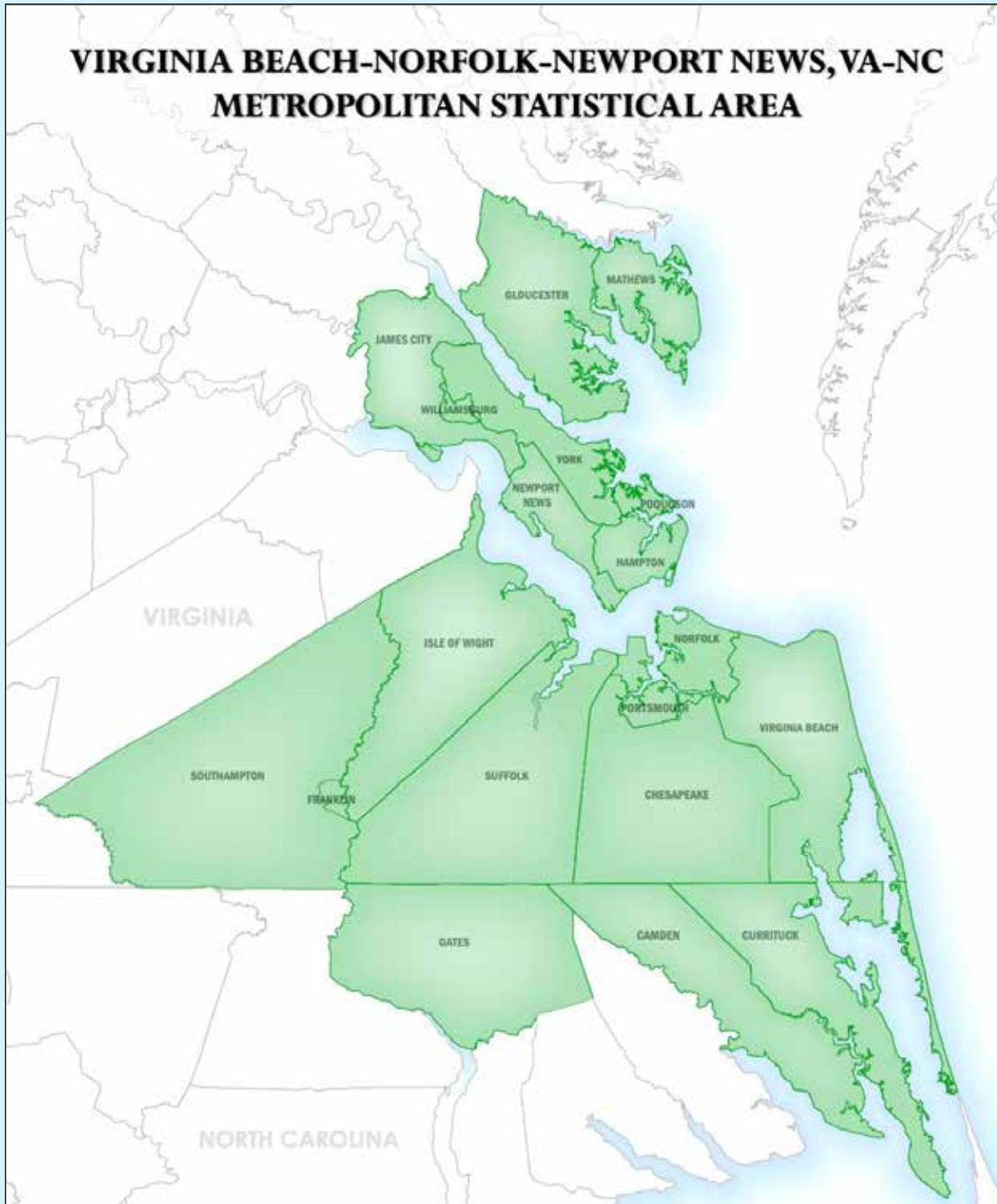




The State of the Region

HAMPTON ROADS 2022

**VIRGINIA BEACH-NORFOLK-NEWPORT NEWS, VA-NC
METROPOLITAN STATISTICAL AREA**



October 2022

Dear Reader:

This is Old Dominion University's 23rd annual State of the Region Report. While it represents the work of many people connected in various ways to the university, the report does not constitute an official viewpoint of Old Dominion, its president, Brian O. Hemphill, Ph.D., the Board of Visitors, the Strome College of Business or the generous donors who support the activities of the Dragas Center for Economic Analysis and Policy.

Over the past year, we have experienced the continued uncertainty of the COVID-19 pandemic, the rise of inflation, and geopolitical shocks that have affected our daily lives. We live, for better or worse, in uncertain times, and our resilience is likely to be tested in the coming years. The question before us remains the same as in many previous reports: How can we invigorate economic growth as a region that raises the fortunes of all, not just the most fortunate?

