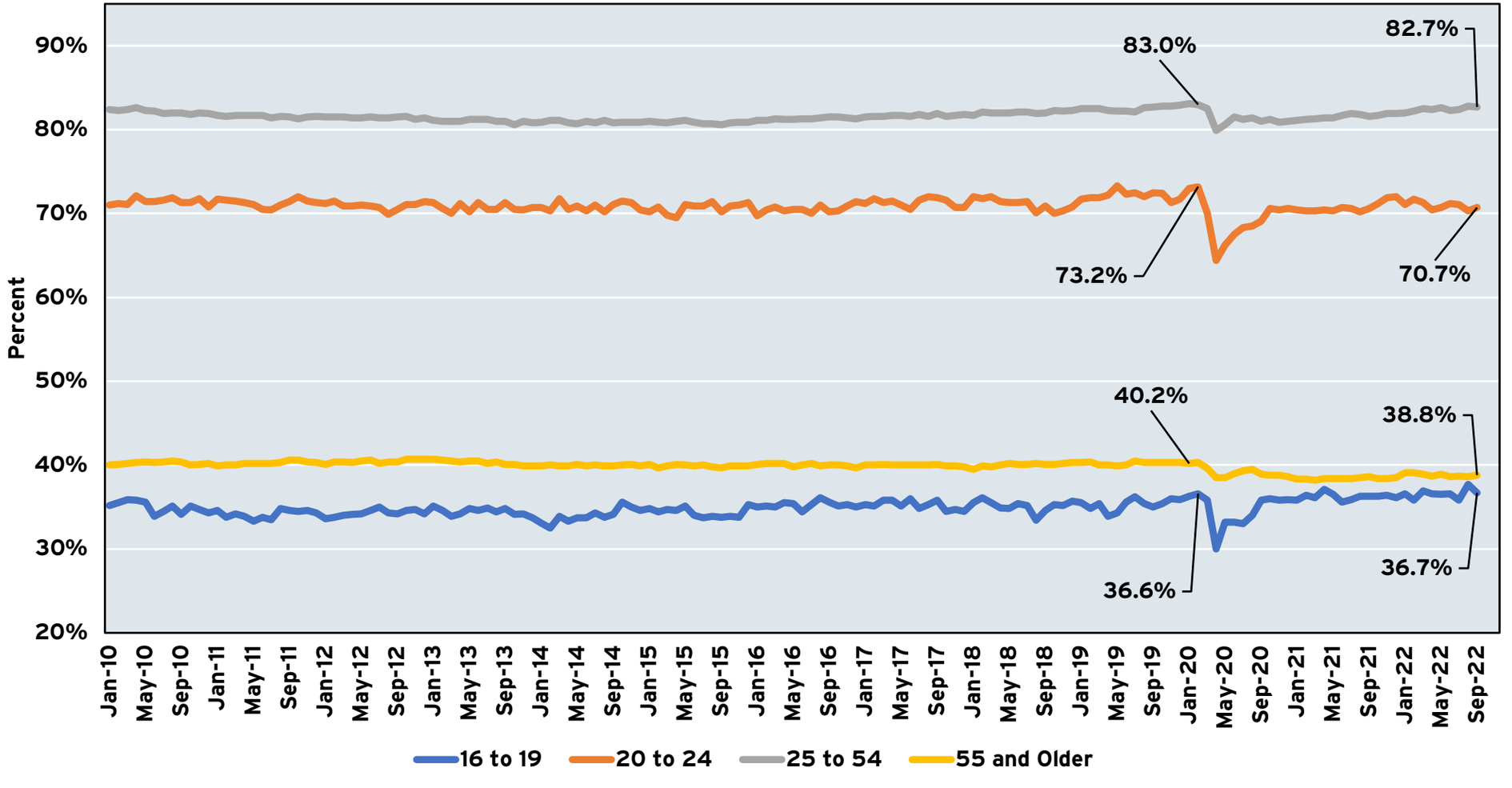
ESTIMATES OF WORKING-AGE VIRGINIANS IMPACTED BY LONG COVID
SEPTEMBER 2022



Source: U.S. Census Bureau Household Pulse Survey, Brookings Institution, Minneapolis Federal Reserve Bank, the Lancet, and Dragas Center for Economic Analysis and Policy, Old Dominion University.

GRAPH 13

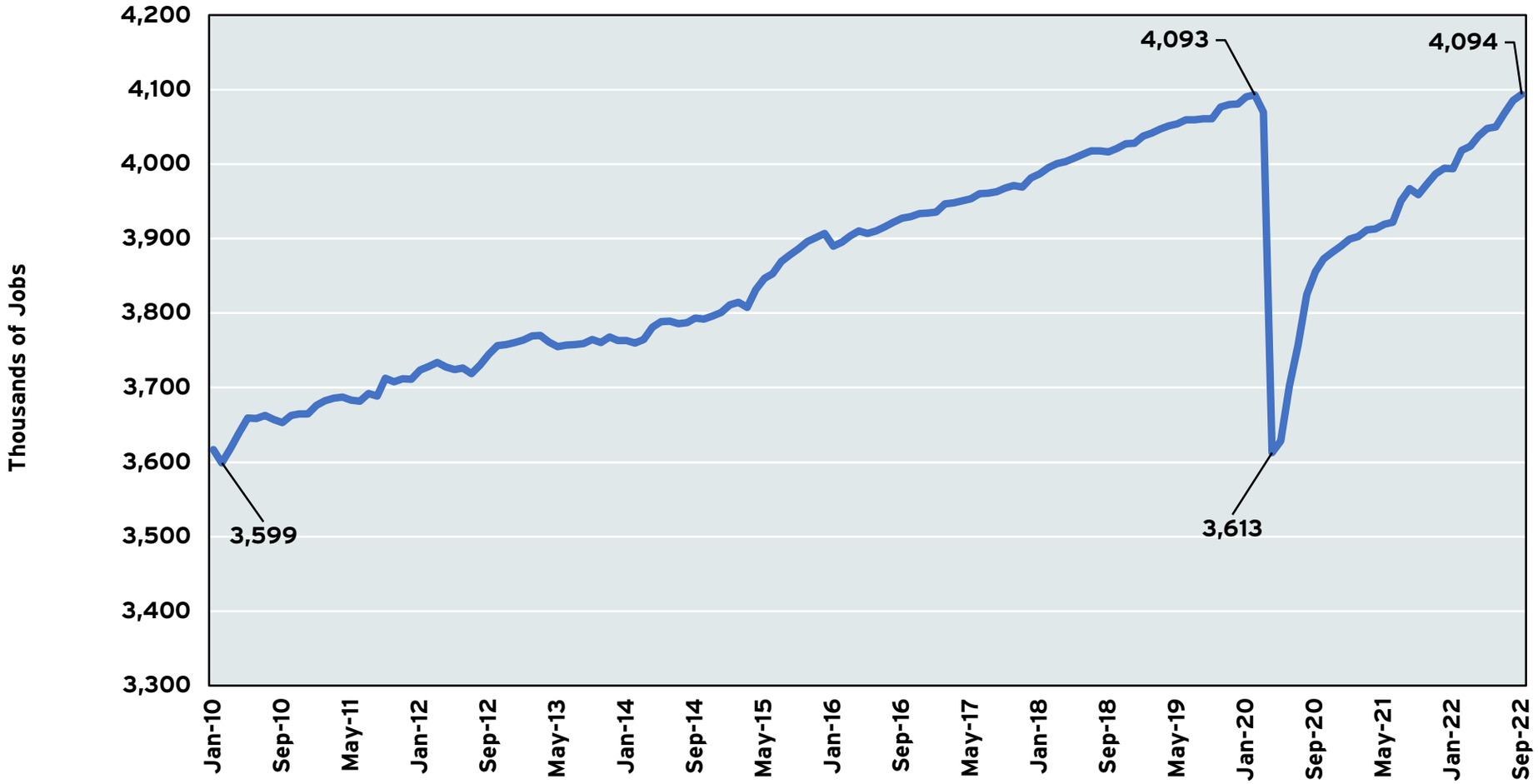
LABOR FORCE PARTICIPATION RATES BY AGE
UNITED STATES, JANUARY 2010 TO SEPTEMBER 2022



Sources: Bureau of Labor Statistics and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Data are seasonally adjusted.

