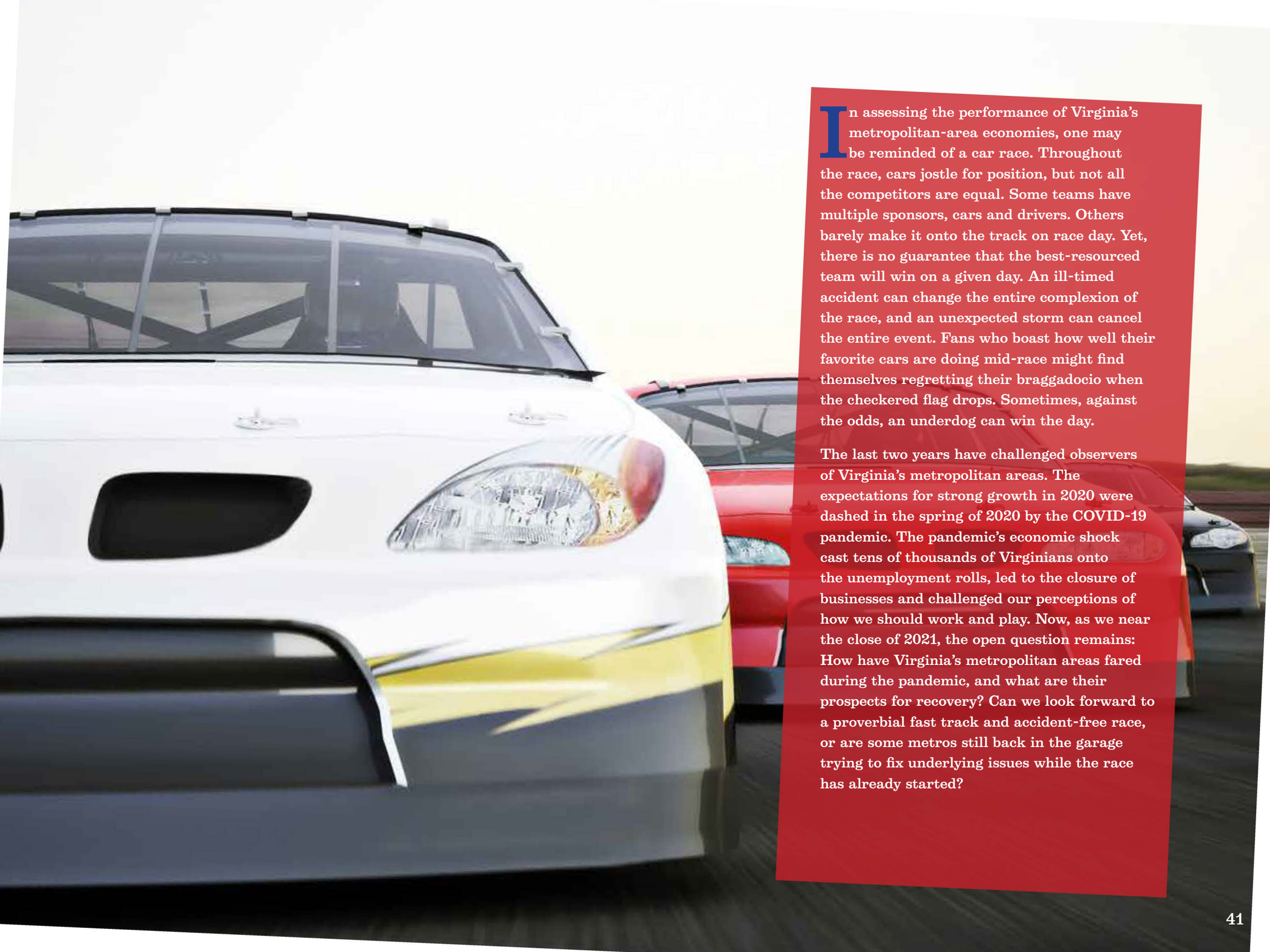


A RECOVERY AT DIFFERENT SPEEDS: VIRGINIA'S METROPOLITAN AREAS

If you ain't first, you're last.

- Will Ferrell as Ricky Bobby,
"Talladega Nights"



In assessing the performance of Virginia's metropolitan-area economies, one may be reminded of a car race. Throughout the race, cars jostle for position, but not all the competitors are equal. Some teams have multiple sponsors, cars and drivers. Others barely make it onto the track on race day. Yet, there is no guarantee that the best-resourced team will win on a given day. An ill-timed accident can change the entire complexion of the race, and an unexpected storm can cancel the entire event. Fans who boast how well their favorite cars are doing mid-race might find themselves regretting their braggadocio when the checkered flag drops. Sometimes, against the odds, an underdog can win the day.

The last two years have challenged observers of Virginia's metropolitan areas. The expectations for strong growth in 2020 were dashed in the spring of 2020 by the COVID-19 pandemic. The pandemic's economic shock cast tens of thousands of Virginians onto the unemployment rolls, led to the closure of businesses and challenged our perceptions of how we should work and play. Now, as we near the close of 2021, the open question remains: How have Virginia's metropolitan areas fared during the pandemic, and what are their prospects for recovery? Can we look forward to a proverbial fast track and accident-free race, or are some metros still back in the garage trying to fix underlying issues while the race has already started?

Many indicators of economic performance suggest that Virginia’s metropolitan areas contracted in 2020 and began growing again, albeit at different speeds, in 2021. While metro-area measures of economic output for 2020 and 2021 are not yet available, we do know that individual employment peaked in early 2020, fell precipitously in the spring of 2020 and climbed out of the trough over the intervening months. The unemployment rate has declined from the pandemic peak in each of Virginia’s metros, and jobs have also increased from their lows. Population growth was uneven among the metro areas and well below the national average for most. Population and economic activity continue to shift toward Virginia’s urban crescent, defined by Northern Virginia, Richmond and Hampton Roads. These shifts, along with political currents, suggest that the Commonwealth is pulling apart, creating a challenge for current and future decision makers on how to spur development in those areas of the state that have been left behind.

The road ahead is neither straight nor lacking potential hazards. Northern Virginia and Hampton Roads are closely tied to the size and composition of federal government spending. While the federal government plans to spend more in 2022 (especially on defense), the question remains: How long can increases in defense spending continue? A shift in defense strategy toward the Pacific and the increasing vulnerability of large weapons systems (including carriers) threaten the level of defense spending in the Commonwealth. Even if one believes this spending will stay the same, there is the question of why some Virginians have chosen to seek their fortunes elsewhere. Domestic migration was negative for much of the last decade. The COVID-19 pandemic also reduced international tourism and migration, a source of growth for Northern Virginia and Hampton Roads.

The good news is that as vaccinations increase in the Commonwealth, nation and globally, it is reasonable to expect that flows of tourists and migrants will return in 2022. Vacation tourism has already rebounded off its lows and should continue to increase in the coming year. However, as services increasingly dominate the state’s economy and agriculture and mining wane in importance, the economic base of some metro areas continues to shrink. Creating equitable growth that benefits all Virginians while remaining a business-friendly state that attracts investment is a difficult balancing act. These challenges await the new Virginia General Assembly and lawmakers at the local government level.

To explore how Virginia is faring at the metropolitan level, we examine a number of economic performance measures: median household income, poverty, employment, wages and population. Each of these measures is available on a more frequent basis than gross domestic product (GDP), and they provide a more current picture of the economic activity in each metro area. We also present the most recent (but significantly lagged) data for metro-area GDP. From these measures, we work to construct as clear a picture as possible of the health of Virginia’s metropolitan-area economies.

One difficulty in comparing metropolitan statistical areas (MSAs) is that different government agencies and departments use different definitions for these areas. The U.S. Bureau of Labor Statistics (BLS), for example, has some data available for Northern Virginia, which is the Virginia portion of the Washington-Arlington-Alexandria, DC-VA-MD-WV MSA. Other data from the BLS are only available for the entire Washington-Arlington-Alexandria MSA. The U.S. Bureau of Economic Analysis (BEA) provides economic data on the performance of MSAs. However, the BLS, BEA and U.S. Census Bureau may use a different basis to define which counties and independent cities are in specific MSAs. Individual MSAs also see the addition and subtraction of counties and cities over time. In 2018, for example, the U.S. Office of Management and Budget (OMB) added Camden County in North Carolina, and Southampton County and the city of Franklin in Virginia, to the Virginia Beach-Norfolk-Newport News MSA.¹ The reader should be aware of these geographical differences and exercise care when examining data from different sources, even if those sources are from the same department or agency. For comparability across different sources, we will use metropolitan-level data even if the metropolitan area crosses a state line, such as in the cases of Kingsport-Bristol, Virginia Beach-Norfolk-Newport News, Washington-Arlington-Alexandria and Winchester.

Changes In Population

From 2000 to 2020, Virginia's population increased at a faster rate than that of the nation. As illustrated in Graph 1, Virginia's total population increased by 7.1%, 0.6 percentage points more than the United States. Among Virginia's metropolitan areas, population growth varied significantly, from a 0.4% contraction in Kingsport-Bristol to an 11.4% increase in the Washington, D.C., metro area.

Population growth in six metro areas was slower than the state or the nation. Five of the six were smaller metros – Kingsport-Bristol (-0.4%), Roanoke (1.7%), Blacksburg-Christiansburg (2.5%), Lynchburg (4.5%) and Staunton (5.2%). Hampton Roads, with a population of 1.7 million in 2010, grew only by 3.7% to a population of 1.8 million in 2020.

How then did the population of Virginia grow faster than the nation? First, while relatively small in population when compared to Richmond or Hampton Roads, the metros of Harrisonburg (8.1%), Charlottesville (8.9%) and Winchester (10.4%) grew more rapidly than the state or nation from 2010 to 2020. Second, the other two largest metro areas, Richmond and Washington-Arlington-Alexandria, grew by 9.7% and 11.4%, respectively.

Table 1 displays the components of population change for Virginia's metropolitan areas, Virginia and the United States from 2010 to 2020. The U.S. Census breaks population change into two broad components: the natural increase in the population and net migration. The natural increase in the population is equal to births minus deaths. Net migration, on the other hand, consists of domestic migration and international migration. For example, if more people move into a metro area from overseas countries than depart the metro area for overseas destinations, then net international migration is positive (and vice versa). Turning first to the Commonwealth, the natural increase in the population from 2010 to 2020 was positive, indicating more Virginians were born than died during this period. Even though net domestic migration was negative, it was more than compensated by net positive international migration.

¹ <https://www.whitehouse.gov/wp-content/uploads/2018/09/Bulletin-18-04.pdf>.

