


VIRGINIA'S ECONOMY GROWS, BUT QUESTIONS LINGER ABOUT THE FUTURE

Commerce is a cure for the most destructive prejudices; for it is almost a general rule, that wherever we find agreeable manners, there commerce flourishes; and that wherever there is commerce, there we meet with agreeable manners.

– Montesquieu, The Spirit of the Laws



The future may be uncertain, but we can infer its course by examining the past and surmise the Commonwealth is facing many open questions. For example, can Virginia raise its job creation rate to match that of its neighbors in the south? What actions are needed to increase the attractiveness of the Commonwealth to reverse the outflow of Virginians to other states? Can the Commonwealth take action to improve the distribution of economic growth? Or is it fated to see increased economic gains concentrated along the I-95 corridor between Richmond and Northern Virginia? These are not trivial questions but matters for serious debate, consensus building and action. Now, we opine, is the time for us to engage in discussions to explore what can be done and, more importantly, to build the will to do what is necessary to improve the lot of Virginians.

As Virginia prepares to enter 2024, there is an opportunity to reflect on the state's economic performance over last year, if not over the current decade. Fortunately, much of the economic news regarding Virginia is good. While the population growth has slowed this decade, the overall population has continued to grow, unlike some of our neighbors. Throughout 2023, more Virginians were both in the labor force and at work. The state's economy has also grown, albeit at a sluggish pace compared to our peer states.

From this perspective, the future is mostly bright. Most Virginians who are willing to work found gainful employment in 2023. State tax revenues continued to increase as consumer spending remained strong. Property taxes continued to increase in many localities as housing values continued to climb. Now, with the November 2023 elections in the rear view mirror, there is time to reflect on the results and to chart a bipartisan course forward for the economy of the state.

Yet, given what some would characterize as an abundance of good news, there are warning signs that all is not well with the Virginia economy. Population growth has slowed appreciably, and net domestic migration remained negative as more Virginians left than residents of other states moved to Virginia. Not enough Virginians in their prime working age were in the labor force, limiting the ability of employers to hire. While inflation moderated from its peak, this moderation occurred only because the Federal Reserve significantly tightened monetary policy. Reasonably, one might have expected that higher interest rates would soften the demand for single-family housing and, consequently, lower housing prices. However, this was not the case. Constrained supply meant that single-family and multi-family housing remained significantly more expensive than it was in the past.

This chapter reviews the performance of the Virginia economy over the past 36 months and identifies challenges to growth in 2024 and beyond. In the next section, we examine how Virginia's population has grown this century. We then turn to the question of how Virginia's economy has performed and whether the recovery will continue in 2024. We examine the performance of Virginia's labor market and its relationship with the federal government. Finally, we conclude with thoughts on how the Commonwealth can spark growth in the coming years.



Population Growth Slows in the Commonwealth

Graph 1 displays the resident population of Virginia from 2000 to 2022. In 2000, there were approximately 7.11 million residents, growing to about 7.93 million residents in 2009, an increase of 10.1%. In 2010, 8.02 million residents called Virginia home, growing to about 8.56 million in 2019, an increase of 6.6% over the decade. In 2020, the U.S. Census estimated Virginia's resident population was about 8.64 million, increasing by 0.5% to about 8.68 million in 2022.

In Graph 2, we present the average annual population growth rates for Virginia, its neighboring states, and the United States for the last four intercensal periods as well as the most recent decade.¹ Virginia's average annual population growth rate slowed from 1.5% a year (1980 – 1989) to 1.1% (1990 – 1999) before increasing to 1.2% a year (2000 – 2009). From 2010 to 2019, the rate dropped to 0.7% and further to 0.3% later in the current decade. Given Virginia's recent slowed average annual population growth, it has fared better than Maryland, where the population declined this decade. West Virginia has observed a more significant decrease in the resident population, with negative population growth from 1980 to 1989 (-0.9% annually), 2010 to 2019 (-0.4% annually), and from 2020 to 2022 (-0.5% annually). North Carolina's resident population, on the other hand, has grown at an average annual rate of at least 1.0% over the last four decades. From 2020 to 2022, North Carolina's resident population increased at an average annual rate of 1.2%, which is four times higher than that of the Commonwealth.

Graph 3 focuses on Virginia's population growth from 2010 to 2022 and compares this growth with selected neighboring states and with the nation.² It illustrates that over the same period from 2010 to 2022, Virginia's population grew by 8.2%, while the population of the nation rose by 7.7% and North Carolina's population increased by 11.7%. Delving further, we see that the Commonwealth's population grew steadily every year, whereas Maryland's population declined slightly this decade. Why has North Carolina's population grown faster than that of Virginia? Not surprisingly, there is a positive correlation between economic performance and population growth. States that grow faster tend to attract individuals from states with lower rates of economic growth. Relative to North Carolina, Virginia appears to be a less attractive destination for those seeking to improve their economic lot in life.

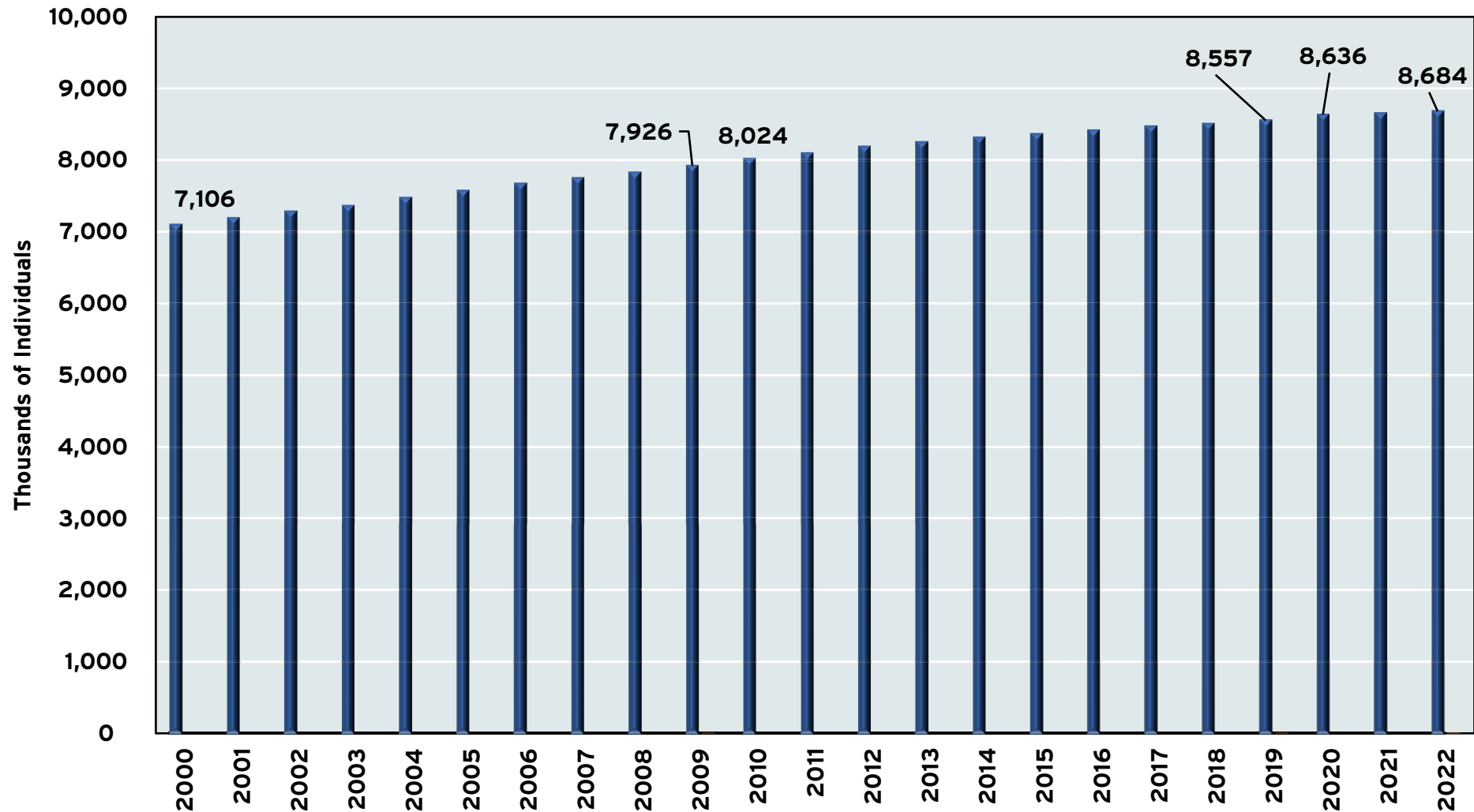
Slowing population growth (or an outright decline in the resident population) may be a warning sign about a state's future economic prospects as residents may be “voting with their feet” and seeking improved economic opportunities elsewhere in the country. As the population declines, invariably, tax bases erode, and tax revenues fall. States, faced with lower revenues, must then grapple with how to reduce expenditures, leading to declines in public services and the quality of public infrastructure. These declines, in turn, increase the incentives to migrate to other, more prosperous, states, which reinforces the cycle of decline.

¹ The Compound Annual Growth Rate (CAGR) is equal to $((\text{End Period}/\text{Beginning Period})^{1/(\text{number of periods})}) - 1$ and measures the constant rate of return over the time period.

² We exclude West Virginia from Graph 3 as its resident population has declined by approximately 4.3% from 2010 to 2022.

GRAPH 1

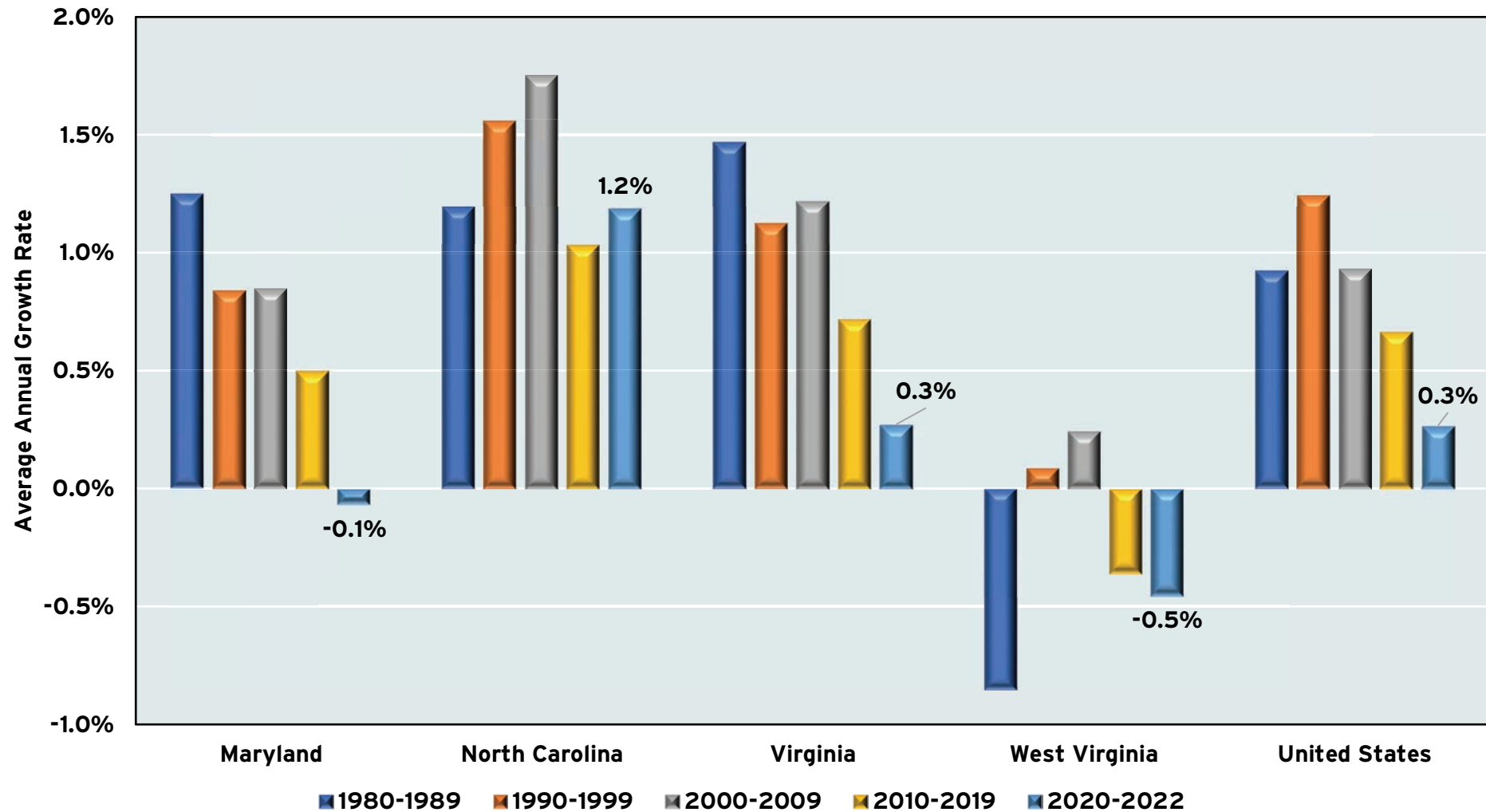
RESIDENT POPULATION, VIRGINIA, 2000 - 2022



Source: United States Census, Annual Estimates of the Population for the U.S. and States, and for Puerto Rico, various years.

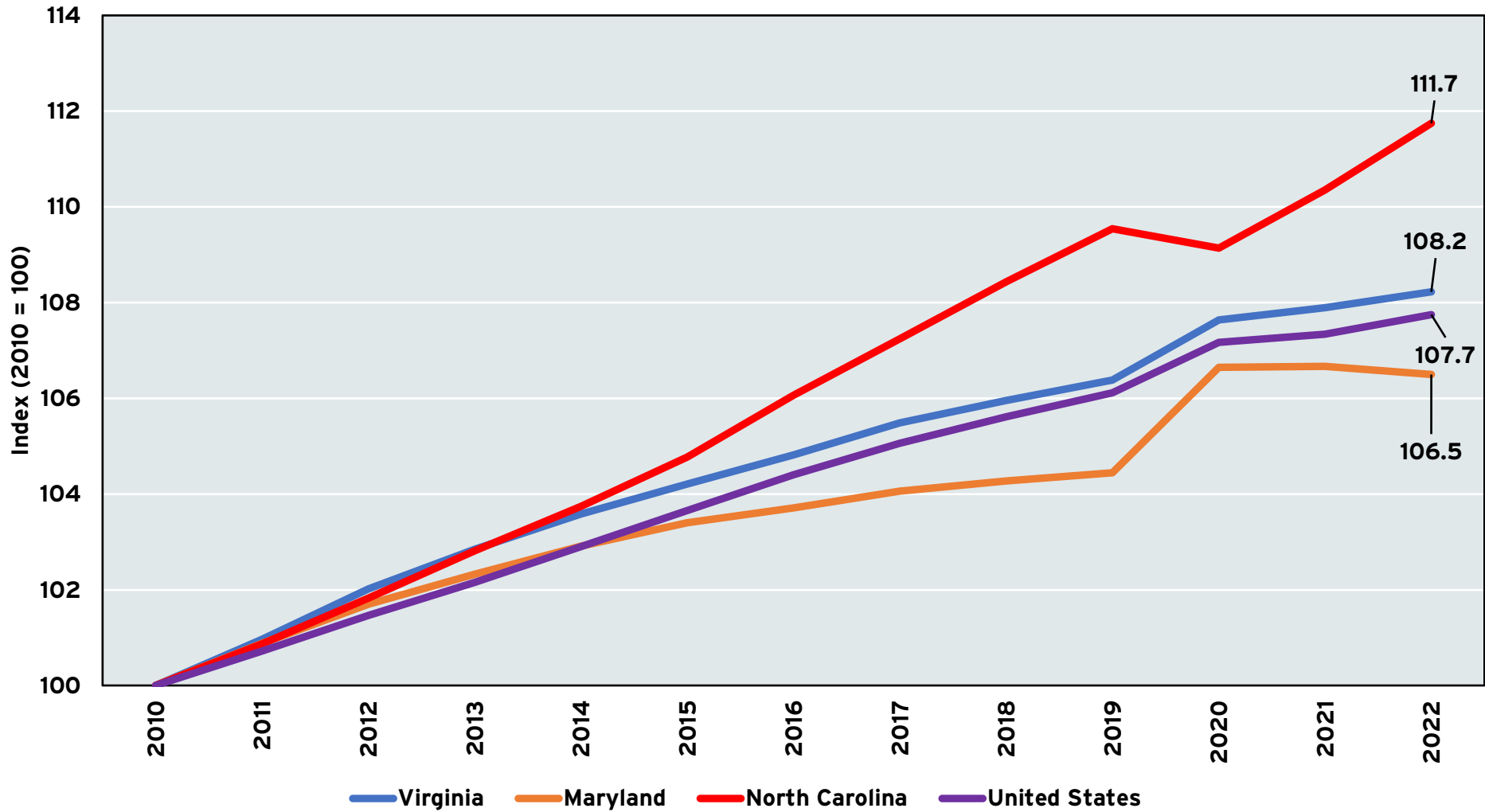
GRAPH 2

**AVERAGE ANNUAL POPULATION GROWTH BY DECADE
VIRGINIA, SELECTED STATES, AND THE UNITED STATES, 2000 - 2022**



Source: United States Census, Annual Estimates of the Population for the U.S. and States, and for Puerto Rico, various years.