GRAPH 14

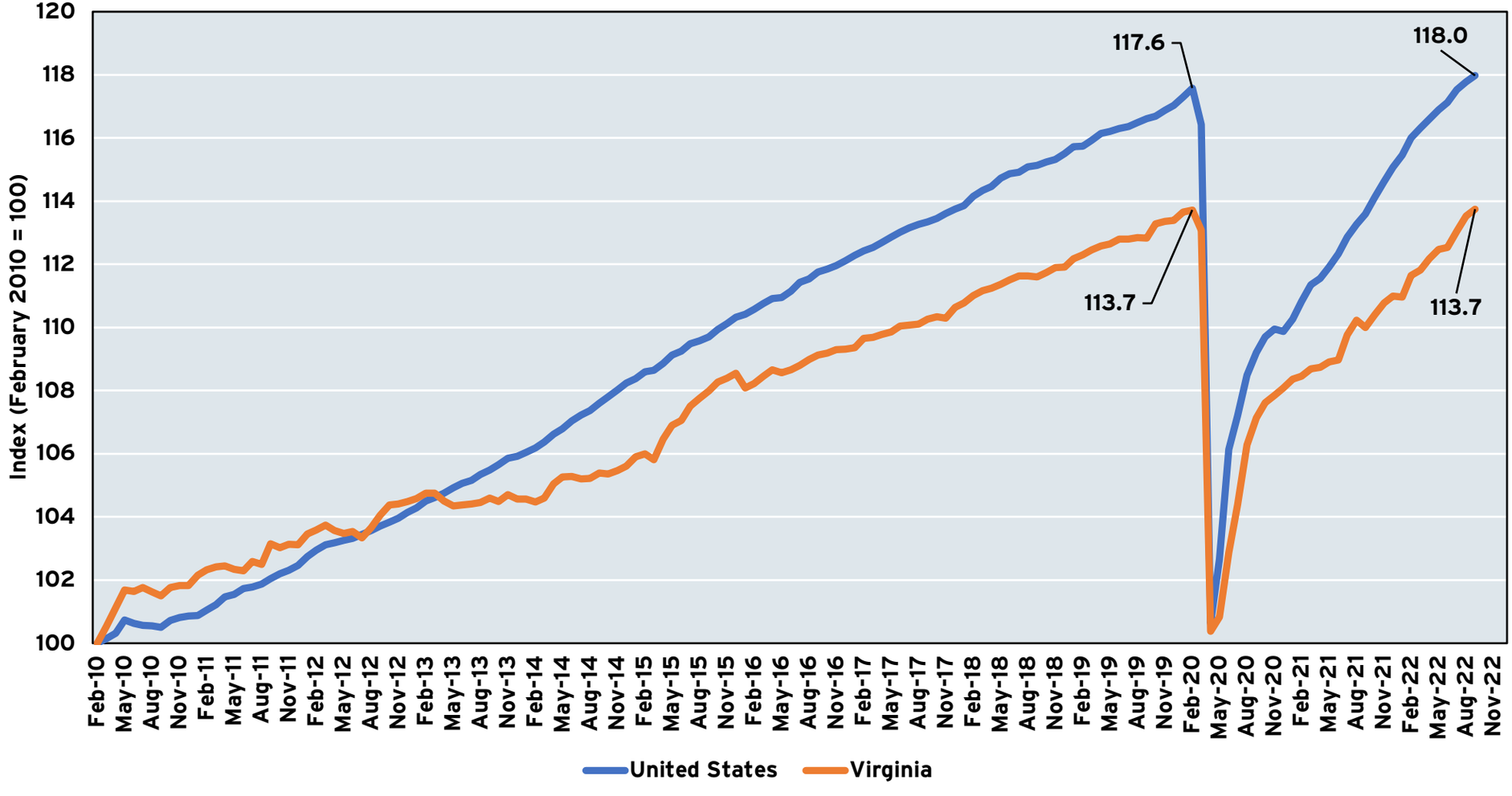
NONFARM PAYROLLS (JOBS): VIRGINIA, JANUARY 2010 TO SEPTEMBER 2022



Sources: Bureau of Labor Statistics and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Data are seasonally adjusted.

GRAPH 15

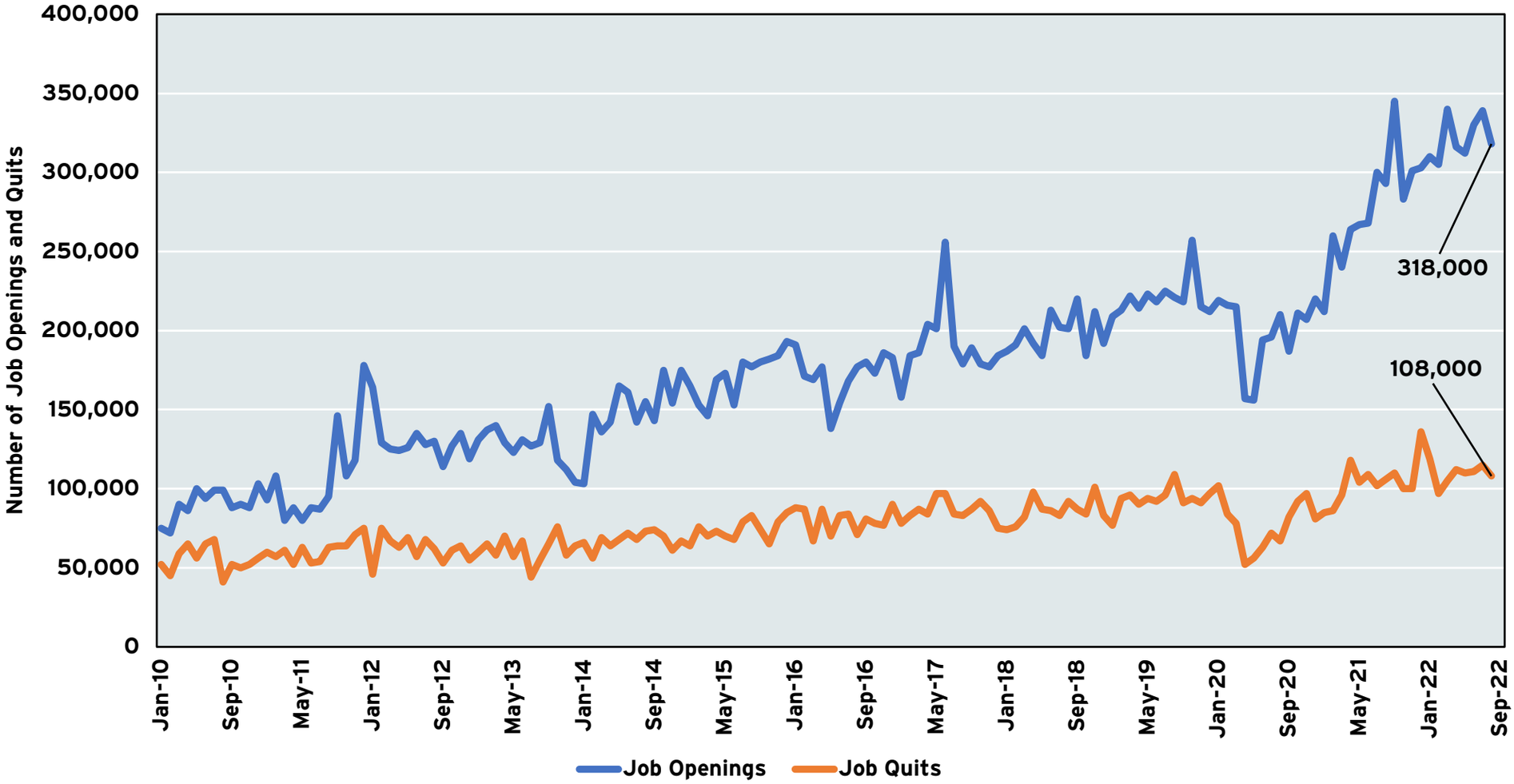
INDEX OF CUMULATIVE GROWTH IN NONFARM PAYROLLS (JOBS): VIRGINIA AND THE UNITED STATES, FEBRUARY 2010 TO SEPTEMBER 2022