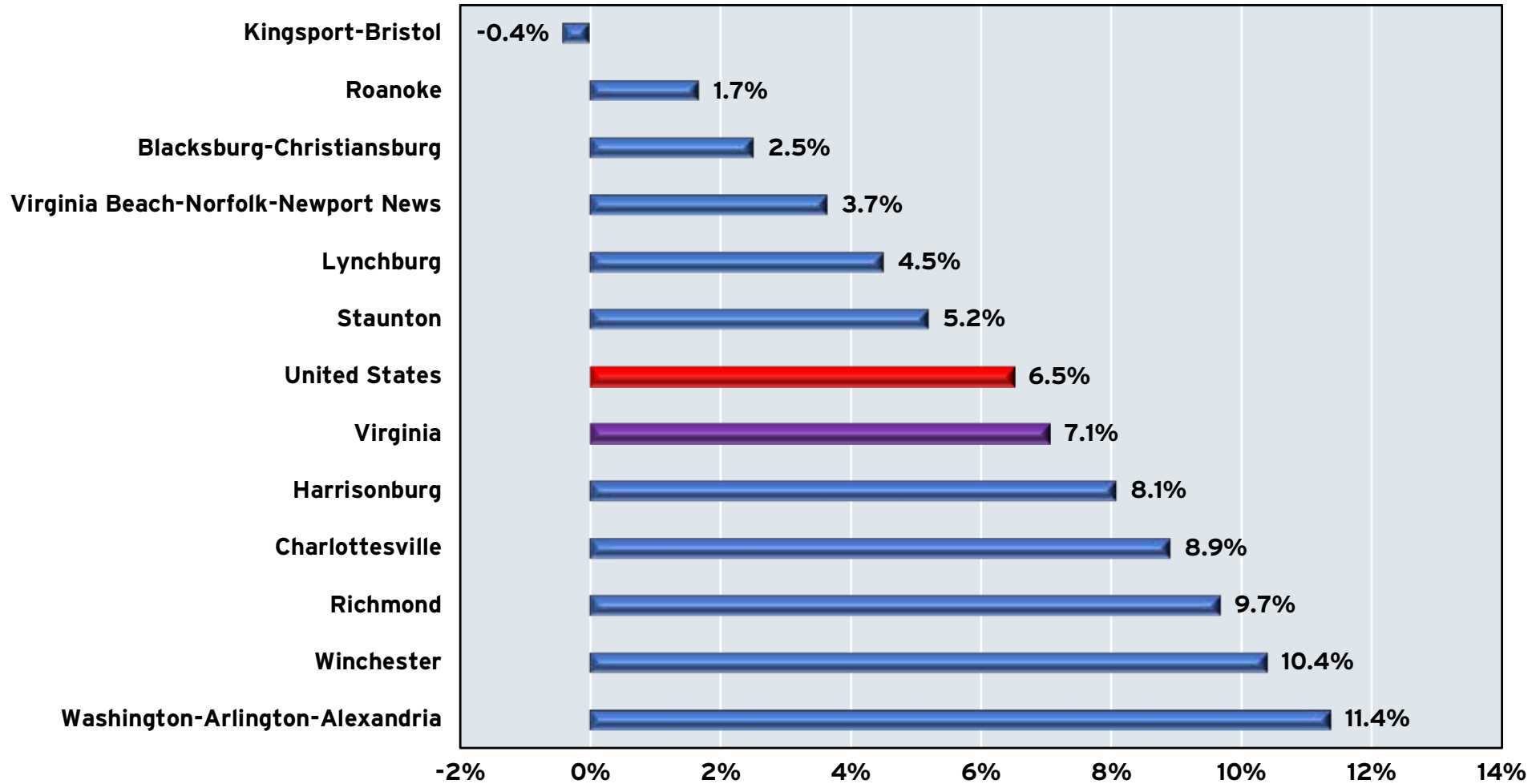
Graph 2 displays the annual level of net domestic and international migration from 2010 to 2020, as well as net migration, for the state. Net international migration peaked in 2015 at 39,097 individuals and then declined through 2020. Net domestic migration, on the other hand, was positive at the beginning of the previous decade, signaling that residents of other states sought better fortunes in the Commonwealth. Net domestic migration turned negative in 2014 and bottomed out at -25,347 in 2015. While net domestic migration remained negative through 2020, the outflow of Virginians to other states ebbed somewhat. Although international migration more than offset domestic outmigration, negative domestic migration is not a positive signal of the Commonwealth's attractiveness. However, when we examine the metropolitan-level data, we find that two regions were responsible for Virginia's negative net domestic migration levels: Hampton Roads and the Washington, D.C., metro region.

Graph 3 displays the components of population change and the change in total population for the Virginia portion of Hampton Roads from 2010 to 2020. While the population of Hampton Roads increased every year, the population grew only by 3.7% over this period. The natural increase in the population (births minus deaths) peaked at 10,175 in 2012 and declined to slightly less than 5,000 in 2020. Net domestic migration was negative every year and, in seven of the 11 years, net migration (international migration plus domestic migration) was also negative. In other words, Hampton Roads residents were “voting with their feet” with regard to economic conditions in the region.

Graph 4 displays a similar story for the Washington-Arlington-Alexandria, DC-VA-MD-WV, MSA (of which Northern Virginia is the largest entity). The natural increase in the population peaked at 49,161 in 2012 and was 34,171 in 2020. While net domestic migration was positive from 2010 to 2013, it turned negative in 2014 and has remained negative since. In 2020, about 31,000 more residents left this metro area than relocated to the region. Net migration, which was positive for most of the previous decade, was negative in 2018 and 2020.

We must be careful to avoid painting the Hampton Roads and Washington, D.C., metros with the same brush. Hampton Roads' economic growth over the previous decade was paltry at best, and the region has struggled to diversify its economic base from a dependence on federal government spending. While economic growth in the Washington, D.C., metro has not exactly been stellar, the region continues to attract private firms. In some aspects, the metro area's success has led to a downside: higher than average cost of living. It should be no surprise that suburban areas of the Washington metro area have seen an influx of new residents who then commute to work in the D.C. region.

GRAPH 1
POPULATION CHANGE:
VIRGINIA'S METROPOLITAN AREAS, VIRGINIA AND THE UNITED STATES,
2010-2020



Source: U.S. Census Bureau, Vintage 2020 Population Estimates. National, state, and metropolitan and micropolitan statistical areas totals: 2010-2020. Vintage 2020 estimates are based on the 2010 Census and were created without incorporation or consideration of the 2020 Census results.

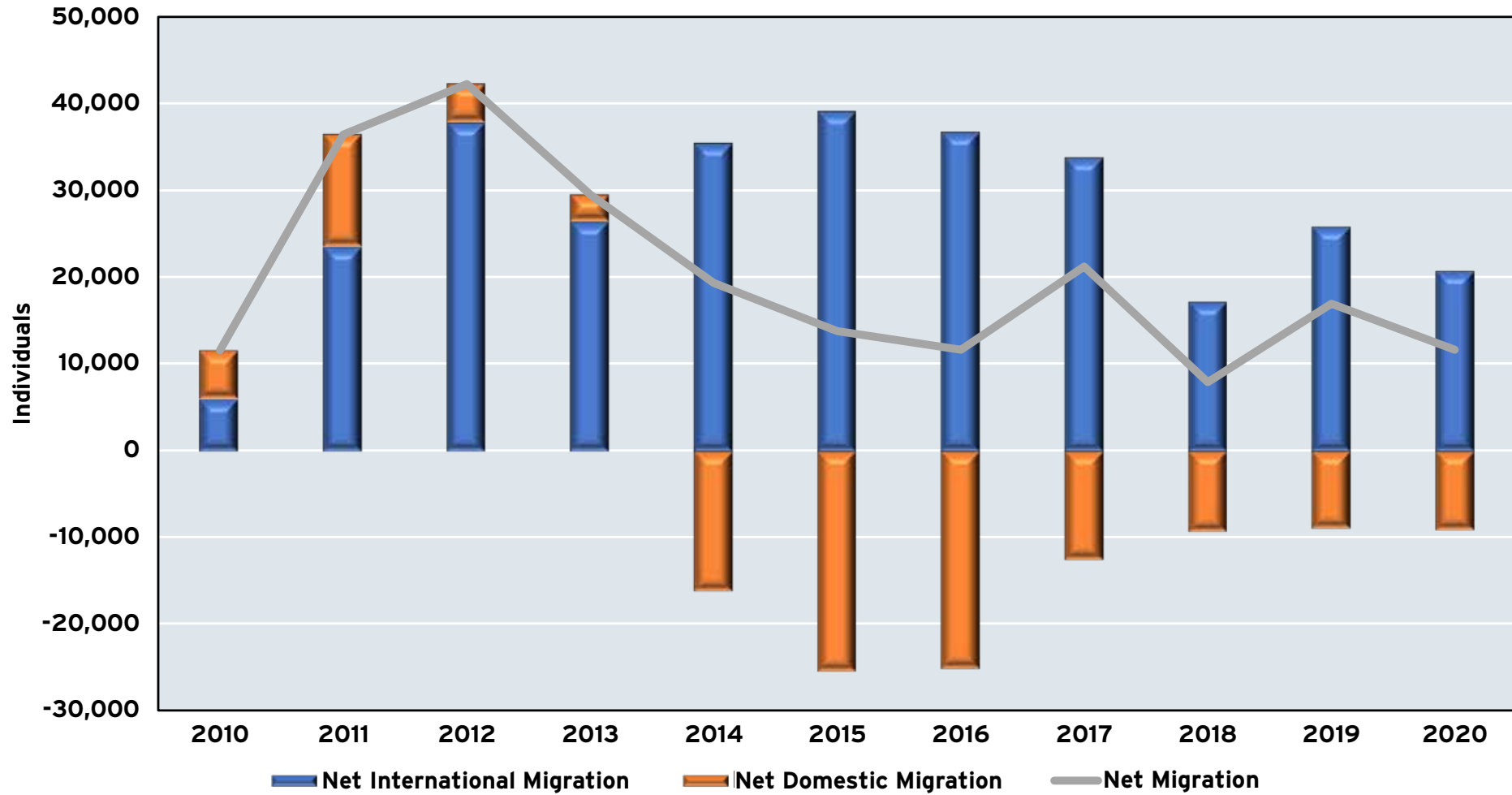
TABLE 1
COMPONENTS OF POPULATION CHANGE:
VIRGINIA'S METROPOLITAN STATISTICAL AREAS, VIRGINIA AND THE UNITED STATES,
2010-2020

| | Natural Increase | Net Domestic Migration | Net International Migration | Population Change |
|--|-------------------|------------------------|-----------------------------|-------------------|
| United States | 12,257,668 | -- | 8,468,350 | 20,726,018 |
| Virginia | 366,671 | -80,255 | 302,228 | 589,517 |
| Blacksburg-Christiansburg | 488 | -1,925 | 5,736 | 4,285 |
| Charlottesville | 6,074 | 4,977 | 7,373 | 18,331 |
| Harrisonburg | 4,479 | 764 | 5,105 | 10,324 |
| Kingsport-Bristol | -10,468 | 8,928 | 467 | -1,310 |
| Lynchburg | 1,634 | 5,799 | 4,395 | 11,732 |
| Richmond | 41,339 | 42,783 | 32,866 | 116,858 |
| Roanoke | -2,812 | 1,702 | 6,427 | 5,116 |
| Staunton | -889 | 5,340 | 1,564 | 5,977 |
| Hampton Roads | 83,925 | -61,337 | 43,388 | 65,869 |
| Washington-Arlington-Alexandria | 463,701 | -156,947 | 366,096 | 674,931 |
| Winchester | 3,444 | 7,962 | 2,194 | 13,568 |

Source: U.S. Census Bureau, Vintage 2020 Population Estimates. National, state, and metropolitan and micropolitan statistical areas totals: 2010-2020. Vintage 2020 estimates are based on the 2010 Census and were created without incorporation or consideration of the 2020 Census results. Population change includes a statistical residual and components may not sum to total population change as a result.