GRAPH 3
INDEX OF TOTAL POPULATION
VIRGINIA, SELECTED STATES, AND THE UNITED STATES, 2010 - 2022



Source: United States Census, Annual Estimates of the Population for the U.S. and States, and for Puerto Rico, various years.

What are the Components of Virginia's Population Change?

Population change is driven by three components: natural increase in the population (births minus deaths), net domestic migration (domestic arrivals minus domestic departures), and net international migration (international arrivals minus international departures). States that are growing typically have more births than deaths and greater inflows of new residents than outflows of current residents. Because the decennial Census “resets” the population estimates, we compare the components of population change within each decade.

Table 1 presents the estimated components of population change for Virginia from April 1, 2010 to June 30, 2019. From 2010 to 2019, the natural increase in the state's population was 343,322 individuals. Net international migration was also positive, with 265,541 more international arrivals to Virginia than foreign departures. Net domestic migration, however, turned negative after 2013 with 71,103 more Virginians leaving for other states than people moving from other locations across the nation. In other words, the uptick in the Commonwealth's total population last decade was driven by the positive natural increase and positive net international migration in the population.

From April 1, 2020 to June 30, 2022, the natural increase in the resident population of the Commonwealth was positive, with a total of 27,930 more births than deaths. Net international migration, which was positive most of the previous decade, declined significantly in 2018 and did not fully recover until 2022. Moreover, from April 1, 2020 to June 30, 2022, there were 52,672 more international arrivals to Virginia than departures from Virginia. Net domestic migration in 2022, on the other hand, remained negative and dropped to a level last observed during the previous mid-decade. From April 1, 2020, to June 30, 2022, 29,775 more Virginians left for other places in the United States than arrived from other locations in the nation.

TABLE 1				
COMPONENTS OF POPULATION CHANGE, VIRGINIA				
APRIL 1, 2010 - JUNE 30, 2019				
Year	Natural Change	Net Domestic Migration	Net International Migration	Change in the Resident Population
2010*	11,052	5,551	5,713	22,316
2011	41,891	13,026	22,423	77,340
2012	42,549	4,466	36,694	83,709
2013	39,056	3,113	25,291	67,460
2014	39,971	-15,987	34,274	58,258
2015	37,987	-25,367	38,051	50,671
2016	37,581	-24,979	35,662	48,264
2017	33,480	-12,473	32,574	53,581
2018	31,081	-9,317	15,990	37,754
2019	28,674	-9,136	14,869	34,407
Total	343,322	-71,103	265,541	533,760
Sources: U.S. Census Bureau, 2019 Population Estimates Program and Dragas Center for Economic Analysis and Policy. *Except for 2010, the data represent the change from July 1 of the preceding year to June 30 of the current year. Population residual estimates not included.				

TABLE 2				
COMPONENTS OF POPULATION CHANGE, VIRGINIA				
APRIL 1, 2020 - JUNE 30, 2022				
Year	Natural Change	Net Domestic Migration	Net International Migration	Change in the Resident Population
2020*	3,763	-358	760	4,165
2021	11,242	-5,465	14,310	20,087
2022	12,925	-23,952	37,692	26,665
Total	27,930	-29,775	52,762	50,917
Sources: U.S. Census Bureau, 2019 and 2022 Components of Change Estimates and Dragas Center for Economic Analysis and Policy. *For 2020, the data represent the change from April 1, 2020, to June 30, 2020. Population residual estimates not included.				

How do Virginia's components of population change compare to neighboring states this decade? In Table 3, even though Maryland saw a positive increase in the population as births were larger than deaths, and net international migration was positive, net domestic migration was negative and greater than the sum of the positive natural change and net international migration. On the other hand, net domestic migration and net international migration were positive for West Virginia but, even when put together, were not large enough to offset the negative natural change in the population, as deaths outnumbered births by 23,902 this decade. North Carolina's natural change in the population and net international migration were positive (but still smaller than Virginia's). Unlike Maryland and Virginia, however, 211,867 more people moved to North Carolina this decade from other domestic locations than left North Carolina for other domestic destinations.

The 2021 American Community Survey (ACS) from the U.S. Census Bureau provides estimates of state-to-state migration flows. Table 4 contains the top 10 states with respect to positive net in-migration to Virginia in 2021, meaning states where more residents came to Virginia than Virginians left for those states. The top three states included New Jersey, Massachusetts, and New York, followed by the District of Columbia, California, and Arizona.

Table 5 displays the 10 states with highest negative net out-migration flows with respect to Virginia in 2021. Of note, 10,202 Virginians left for West Virginia, while 5,564 residents of West Virginia moved to Virginia, yielding a net domestic migration of -4,638. These flows were likely due to lower housing costs in West Virginia, with residents in search of cheaper housing (as evidenced by county-to-county migration flows in 2021). Some flows are possibly due to the large military presence in each state. Hawaii, for example, saw 3,498 more people from Virginia migrate to the state than departures from Hawaii to Virginia in 2021. Absent from Tables 4 and 5 is North Carolina. In 2021, 1,452 more Virginians moved to North Carolina than North Carolinians moved to Virginia. In 2021, the inflow of 27,640 persons from North Carolina to Virginia did not offset the outflow of 29,092 from Virginia to North Carolina. Negative net domestic migration

made North Carolina the 11th highest state in terms of out-migration for Virginia.

Virginia's resident population continues to grow; however, this population growth is, in part, dependent on international migrants. The continued inflow of international migrants is sensitive to political conditions. A significant downturn in these inflows, akin to what occurred at the end of the previous decade, could jeopardize Virginia's continued population growth, especially if more Virginians exit the state for other locations in the United States. Reversing negative net domestic migration will not only require job growth; it will also need a concerted effort to address housing costs in the areas with robust job growth. Otherwise, it is likely that the Commonwealth will continue to experience net negative domestic migration flows for the foreseeable future.



TABLE 3

**COMPONENTS OF POPULATION CHANGE
VIRGINIA AND SELECTED NEIGHBORING STATES
APRIL 1, 2020 - JUNE 30, 2022**

State	Natural Change	Net Domestic Migration	Net International Migration	Change in the Resident Population
Maryland	20,341	-68,287	33,300	-14,646
North Carolina	10,940	211,867	37,031	259,838
Virginia	27,930	-29,775	52,762	50,917
West Virginia	-23,902	2,460	2,536	-18,906

Source: U.S. Census Bureau, 2022 Components of Change Estimates and Dragas Center for Economic Analysis and Policy. Population residual estimates not included. Sum of the components of population change may not equal population level estimates.

TABLE 4

**STATES WITH LARGEST POSITIVE NET MIGRATION
TO VIRGINIA, 2021**

State	Residence was Virginia 1 Year Ago	Other State of Residence 1 Year Ago	Net Migration to Virginia
New Jersey	2,854	8,963	6,109
Massachusetts	3,508	9,553	6,045
New York	9,132	13,416	4,284
District of Columbia	9,003	13,211	4,208
California	16,881	21,052	4,171
Arizona	1,835	5,698	3,863
Pennsylvania	11,637	14,436	2,799
Maryland	25,305	27,855	2,550
Washington	4,452	6,749	2,297
Connecticut	1,536	3,396	1,860

Source: U.S. Census Bureau, 2021 American Community Survey. For more information on the ACS, see <https://www.census.gov/programs-surveys/acs/>

TABLE 5

**STATES WITH LARGEST NEGATIVE NET MIGRATION
TO VIRGINIA, 2021**

State	Residence was Virginia 1 Year Ago	Other State of Residence 1 Year Ago	Net Migration to Virginia
Utah	2,775	1,261	-1,514
Texas	15,079	13,305	-1,774
Mississippi	3,114	1,051	-2,063
Kansas	2,991	711	-2,280
Tennessee	9,806	6,574	-3,232
Hawaii	5,691	2,193	-3,498
Alabama	5,382	1,878	-3,504
South Carolina	12,978	9,212	-3,766
West Virginia	10,202	5,564	-4,638
Florida	29,153	20,603	-8,550

Source: U.S. Census Bureau, 2021 American Community Survey. For more information on the ACS, see <https://www.census.gov/programs-surveys/acs/>.

Inflation Slows but Persists

Before turning to the overall performance of the Virginia economy, we examine how the rise (and fall) of inflation-shaped discussions and perceptions of the economy in 2023. Whether in the grocery store or at the pump, Virginians faced higher prices for goods and services in 2023. Even though several economic indicators pointed towards a robust job market and favorable conditions for business, inflation was still a persistent topic of conversation and undoubtedly impacted perceptions of the overall performance of Virginia's economy. We first look at how inflation is measured and then how it is a lagging indicator of economic performance.

The Bureau of Labor Statistics (BLS) produces the Consumer Price Index (CPI) by surveying consumer prices across the nation. Each month, the BLS surveys more than 20,000 retail establishments as well as about 50,000 rental housing units to gather price data. The BLS uses housing rent data to form estimates of the cost of owner-occupied housing. The calculation of the CPI captures substitution effects (the tendency of consumers to shift away from relatively more expensive goods and services to cheaper alternatives) and changes in quality. More importantly, the weighting of specific categories in the CPI is dependent upon recent consumer spending patterns.³ In other words, weights are proportional to consumer spending on goods and services.

In Graph 4, we present the monthly rates of inflation and core inflation for the United States from January 2010 to September 2023. From February 2010 to February 2020, the longest peacetime economic expansion in the nation's history, the average and median monthly rates of inflation and core inflation were 1.8% (highest 3.8%) and 1.9% (highest 2.4%), respectively. In other words, prices were remarkably stable over the previous decade, and when prices did increase above the average for the period, these small bursts of inflation were relatively short-lived. It should have been no surprise, given price stability, that the Federal Reserve chose to take an accommodative monetary policy path to stimulate job creation and economic growth over the expansion.

The rapid rise of inflation in the second half of 2021 was challenging to policymakers. In January, the monthly rate of inflation for all items in the CPI basket was 1.4%, rising to 5.3% in June, and reaching 7.2% in December. In the same year, core inflation averaged 3.9%. Monthly inflation peaked at 8.9% in June 2022 and declined to 6.4% in December 2022. While monthly inflation continued to decline in the first half of 2023, core inflation remained sticky, reflecting the volatility of food and fuel prices. In 2022, monthly inflation and core inflation averaged 8.0% and 6.2%, and through August 2023, the averages were 4.5% and 5.1%, respectively. Inflation has slowed in 2023 but persisted above levels observed prior to the onset of the COVID-19 pandemic.

The rise of inflation in 2022 and its persistence in 2023 led the Federal Reserve to aggressively shift away from its accommodative monetary policy stance. The Federal Reserve lends to depository institutions through the "discount window." This lending facility helps depository institutions manage liquidity by providing ready access to funding. This credit program is the primary tool for ensuring liquidity, and the primary credit rate is set relative to the Federal Open Market Committee's (FOMC) target range for the federal funds rate. Table 6 shows the primary credit rate or "discount rate" to depository institutions from December 16, 2008, to the most recent increase on July 27, 2023.

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 by 250 basis points to 3.0% on December 20, 2018. On March 16, 2020, at the onset of the pandemic, the Federal Reserve cut the discount rate to 0.25%. Two years later, the Federal Reserve slightly increased the discount rate by 25 basis points to 0.50%. From May 5, 2022 to December 15, 2022, the Federal Reserve raised the discount rate again by 400 basis points, which means the Federal Reserve has raised the discount rate more in 2022 than it did in the decades during and after the Great Recession. As of July 2023, the Federal Reserve continued to spread the discount rate even further, resulting in another hike by 75 basis points.

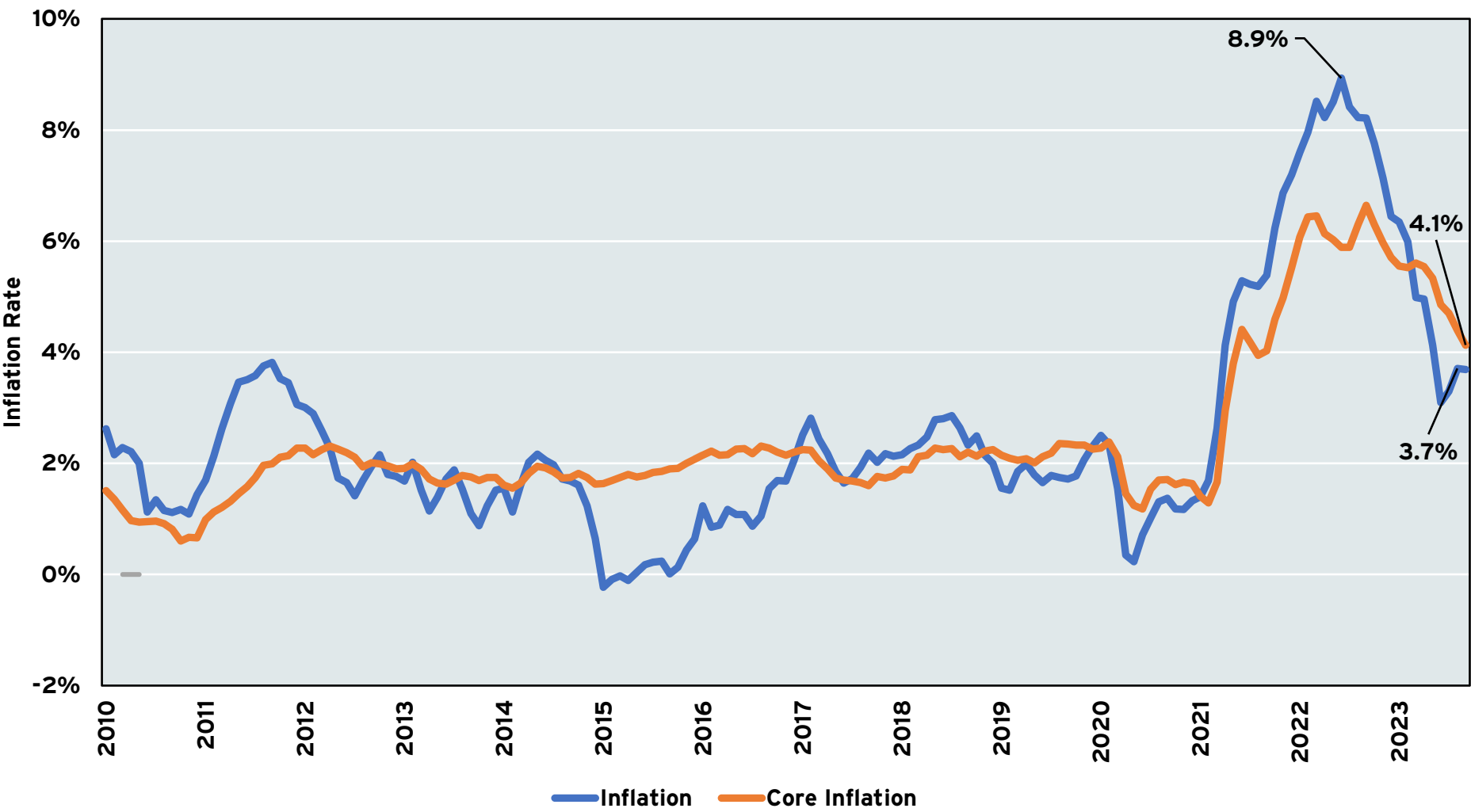
³ In 2023, the BLS announced that it would update the weights for expenditure categories in the CPI annually.