Sources: Bureau of Labor Statistics and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Data are seasonally adjusted.

GRAPH 16

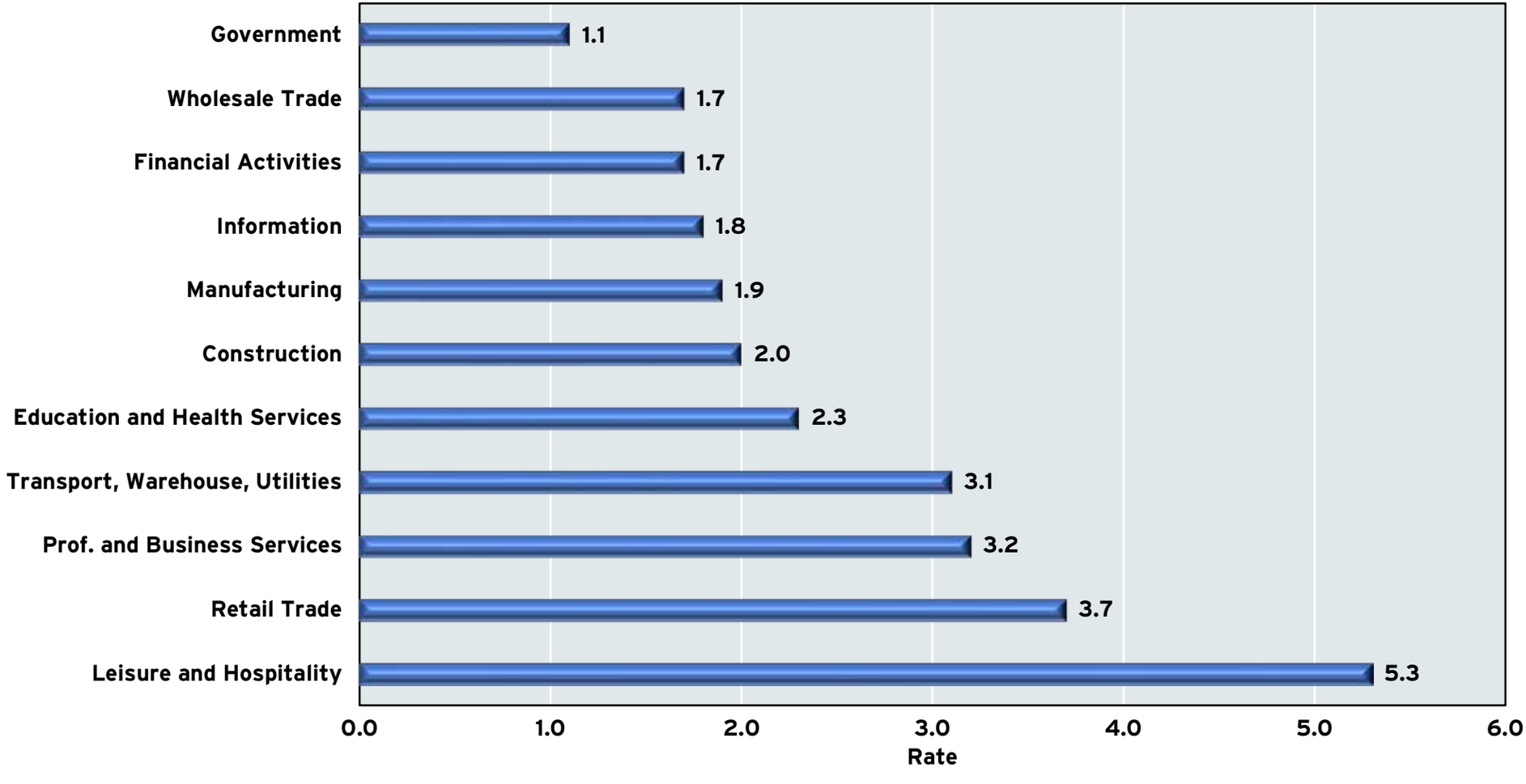
JOB OPENINGS AND JOB QUITS
VIRGINIA, FEBRUARY 2010 TO AUGUST 2022



Source: Bureau of Labor Statistics, Job Openings and Labor Turnover (JOLTS) Survey. Job openings for total nonfarm payrolls. Quits include employees who left voluntarily, with the exception of retirements. Data are seasonally adjusted.

GRAPH 17

JOB OPENINGS AND JOB QUITS BY INDUSTRY SECTOR
UNITED STATES, SEPTEMBER 2022



Source: Bureau of Labor Statistics, Job Openings and Labor Turnover (JOLTS) Survey. Quits include employees who left voluntarily, with the exception of retirements. The quits rate is the number of quits during the entire month as a percent of total employment. Data are seasonally adjusted.

Department Of Defense Spending

In the short term, we expect that Department of Defense (DoD) spending will continue to increase. In FY 2021, DoD's base budget was $703.7 billion, increasing to $742.3 billion in FY 2022 (Graph 18). When one includes supplemental appropriations for Operation Allies Welcome (the DoD response to the Afghanistan government's collapse and the subsequent withdrawal of U.S. forces) and assistance to Ukraine, the enacted DoD budget in FY 2022 was $756.6 billion. For FY 2023, President Biden proposed to increase the DoD base budget to $773 billion, a request that authorizers and appropriators in Congress have viewed as too low relative to the national security needs of the nation. In all likelihood, the DoD base budget will exceed $800 billion in nominal dollars in FY 2023.

While the DoD base budget is increasing in nominal dollars, inflation will erode these gains by reducing the purchasing power of DoD dollars. In Graph 19, we compare the DoD base budget projections President Biden submitted to Congress with the same projections adjusted for the impact of inflation. In one scenario, we use the inflation estimates contained in the presidential budget submission. In the other scenario, we use more current data on inflation and assume that inflation will take time to moderate to pre-pandemic levels.

Our analysis reveals that, even if one uses the optimistic assumptions contained in the President's budget, DoD base spending will decrease in real terms over the coming years. Using a more realistic set of assumptions on the rate of inflation yields the startling realization: inflation will erode DoD purchasing power by billions of dollars by FY 2027. The impact of inflation on the DoD will be significant; it will not be able to sustain the current pace of operations, maintenance, and investments. Unless Congress increases the base budget at the rate of inflation, the DoD will have to cut personnel, weapons systems, and investments in future systems. As this happens, the flows of DoD dollars into Virginia will buy and operate less.