GRAPH 2

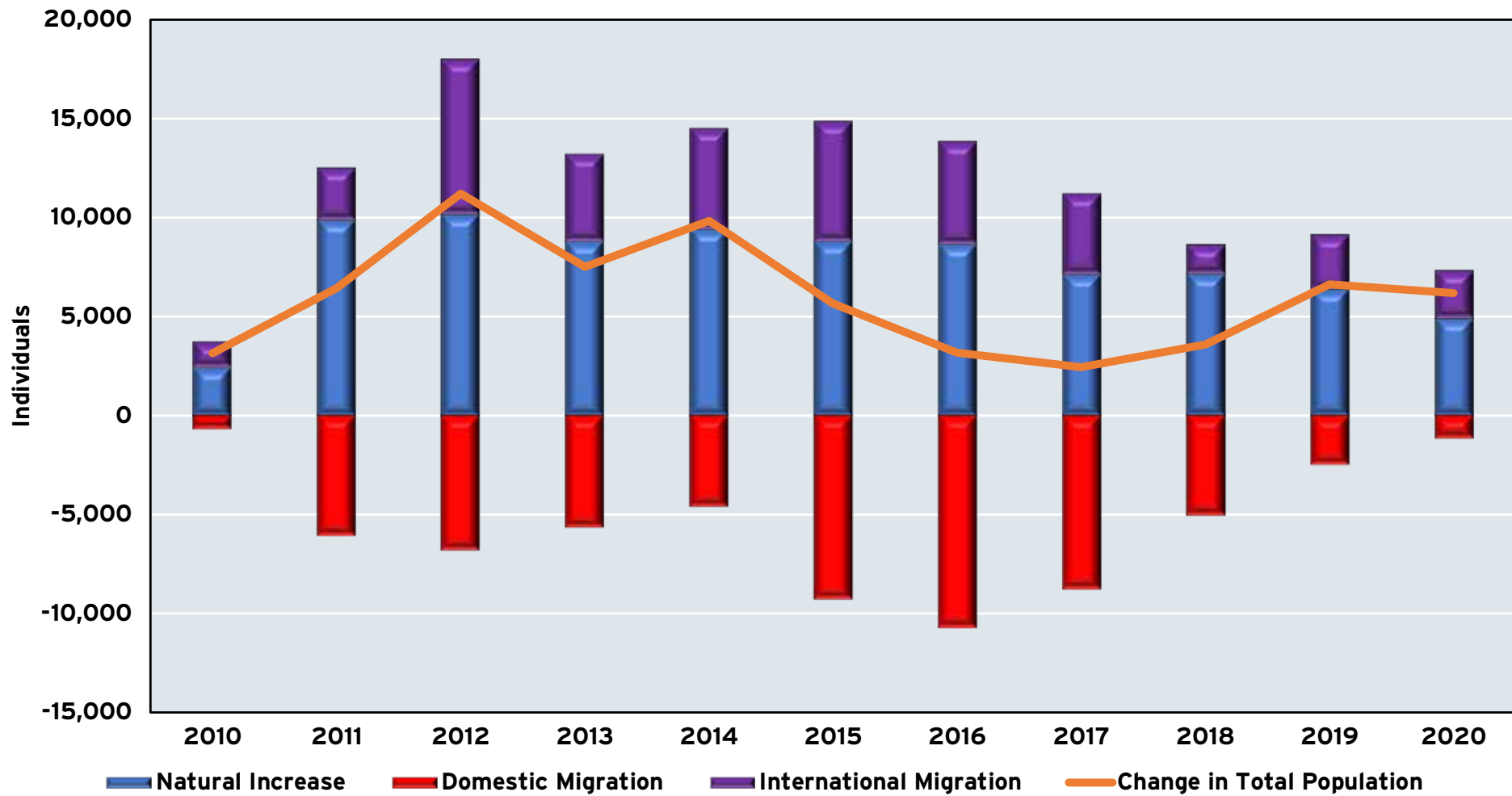
**NET DOMESTIC MIGRATION, NET INTERNATIONAL MIGRATION AND NET MIGRATION:
VIRGINIA, 2010-2020**



Source: U.S. Census Bureau, Vintage 2020 Population Estimates. National, state, and metropolitan and micropolitan statistical areas totals: 2010-2020. Vintage 2020 estimates are based on the 2010 Census and were created without incorporation or consideration of the 2020 Census results. Migration components include a statistical residual and may not sum to net migration as a result.

GRAPH 3

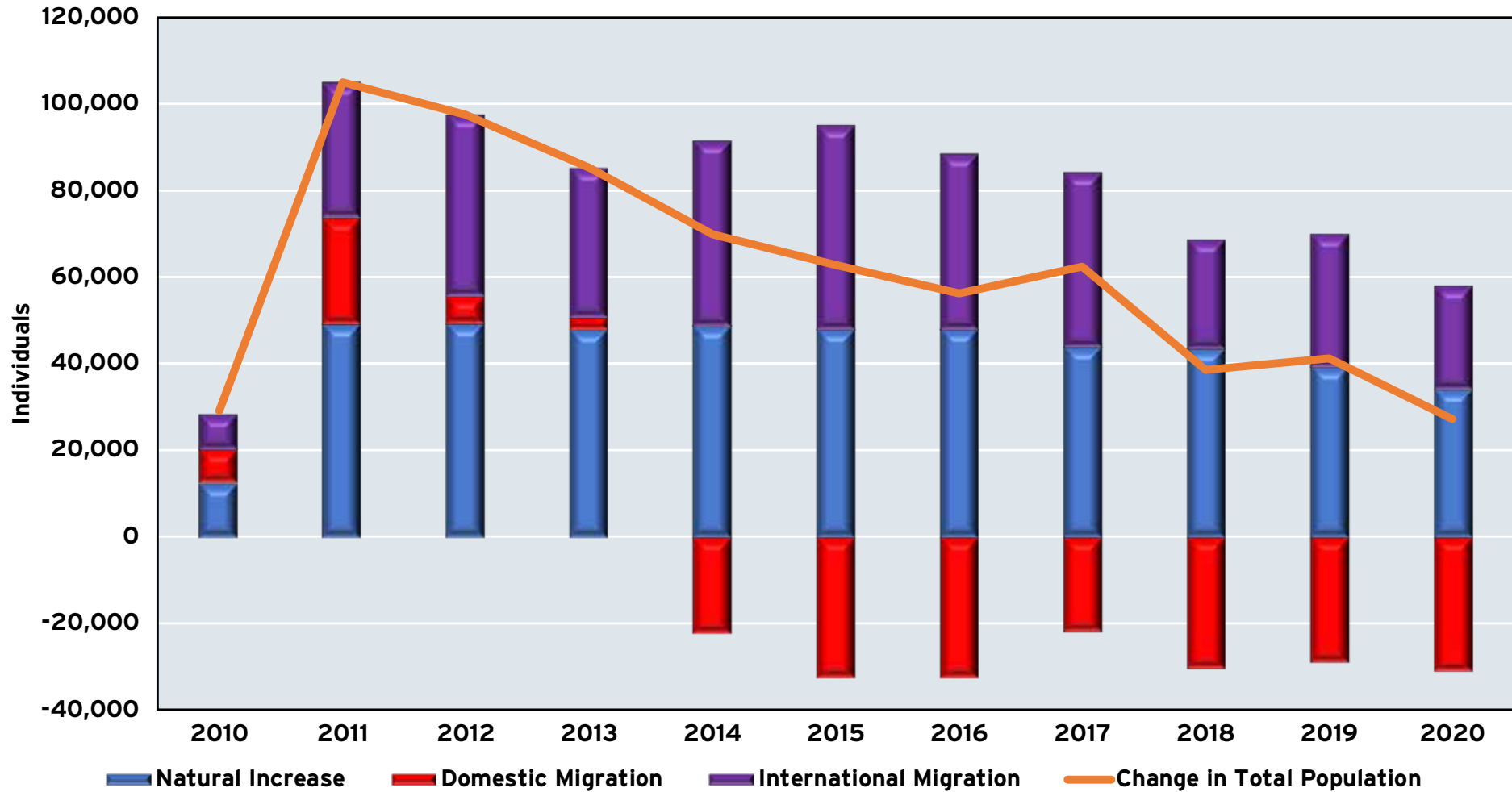
**COMPONENTS OF POPULATION CHANGE AND CHANGE IN TOTAL POPULATION:
HAMPTON ROADS METROPOLITAN STATISTICAL AREA, 2010-2020**



Source: U.S. Census Bureau, Vintage 2020 Population Estimates. National, state, and metropolitan and micropolitan statistical areas totals: 2010-2020. Vintage 2020 estimates are based on the 2010 Census and were created without incorporation or consideration of the 2020 Census results. Migration components include a statistical residual and may not sum to net migration as a result.

GRAPH 4

**COMPONENTS OF POPULATION CHANGE AND CHANGE IN TOTAL POPULATION:
WASHINGTON-ARLINGTON-ALEXANDRIA, DC-VA-MD-WV, MSA, 2010-2020**



Source: U.S. Census Bureau, Vintage 2020 Population Estimates. National, state, and metropolitan and micropolitan statistical areas totals: 2010-2020. Vintage 2020 estimates are based on the 2010 Census and were created without incorporation or consideration of the 2020 Census results. Migration components include a statistical residual and may not sum to net migration as a result.