Why did the Federal Reserve quickly increase the discount rate in 2022 and continue to make the discount rate higher into 2023? One explanation is that inflation has continued to remain above the target rate set by the Federal Reserve. Another complementary explanation is that inflationary expectations are hard to break once formed, and the Federal Reserve does not want a repeat of the late 1970s. When consumers (and businesses) expect future price increases, such as increasing wage demands, shifting consumption, and, in the case of businesses, increasing the prices of goods and services, they can act as if the future prices will certainly increase. If there is some good news to report, it is that the Federal Reserve has been moderately successful in preventing a hardening of inflationary expectations (Graph 5).

In 2023, according to the University of Michigan's Survey of Consumers, respondents expected inflation to average 3.8% over the next 12 months, almost 0.9 percentage points less than the average rate of inflation for 2023. In other words, consumers expect lower inflation in the coming year, and this can contribute to the lowering of inflation. If housing prices soften in the second half of 2023 and into 2024, we would reasonably expect that inflationary expectations will fall accordingly, further reducing inflationary pressures in 2024.

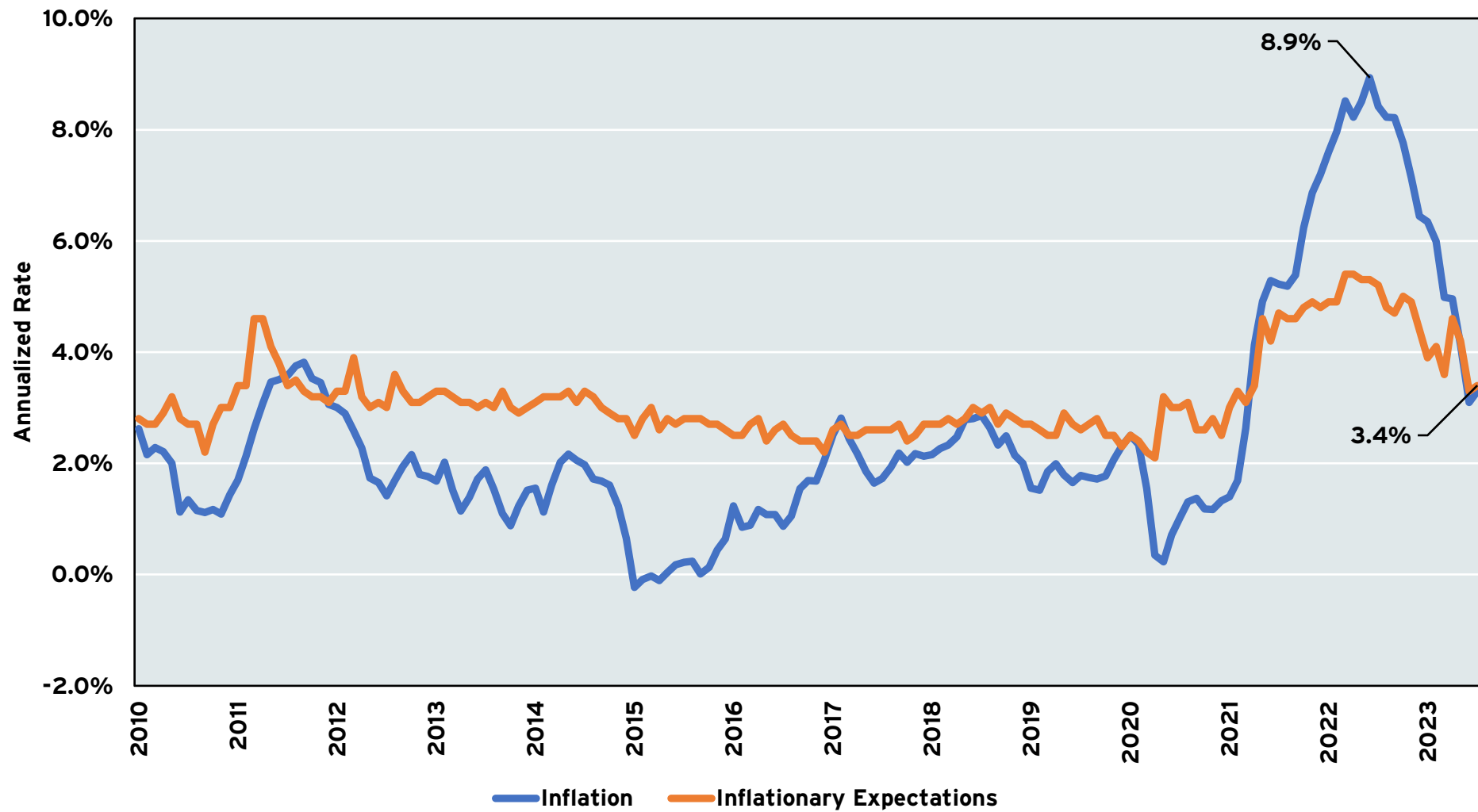
TABLE 6 DISCOUNT RATE, UNITED STATES DECEMBER 16, 2008 - JULY 27, 2023	
Date	Discount Rate (% per annum)
December 16, 2008	0.50%
February 28, 2010	0.75%
December 17, 2015	1.00%
December 15, 2016	1.25%
March 16, 2017	1.50%
June 15, 2017	1.75%
December 14, 2017	2.00%
March 22, 2018	2.25%
June 14, 2018	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 3, 2022	4.00%
December 15, 2022	4.50%
February 2, 2023	4.75%
March 23, 2023	5.00%
May 4, 2023	5.25%
July 27, 2023	5.50%
Source: Federal Reserve Bank, Discount Window. The discount rate is the interest rate on primary credit advances to member banks.	

GRAPH 4
INFLATION AND CORE INFLATION, UNITED STATES
JANUARY 2010 - SEPTEMBER 2023



Source: Bureau of Labor Statistics (2023). Inflation is the year-over-year change in CPI-U while Core Inflation is the year-over-year change in CPI-U less food and energy. Data are seasonally adjusted.

GRAPH 5
INFLATION AND INFLATIONARY EXPECTATIONS, UNITED STATES
JANUARY 2010 - AUGUST 2023



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

The measures of inflation, however, are dependent on the weights assigned to goods and services that make up the CPI. Graph 6 presents the relative importance of selected major components of the CPI in July 2023. For the broadest measure of consumer prices, the Consumer Price Index for all Urban Consumers (CPI-U), shelter (which includes rents and imputed owner-occupied rents) accounted for approximately 34.8% of the overall index. If we exclude food and fuel from the index to focus on core CPI, shelter accounted for approximately 43.7% of core CPI in July 2023. However, shelter prices typically lag market rents, and thus CPI-U and core CPI will lag, in part, the change in prices in the economy.⁴

Why? Market rents capture the price of new rentals while the CPI-shelter measures existing rents and the owners' equivalent rents. If market rents fall in the current month, it will take time for this information to accumulate in the CPI measure of shelter costs. This is partly the reason inflation, which measures the year-over-year changes in the CPI, is considered a lagging measure of the change in prices that consumers face in the economy. Even with the use of rolling average of month-over-month changes in the CPI, it would still suffer from the lag of shelter prices with respect to prevailing market rents.

Graph 7 examines monthly inflation for shelter, consumer prices less shelter, and core CPI for the United States from January 2019 to September 2023. In June 2022, monthly inflation for all items less shelter was 10.6%, falling rapidly through 2022 and into 2023. However, the overall inflation rate did not fall as quickly as shelter prices continued to rise through this period. Recall that shelter accounted for approximately more than 30% of CPI-U and more than 40% of core CPI, and the measurement of shelter lags new market rents. This, again, somewhat explained why the inflation has persisted in 2023.

If there is a measure of good news, it is that market rents appear to be softening across the nation and, as these new rents are reflected in the CPI, CPI-shelter and core inflation are likely to subside in 2024, barring a significant increase in commodities' prices or an unforeseen economic shock. However, we must recognize that lower rates of inflation will not reset prices to pre-pandemic levels.

Why did inflation rise so rapidly in the aftermath of the COVID-19 pandemic after a decade of relative price stability? An aggressive shift in monetary policy which lowered interest rates to record levels undoubtedly contributed to the increase in single-family housing prices which, in turn, bled into multi-family rental markets. Supply-chain constraints plagued consumers and businesses in 2020 and into 2021, but were these problems responsible for the burst of inflation observed in 2022?

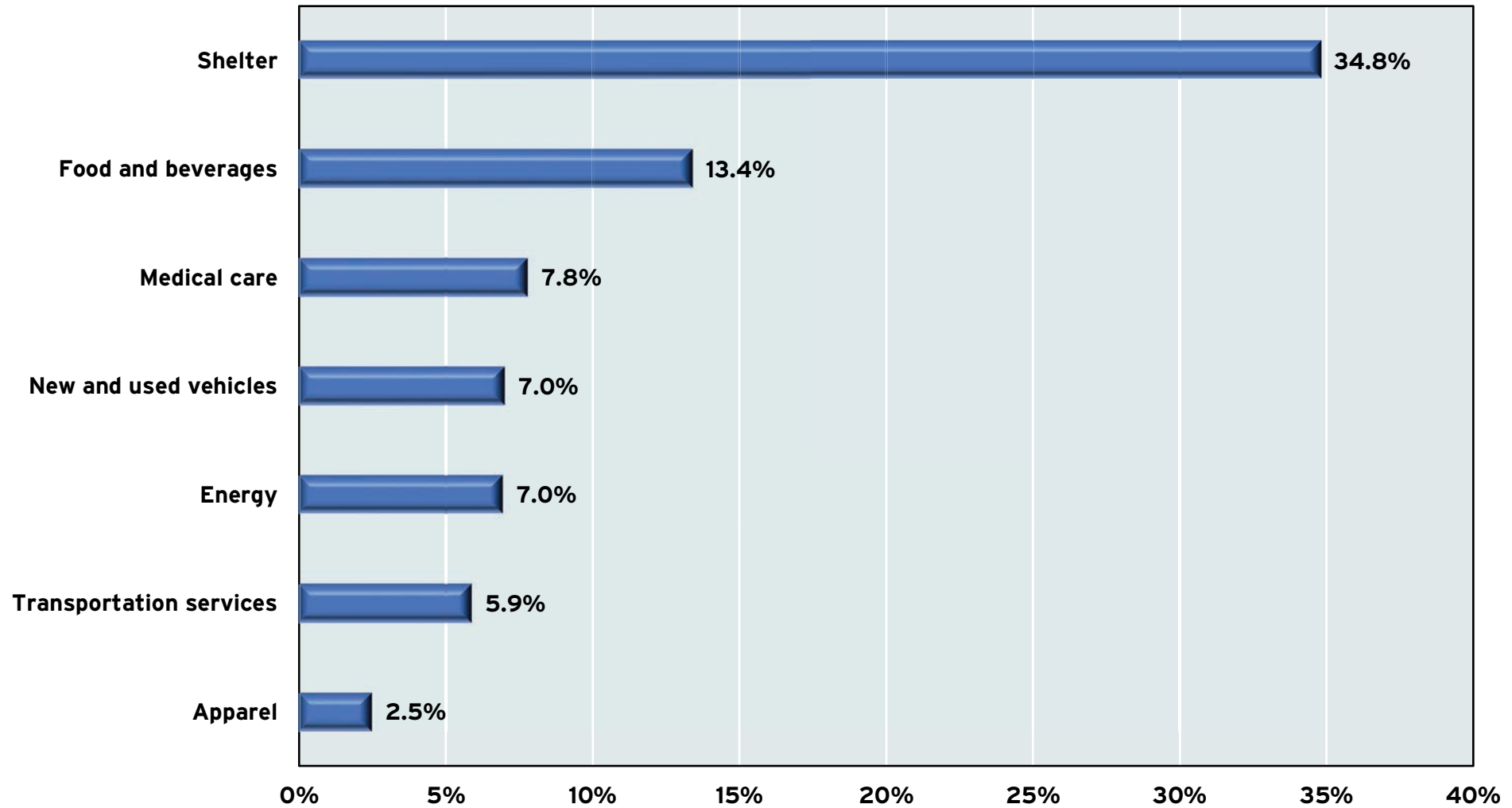
Many industrialized countries, including the United States, responded to the downturn in economic activity in 2020 by engaging in fiscal stimulus. In other words, central governments increased transfer payments to individuals and businesses in the hopes of staving off a prolonged recession, if not an outright depression. Focusing on fiscal stimulus, recent research argues that countries with larger stimulus experienced smaller decreases in consumption and stronger rebounds during periods of reopening.⁵ However, these stimuli did not significantly increase industrial production. In other words, fiscal stimulus increased demand without increasing supply, leading to growing price pressures globally. A back-of-the-envelope estimate suggests that, for the United States, fiscal stimulus increased the inflation rate by 2.6 percentage points. Now, with increasing evidence that the stimulus in the United States was surfeited with fraud, we need to continue to ask hard questions and learn what worked (and more importantly, what did not) in preparation for the next significant economic downturn.

⁴ Cotton, C. and O'Shea, J. (2023). "Forecasting CPI Shelter under Falling Market-Rent Growth." Current Policy Perspectives, Federal Reserve Bank of Boston. Available at: <https://www.bostonfed.org/publications/current-policy-perspectives/2023/forecasting-cpi-shelter-under-falling-market-rent-growth.aspx>

⁵ De Soyres, F., Santacreu, A., and Young, H. (2023). "Demand supply imbalance during the COVID-19 pandemic: The role of fiscal policy." Federal Reserve Bank of St. Louis Review, First Quarter 2023, 105(1), pp. 21-50. <https://doi.org/10.20955/r.105.21-50>

GRAPH 6

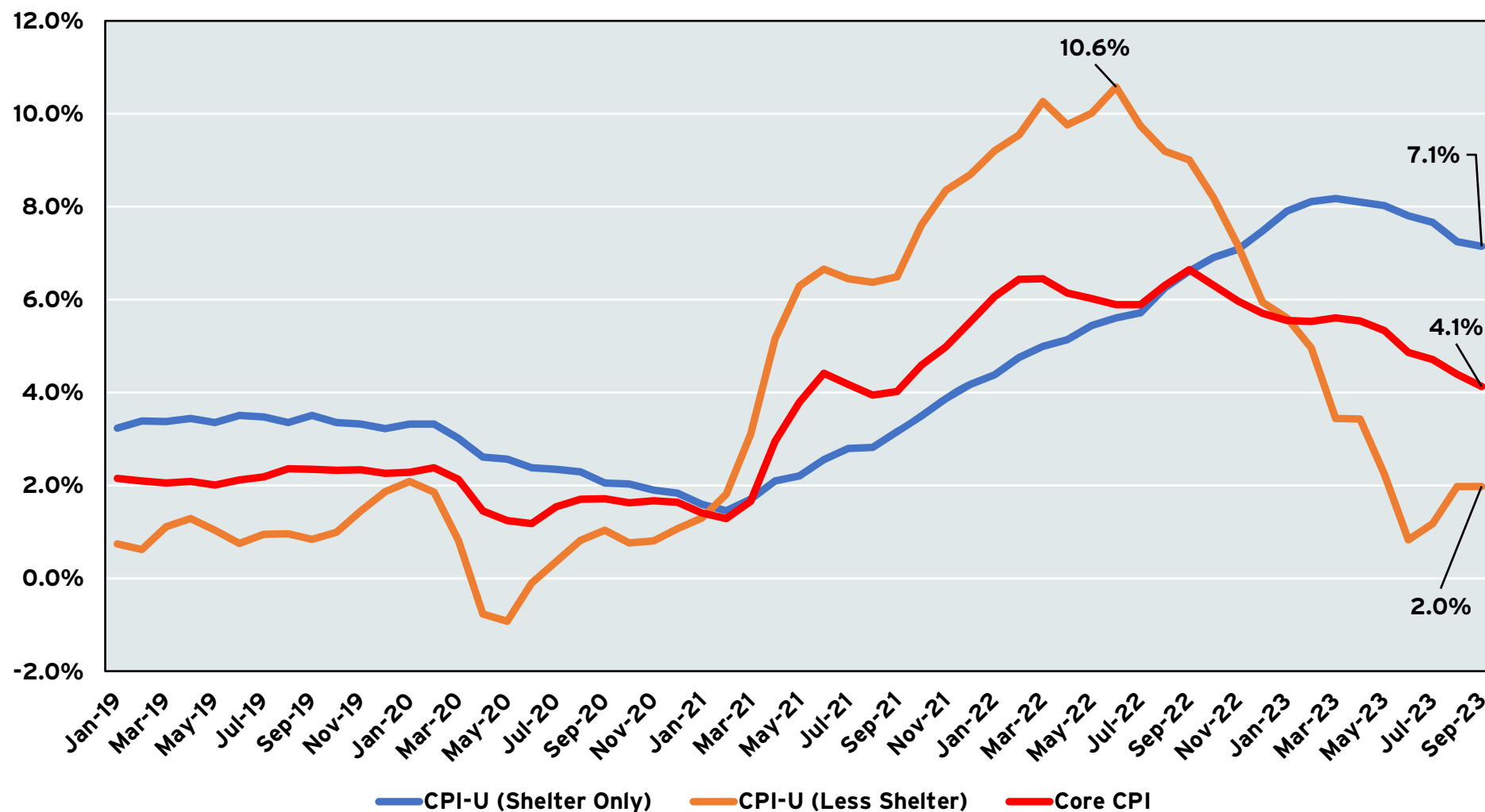
**RELATIVE IMPORTANCE OF SELECTED MAJOR COMPONENTS
CONSUMER PRICE INDEX FOR ALL URBAN CONSUMERS
JULY 2023**



Source: Bureau of Labor Statistics, relative importance of components in the Consumer Price Index for all Urban Consumers (CPI-U), July 2023.