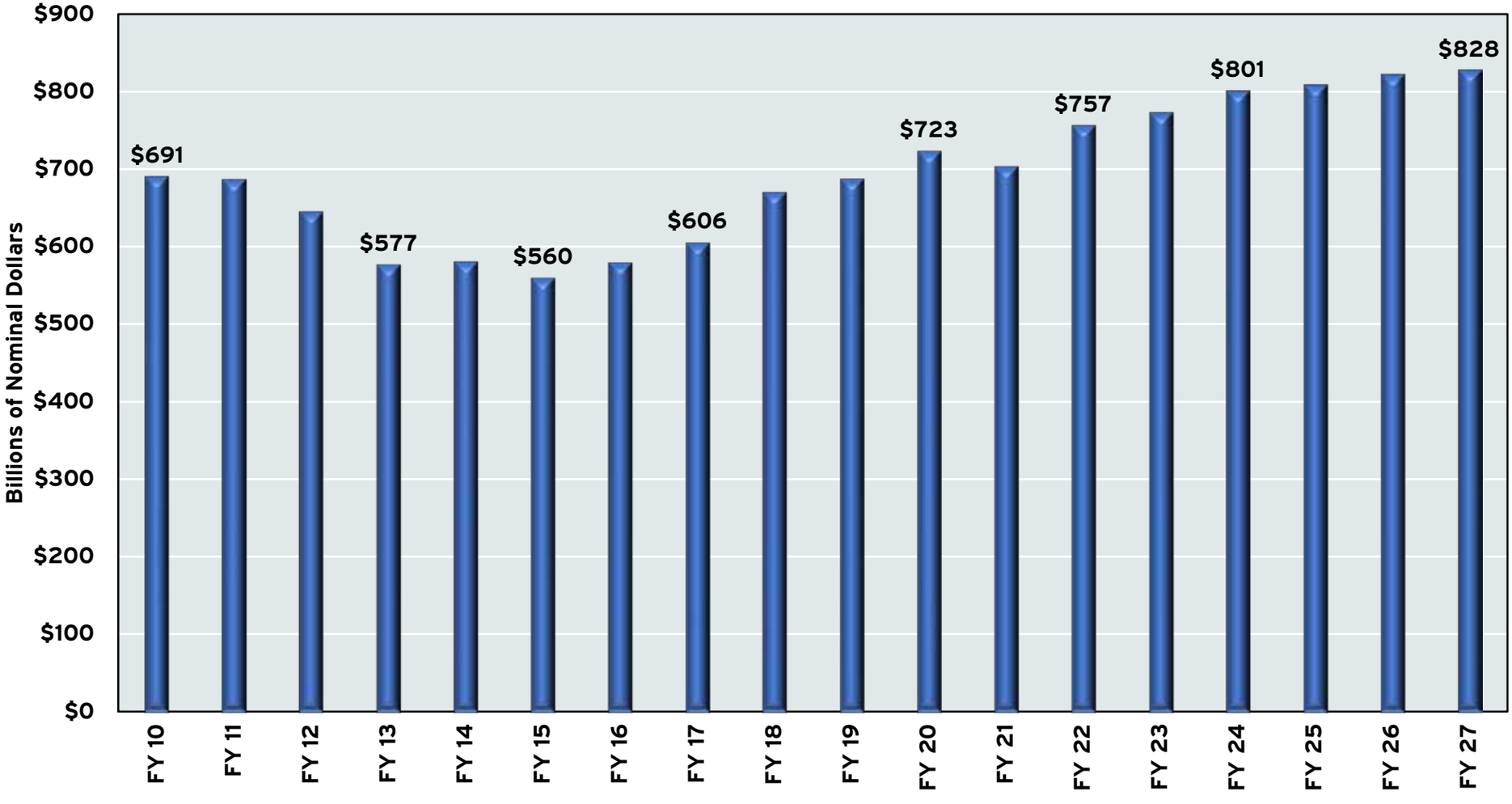
Even while the purchasing power of the DoD is being undermined by inflation, the federal government continues to spend more money than it brings in. The last federal government surplus in FY 2000 is a distant memory (Graph 20). Budget discipline has waned as Congress and successive Presidents have vacillated between increasing expenditures and reducing tax rates. The structural imbalance between revenues and expenditures only increased after the passage of the Tax Cuts and Jobs Act of 2017 and the abandonment of discretionary spending cuts. The fiscal response to the COVID-19 pandemic pushed the annual deficit to more than $3 trillion and $2.75 trillion in FY 2020 and FY 2021, respectively. While the federal deficit is projected to be "only" $1.03 trillion in FY 2022, it would be malpractice not to recognize that this would be the largest deficit in a non-recessionary period in the last 50-plus years. Even the President's FY 2023 budget submission recognizes that deficits will only increase over the remainder of the decade.

In 1946, in the aftermath of World War II, the public held $2.7 trillion in FY 2021 dollars of federal debt or 106.1% of GDP. In 1980, the federal debt held by the public was $2.0 trillion or 18.4% of GDP. Publicly held federal debt would steadily increase to $17.5 trillion or 79.4% of GDP in FY 2019. In the aftermath of the fiscal response to the pandemic, federal debt is projected to reach $23.9 trillion in FY 2023 and will likely top $30.0 trillion in FY 2030. Simply put, the federal government's debt held by the public will continue to exceed annual economic activity in the nation for the foreseeable future. While some economists believed that we had moved past inflation and the federal government could merely print more money to fund the expansion of social programs, 2022 has (hopefully) put these appealing but fanciful theories to rest.

The future does not look bright for increases in real DoD spending. Inflation will continue to erode DoD purchasing power. Interest costs are already the fastest growing part of the federal budget, and interest rates increases will raise the cost of borrowing for the federal government. At some point, whether by choice or by financial crisis, Congress will have to raise taxes and restrain expenditures. When it does so, the DoD, as the largest discretionary program in the federal government, will be squarely in the crosshairs.