Real Gross Domestic Product: New Data That's Old

Table 2 presents real (inflation-adjusted) rates of growth for GDP, a measure of economic activity. The BEA produces the national, state, metropolitan area and county estimates of GDP, which provide a benchmark for economic activity over time. The metro-area estimates, especially those for 2020, should be viewed with an abundance of caution. The BEA released “advance” estimates for metro-area GDP for 2020 in December 2021. The advance estimates for 2020 are likely to be significantly revised (in light of the pandemic economic shock) in December 2022. With such a lag, we advise the reader to examine the underlying trends and focus less on the estimates for a specific year, which are likely to change in the next release.

The real GDP data illustrate how economic performance lagged in the Commonwealth and among its metropolitan areas in the wake of the Great Recession and in the midst of budget sequestration and caps on federal discretionary spending. If anything, the initial years of the decade could be characterized as a “one step forward, one step back” recovery. What should be clear from the data is that a number of metro areas in the Commonwealth struggled to generate consistent growth over the decade and these woes are likely to persist in the coming years. The past may indeed be a prologue.

From 2010 to 2020, there was not a single year when all the metro areas in the Commonwealth experienced economic growth. More recently, in 2016, all the metros except Staunton saw an increase in real GDP. In 2017, it was all the metros except Roanoke. In 2018, we see the same story: all the metros experiencing growth except for Hampton Roads. It should be no surprise that Virginia’s real GDP growth lagged behind the nation’s over the last decade.

The advance estimates of metro GDP also highlight the impact of the COVID-19 pandemic. Among the smaller metros, Lynchburg’s real GDP contracted by 5.6% from 2019 to 2020. Among the larger metros, the largest decline was observed in Hampton Roads, even though defense spending in the region increased in 2020. Only Winchester appeared to escape a significant contraction in metro GDP, with only a 0.1% decline from 2019 to 2020.

In all likelihood, the advance estimates are likely to change significantly in the coming years. We suspect that these estimates will be revised downward, especially given the impact of the pandemic on employment. The larger story, however, is that the pandemic wiped away the gains in real GDP over the last decade for a number of metros. Anemic pre-pandemic growth coupled with the pandemic’s economic shock meant that, in some cases, metro GDP contracted for these regions over the recently concluded decade.

How we recover from this economic shock is one of the most significant policy questions facing Virginia in the coming years. The increasing concentration of population and economic activity in the urban crescent and, in particular, Northern Virginia and Richmond, is creating “two Virginias.” Political and economic divisions will only sharpen in the coming years unless we have honest discussions about how to improve growth across Virginia over the coming decades.

TABLE 2

**REAL (INFLATION-ADJUSTED) GROSS DOMESTIC PRODUCT:
YEAR-ON-YEAR RATES OF GROWTH, 2010-2020**

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | CAGR 2010-2020 |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------------|
| United States | 2.7% | 1.5% | 2.3% | 1.8% | 2.3% | 2.7% | 1.7% | 2.3% | 2.9% | 2.3% | -3.4% | 1.6% |
| Virginia | 3.2% | 0.7% | 0.4% | 0.7% | -0.3% | 1.7% | 1.1% | 1.5% | 2.4% | 2.0% | -2.8% | 0.7% |
| Blacksburg-Christiansburg | 1.5% | 3.3% | -1.6% | 0.6% | 0.5% | 3.1% | -0.1% | 2.3% | 5.1% | -1.9% | -3.2% | 0.8% |
| Charlottesville | 5.5% | 0.0% | 1.0% | 0.5% | 0.5% | 3.0% | 1.7% | 5.1% | 2.6% | 0.2% | -4.1% | 1.0% |
| Harrisonburg | 6.4% | 0.5% | 1.1% | 2.2% | -4.6% | -3.1% | -3.7% | 2.3% | 2.5% | 2.1% | -0.9% | -0.2% |
| Kingsport-Bristol | -0.4% | 2.4% | 0.6% | -2.1% | -3.5% | 1.7% | 1.2% | 3.5% | 0.9% | -2.9% | -4.0% | -0.3% |
| Lynchburg | 4.7% | -2.1% | -2.8% | 0.0% | -1.1% | 0.2% | -1.2% | 1.1% | 4.8% | -0.2% | -5.6% | -0.7% |
| Richmond | 2.6% | 2.5% | 1.8% | 2.3% | 0.8% | 3.6% | 1.4% | 1.5% | 2.0% | 2.0% | -2.5% | 1.5% |
| Roanoke | 1.6% | -0.4% | -0.5% | 1.8% | 1.4% | 1.9% | -1.7% | -1.1% | 1.5% | -1.3% | -3.0% | -0.1% |
| Staunton | 1.6% | -3.2% | -4.4% | 3.0% | -1.0% | -0.2% | -0.5% | 0.6% | 1.1% | 0.8% | -2.1% | -0.6% |
| Hampton Roads | 0.4% | -0.6% | -1.2% | 0.7% | -1.3% | 1.4% | 0.6% | 0.0% | -0.8% | 1.2% | -3.9% | -0.4% |
| Washington-Arlington-Alexandria | 4.7% | 1.8% | 0.5% | -0.1% | 1.0% | 2.0% | 2.6% | 1.8% | 2.1% | 1.4% | -2.8% | 1.0% |
| Winchester | 3.6% | 0.3% | -0.1% | 2.8% | -0.7% | 4.1% | 1.7% | 0.1% | 2.4% | 2.1% | -0.1% | 1.2% |

Source: Bureau of Economic Analysis, 2021. Base year for real GDP is 2012. Year-on-year rate of growth is the compound annual growth rate (CAGR).

Personal Incomes Rise (Slowly) Across The Commonwealth

Personal income measures the income that residents of a geographical area receive from paychecks, employer-provided benefits such as insurance, business ownership, rental properties, Social Security and other public benefits, interest and dividends.² At the state and metropolitan-area level, personal income captures the combined personal incomes of residents, including those who work outside the geographical boundaries of the metro area or state. To compare personal income per capita across geographical regions and time, we need to not only adjust for the influence of inflation in general, but also differences in regional prices relative to the national average.

Table 3 presents real (inflation-adjusted) personal income per capita that is also adjusted for regional price differences for the Commonwealth's metropolitan areas, Virginia and the United States from 2010 to 2019. Over this period, real personal income per capita grew at an annual average of 2% in the United States, 0.5 percentage points higher than Virginia. Among Virginia's metro areas, only Charlottesville (2.7%) had a higher annual average rate of growth than the nation. Richmond (1.9%), Blacksburg-Christiansburg (1.7%), Harrisonburg (1.7%) and Winchester (1.6%) all grew faster than the state average of 1.5%. Hampton Roads and the Washington-Arlington-Alexandria metro area grew at approximately the state average. As the Commonwealth lagged the nation, this performance was nothing to write home about.

TABLE 3
REAL PERSONAL INCOME PER CAPITA AND COMPOUND ANNUAL GROWTH RATE: VIRGINIA'S METROPOLITAN STATISTICAL AREAS, VIRGINIA AND THE UNITED STATES, 2010 AND 2019

| | 2010 | 2019 | 2010-2019 CAGR |
|---------------------------------|----------|----------|----------------|
| United States | \$42,367 | \$51,424 | 2.0% |
| Virginia | \$46,217 | \$53,837 | 1.5% |
| Blacksburg-Christiansburg | \$33,869 | \$40,247 | 1.7% |
| Charlottesville | \$49,082 | \$64,141 | 2.7% |
| Harrisonburg | \$34,828 | \$41,304 | 1.7% |
| Kingsport-Bristol | \$39,552 | \$44,484 | 1.2% |
| Lynchburg | \$38,319 | \$41,994 | 0.9% |
| Richmond | \$46,601 | \$56,181 | 1.9% |
| Roanoke | \$43,107 | \$48,710 | 1.2% |
| Staunton | \$43,419 | \$47,545 | 0.9% |
| Hampton Roads | \$42,798 | \$49,527 | 1.5% |
| Washington-Arlington-Alexandria | \$50,785 | \$58,205 | 1.4% |
| Winchester | \$41,878 | \$49,271 | 1.6% |

Sources: Bureau of Economic Analysis and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Real personal income is personal income divided by regional price parities and the national Personal Consumption Expenditures price index. Real personal income per capita is equal to total real personal income divided by total midyear population, expressed in chained 2012 dollars.

² Bureau of Economic Analysis (2021), <https://www.bea.gov/resources/learning-center/what-to-know-income-saving>.

More troubling from an economic development perspective is the lack of personal income per capita growth among some of the smaller metropolitan areas in the Commonwealth. These metros are growing slower in terms of population and income – not a winning combination in the long run. As the last decade has shown, moving the needle on this situation has inspired a great deal of rhetoric but little in the way of measurable progress. The variation in real per capita growth rates highlights the challenge facing the new governor and General Assembly: Can the Commonwealth spur economic growth outside the urban crescent? We continue to argue for investments in improving primary and secondary education, providing access to broadband and addressing infrastructure issues to lay the foundation for more equitable growth throughout the state.

We caution to avoid expansions of entitlement programs or significant new tax expenditures. While these may produce short-term benefits, we point to success stories in other states that have taken a longer view. Virginia is well positioned to continue to improve its workforce and to reduce administrative and regulatory burdens to improve private-sector job creation. The challenge is to avoid the temptations of the moment and focus on those efforts whose rewards are further in the future.

Civilian Labor Force: Where Is Everyone?

How has the pandemic affected the number of people working in Virginia’s metropolitan areas? There are two broad measures we can examine to answer this question: individual employment and nonfarm payrolls (jobs). Employment data capture responses by individuals to the questions of whether they are employed, looking for work or have abandoned attempts at finding employment. Nonfarm payroll data measure the number of jobs in an economy. A person who has two jobs would appear once in the employment data but twice in the jobs data.³ One of the advantages of labor market data is that these numbers are more current than many other measures of economic activity.

The Bureau of Labor Statistics asks people about their employment status. If an individual is employed or looking for work, the BLS reports that he or she is in the civilian labor force.⁴ An expanding labor force is a sign that more people are available for work or working in a geographical area and is typically correlated with economic growth. A stagnant or declining labor force may be a signal that a region is struggling to attract and retain labor; simply put, workers are seeking better fortunes elsewhere.

Graph 5 displays the growth in the civilian labor force for Virginia’s metropolitan areas, Virginia and the United States from January 2010 to February 2020. Virginia’s civilian labor force grew by 7.5% over this period, 0.4 percentage points higher than the nation. This growth was powered, in part, by two of the three largest metro areas: Richmond (11.6%) and Washington-Arlington-Alexandria (13.5%). For the second-largest area in the Commonwealth, the Hampton Roads region, the civilian labor force grew by 5.6%, 1.9 percentage points lower than the state.