GRAPH 7

HOUSING INFLATION AND CORE INFLATION, UNITED STATES JANUARY 2019 - SEPTEMBER 2023



Source: Bureau of Labor Statistics (2023). Inflation is the year-over-year change in CPI-U while Core Inflation is the year-over-year change in CPI-U less food and energy. Data are seasonally adjusted.

Gross Domestic Product: The Recovery Continues, Slowly

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 such as barter, 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 are subject to revision, especially at the state level.

The Bureau of Economic Analysis (BEA) is currently producing benchmark updates of state and national GDP estimates. The most recent release updates state data from 2018 Q1 to 2023 Q2, however, historical updates are not available. To compare the performance of the Virginia economy over time, we release on the previously released estimates and will transition to the new benchmark data in subsequent reports.

In Graph 8, we present data for nominal and real (inflation-adjusted) GDP for Virginia from the first quarter of 2005 to the first quarter of 2023. In the first quarter of 2005, real GDP was approximately \$405.3 billion, then climbed to approximately \$485.8 billion in the fourth quarter of 2019. Moving to the first quarter of 2020 and at the onset of the COVID-19 pandemic, real GDP declined by roughly \$4.8 billion, followed by a \$35.5 billion drop in the second quarter. As the Commonwealth “reopened” in the second half of 2020, real GDP bounced back by \$29.2 billion in the third quarter and by another \$7.8 billion in the fourth quarter of 2020, closing the year at \$585.4 billion. In the first quarter of 2021, Virginia’s real GDP exceeded the level observed in the fourth quarter of 2019. The rapid recovery in 2021 was followed by a contraction in real economic activity in the first two quarters of 2022. Growth then picked up pace beyond the

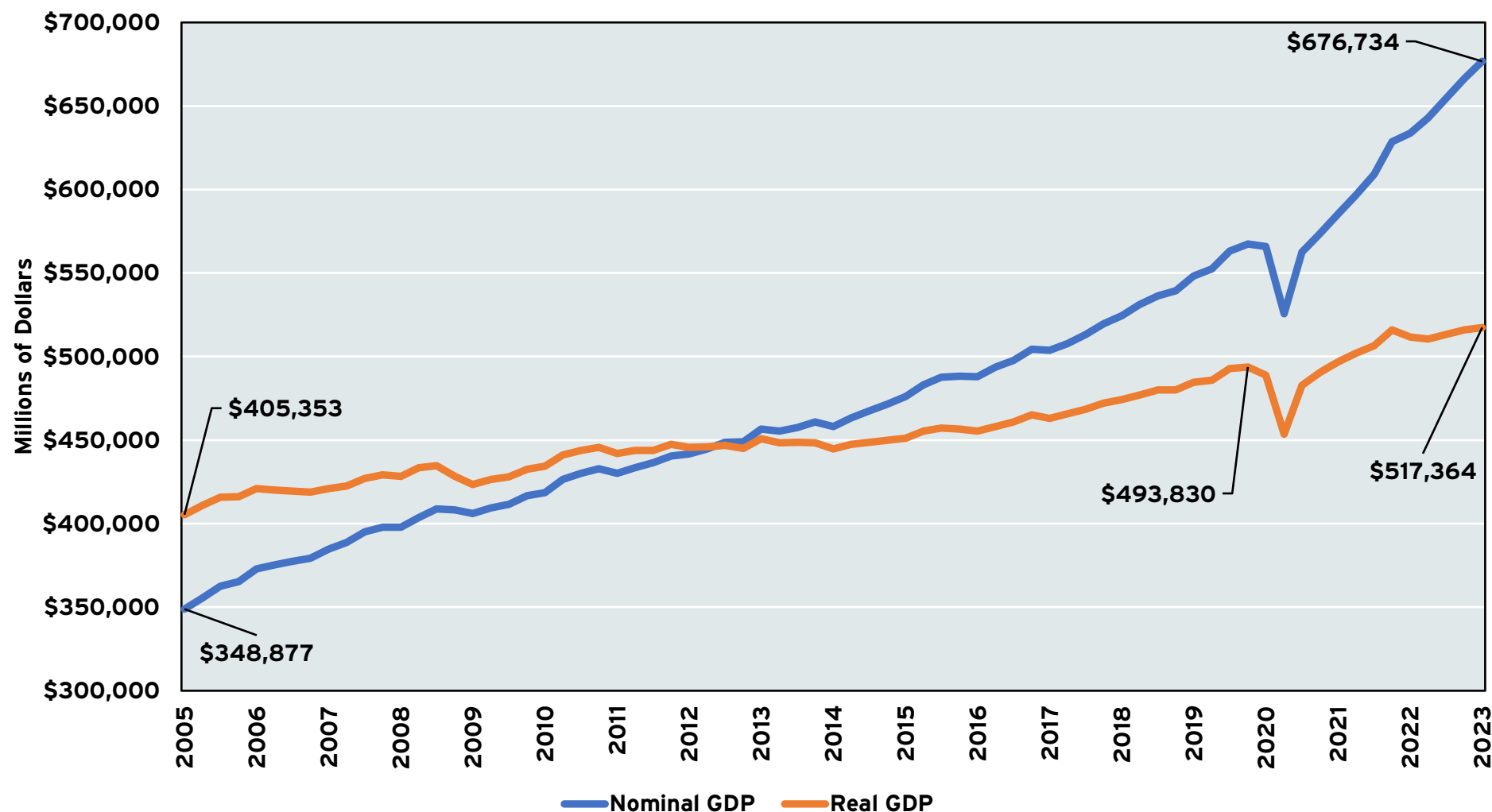
contraction, but at a slower rate than that observed in the aftermath of the economic shock of 2020.

Graph 9 shows the annualized quarterly change in real GDP for Virginia from the first quarter of 2019 to first quarter of 2023. Before the pandemic, the Virginia economy had grown in 14 out of the previous 15 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 growth. In the first half of 2022, however, economic activity contracted at an annualized rate of 3.3% in the first quarter and 0.9% in the second quarter. Growth then resumed towards the end of the year, with real GDP increasing by 2.2% and 2.1% in the third and fourth quarters, respectively. In 2023, the first quarter’s real GDP only increased by 1.0%, a relatively tepid performance given the national economy grew by 2.0% in the same quarter.

Graph 10 presents the performance of the Virginia’s economy relative to North Carolina and Maryland, as well as the country, from the first quarter of 2006 to the first quarter of 2023. At a quick glance, after the Great Recession of 2007 – 2009, Virginia’s economy lagged that of the comparison states and the U.S. However, in the aftermath of the 2020 economic shock, Maryland’s economy, for all intents and purposes, has not grown considerably relative to its pre-pandemic peak (an increase of 0.4% from Q4 2019 to Q1 2023). Between the fourth quarter of 2019 and the first quarter of 2023, while both Virginia’s and the nation’s economies grew moderately by approximately 4.8% and 5.6%, respectively, North Carolina’s real GDP soared by 8.9%.

GRAPH 8

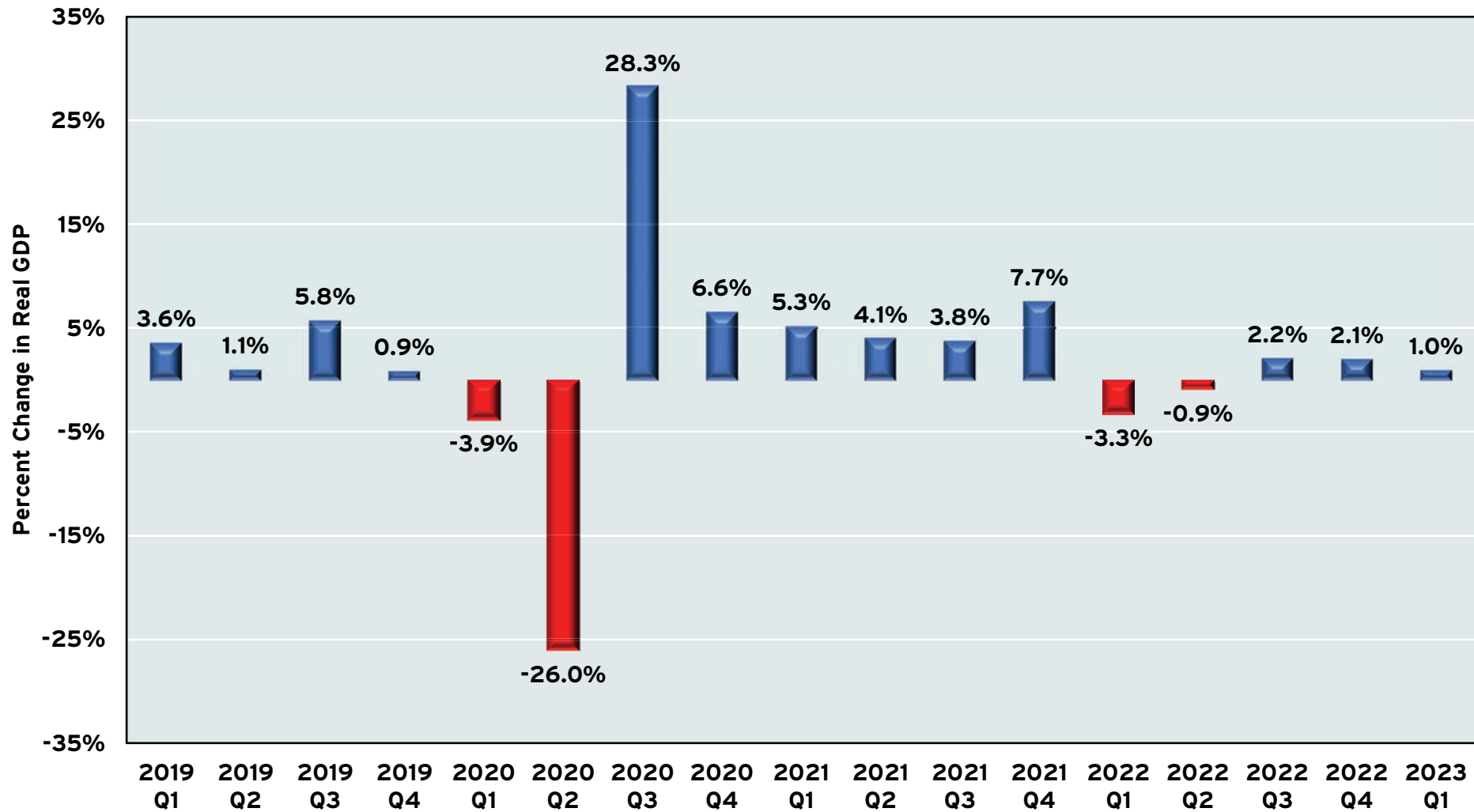
**NOMINAL AND REAL GROSS DOMESTIC PRODUCT
VIRGINIA, Q1 2005 - Q1 2023**



Source: Bureau of Economic Analysis (2022). Real GDP is measured in millions of chained 2012 dollars. Seasonally adjusted data at annual rate.

GRAPH 9

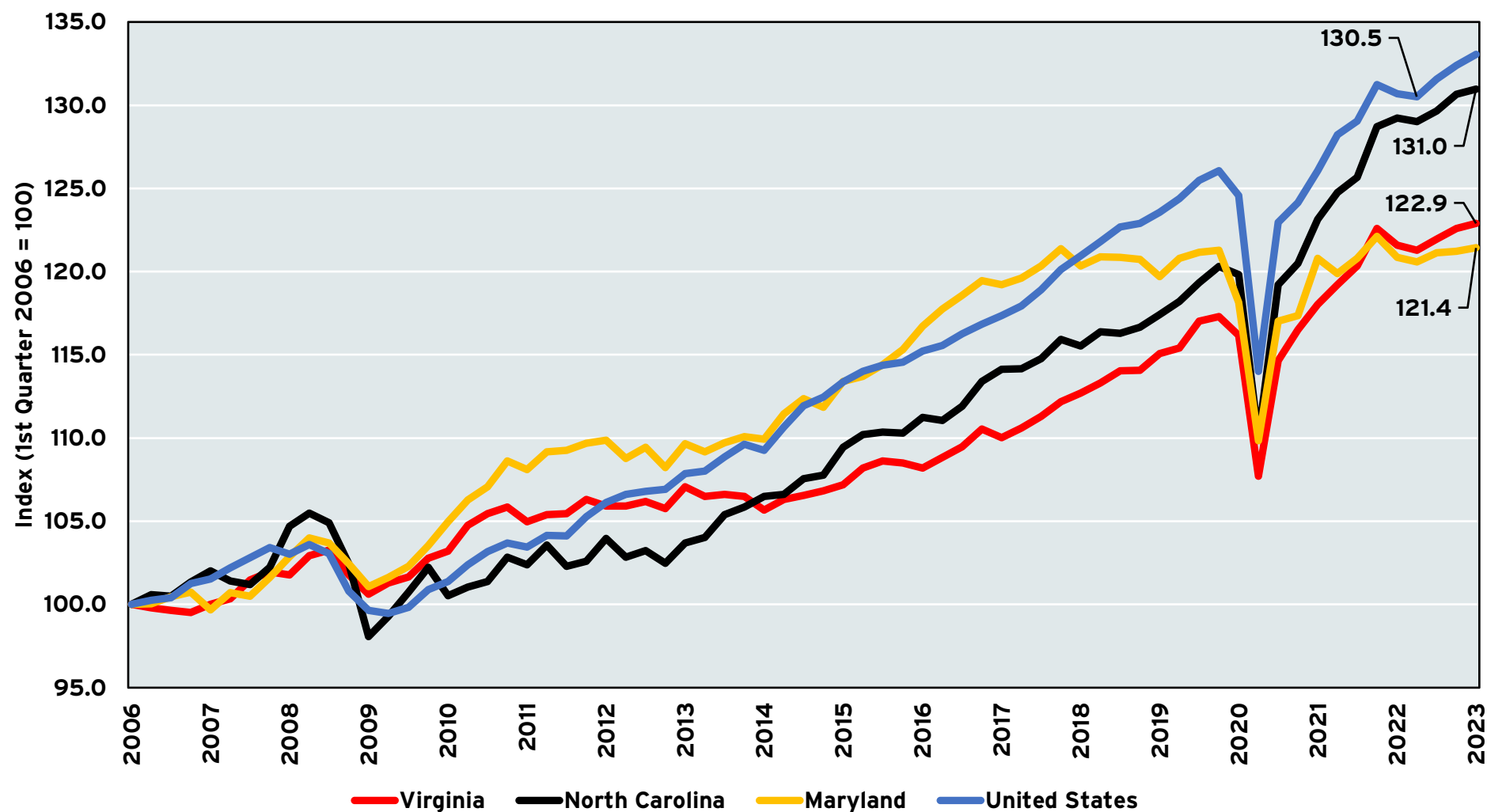
**ANNUALIZED PERCENTAGE CHANGE IN QUARTERLY REAL GROSS DOMESTIC PRODUCT
VIRGINIA, Q1 2019 TO Q1 2023**



Sources: Bureau of Economic Analysis, 2023, and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Table SQGDP9, real GDP by state. Annualized change in seasonally adjusted real GDP in millions of chained 2012 dollars.