GRAPH 18

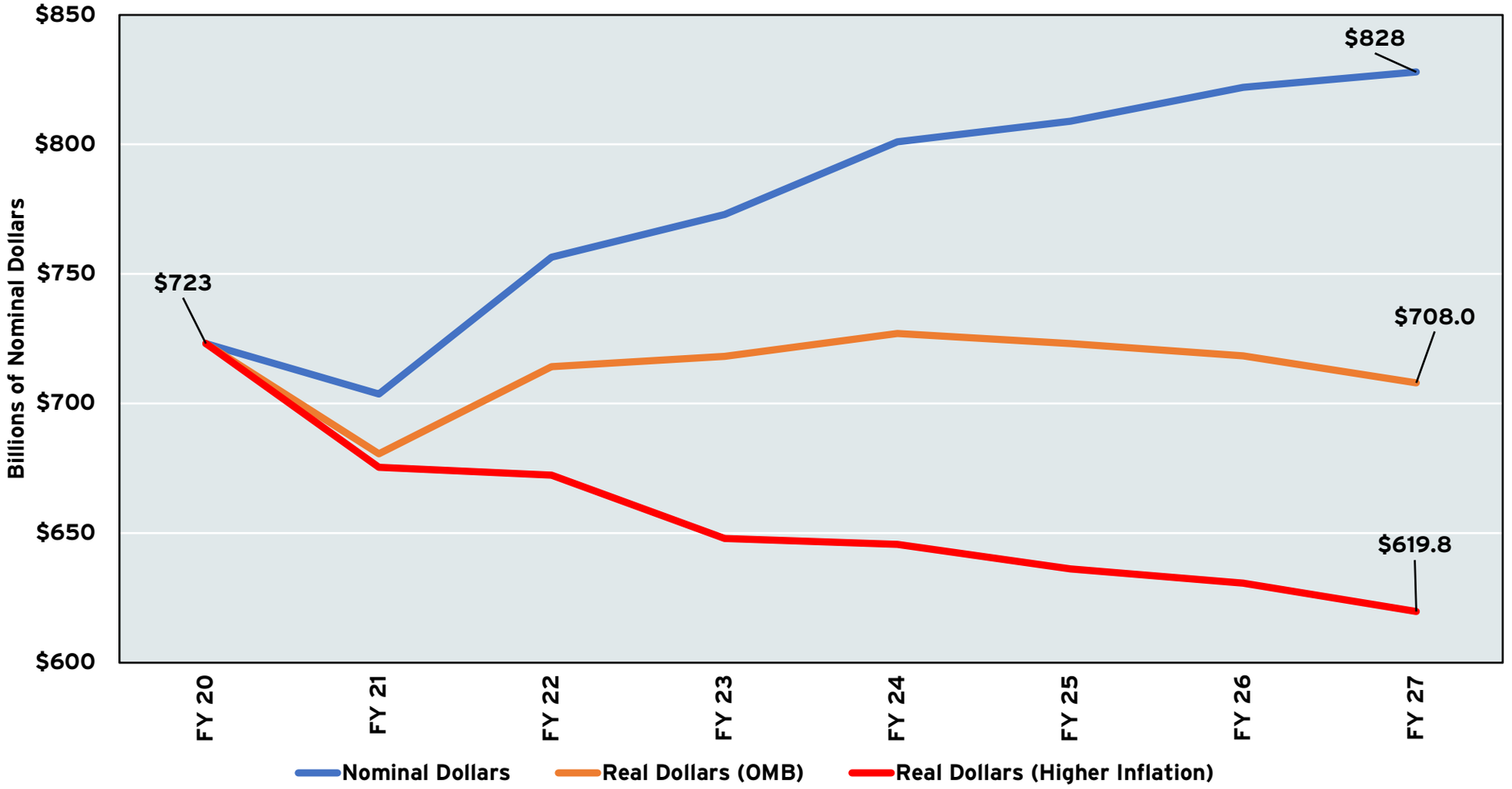
DEPARTMENT OF DEFENSE DISCRETIONARY BUDGET AUTHORITY, FISCAL YEAR 2010-FISCAL YEAR 2027



Sources: Dragas Center for Economic Analysis and Policy, Old Dominion University; Office of the Secretary of Defense (Comptroller) Department of Defense National Defense Budget Estimations for FY 2022 and Defense Budget Materials – FY 2023. The FY 2022 budget presentation includes overseas contingency operations (OCO) in the DoD base budget. For backwards comparison, we present the DoD base as the sum of base funding and OCO funding. Includes emergency budget authority.

GRAPH 19

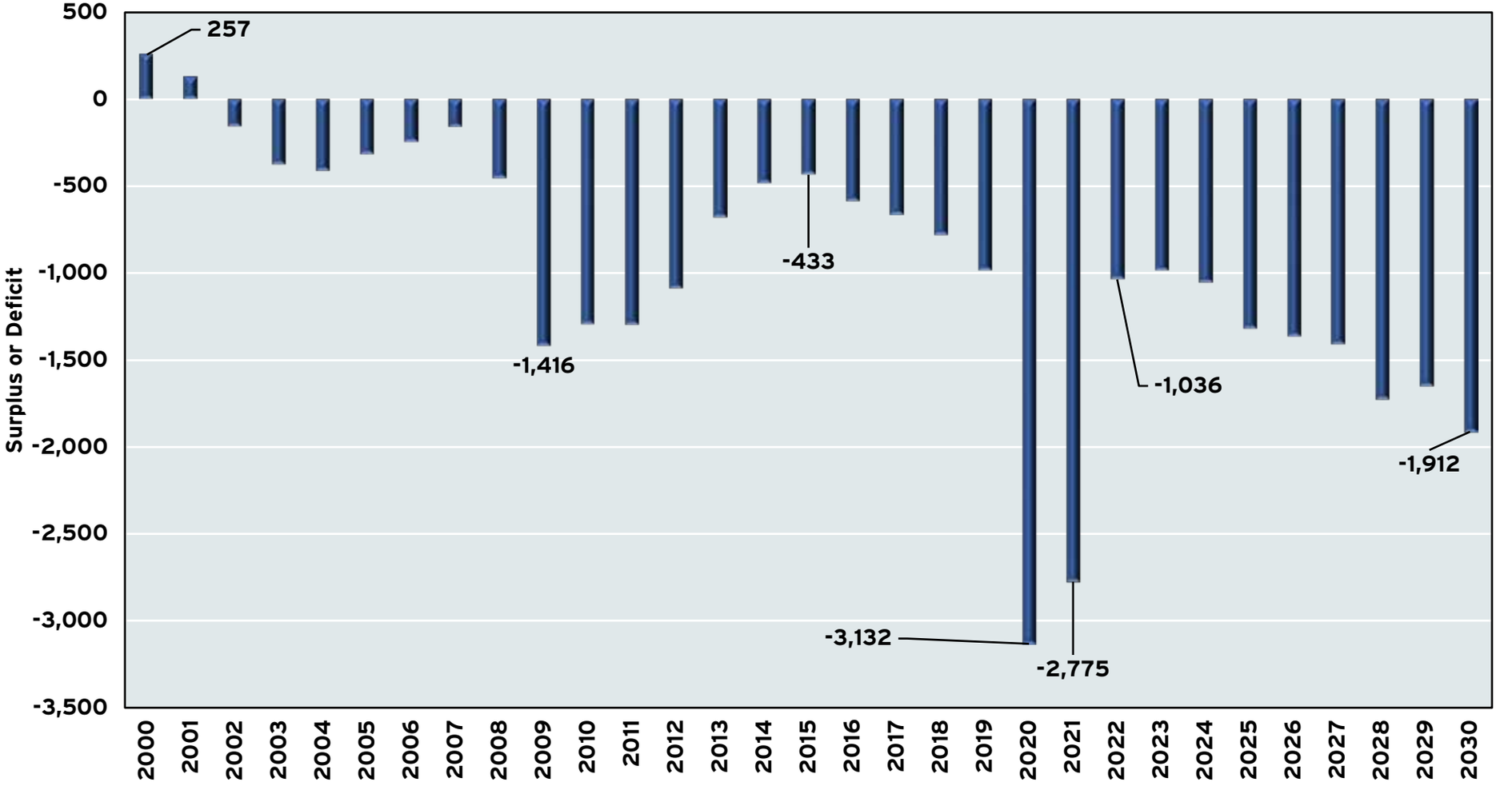
THE IMPACT OF INFLATION ON DEPARTMENT OF DEFENSE DISCRETIONARY BUDGET AUTHORITY, FISCAL YEAR 2020 – FISCAL YEAR 2027



Sources: Dragas Center for Economic Analysis and Policy, Old Dominion University; Office of the Secretary of Defense (Comptroller) Department of Defense National Defense Budget Estimations for FY 2022 and Defense Budget Materials – FY 2023. OMB inflation estimates from Table 2-1 Economic Assumptions in Economic and Budget Analyses for FY 2023 budget submission to Congress. Higher inflation scenario assumes 4.2% in FY 21, 8.0% in FY 22, 6.0% in FY 23, 4.0% in FY 24, and 2.5% in FY 25 – 27.