³ The Current Population Survey (CPS) covers households and asks whether an individual was employed or actively seeking employment. The Current Establishment Survey (CES) covers businesses and reports the number of jobs. An individual who is employed with two jobs would be counted once in the CPS and twice in the CES.

⁴ The civilian labor force consists of employed persons and unemployed persons. The Bureau of Labor Statistics defines employed persons as “persons who did any work for pay or profit during the survey reference week; persons who did at least 15 hours of unpaid work in a family-operated enterprise; and persons who were temporarily absent from their regular jobs because of illness, vacation, bad weather, industrial dispute, or various personal reasons.” The BLS classifies persons as unemployed “if they do not have a job, have actively looked for work in the prior 4 weeks, and are currently available for work. Persons who were not working and were waiting to be recalled to a job from which they had been temporarily laid off are also included as unemployed.” For more information, see <https://www.bls.gov/cps/lfcharacteristics.htm>.

Among Virginia's smaller metropolitan areas, Winchester (17.6%), Charlottesville (12.1%) and Harrisonburg (8.4%) outperformed the state average. However, three metro areas – Blacksburg (4.6%), Staunton (3.9%) and Roanoke (1.5%) – grew slower than the state. Further, two metros, Lynchburg (-0.3%) and Kingsport-Bristol (-4.9%), saw their labor forces contract over the January 2010 to February 2020 period.

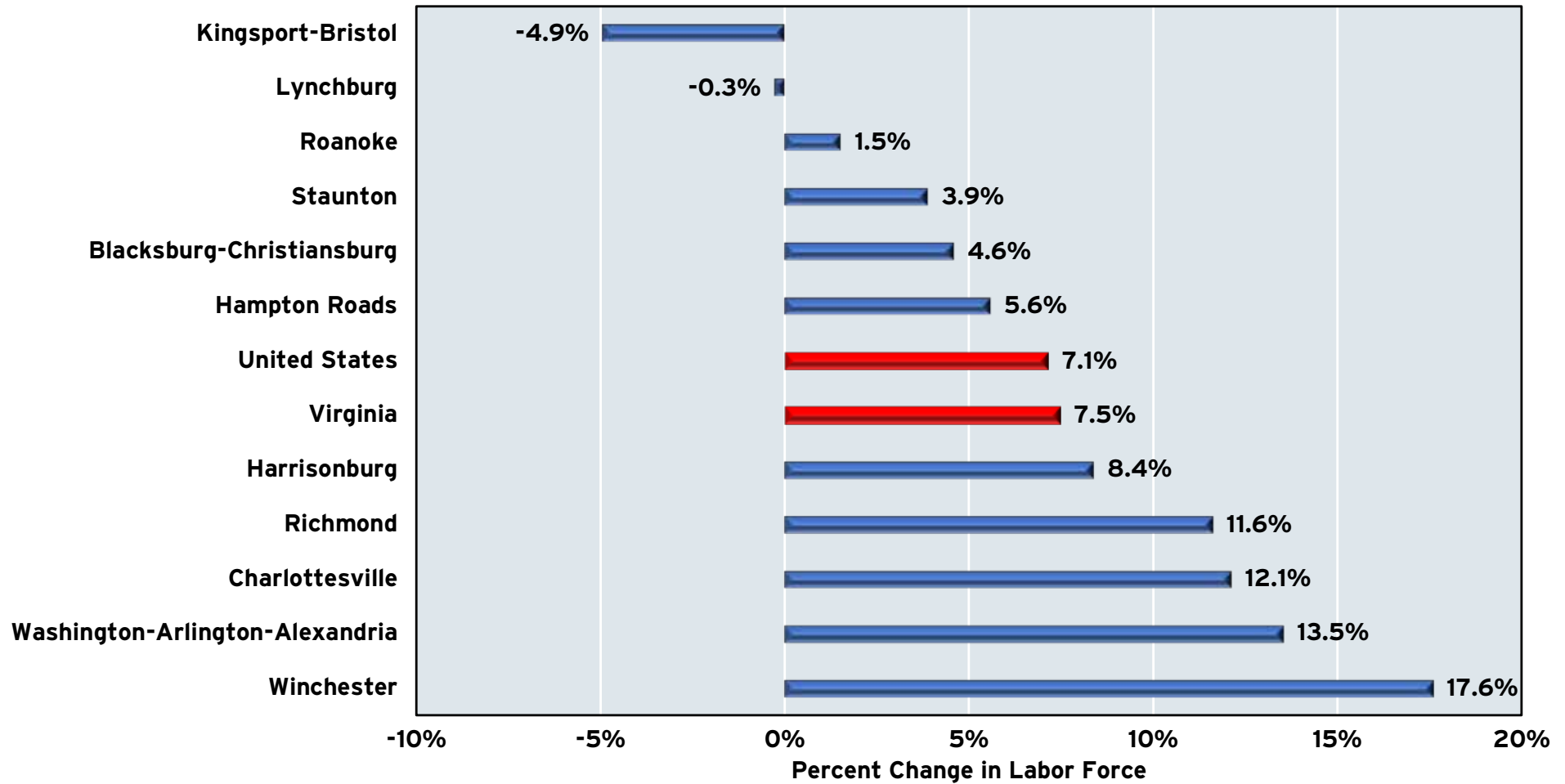
Graph 6 reflects the impact of the COVID-19 pandemic on the civilian labor force in Virginia's metro areas, Virginia and the United States from February 2020 to October 2021. It is immediately apparent that the labor force has contracted more in the Commonwealth than the nation. Winchester was the only metro area to outperform the nation in terms of the recovery of its labor force relative to February 2020.

The departure of workers from the civilian labor force in Virginia is a puzzle that has generated much discussion but little resolution. People who have left the labor force entirely do not qualify for unemployment benefits. Virginia's COVID-19 infections, hospitalizations and deaths are lower on a per capita basis than many Southern states, and vaccination rates are, on average, higher. The "fear of COVID-19" hypothesis seems to have little weight in the face of these data. National data suggest that women have left the labor force at greater rates than their male counterparts, so it is likely we are witnessing a similar impact in the Commonwealth. We suspect it is a confluence of factors that, hopefully, will be resolved as the economy continues to improve in 2022.



GRAPH 5

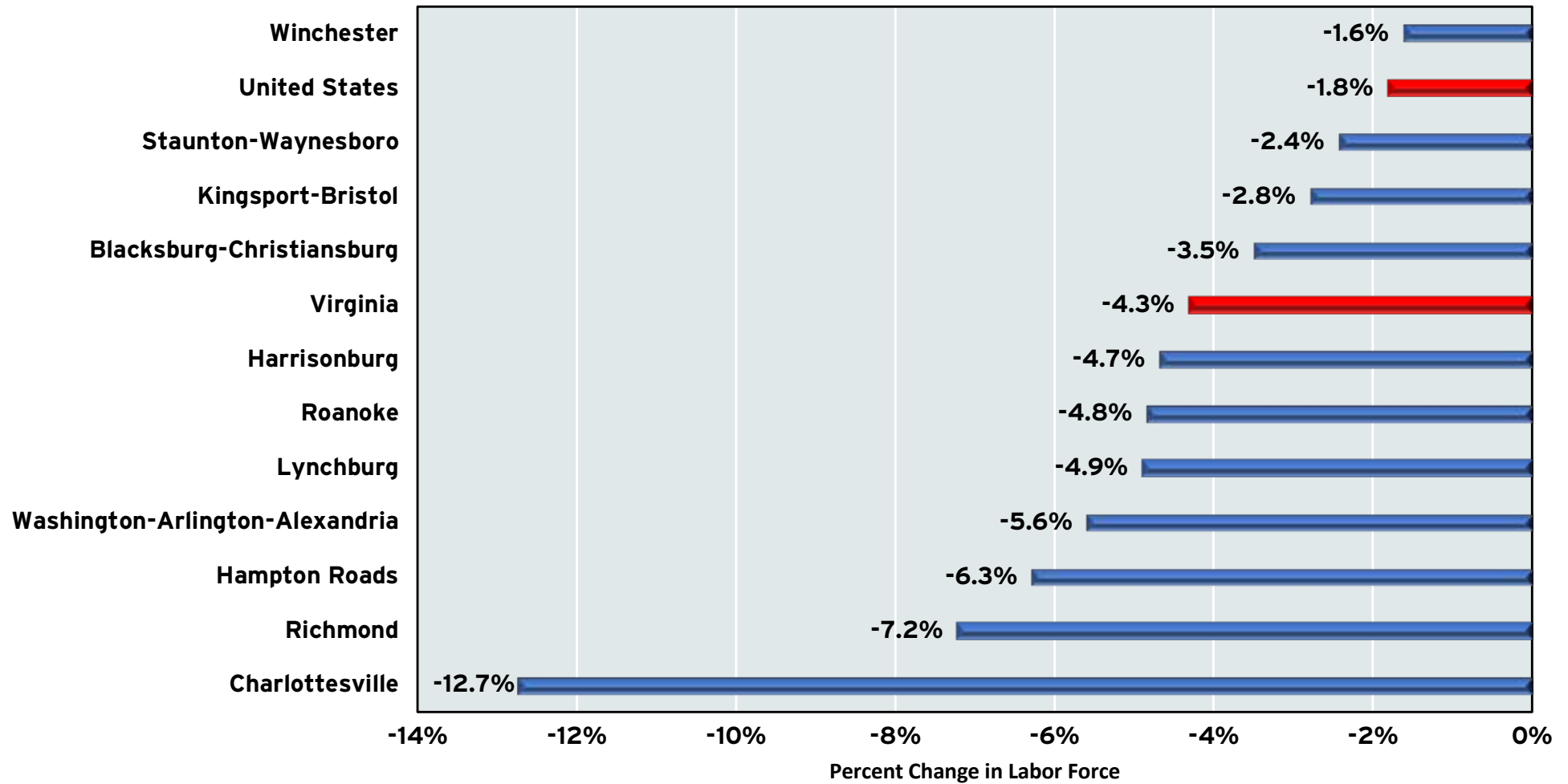
**PERCENT CHANGE IN THE CIVILIAN LABOR FORCE:
VIRGINIA'S METROPOLITAN STATISTICAL AREAS, VIRGINIA AND THE UNITED STATES,
JANUARY 2010-FEBRUARY 2020**



Source: Bureau of Labor Statistics, Current Population Survey and Local Area Unemployment Statistics, seasonally adjusted data. Hampton Roads refers to the Virginia Beach-Norfolk-Newport News MSA.