GRAPH 10

**INDEX OF REAL GROSS DOMESTIC PRODUCT
VIRGINIA, NORTH CAROLINA, MARYLAND, AND THE UNITED STATES
Q1 2006 TO Q1 2023**



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.

In Table 7, we present our real GDP forecasts for the nation and the Commonwealth for the remainder of 2023. We project that economic growth in Virginia will not improve dramatically for the remaining quarters of 2023, and Virginia's real GDP growth will again lag that of the nation. So, how will the economy fare in 2024? In the best-case scenario, inflation continues to moderate, the Federal Reserve does not continue to tighten monetary policy, and Congress manages to pass appropriations and other necessary bills in a timely (for Congress) manner. If these events take place, we forecast that national economic growth in 2024 will improve to 2.5%, and Virginia's economy will grow to 2.0% in real terms.

On the other hand, we recognize that the economy may be near a tipping point, and any number of economic or political events may push the nation into a recession. Inflation may continue to persist, leading the Federal Reserve to tighten monetary policy. The "soft landing" may become a "fall" as businesses cut production, housing prices correct due to softening demand, and unemployment rises. Congress may find itself (again) unable to carry out its basic functions, and a prolonged federal government shutdown would have a disproportionate impact on the economy of the Commonwealth. For now, we remain optimistic that the nation and the Commonwealth will be able to "muddle through" to stronger growth in 2024.

TABLE 7 REAL GROSS DOMESTIC PRODUCT AND GROWTH IN REAL GROSS DOMESTIC PRODUCT, VIRGINIA AND THE UNITED STATES, 2010 TO 2024 (MILLIONS OF DOLLARS)				
Year	United States	Real GDP Growth	Virginia	Real GDP Growth
2010	\$15,648,991	2.7%	\$441,242	3.2%
2011	\$15,891,534	1.5%	\$444,288	0.7%
2012	\$16,253,970	2.3%	\$445,974	0.4%
2013	\$16,553,348	1.8%	\$449,064	0.7%
2014	\$16,932,051	2.3%	\$447,678	-0.3%
2015	\$17,390,295	2.7%	\$455,162	1.7%
2016	\$17,680,274	1.7%	\$459,966	1.1%
2017	\$18,076,651	2.2%	\$467,362	1.6%
2018	\$18,609,078	2.9%	\$477,915	2.3%
2019	\$19,036,052	2.3%	\$489,199	2.4%
2020	\$18,509,143	-2.8%	\$478,909	-2.1%
2021	\$19,609,812	5.9%	\$505,351	5.5%
2022	\$20,014,128	2.1%	\$512,946	1.5%
2023*	\$20,414,411	2.0%	\$520,128	1.4%
2024*	\$20,924,771	2.5%	\$530,530	2.0%
<small>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 2023 and 2024. *2023 and 2024 data are forecasts.</small>				

Median Household Income Declines in Virginia

If GDP is a measure of the value added in an economy, then median household income estimates the income of the household in the “middle” of the income distribution for a city, county, state, or nation. According to the U.S. Census Bureau, median household income includes the income of the householder and all other individuals 15 years and older in the household. For households and families, the median income is measured based on the distribution of the total number of households and families, including those with no income.⁶

Graph 11 displays nominal and real (inflation-adjusted) median household income for Virginia from 2010 to 2022.⁷ Nominal household income continued to rise in the Commonwealth in 2021 and 2022, but when inflation was factored in, a different story emerges from the data. Real median household income fell in 2022, but why?

The first (and obvious) reason is that gains in nominal median household income were less than the rise in consumer prices. From 2019 to 2022, nominal median household income in Virginia rose by approximately 12.3%, which might appear to be good news. However, over the same period, prices also rose, on average, by about 14.8%. From 2019 to 2022, real median household income in the Commonwealth fell by 2.2%.

Table 8 highlights how real median household income changed in Virginia’s metropolitan statistical areas (MSA), the Commonwealth, and the United States from 2019 to 2022. Nationally, real median household income fell by -0.9% from 2019 to 2022. In Virginia, Blacksburg-Christiansburg (1.7%), Richmond (3.7%), and Staunton (11.3%) observed increases in real median household income.

However, two of the largest metro areas, Hampton Roads, and Washington-Arlington-Alexandria, saw real median household income fall from 2019 to 2022 by 6.3% and 3.2%, respectively. Several smaller metro areas also observed declines in real median household income. With the drop in two of the largest metro areas, it should be no surprise that real median household income declined for the Commonwealth as well.

If there is a modicum of good news, it appears that inflation has ebbed from its highs and should continue to moderate in 2024. If, as we discuss in the next section, labor markets continue to be “tight,” Virginian workers will likely be able to command higher wages in 2024. The gains would likely reverse (or at least alleviate) the losses in median household income due to the onset of the pandemic and the subsequent economic shocks. If there is one lesson to be drawn from the data, it is that inflation acts as a tax on household incomes, reducing purchasing power, and decreasing Virginians’ quality of life.

⁶ For more information, including the standard distribution from which households are organized to estimate median household income, see U.S. Census Bureau (2023), “American Community Survey and Puerto Rico Community Survey, 2022 Subject Definitions,” Available at: https://www2.census.gov/programs-surveys/acs/tech_docs/subject_definitions/2022_ACSSubjectDefinitions.pdf

⁷ Due to the impact of COVID-19, the 2020 1-Year ACS estimates were deemed “experimental” and should not be compared with 1-year ACS estimates for different periods. We exclude the 2020 estimates from our analysis. For more information, see <https://www.census.gov/programs-surveys/acs/data/experimental-data.html>

TABLE 8

**REAL MEDIAN HOUSEHOLD INCOME
VIRGINIA'S METROPOLITAN AREAS, VIRGINIA, AND THE U.S.
2019 - 2022**

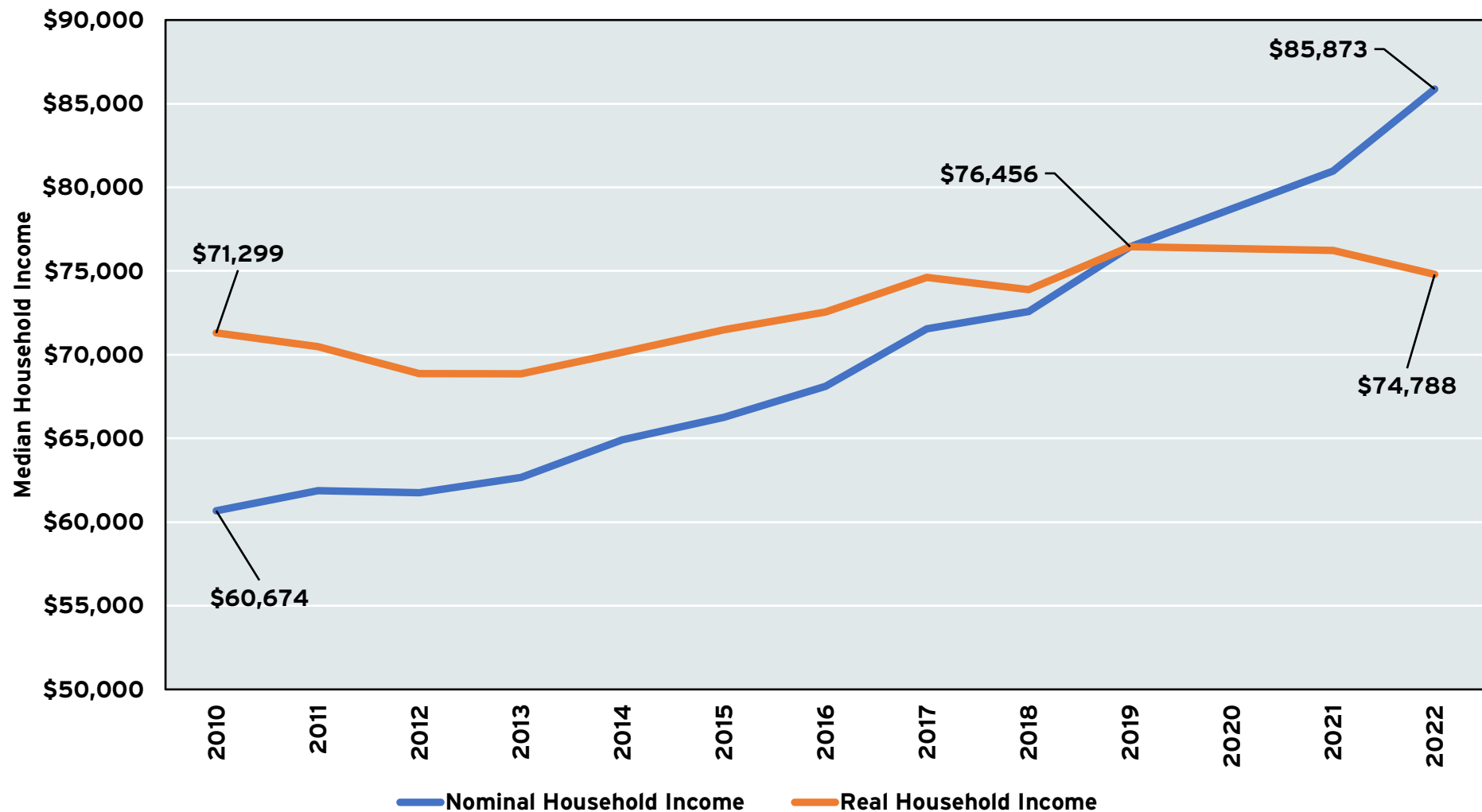
Metropolitan Statistical Area	2019 Real Median Household Income	2022 Real Median Household Income	Percent Change in Real Median Household Income 2019-2022
Blacksburg-Christiansburg	\$56,092	\$57,041	1.7%
Charlottesville	\$75,907	\$73,079	-3.7%
Harrisonburg	\$60,740	\$56,603	-6.8%
Kingsport-Bristol	\$48,615	\$46,060	-5.3%
Lynchburg	\$57,736	\$54,796	-5.1%
Richmond	\$68,324	\$70,882	3.7%
Roanoke	\$60,471	\$56,258	-7.0%
Staunton	\$57,844	\$64,382	11.3%
Hampton Roads	\$69,329	\$64,932	-6.3%
Washington-Arlington-Alexandria	\$105,659	\$102,273	-3.2%
Winchester	\$76,583	\$71,439	-6.7%
Virginia	\$76,456	\$74,788	-2.2%
United States	\$65,712	\$65,105	-0.9%

Source: United States Census Bureau, American Community Survey, 1-Year Estimates and the Dragas Center for Economic Analysis and Policy. 2019 constant dollars estimated using the Bureau of Labor Statistics Consumer Price Index research series (CPI-U-RS).

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."

GRAPH 11

**NOMINAL AND REAL MEDIAN HOUSEHOLD INCOME
VIRGINIA, 2010 - 2022***



Source: United States Census Bureau, American Community Survey, 1-Year Estimates and the Dragas Center for Economic Analysis and Policy. *Due to the impact of COVID-19, 2020 ACS estimates are experimental and should not be compared to other ACS estimates. We exclude the 2020 estimates from our analysis. 2019 constant dollars estimated using the Bureau of Labor Statistics Consumer Price Index research series (CPI-U-RS).

The Labor Force: Recovery Complete

Graph 12 illustrates the civilian labor force and individual employment in the Commonwealth from January 2019 to August 2023. In December 2019, both the labor force and individual employment set records at 4.44 million and 4.32 million Virginians, respectively. The civilian labor force declined through the spring of 2020 and reached its nadir of 4.29 million in May 2020. Individual employment declined to 3.81 million in April 2020, but recovered rapidly as Virginians returned to work.

By the end of 2020, the civilian labor in Virginia had grown to 4.31 million, increasing to 4.37 million in December 2021. The civilian labor force continued to increase through 2022, reaching 4.47 million in December 2022. Throughout 2023 until August, both the civilian labor force and individual employment continued to expand in Virginia, marking a record of 4.60 million and 4.49 million Virginians, respectively.

The headline unemployment rate measures the ratio of unemployed individuals to the civilian labor force. In Virginia, the unemployment rate jumped from 2.9% in February 2020 to 12.0% in April 2020 (Graph 13). However, the sharp increase in the unemployment rate was short-lived. By January 2021, the unemployment rate had declined to 4.8% and was cut further to 3.0% by the end of 2021. In 2022, the unemployment rate had continuously declined to 2.5% in early summer before increasing to 3.1% by December 2022. In 2023, the unemployment rate dropped below 3% in early summer and reached 2.5% in August 2023.

How has Virginia fared relative to neighboring states and the nation? In Graph 14, we compare the labor force recoveries of Virginia with Maryland, North Carolina, West Virginia, and the United States. Both Maryland and West Virginia experienced weaker civilian labor force in August 2023 when compared to February 2020 which was 4.9% and 1.3%, respectively. Over the same period, the civilian labor

force in Virginia in August 2023 was 3.8% larger than in February 2020, 1.7 percentage points more than that for the nation, and only 0.3 percentage points behind North Carolina. Virginia's recovery from the COVID-19 pandemic shifted into a new economic expansion over the last 12 months.

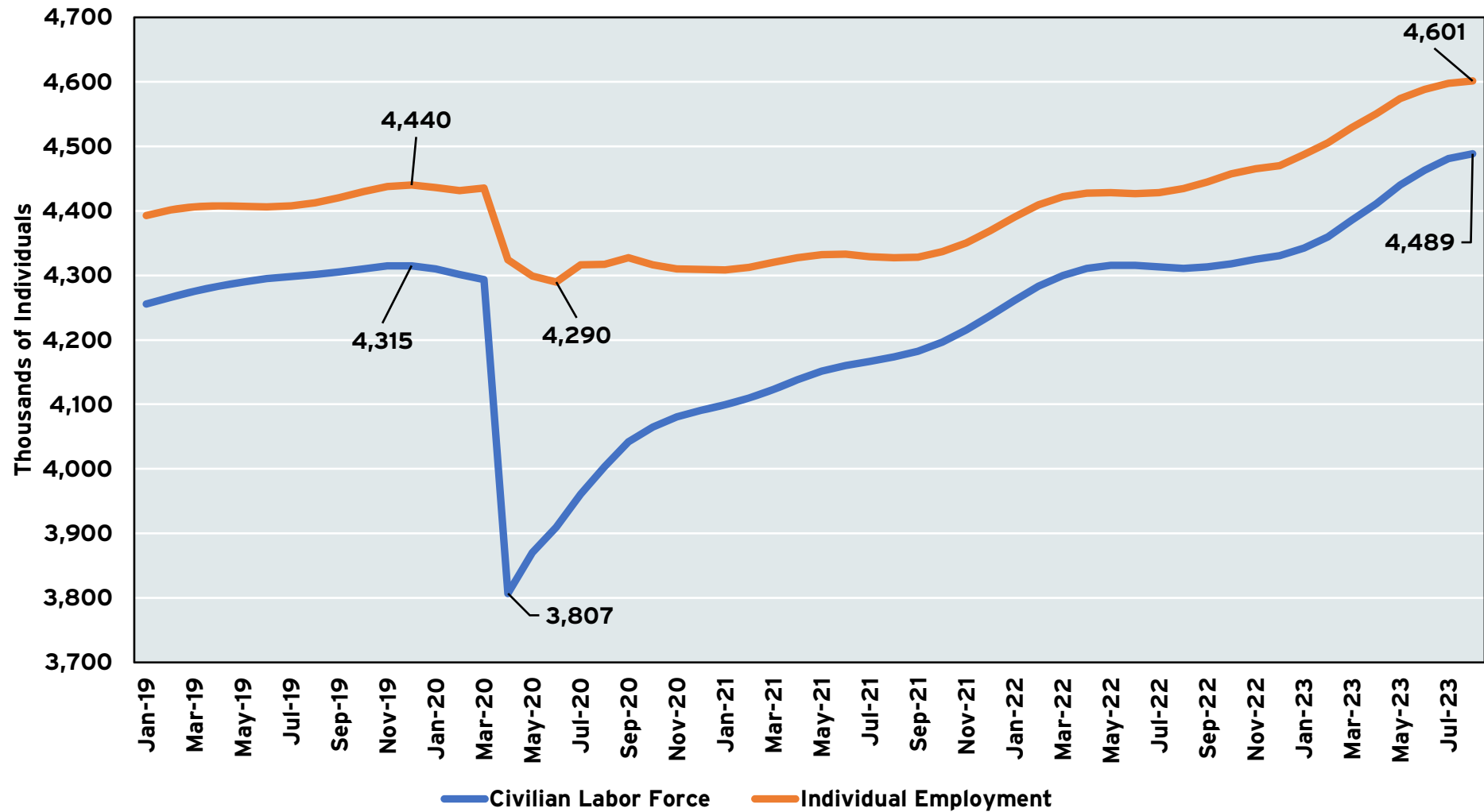
The labor force participation rate is equal to the number of individuals in the labor force as a percentage of the civilian noninstitutional population and represents the percentage of the population that is either working or actively looking for work.⁸ Graph 15 presents the labor force participation rate for Virginia from January 2019 to August 2023. Prior to the onset of the COVID-19 pandemic, the labor force participation rate reached 65.9% in November 2019 before falling to 63.4% in April 2020. While the labor force participation rate rebounded off its lows in 2020, it remained below the pre-pandemic level through 2021 and 2022. In April 2023, the labor force participation rate in Virginia returned to 65.9% and continued to increase in the early summer months. In August 2023, the labor force participation rate in the Commonwealth reached 66.7%.