GRAPH 20

FEDERAL BUDGET SURPLUS OR DEFICIT IN BILLIONS OF NOMINAL DOLLARS, FISCAL YEAR 2000-FISCAL YEAR 2030



Sources: Dragas Center for Economic Analysis and Policy, Old Dominion University, and Office of Management and Budget FY 2023 Presidential Budget Table 1.1 – Summary of Receipts, Outlays, and Surpluses or Deficits: 1789 – 2026 and Congressional Budget Office May 2022 Budget and Economic Update, Table 1-1.

Real Estate Prices: Higher (For Now)

In previous recessions, layoffs and business closures typically reverberated throughout housing markets, depressing prices, and increasing foreclosures. However, we have not observed a similar impact in the aftermath of the short-lived COVID-19 recession. Low interest rates, coupled with the ability of many high-salaried workers to shift to remote work, appeared to not only insulate the housing market from the pandemic but may have exacerbated the demand for single-family housing.

As illustrated in Graph 21, there appears to have been a structural shift in the number of building permits for single-family residences in response to the Great Recession. From 2000 to 2006, there were approximately 3,692 building permits authorized in the Commonwealth. From January 2007 to the trough in jobs in February 2010, the monthly average for permits fell to 1,597, a decline of almost 57%. Typically, as economic activity rebounded from recession, building permits (a signal of future building activity) would increase, but this did not occur in the aftermath of the Great Recession. From March 2010 to February 2020, a monthly average of 1,664 permits were authorized in Virginia, well below the pre-Great Recession average.

With fewer single-family units being built in Virginia after the Great Recession, where did people live? In Graph 22, we examine the vacancy rates in Virginia from 1990 to 2021 for rental and single-family housing. The vacancy rate is equal to the proportion of inventory that is available for rent or sale. What is apparent is that vacancy rates moved downward in the decade prior to the COVID-19 pandemic and sharply dropped in 2021. In other words, the shares of rental and single-family housing available declined, further constraining the supply side of the housing market.

At the same time, as the supply of single-family housing increased at a slower rate than prior to the Great Recession, the demand for single-family housing increased in response to relatively low interest rates.

As displayed in Graph 23, in the months prior to the Great Recession, the average rate for a 30-year fixed mortgage varied between 6% and 6.5%. In the months prior to the 2020 COVID-19 recession, at the end of the longest recorded peacetime expansion in the nation's history, the monthly average 30-year fixed mortgages varied between 3.0% and 3.6%. In December 2020, the average 30-year fixed mortgage rate in the United States was 2.7%. Demand surged in response.

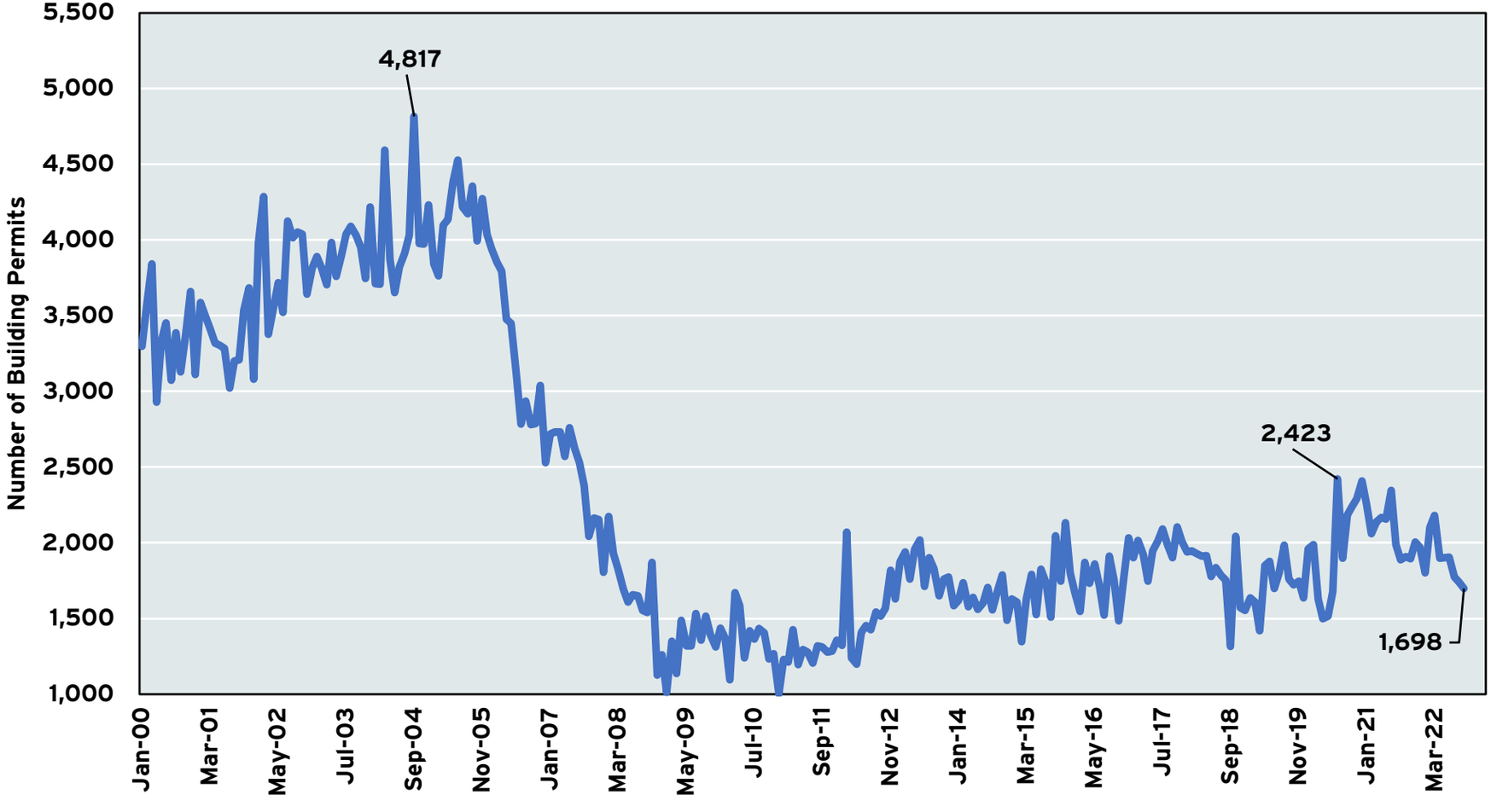
Housing values reflect the interaction between housing supply and demand. In Graph 24, we use the Zillow Home Value Index to measure housing values in Virginia.[21] At the end of January 2010, the estimated housing value in Virginia was $248,611. By the end of February 2020, the typical home value in the Commonwealth had risen to $298,507. A year later, at the end of February 2021, the estimated housing value was $324,445 and by February 2022, the typical housing value reached $370,168. In September 2022, the Zillow index of housing values in Virginia was $390,077, a 30.7% increase from February 2020.

The increases in housing prices are not limited to Virginia. The All-Transactions Home Price Index (HPI) reported by the Federal Housing Finance Agency (FHFA) is a broad measure of the movement of single-family house prices (Table 3). Compared to the Commonwealth and the nation, the HPI increased faster in Hampton Roads and Washington, D.C., prior to the Great Recession. After the Great Recession, however, housing prices increased more rapidly in other neighboring metro areas, with Nashville observing a 101.9% increase in the HPI from 2012 to 2021. So, relatively speaking, Virginia did not experience as rapid increases as many other states — small comfort to those struggling to find housing.