GRAPH 6

**PERCENT CHANGE IN THE CIVILIAN LABOR FORCE:
VIRGINIA'S METROPOLITAN STATISTICAL AREAS, VIRGINIA AND THE UNITED STATES,
FEBRUARY 2020-OCTOBER 2021**



Source: Bureau of Labor Statistics, Current Population Survey and Local Area Unemployment Statistics, seasonally adjusted data. Hampton Roads refers to the Virginia Beach-Norfolk-Newport News MSA.

Employment And Unemployment Among Virginia's Metros

Graph 7 illustrates the change in individual employment among Virginia's metropolitan areas from January 2010 to February 2020. This time period approximates the post-Great Recession trough and the prepandemic peak. A familiar story emerges from this data. Two of the largest metro areas, Richmond and Washington-Arlington-Alexandria, saw individual employment grow faster than the state or the nation. Winchester, Charlottesville and Harrisonburg also outperformed the state and nation. Blacksburg-Christiansburg, Hampton Roads and Staunton were relatively close to the Commonwealth's performance, with double-digit growth over the period. The Roanoke, Lynchburg and Kingsport-Bristol metro areas lagged much further behind, reinforcing the perception that economic prospects were lacking in these regions.

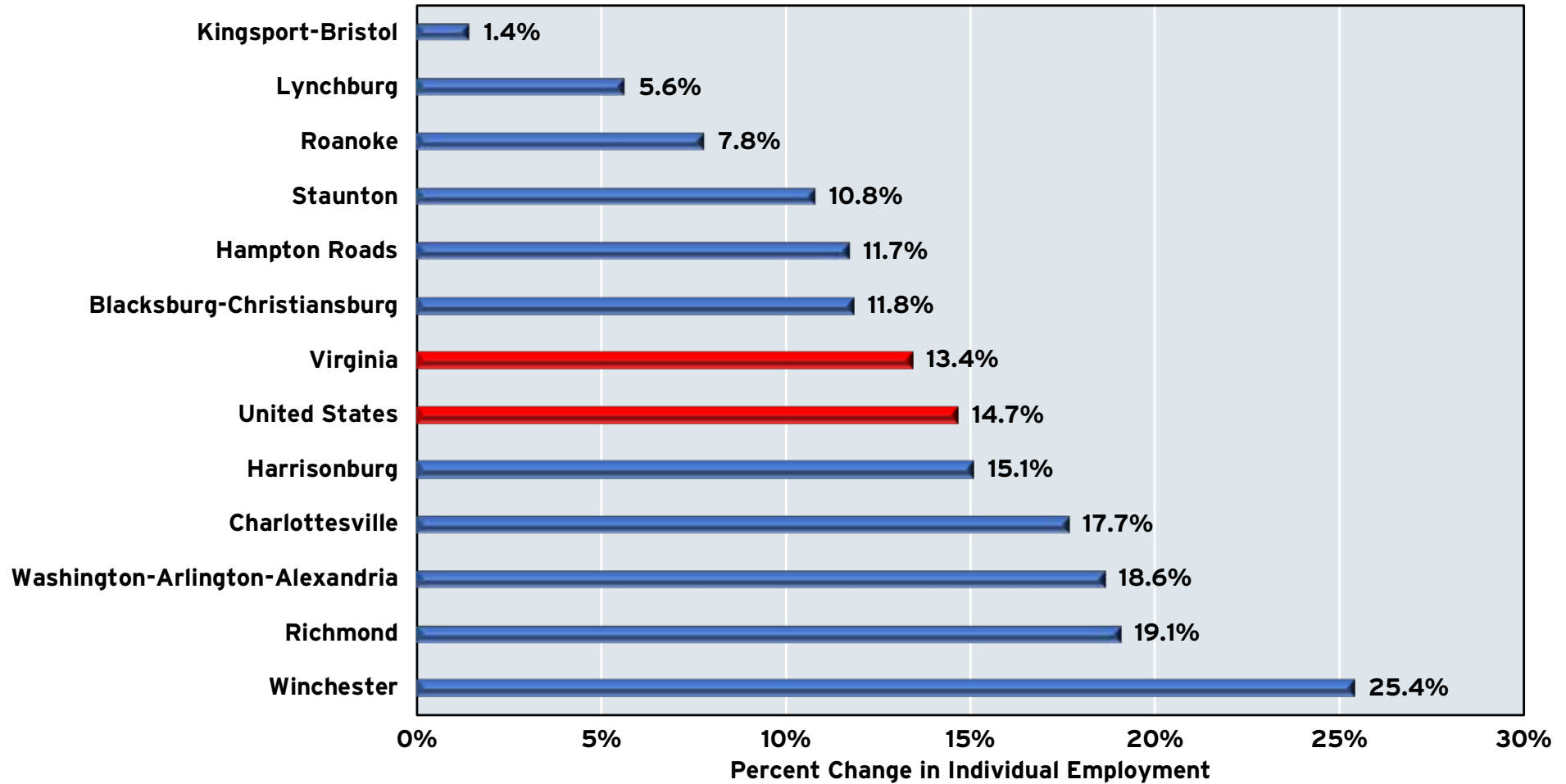
Graph 8 shows the percentage change in individual employment from the prepandemic peak in February 2020 to October 2021. Two regions, Winchester and Kingsport-Bristol, fared better than the nation. The rest of Virginia's metropolitan areas lagged behind the nation in recovering from the pandemic's shock to individual employment.

In February 2020, the unemployment rate in Virginia's metropolitan areas was below 4% and, in the majority of metros, below 3% (Graph 9). The discussion in early 2020 centered on how employers would grapple with increasingly scarce labor and whether labor scarcity would slow Virginia's economic expansion. The pandemic's economic shock turned this discussion on its proverbial head, with unemployment rates spiking into the double digits in the spring of 2020. Fortunately, a reopening and recovery brought unemployment rates down into the single digits in the summer of 2020. Graph 10 displays the unemployment rate among Virginia's metros in October 2021.

While unemployment rates have not returned to prepandemic levels, one could say that, in some cases, they are within shouting distance. However, given that the labor force has declined among Virginia's metros, we should caution that the unemployment rates are biased downward. If one were to treat those who have left the labor force as unemployed, unemployment rates across the Commonwealth would be closer to 8% than 4%. The challenge over the coming months is to sustain the recovery in individual employment and to induce those who have left the labor force to return. Failing that, the recovery may plateau in Virginia in 2022 as workers become increasingly scarce.

GRAPH 7

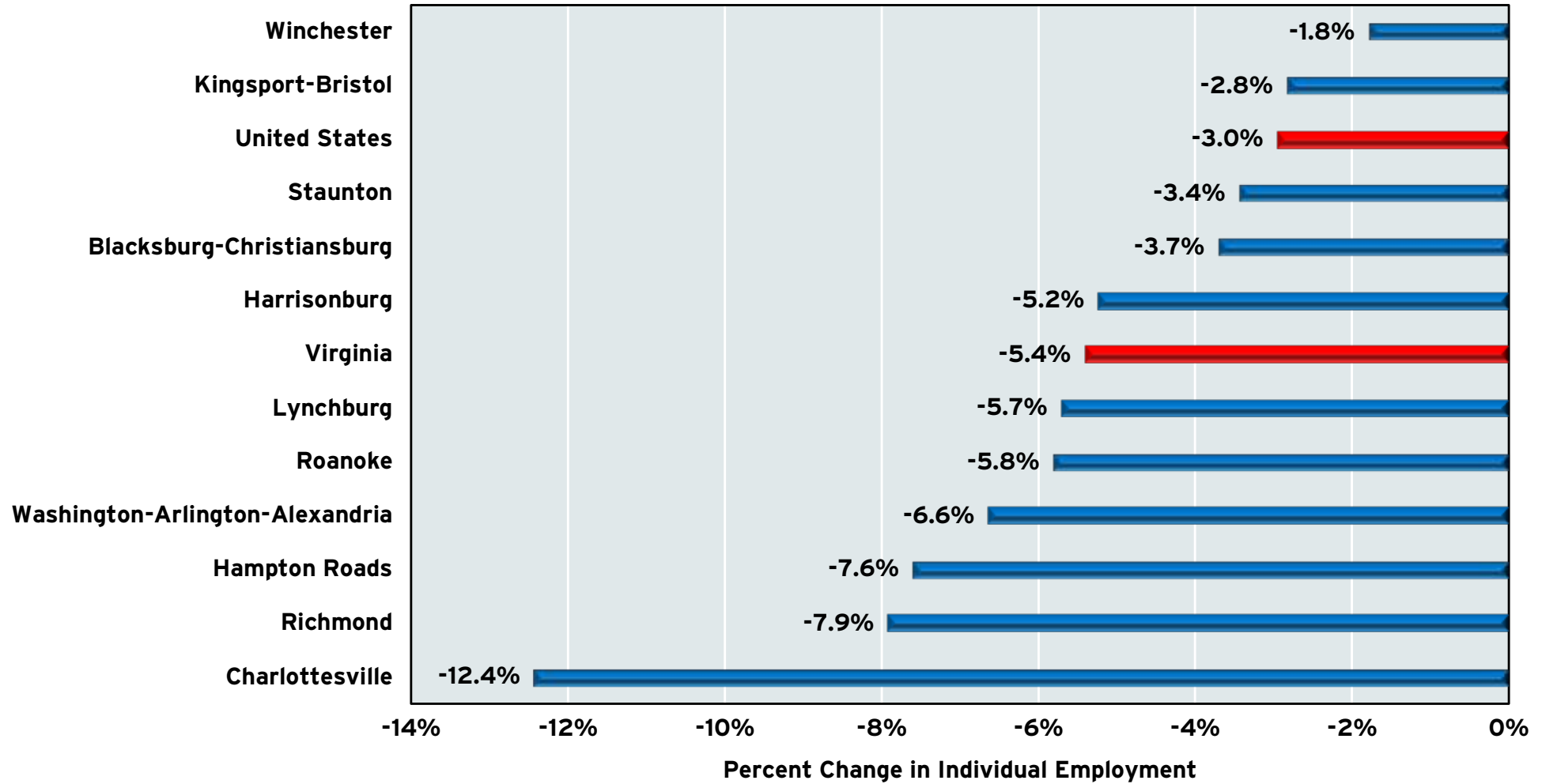
**PERCENT CHANGE IN INDIVIDUAL EMPLOYMENT:
VIRGINIA'S METROPOLITAN STATISTICAL AREAS, VIRGINIA AND THE UNITED STATES,
JANUARY 2010-FEBRUARY 2020**



Source: Bureau of Labor Statistics, Current Population Survey and Local Area Unemployment Statistics, seasonally adjusted data. Hampton Roads refers to the Virginia Beach-Norfolk-Newport News MSA.