It is certainly good news that the civilian labor force and individual employment have not only recovered from the shock of 2020 but have also continued to grow in 2023. We expect the civilian labor force will continue to expand in 2024, although at a slower pace than in 2023. Moving Virginians who are currently outside the labor force into gainful employment is crucial to provide enough workers to power a continued expansion in 2024. We remind the reader that the labor force participation rate was 69.9% in the summer of 2008 and, if we go even further back, was 70.9% in May 1992. Increasing labor force participation rates would bring thousands of Virginians into the workforce, a boon to their incomes and the economy of the Commonwealth.

⁸ The civilian noninstitutional population age 16 or older excludes active-duty members of the U.S. Armed Forces, people confined to, or living in, institutions or facilities such as prisons, jails, and residential care facilities, to include skilled nursing homes.

GRAPH 12

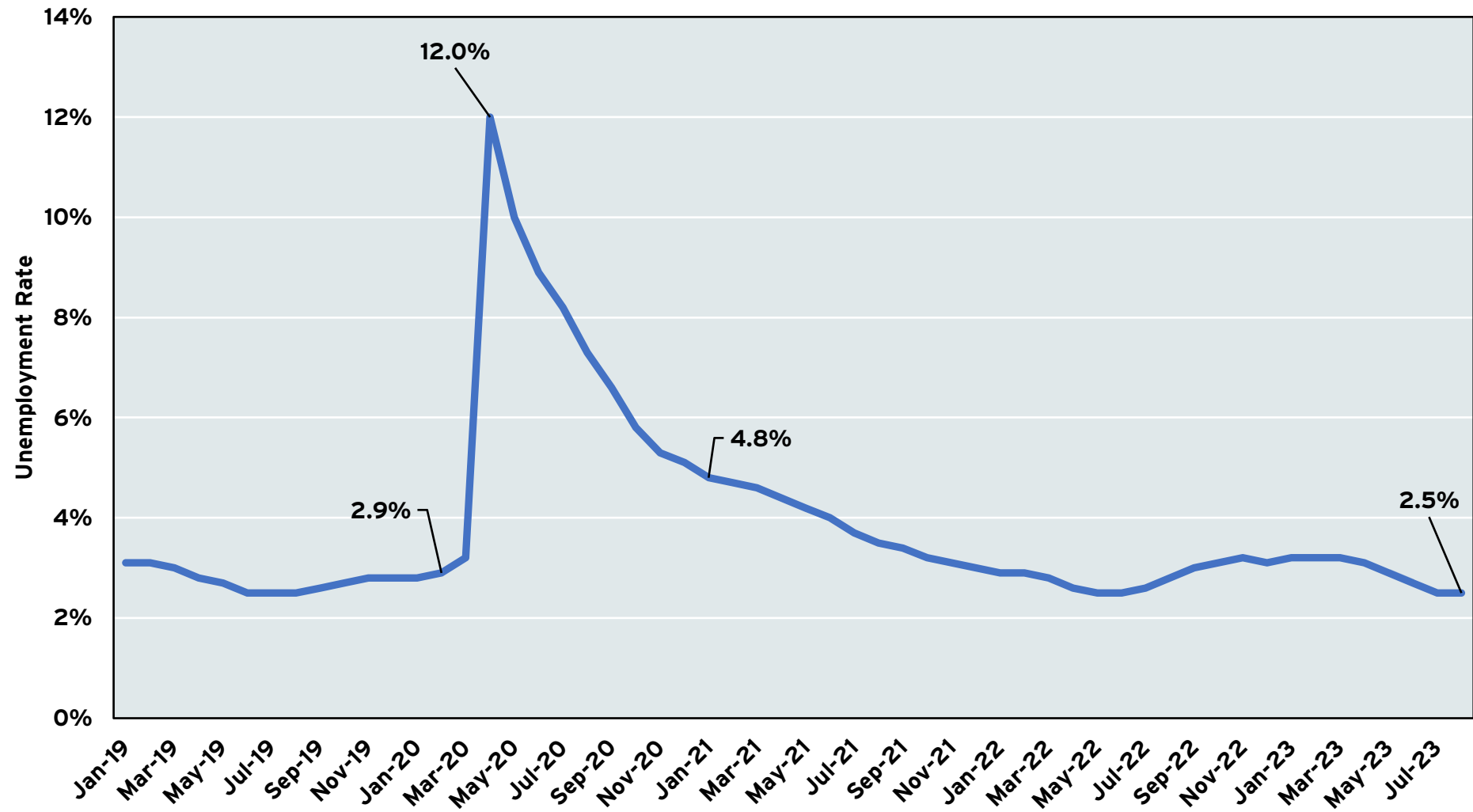
**CIVILIAN LABOR FORCE AND INDIVIDUAL EMPLOYMENT
VIRGINIA, JANUARY 2019 TO AUGUST 2023**



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

GRAPH 13

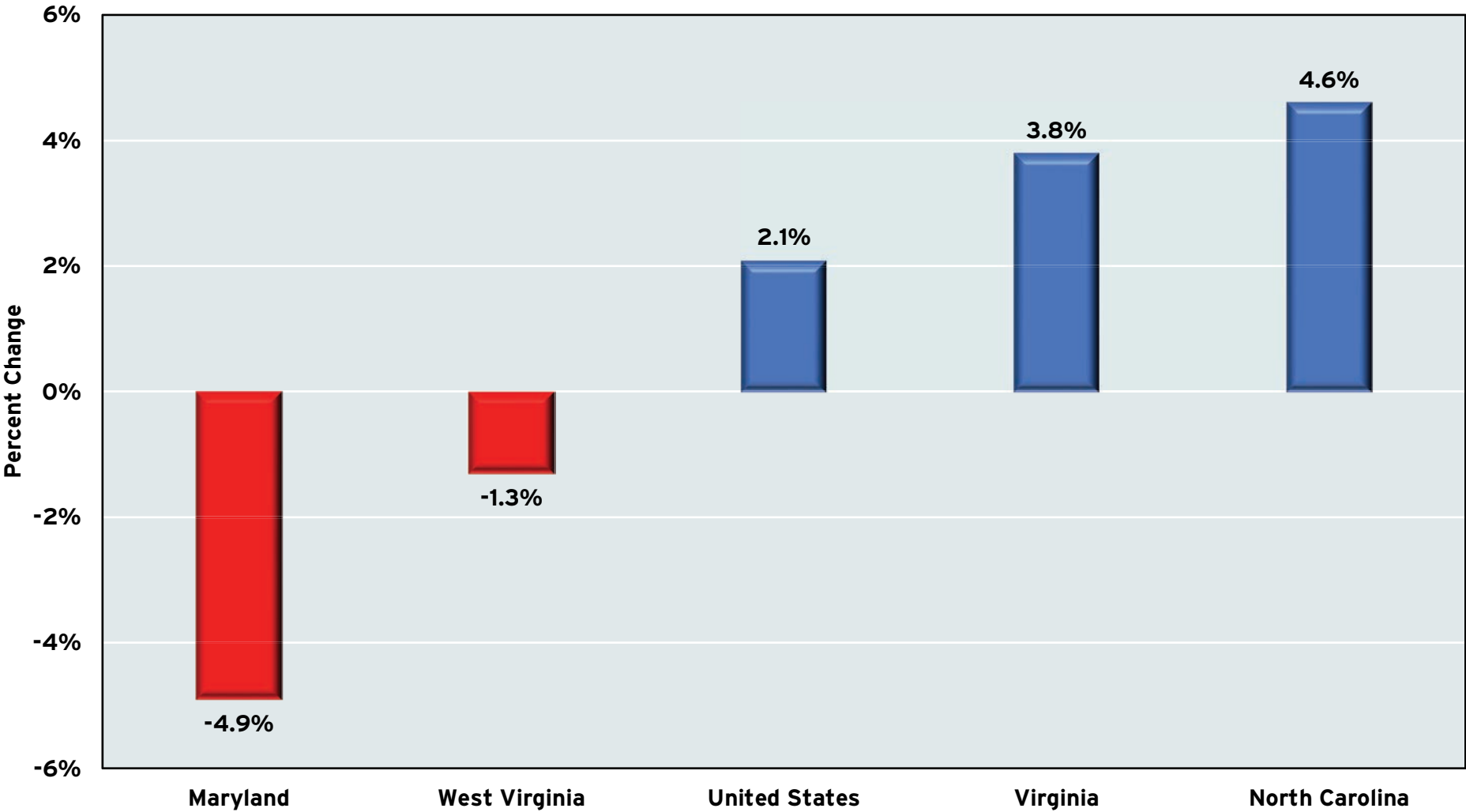
**HEADLINE UNEMPLOYMENT RATE (U3)
VIRGINIA, JANUARY 2019 TO AUGUST 2023**



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

GRAPH 14

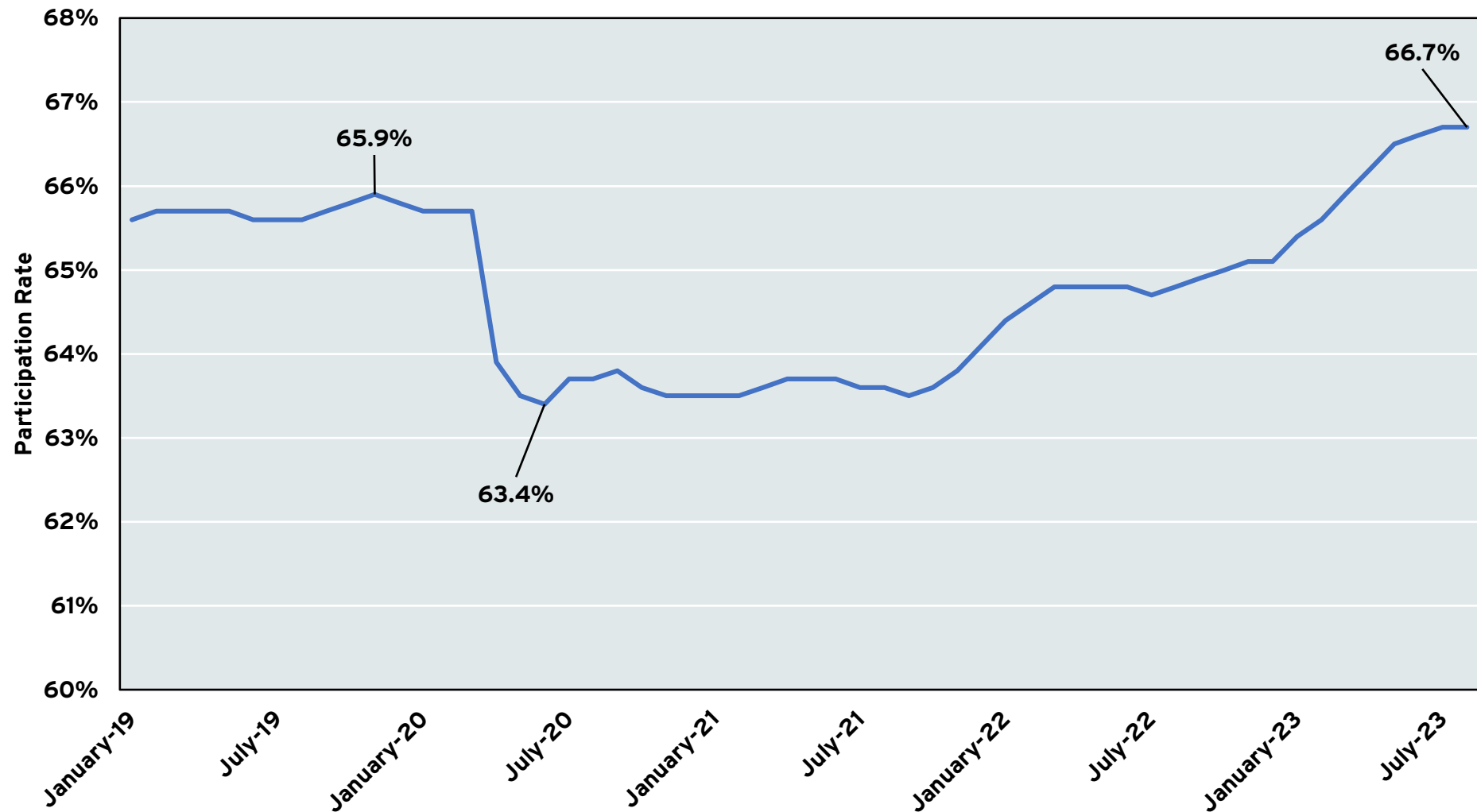
PERCENT CHANGE IN CIVILIAN LABOR FORCE
VIRGINIA, SELECTED STATES, AND THE UNITED STATES
FEBRUARY 2020 TO AUGUST 2023



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

GRAPH 15

**LABOR FORCE PARTICIPATION RATE
VIRGINIA, JANUARY 2019 - AUGUST 2023**



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

Jobs Recovered, Expansion Underway

Graph 16 displays nonfarm payrolls (jobs) for the Commonwealth of Virginia from January 2010 to August 2023. Over this period, employers in Virginia added approximately 471,100 jobs. From February 2020 to April 2020, employers shed 475,600 jobs, essentially erasing the gains of the previous decade. As Virginia “re-opened” in the second half of 2020, jobs returned, but the recovery continued through 2021 and into 2022. In August 2022, Virginia’s nonfarm payrolls finally eclipsed the pre-pandemic record, and the Commonwealth entered a job expansion. By August 2023, Virginia had 4.16 million jobs, 68,100 more than in February 2020.

Graph 17 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, whereas nationally, there were 17.6% more jobs over the same period. 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 in the nation were essentially the same as during the trough following the Great Recession in February 2010. However, as evidenced by Graph 17, the recovery in jobs was faster nationally than in Virginia. By August 2023, the United States had created 20.6% more jobs than it did in February 2020 while Virginia had 15.5% more. Both the nation and the Commonwealth were in the midst of a job expansion. The challenge for Virginia is not only to sustain the job expansion, but also to improve its pace to match that of the nation.