21 According to Zillow, the Zillow Home Value Index is "A smoothed, seasonally adjusted measure of the typical home value and market changes across a given region and housing type. It reflects the typical value for homes in the 35th to 65th percentile range." We refer to this index as the "typical housing value" instead of the "median housing value."

GRAPH 21

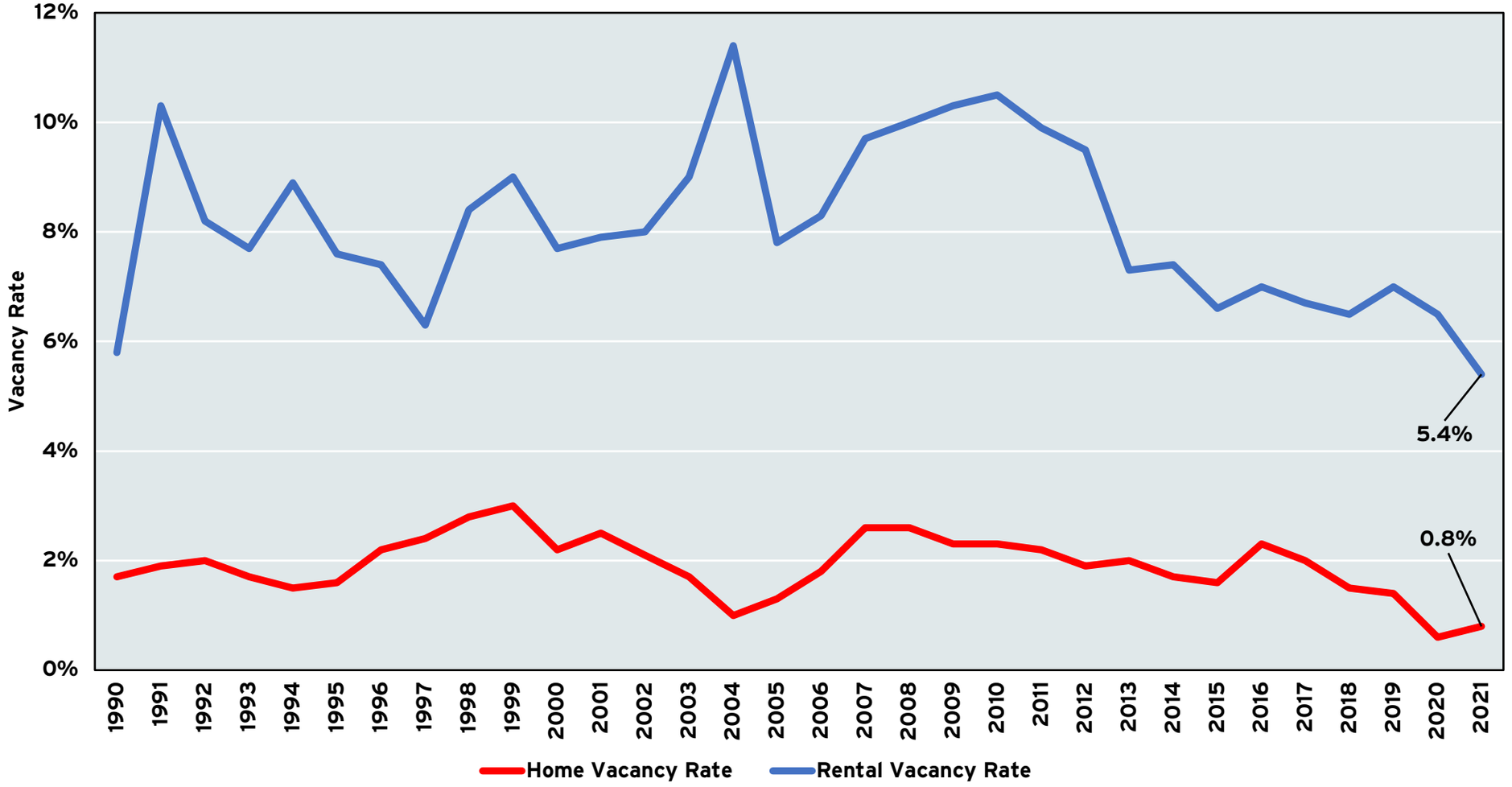
NUMBER OF ONE-UNIT SINGLE-FAMILY RESIDENTIAL BUILDING PERMITS: VIRGINIA, JANUARY 2000 - SEPTEMBER 2022



Source: U.S. Census Bureau, New Private Housing Units Authorized by Building Permits: 1-Unit Structures for Virginia [VABP1FHSA], retrieved from FRED, Federal Reserve Bank of St. Louis. Data are seasonally adjusted.

GRAPH 22

HOME AND RENTAL VACANCY RATES
VIRGINIA, 1990 - 2021



Source: U.S. Census Bureau and Dragas Center for Economic Analysis and Policy. The rental vacancy rate is the proportion of the rental inventory which is vacant for rent. The homeowner vacancy rate is the proportion of the homeowner inventory which is vacant for sale.