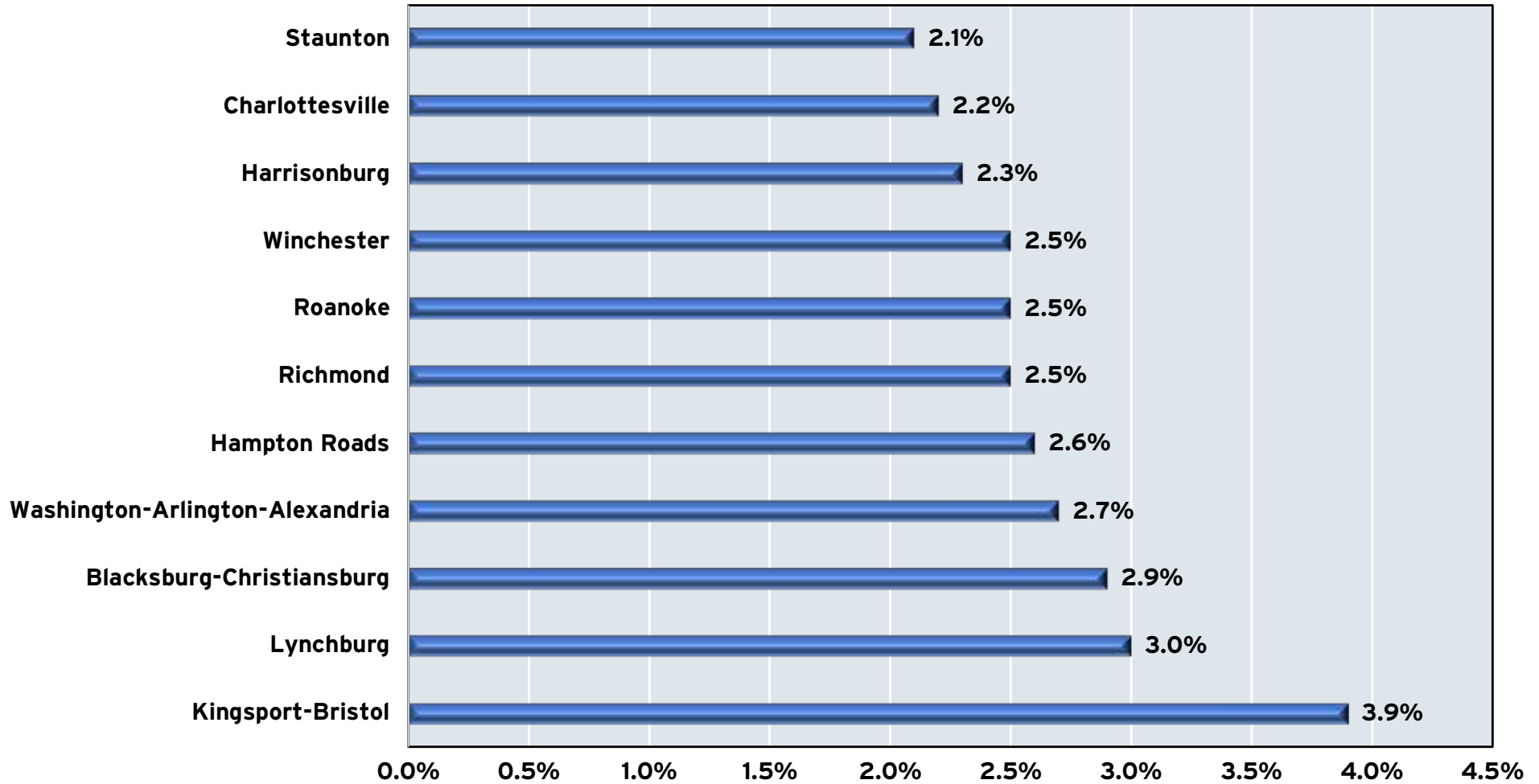
GRAPH 8

**PERCENT CHANGE IN INDIVIDUAL EMPLOYMENT:
VIRGINIA'S METROPOLITAN STATISTICAL AREAS, VIRGINIA AND THE UNITED STATES,
FEBRUARY 2020-OCTOBER 2021**



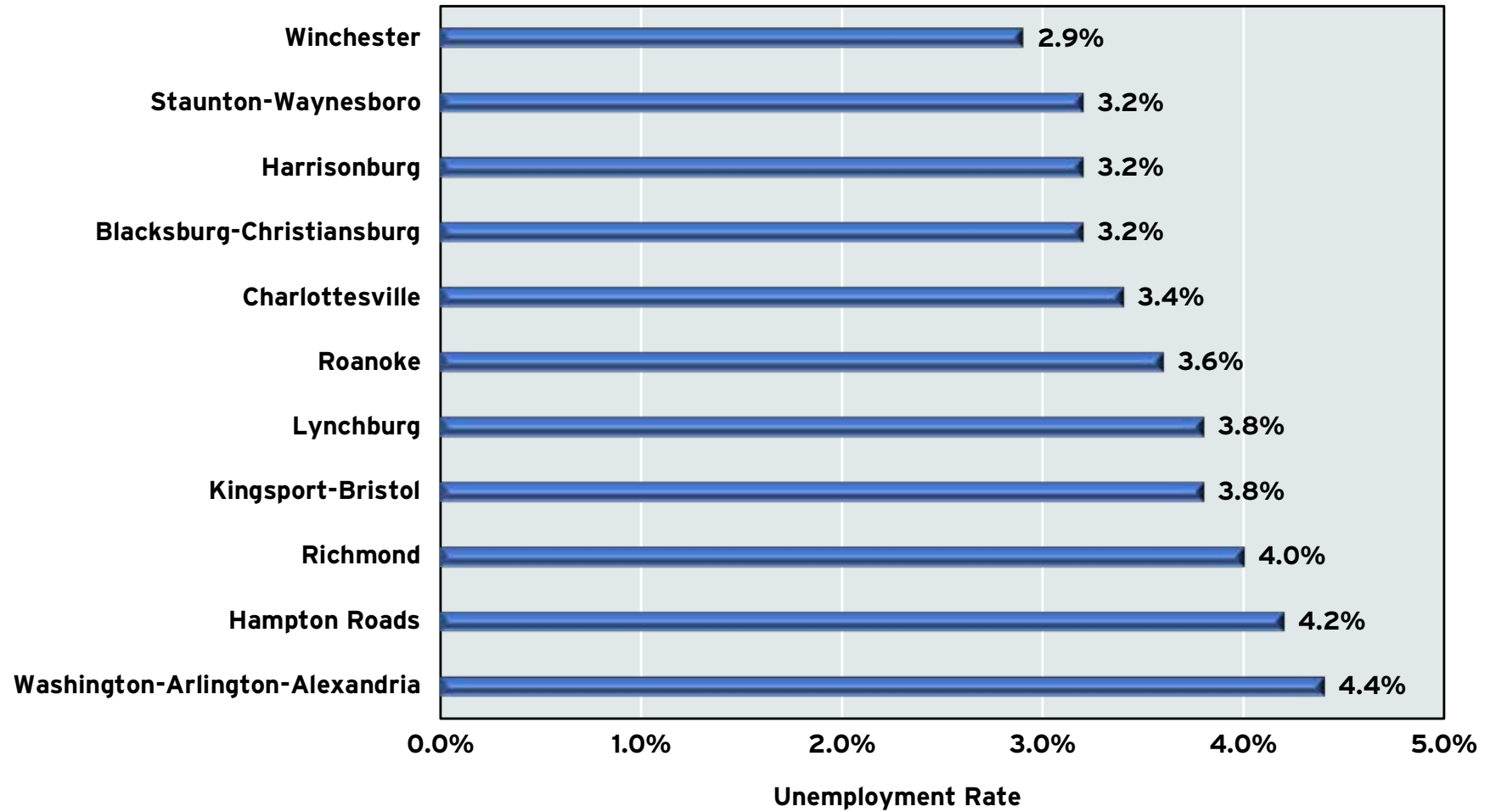
Source: Bureau of Labor Statistics, Current Population Survey and Local Area Unemployment Statistics, seasonally adjusted data. Hampton Roads refers to the Virginia Beach-Norfolk-Newport News MSA.

GRAPH 9
UNEMPLOYMENT RATE:
VIRGINIA'S METROPOLITAN STATISTICAL AREAS,
FEBRUARY 2020



Source: Bureau of Labor Statistics, Current Population Survey and Local Area Unemployment Statistics, seasonally adjusted data. Hampton Roads refers to the Virginia Beach-Norfolk-Newport News MSA.

GRAPH 10
UNEMPLOYMENT RATE:
VIRGINIA'S METROPOLITAN STATISTICAL AREAS,
OCTOBER 2021



Source: Bureau of Labor Statistics, Current Population Survey and Local Area Unemployment Statistics, seasonally adjusted data. Hampton Roads refers to the Virginia Beach-Norfolk-Newport News MSA.

Jobs, COVID-19 And Virginia's Metropolitan Areas

We first present the percentage change in nonfarm payrolls (jobs) from January 2010 to February 2020 for Virginia's metropolitan areas, Virginia and the United States (Graph 11). Over this period, the number of jobs in the Commonwealth increased by 13.1%, 4.4 percentage points below that of the United States. The lingering effects of the Great Recession were compounded by the effects of federal budget sequestration and subsequent caps on federal discretionary spending. As the decade wound on, Virginia's job growth picked up, but it remained behind that of the nation.