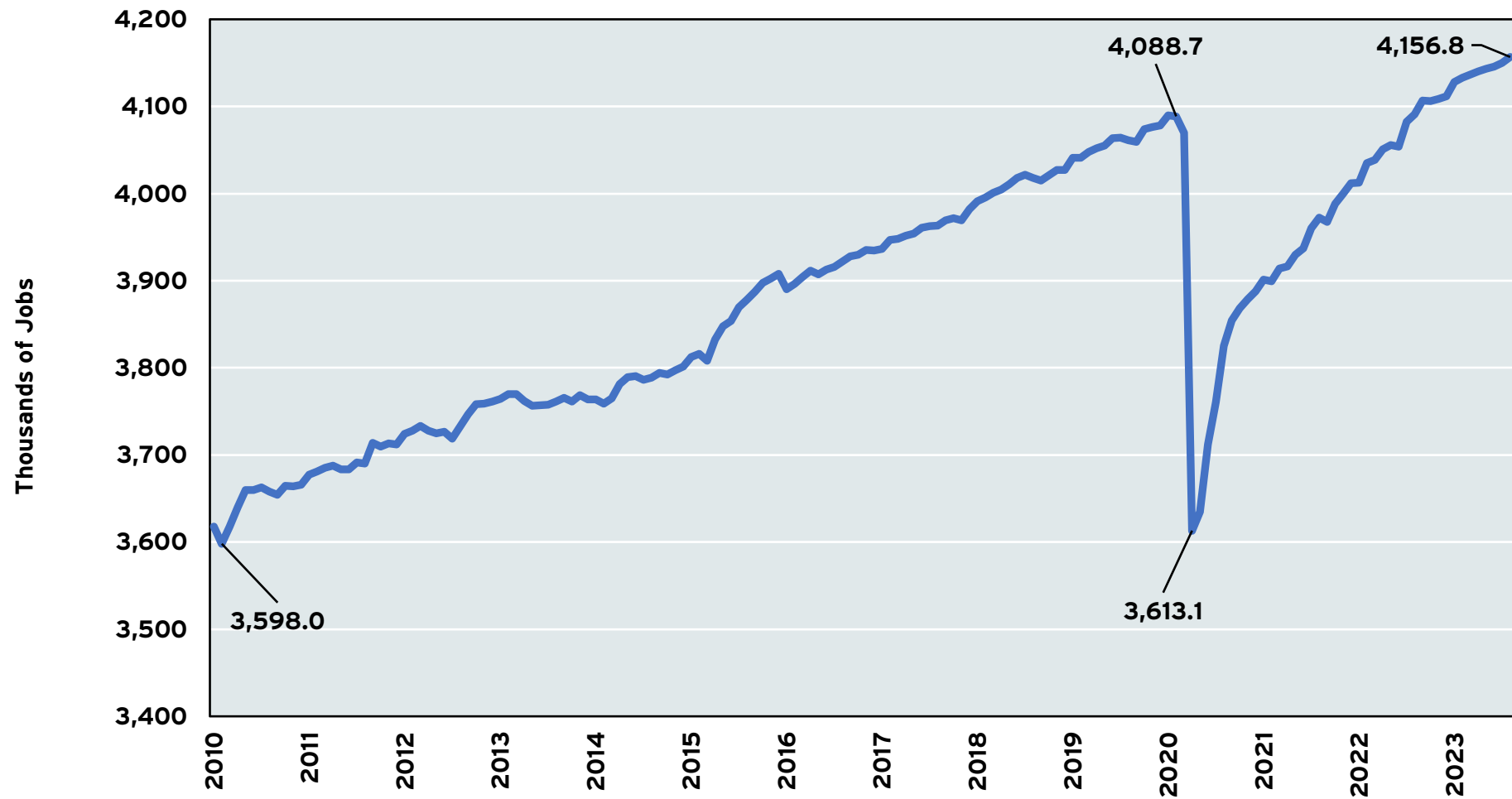
Job Openings and Job Quits in Virginia

Graph 18 illustrates the average annual job openings and job quits for Virginia from 2010 to 2022. The data illustrate the demand of employers for employees (job openings) and the willingness of employees to depart from their current workplace (job quits). It should be no surprise that in 2010, in the aftermath of the Great Recession, employees were reluctant to quit their jobs and thus job openings were relatively few.

From 2010 to 2019, the average annual number of monthly job openings in Virginia increased at a higher pace than job quits. At the same time, the number of unemployed individuals in the Commonwealth declined, so employers found themselves with fewer applicants (on average) for each open position. After the economic shock of 2020, both employers and employees demonstrated a willingness to hire and to quit, as average monthly job openings increased to 320,700 and average monthly job quits reached a record of 111,000 in 2022. However, with unemployment hovering near pre-pandemic lows, employees found themselves in the position to command higher wages.

Delving into a narrower timeframe, Graph 19 highlights the most recent monthly data for job openings and job quits for Virginia from January 2022 to July 2023. Job openings peaked in December 2022 at 352,000, however, it trended downward, falling from 336,000 in January 2023 to 245,000 in July 2023. Job quits, which had reached 134,000 in May 2023, fell to 101,000 in July 2023. If sustained, the decline in job openings is a strong signal of softening employer demand along with observed job quits fall, employees are recognizing that economic conditions are changing and adapting to a job market where labor demand is weaker than in 2022.

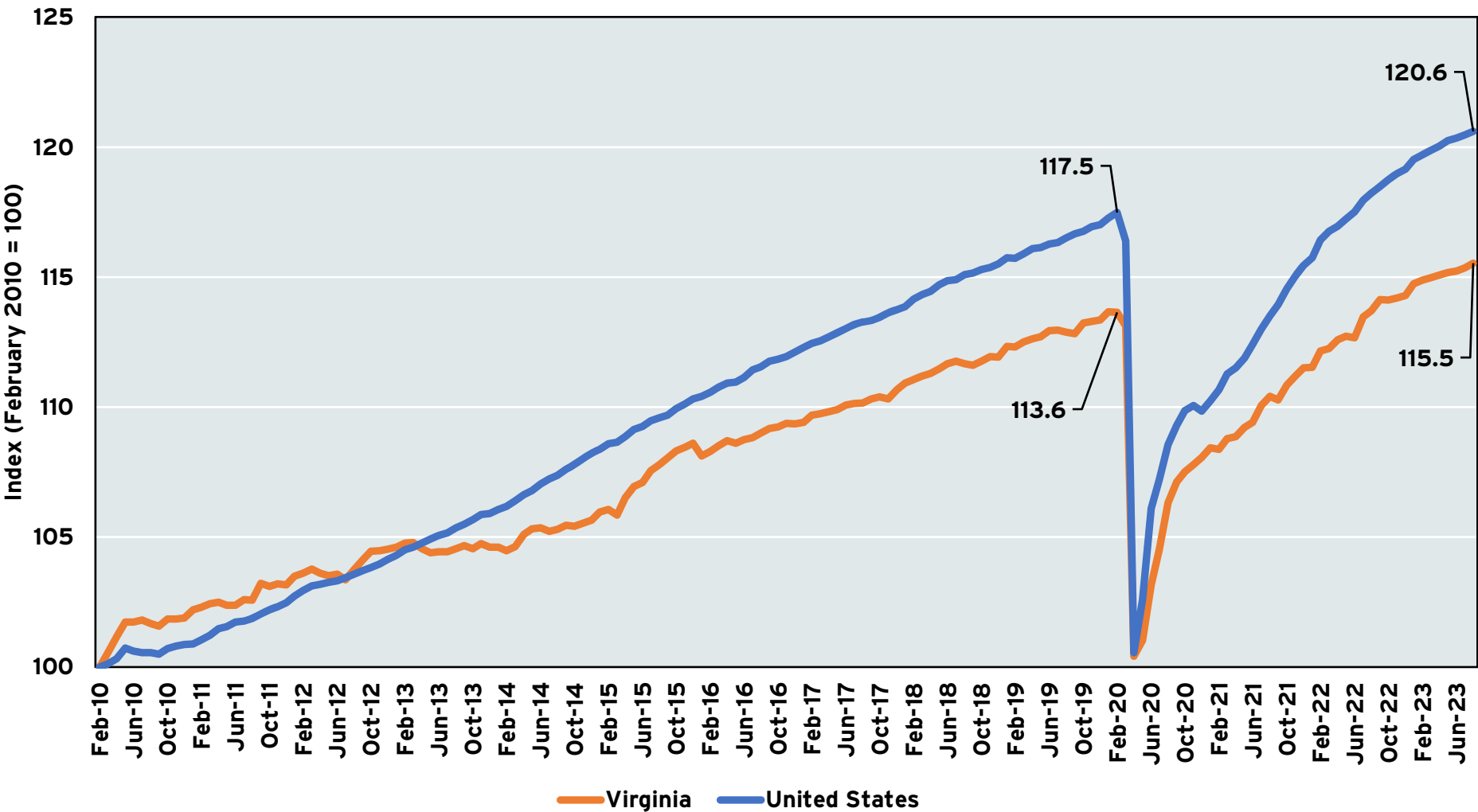
GRAPH 16
NONFARM PAYROLLS (JOBS)
VIRGINIA, JANUARY 2010 TO AUGUST 2023



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

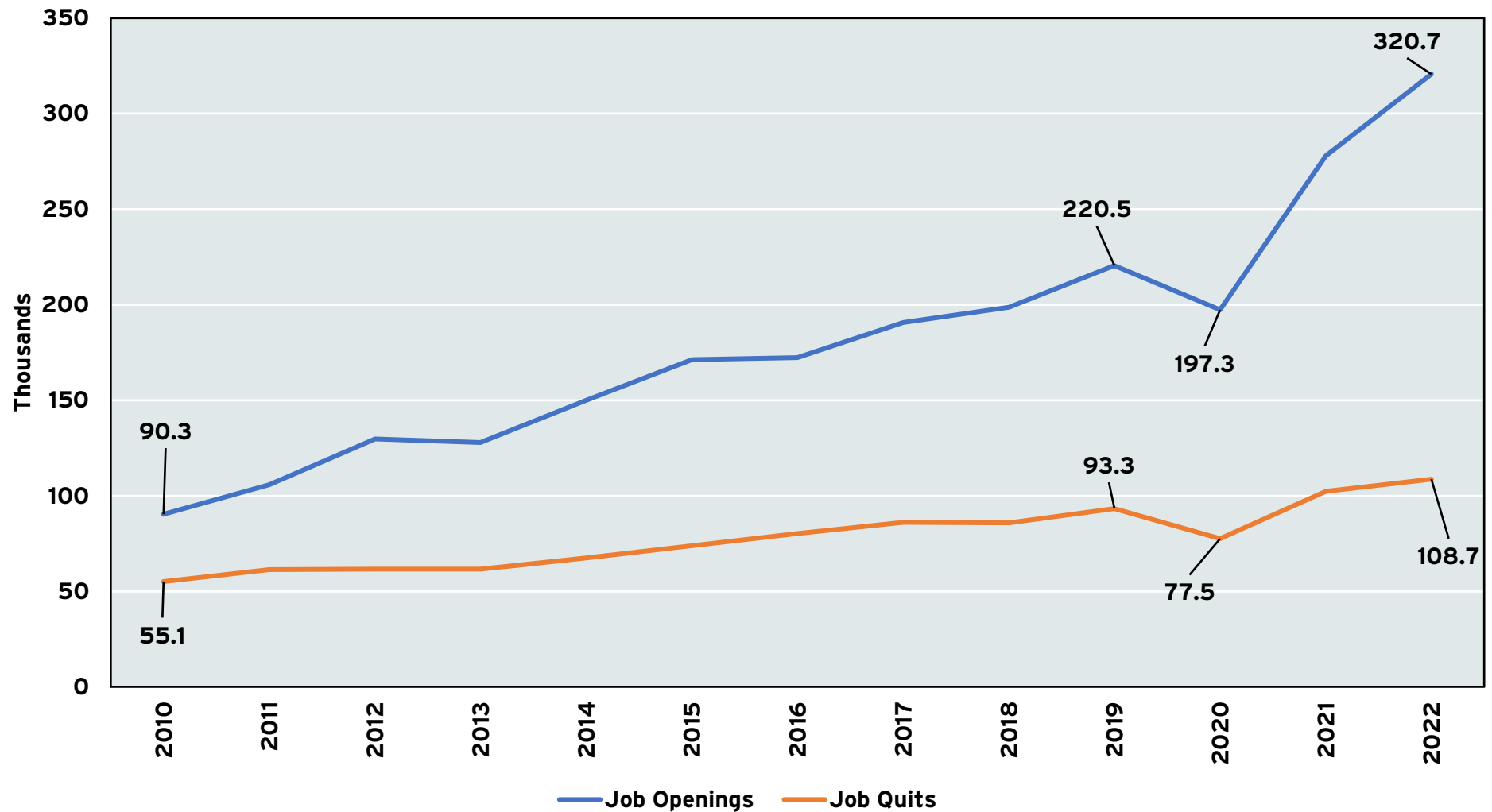
GRAPH 17

INDEX OF CUMULATIVE GROWTH IN NONFARM PAYROLLS (JOBS)
VIRGINIA AND THE UNITED STATES, FEBRUARY 2010 - AUGUST 2023



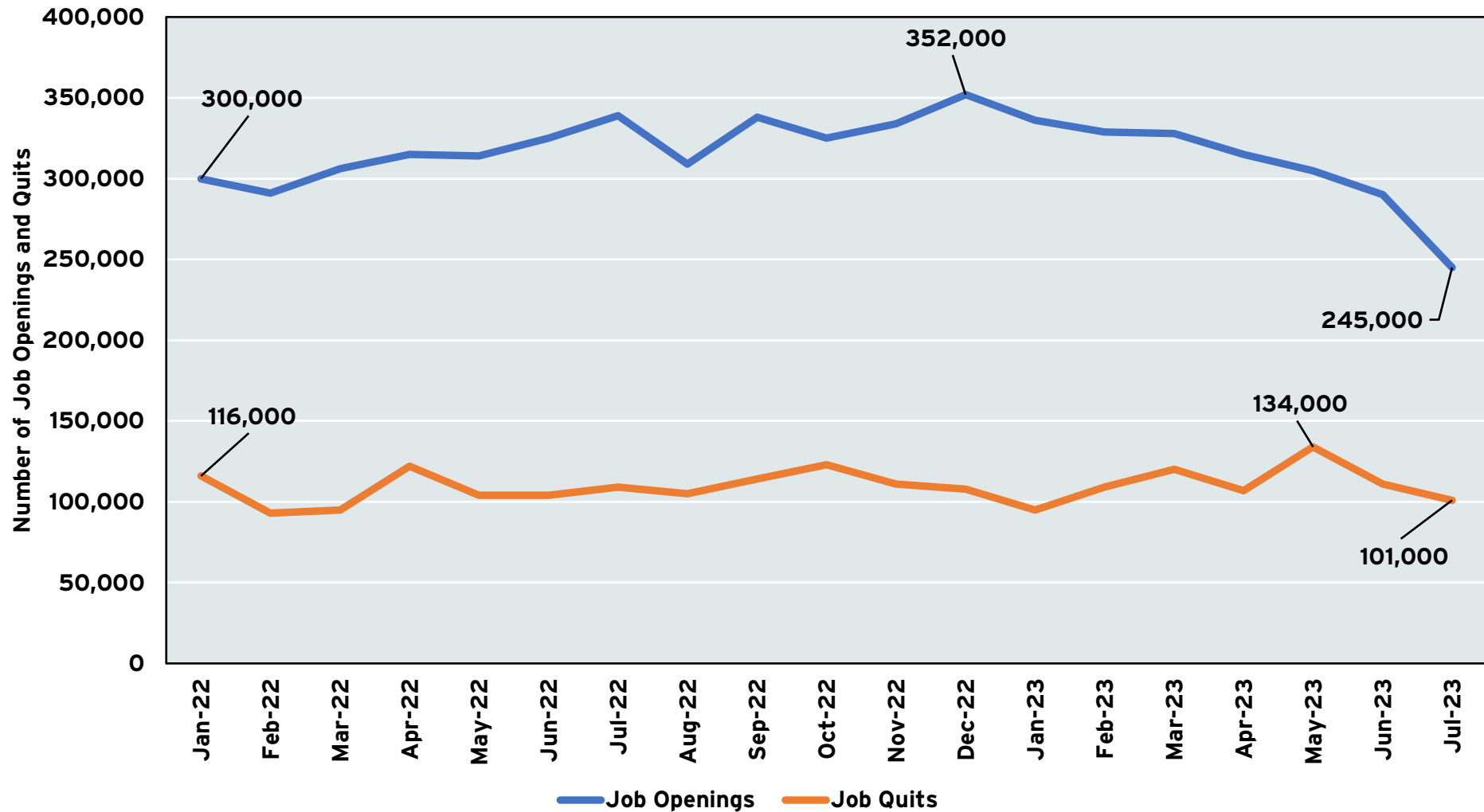
Sources: Bureau of Labor Statistics and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Data are seasonally adjusted.

GRAPH 18
AVERAGE MONTHLY JOB OPENINGS AND JOB QUILTS BY YEAR
VIRGINIA, 2010 - 2022



Sources: Bureau of Labor Statistics and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Data are seasonally adjusted. Data for 2023 through July 2023.

GRAPH 19

**JOB OPENINGS AND JOB QUILTS
VIRGINIA, JANUARY 2022 - JULY 2023**

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.

Real Estate Prices: Higher and Higher?

While the Federal Reserve has increased the discount rate to raise the cost of capital to consumers and businesses, we have not yet observed a significant correction in single-family housing values and sales prices. One possible explanation is that single-family housing supply has not kept pace with population growth in Virginia. One measure of the supply of new single-family residences is the number of average building permits. While permits are not necessarily equal to completed housing units, they are typically highly correlated with the supply of new single-family residences.