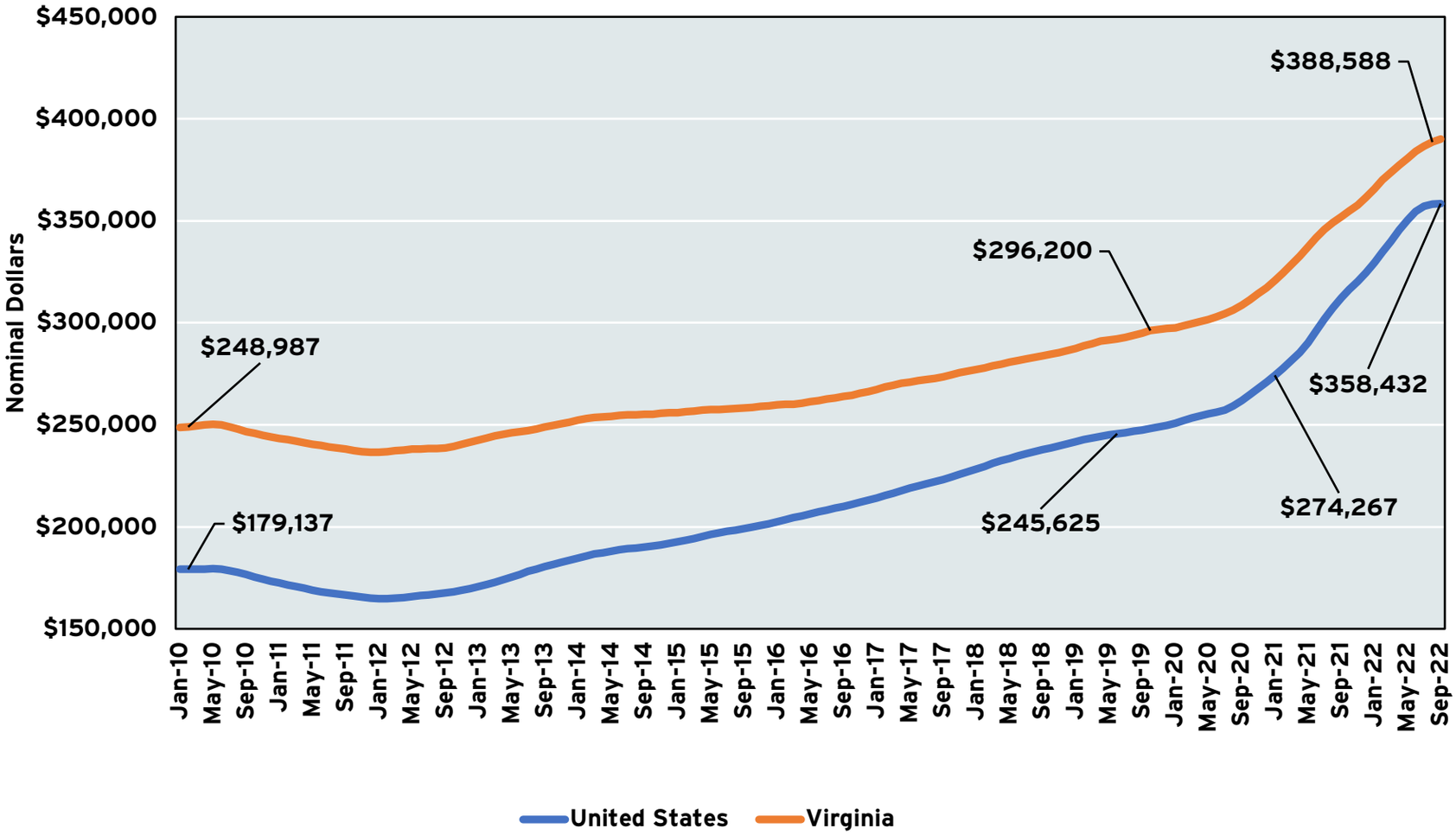
GRAPH 23

AVERAGE MONTHLY 30-YEAR FIXED MORTGAGE RATE
UNITED STATES, JANUARY 2000 - AUGUST 2022

Sources: Freddie Mac, 30-Year Fixed Rate Mortgage Average in the United States [MORTGAGE30US], retrieved from FRED, Federal Reserve Bank of St. Louis. Data are not seasonally adjusted.

GRAPH 24

ZILLOW HOME VALUE INDEX OF SINGLE-FAMILY RESIDENTIAL HOMES: UNITED STATES AND VIRGINIA, JANUARY 2010 TO SEPTEMBER 2022



Source: Zillow (2022) and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Zillow Home Value Index (ZHVI) for single-family residence. Data are not seasonally adjusted. For more information about the Zillow Home Value Index, see https://www.zillow.com/research/zhvi-methodology/

TABLE 3

PERCENT CHANGE IN ALL TRANSACTIONS FHFA PRICE INDEX SELECTED METROPOLITAN AREAS, NORTH CAROLINA, VIRGINIA, AND THE UNITED STATES 2000 TO 2021

Metro	2000-2007	2007-2012	2012-2021
Charleston, SC	75.9%	-19.7%	89.5%
Charlotte, NC	35.1%	-12.7%	85.5%
Durham-Chapel Hill, NC*	34.1%	-3.8%	66.3%
Greenville, SC*	29.8%	-3.9%	66.4%
Jacksonville, FL	100.9%	-35.9%	99.9%
Nashville, TN*	41.7%	-6.8%	101.9%
Raleigh, NC	32.4%	-6.3%	72.1%
Richmond, VA	79.2%	-18.4%	54.8%
Hampton Roads, VA	114.2%	-18.3%	33.9%
Washington, DC*	127.0%	-21.7%	50.7%
North Carolina	40.0%	-10.6%	62.3%
United States	60.2%	-17.6%	67.8%
Virginia	97.1%	-16.0%	41.8%

Source: Federal Housing Finance Agency. The HPI is a weighted, repeat-sales index, showing the average price change in repeat sales or refinancing on the same homes. The index incorporates repeat mortgage transactions on single-family homes whose mortgages have been purchased or securitized by Fannie Mae or Freddie Mac since January 1975. 1st quarter 1995 = 100 and data are not seasonally adjusted. Data represent annual averages of the quarterly index. * Denotes areas where the lowest post-recession value of the HPI was in 2011.

Now, with mortgage rates increasing, the demand nationally for refinancing existing mortgages plummeted by 85% in late October 2022 when compared with the same period in October 2021. Purchasing demand also appears to be declining, as home builders are reporting that buyers are canceling contracts, and home inventories and days-on-the-market measures are surging. Pulte Construction, for example, reported that their cancellation rate for the second quarter of 2022 was 15%, more than double that of the second quarter of 2021. We should expect housing demand will continue to soften well into 2023 and the declines in demand will offer some relief to homebuyers and renters.

Final Thoughts

With 2022 ending, we can pause and reflect on the experience of the last 12 months and, drawing back, over the last decade. There was an abundance of good economic news to consider: more Virginians were at work in 2022 than in 2021. There were more jobs in the Commonwealth than prior to the pandemic. Housing values remained strong, even in the face of increasing interest rates, which produced a boon for local government revenues. Consumer spending remained resilient, as evidenced by gains in sales taxes. Public and private schools were back in full session and the sounds of youth sports echoed in neighborhoods throughout the year.

On the other hand, we cannot view our economic performance with rose-colored glasses. High housing values and low vacancy rates have increased the percentage of Virginians that pay more than 30% of their income for shelter, a percentage that defines them as "housing cost burdened." Higher inflation eroded the wage and salary gains of many Virginians over the last 24 months and diminished expectations for 2023. Political partisanship continued to increase as policy debates were lost in the scramble for the next tweet, Tik-Tok video, or appearance on a cable news channel.

In this environment, we project that the odds of a recession in 2023 are steadily increasing and that we should batten the proverbial economic hatches as stormy weather approaches. We do not mean that we should immediately act as if a recession is here, but we should prepare our state, and personal finances, for an event that is likely to occur. We would be happy to be proven wrong on this point, but it is better to be prepared than to ignore the warning signs and hope that economic conditions improve. If there is one lesson to be drawn from the last decade, it is that hope is not policy.

What then can be done?

First, the Commonwealth must avoid the temptation to rapidly expand public spending or cut taxes without clear analysis of the costs and benefits. While returning surpluses to taxpayers is often viewed as a "win-win," we must recognize the foregone opportunities to generational physical investments that would power the next decade of growth in the Commonwealth. Accelerating the construction of I-87 continues to be one opportunity that would leverage the Port of Virginia and potentially create a corridor for jobs and innovation between Virginia and North Carolina. Improving East-West traffic corridors by widening existing roads and improving rail service would bind the Commonwealth together more strongly. Continuing to invest in the Port of Virginia, rural broadband, and aligning higher education with the needs of employers are all potential policies that would set up Virginia for success in the future.

Second, Virginia must continue to focus on improving its business climate and avoid increasing the regulatory burden for businesses that operate in the Commonwealth. The state should seek to modernize its antiquated tax system to harmonize tax administration at the state and local level across Virginia. To ensure wide acceptance of these efforts, the state could first promise to hold local governments harmless for the elimination of antiquated taxes. Any tax reform should also be revenue neutral, that is, an effort to improve efficiency rather than increasing tax burdens.

Third, even though some would like to think that the COVID-19 pandemic is receding in the distance (or merely a rationale for settling political scores), the data illustrate its continued impact on the lives of Virginians. When we compare the deaths from COVID-19 per 1 million residents across states, Virginia ranks 36th out of 50 states and the District of Columbia with 2,586 deaths per 1 million compared to the national average of 3,330 deaths per 1 million. Continuing to work to improve vaccination efforts, especially in more rural parts of the Commonwealth, is in everyone's interest. We must also recognize that the physical and mental health toll of the pandemic only now is emerging into view. Increasing mental health services for children and young adults is a conversation worth having now to avoid increasing costs in the future.

There is promise and peril for 2023, much of which is beyond our control. We can, however, choose to fall apart or come together and work to improve the lives of all Virginians. We can choose to make decisions, not anchored by the past, but oriented to the promise of the future. Now, we argue, in the face of a looming recession, is the time to set aside our arguments and act.