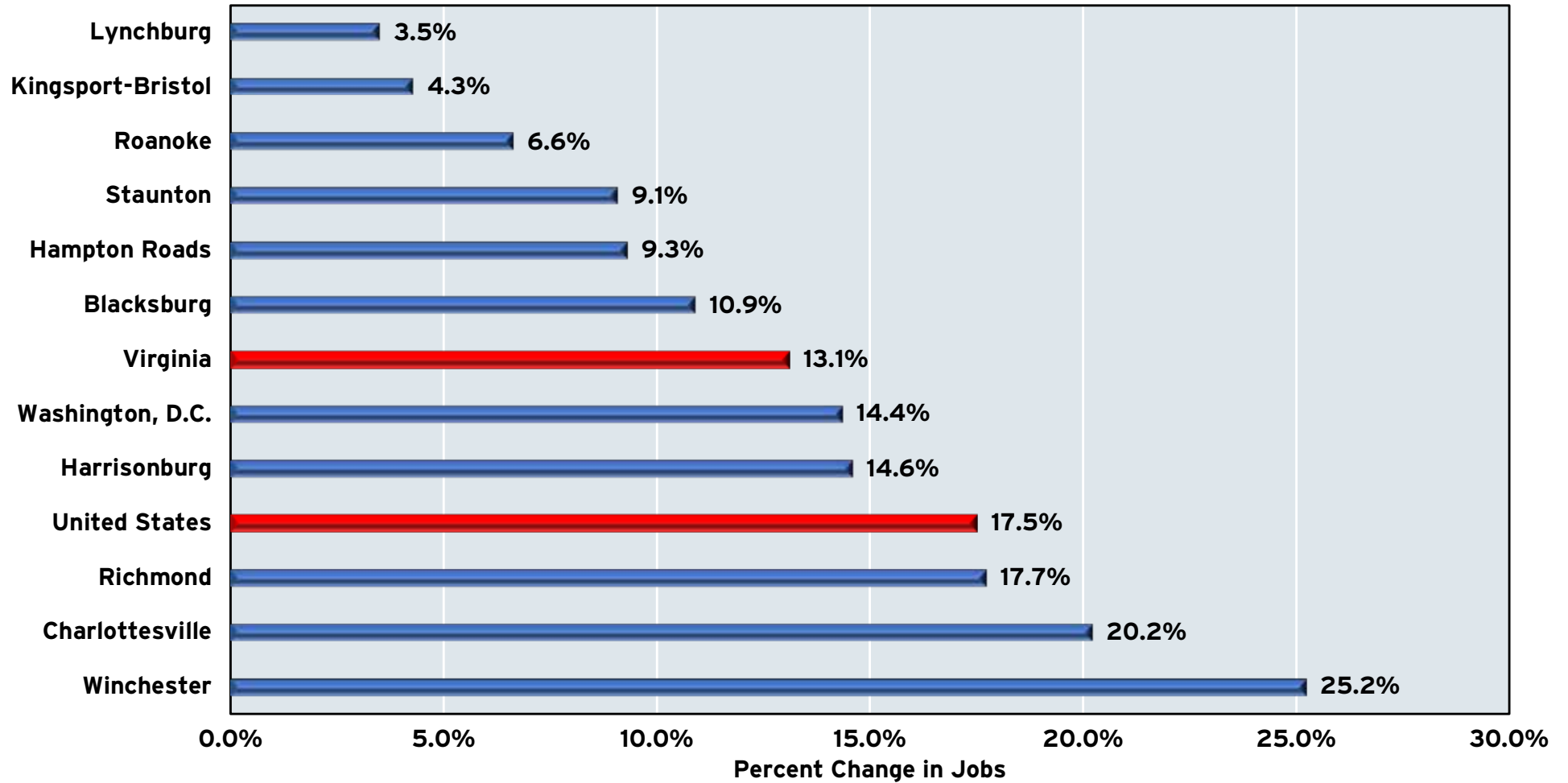
At the metro level, Richmond (17.7%), Charlottesville (20.2%) and Winchester (25.2%) outpaced the nation in terms of job creation over the period. Washington-Arlington-Alexandria (14.4%) and Harrisonburg (14.6%) saw larger increases in the number of jobs than the Commonwealth but lagged the performance of the United States. More troubling was the performance of some of the smaller metro areas. Lynchburg (3.5%), Kingsport-Bristol (4.3%) and Roanoke (6.6%) saw increases in jobs, but the pace of job creation lagged considerably behind the state. Staunton (9.1%), Hampton Roads (9.3%) and Blacksburg-Christiansburg (10.9%) were closer to the state average, but their performances were nothing to brag about.

Graph 12 examines the percentage change in jobs from February 2020 to October 2021. What is immediately apparent is that two metro areas, Winchester and Blacksburg-Christiansburg, have not only recovered all the jobs lost during the pandemic, but also created additional jobs. Staunton (-0.4%) had almost recovered its lost jobs in October 2021, followed by Harrisonburg (-1.9%). Kingsport-Bristol and Roanoke outperformed the nation and the state but were still 3% (or more) below February 2020 job levels. For some smaller metros, the recovery in jobs has been more robust than one might have expected, given their performance over the previous decade.

The three largest metropolitan areas in the Commonwealth have struggled to regain all the jobs they lost during the pandemic. Richmond (-6.2%), Hampton Roads (-4.8%) and Washington-Arlington-Alexandria (-3.7%) have all suffered significant job losses in the leisure and hospitality industry as well as education and health services. If there is a modicum of good news it is that increasing vaccination rates should lead to higher levels of domestic and international travel in 2022. Until these metro areas pick up the pace of recovery, the Commonwealth will continue to lag behind the nation in terms of job recovery.

GRAPH 11

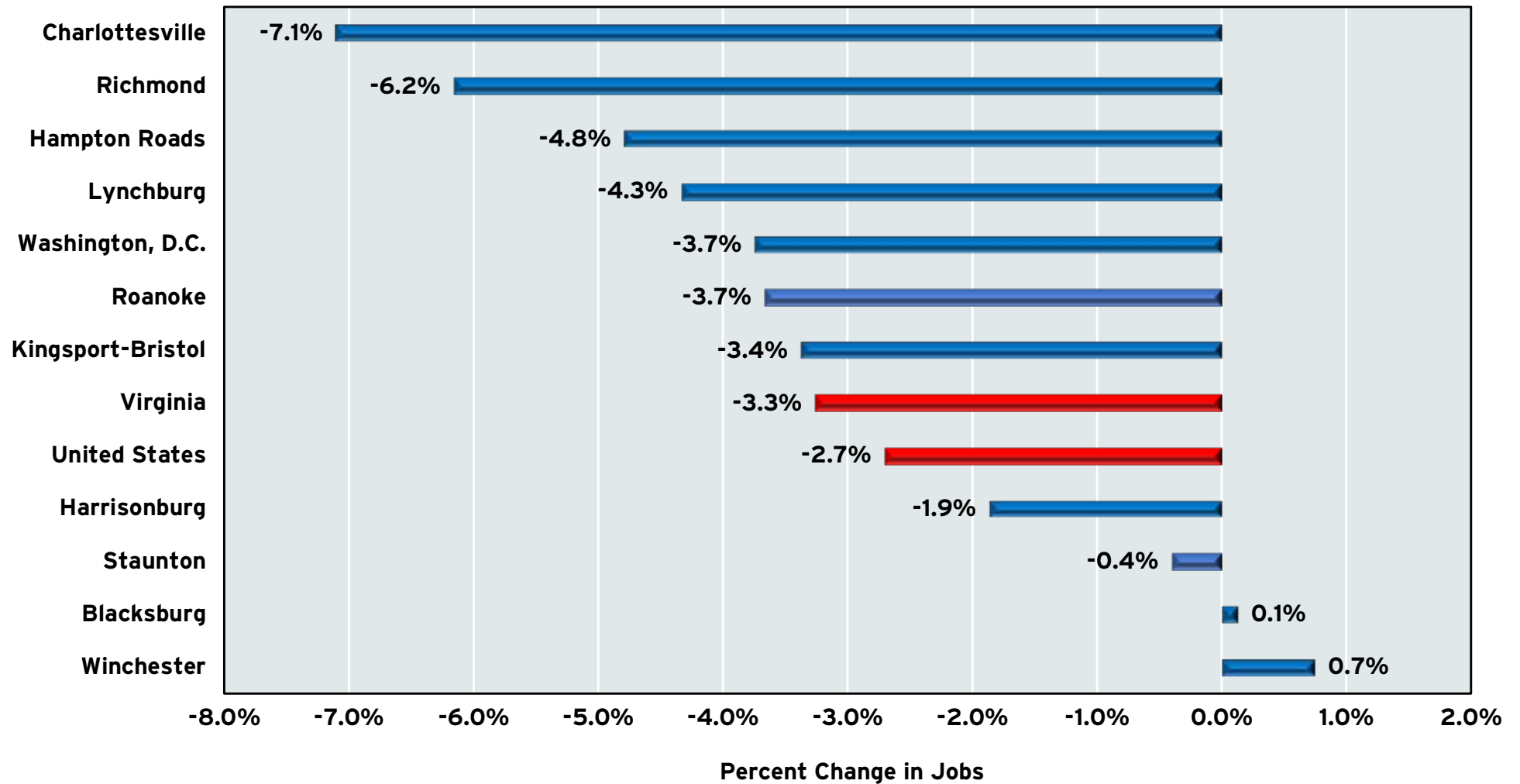
**PERCENT CHANGE IN NONFARM PAYROLLS (JOBS):
VIRGINIA'S METROPOLITAN STATISTICAL AREAS, VIRGINIA AND THE UNITED STATES,
JANUARY 2010-FEBRUARY 2020**



Source: Bureau of Labor Statistics, Current Establishment Survey and State Employment and Unemployment, seasonally adjusted data

GRAPH 12

**PERCENT CHANGE IN NONFARM PAYROLLS (JOBS):
VIRGINIA'S METROPOLITAN STATISTICAL AREAS, VIRGINIA AND THE UNITED STATES,
FEBRUARY 2020-OCTOBER 2021**



Source: Bureau of Labor Statistics, Current Establishment Survey and State Employment and Unemployment, seasonally adjusted data

Final Thoughts

Thinking of Virginia's metropolitan areas as race cars can be helpful in visualizing a major challenge facing the Commonwealth. Some metro areas are trying to race but lack a pit crew and trained driver, and, at times, must pull into the economic garage. Other metros, with a talented team and veteran driver, have built a car that is firing on all cylinders and lapping other competitors. If the Commonwealth is to share a destiny, the challenge will be not only to get all the metros in the proverbial economic race, but also to equip them with the resources necessary to "go fast."

In the coming year, increases in defense spending are likely to drive economic growth in Hampton Roads and Northern Virginia. Rebounds in domestic and international tourism will benefit these metro areas as well. Some of the smaller metros are exhibiting signs of a robust economic recovery. In these areas, employment is nearing the prepandemic high, and jobs are almost completely recovered. In Winchester's case, a new expansion appears to have begun. However, we must not forget that some metro areas struggled to generate jobs prior to the pandemic, and their prospects for a sustained recovery are not as bright in 2022.

Virginia can act to improve regional outcomes if it chooses to do so. We continue to offer the following suggestions. Targeted investments in infrastructure are necessary to promote economic development and attract new businesses. Improving the quality of education, including investments in physical infrastructure, is necessary to produce a workforce that can compete in an increasingly globalized economy. Virginia's antiquated tax structure must be reformed to compete with neighboring states. Regulatory relief, or at least regulatory clarity, is also a necessary component of economic growth. Lastly, regional collaboration should be more than a slogan. The Commonwealth should continue to promote regional collaborations through efforts like GO Virginia. These recommendations are not new, but until Virginia acts, they bear repeating.