Graph 20 illustrates annual averages of monthly one-unit single-family residential permits in Virginia from 2000 to 2022. Prior to the Great Recession of 2007 – 2009, average residential permits peaked at 4,150 a month in 2005. By 2011, this had fallen to 1,282 a month. Typically, as economic activity rebounded from a recession, building permits (a signal of future building activity) would increase, but this did not occur after the Great Recession. The highest average level of monthly permits in the previous decade was 1,966 in 2017, a decline of approximately 53% from the peak in 2005. In other words, developers were not pulling permits to build single-family residences like they were prior to the Great Recession, constraining the new supply of houses.

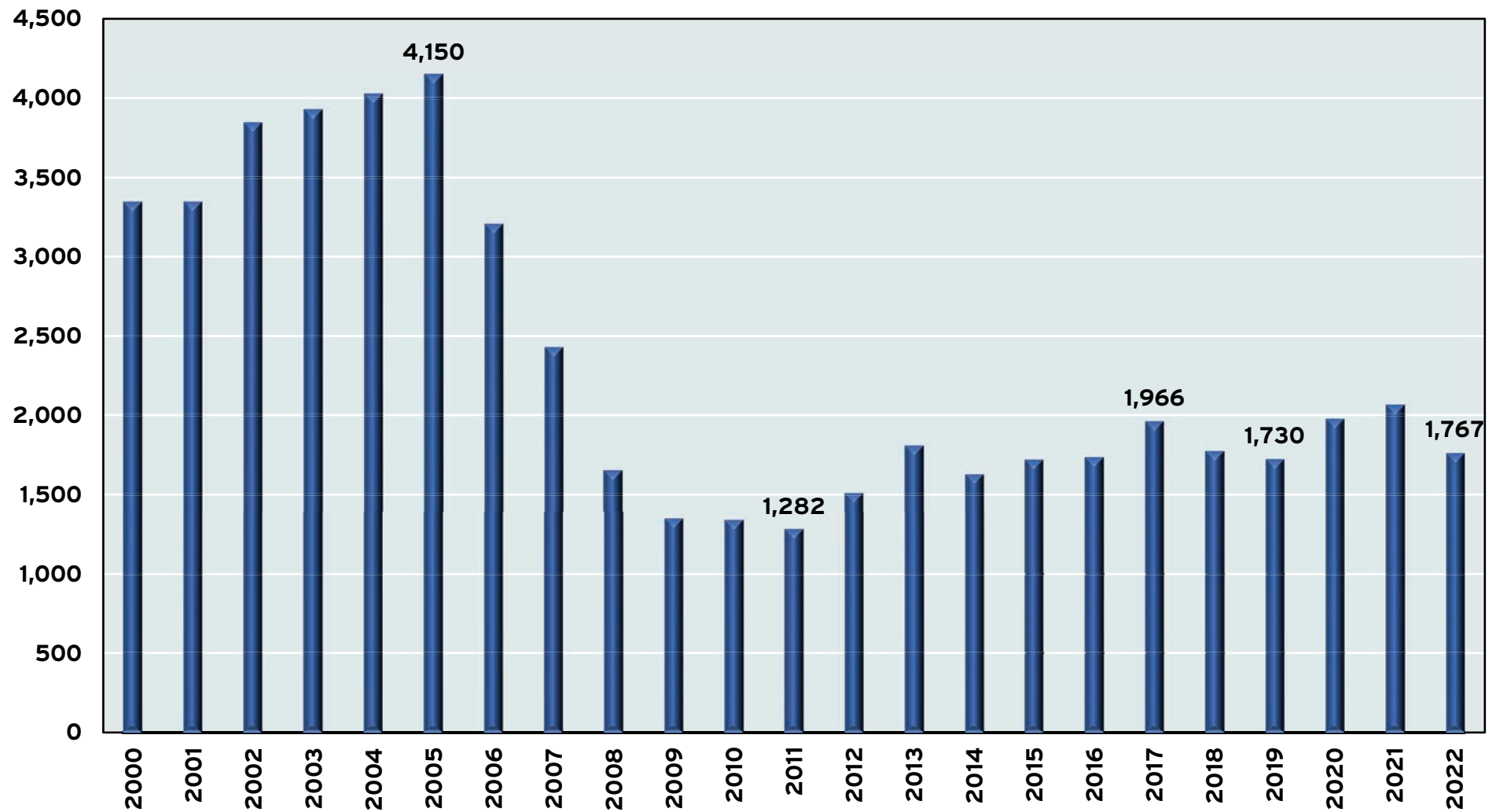
The average number of monthly single-family residential permits increased to 1,982 in 2020 and 2,070 in 2021 but remained well below the 2005 peak or levels observed early in the first decade of the century. For the first eight months of 2023, the average number of monthly permits was 1,689 as interest rate hikes cut into builders' margins. With interest rates forecasted to remain well above pre-pandemic levels into 2024, the flow of new homes into the market will likely diminish, further constraining the overall supply of houses in Virginia.

With fewer new single-family homes entering the market, what happened to housing values in Virginia? Housing values reflect the interaction between housing supply and demand. For this purpose, we use the Zillow Single-Family Home Value Index (ZHVI) to measure housing values in Virginia presented in graph 21.⁹ In January 2010, the estimated housing value in Virginia was \$222,497. By January 2020, the typical house was worth \$280,721, an increase of 27%. From January 2020 to January 2021, the estimated housing value in the state increased by 9.3% and then another 9.6% from January 2021 to January 2022. From February 2020 to January 2023, the estimated housing value in Virginia had increased by 29.3%. In August 2023, the typical housing value for the Commonwealth was \$378,610, which was 34.1% higher than February 2020. The increases in housing prices were not limited to Virginia only. From February 2020 to August 2023, the estimated housing value for the United States also increased by 37.7%.

With estimated housing values increasing by 34.1% from February 2020 to August 2023, the question is where did people live? Graph 22 illustrates the estimated vacancy rates for Virginia from 1990 to 2022 for rental and single-family housing. The vacancy rate is equal to the proportion of inventory that is available for rent or sale. Estimated vacancy rates are at three-decade lows, inferring that there are not many homes available for sale. Fewer homes for sale mean that Virginians who would otherwise buy homes are, in effect, “stuck” in multi-family housing, leading to a rise in median rental prices. Until more housing units are built in the Commonwealth, this problem is likely to persist for the foreseeable future.

⁹ 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.”

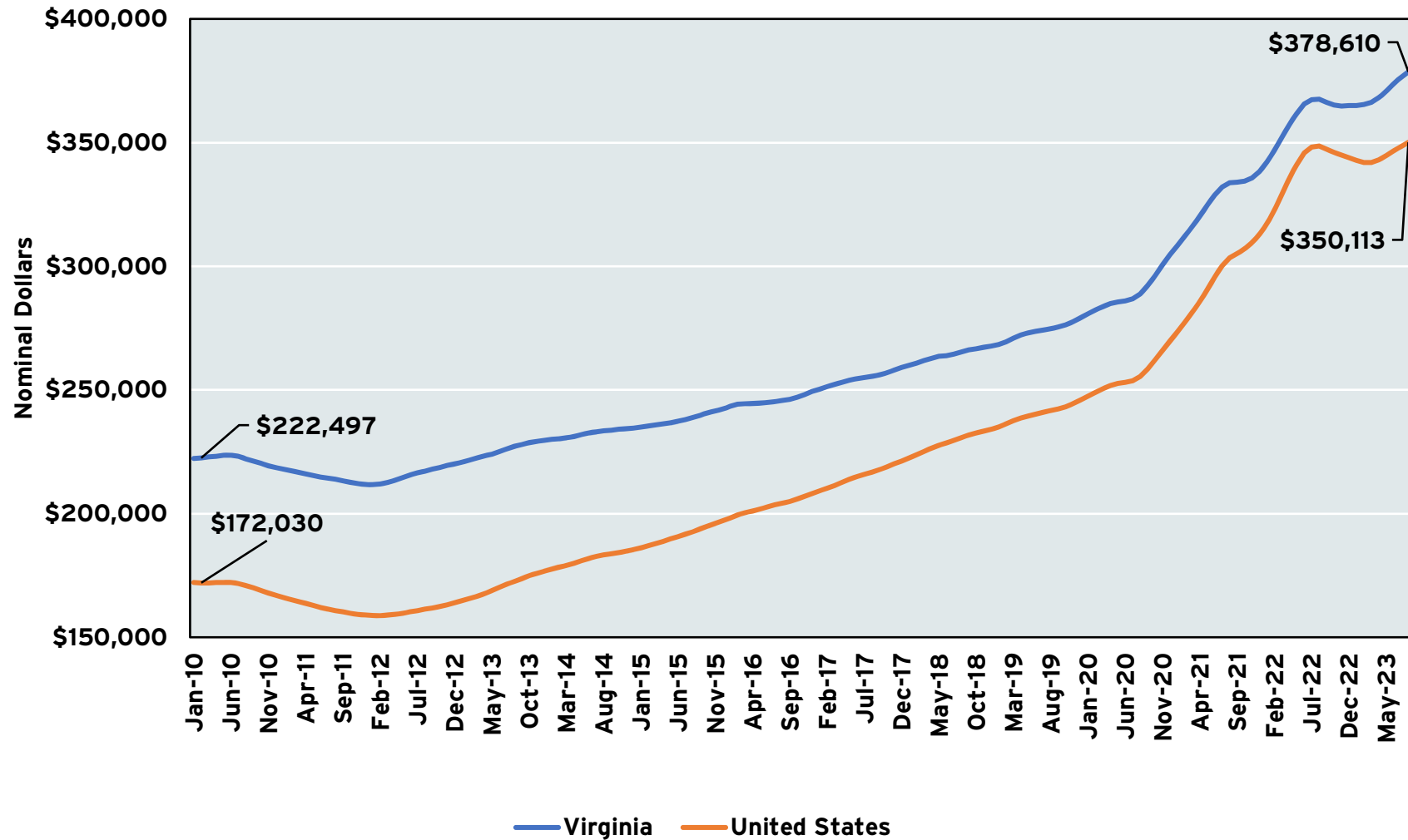
GRAPH 20

**AVERAGE MONTHLY ONE-UNIT SINGLE-FAMILY RESIDENTIAL BUILDING PERMITS
VIRGINIA, 2000 - 2022**

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

GRAPH 21

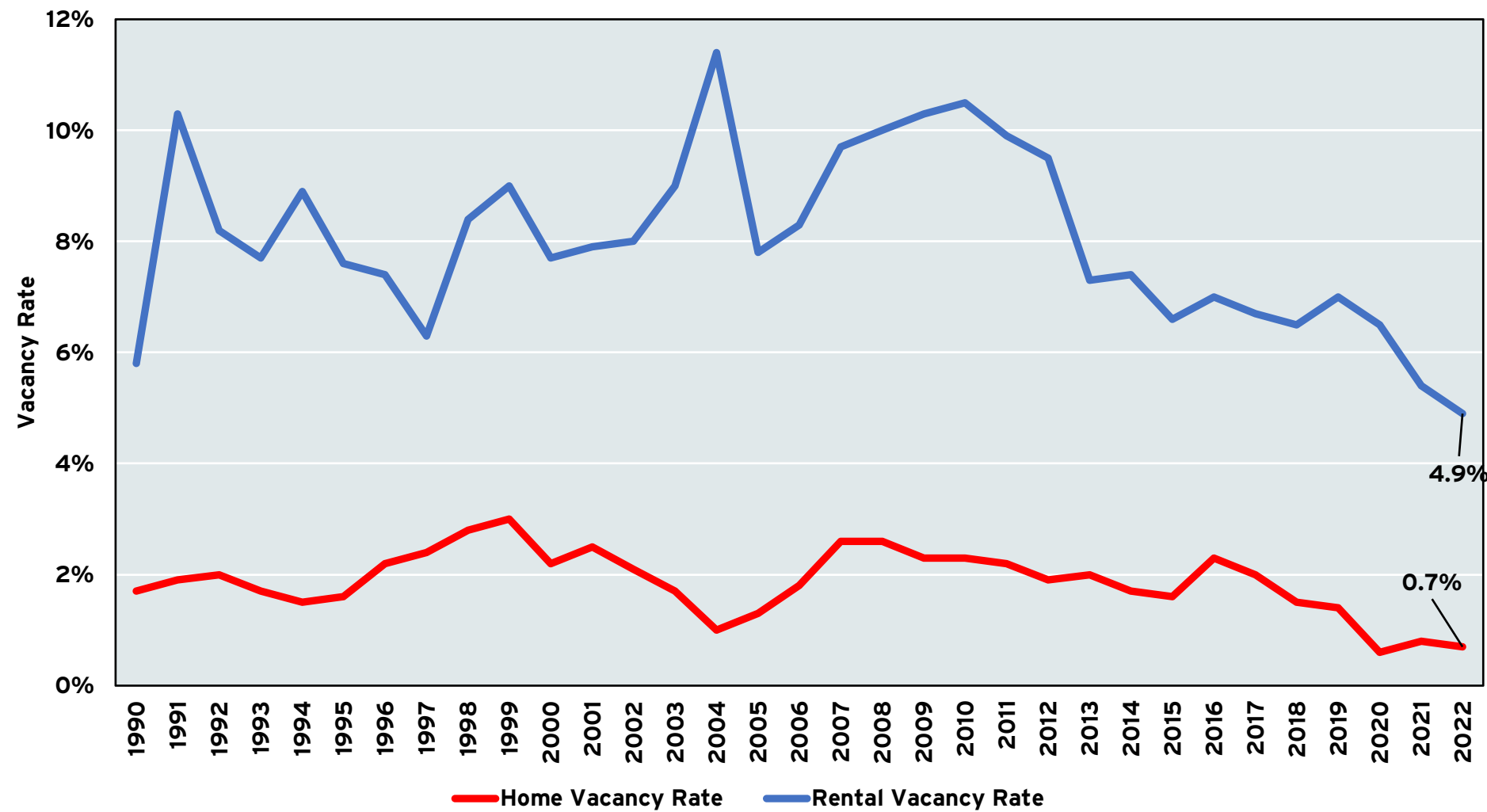
**ZILLOW HOME VALUE INDEX OF SINGLE-FAMILY RESIDENTIAL HOMES
UNITED STATES AND VIRGINIA,
JANUARY 2010 TO AUGUST 2023**



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/>

GRAPH 22

HOME AND RENTAL VACANCY RATES
VIRGINIA, 1990 - 2022



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.

Final Thoughts

With 2023 drawing to a close, what can we say about the economic performance of the Commonwealth? A record number of Virginians were working or looking for work in 2023. Labor force participation rose in 2023, a sign that some Virginians were “coming off the sidelines” and engaging in the labor force. Employers created new jobs, and there were more jobs in the Commonwealth than prior to the pandemic. Virginians continued to spend, even in the face of inflation, and local governments enjoyed an influx of revenues due to rising property values.

For all the good news, there are concerning pieces of economic data to consider. Virginians continue to move out of the Commonwealth. The rise in housing values meant that some Virginians were, in essence, priced out of the single-family housing market. While inflation was lower in the second half of 2023, its impact on Virginians is clearly evident by a trip to a local grocery store where a dollar buys even less than before.

What will 2024 hold? If there is one lesson from the last three years, it is that the political and economic environment can wreak havoc on forecasts. We forecast that the Virginia economy will continue to grow in 2024, but it will continue to lag that of the nation. We argue that Virginia can experience 2% real GDP growth in 2024, but a number of events will need to come to fruition. We make the following assumptions. First, inflation will continue to moderate, and the Federal Reserve will maintain its current monetary policy stance through the first half of 2024. Second, the federal government will function in a “somewhat normal” manner. If federal departments and agencies can be funded for the entire fiscal year, this will bring a sigh of relief to many Virginians. Third, there are no unexpected geopolitical events that roil markets. If any of these assumptions does not hold, then the possibility of a recession in 2024 increases significantly.

WHAT THEN CAN BE DONE?

First, we will repeat our advice from previous reports: Virginia should continue to embrace fiscal discipline. Today’s surplus can easily become tomorrow’s deficit. We commend decision-makers in Richmond for their prudence with regards to the Commonwealth’s finances. If there are “surplus” funds to be expended, we recommend investments to facilitate the creation of jobs and trades in Virginia. Here, 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 innovations 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 levels 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. These are not new recommendations but are worth repeating.