We only need to look at neighboring metropolitan areas for examples of how setting aside parochial differences and working together can yield a sum that is greater than its parts. Hampton Roads faces two generational challenges: sea-level rise and the revolution in military affairs due to the transformative impact of unmanned weapons on the modern battlefield. If challenge and opportunity are two sides of the same coin, we must move beyond talk and into action, else we may be left behind.

Our work seeks to inform without minimizing the challenges facing the region or downplaying the opportunities to emerge stronger and more resilient from the experiences of the past.

The 2022 State of the Region Report is divided into six parts:

Inflation, Drones, and the Economy of Hampton Roads

2022 may be characterized as the "best of times and worst of times."

Unemployment continued to fall, wages continued to rise, and homeowners experienced rises in property values. Hotels continued to rebound from the COVID-19 economic shock and the Port of Virginia experienced record volumes of cargo traffic. On the other hand, prices at the grocery store, gas station, and, it seems, almost everywhere else, continued to rise. Employers struggled to find the right employees at the right time and economic sentiment soured. Russia's invasion of Ukraine highlighted the continuing revolution in military affairs brought about by drones and other unmanned systems. We ask how Hampton Roads fared over the past year and prospects for growth in 2023.

The Rent is Too Damn High: Housing in Hampton Roads

Is Hampton Roads an affordable place to live? At first glance, median rents and housing values are below those of the closest major metropolitan areas. Comparing housing costs to household income yields a different conclusion: More than 1 in 3 households in Hampton Roads paid more than 30% of their income for housing, and 1 in 7 households paid more than 50% of their income

for housing. In this chapter, we explore housing affordability in Hampton Roads, Virginia, and the United States and ask what the region can do to make housing more affordable.

Splish – Splash – Cash: Swimming in Hampton Roads

Hampton Roads is known for its relationship with water. For some, it is too much water in the wrong place at the wrong time. For others, it is how water can transform lives. Hampton Roads is home to several premier swimming organizations, and Hampton is opening a state-of-the-art aquatics facility. We explore how swimming is intertwined with the history of the region and the economic impact of the sport on the economy and lives of the region's residents.

Does Hampton Roads Have Enough Nurses?

In 2021, nursing ranked again as the most trusted profession in the United States. Yet, even though many Americans view nurses favorably, nurses have been the target of conspiracy theories, verbal abuse, and physical violence. As more nurses report symptoms of burnout and some are quitting the profession entirely, we explore the coming shortage of nurses in Hampton Roads, Virginia,

and the United States and ask what factors limit the supply of nurses in the region.

Strangers in a Strange Land: Finding Refuge in Hampton Roads

In 2022, a record-breaking 100 million people were forcibly displaced, fleeing war, persecution, and other forms of violence. This humanitarian tragedy has been fueled by conflicts in Ukraine, Afghanistan, and other hot spots around the globe. This chapter explores how these developments are affecting Hampton Roads, which has received more than 300 Afghans and other political refugees over the past 18 months.

The Strome College of Business and Old Dominion University continue to provide support for the State of the Region Report. However, it would not appear without the vital backing of the private donors whose names appear below. They believe in Hampton Roads and the power of rational discussion to improve our circumstances, but are not responsible for the views expressed in the report.

Richard F. Barry III
The Aimee and Frank Batten Jr. Foundation
Jane Batten
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Dragas Family Foundation
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All 23 State of the Region Reports are available at www.ceapodu.com. A limited number of printed copies of the 2022 State of the Region Report are available for purchase for \$50 each. If you have comments or suggestions, please email us at rmcnab@odu.edu.

Sincerely,



Robert M. McNab

Director of the Dragas Center for Economic Analysis and Policy

Perhaps I Won't Go to Law School After All: Lawyers in Hampton Roads

While movies and television shows portray lawyers as members of high society, with expensive cars and tastes, the reality in Hampton Roads is grittier. Between 2005 and 2021, lawyers' real income in the region declined by more than 25%. In this chapter, we explore the supply of lawyers in Hampton Roads and whether we are producing too many lawyers for economic conditions in the region. We ask what the future may hold for the legal profession in Hampton Roads, Virginia, and the nation.



IN MEMORIAM

Arthur Diamonstein, a former rector of Old Dominion University's Board of Visitors, died in Norfolk on Aug. 14. He was 92.

Diamonstein was a member of the board from 1992 to 1996 and served as rector from 1994 to 1996.

President Emeritus James V. Koch, who led the University when Diamonstein was rector, called him "one of the best consensus builders I have ever encountered."

"Upbeat and optimistic even when the times were trying, Arthur Diamonstein was a savvy, wise individual devoted to public service," Koch said. "We were lucky enough to corral him for a variety of tasks. As our rector, he was adept politically and understood instinctively how to present issues and stimulate productive discussions."

Diamonstein received his bachelor's degree in business administration from Virginia Tech. He served in the Army's 45th Thunderbird Division during the Korean War, receiving a Purple Heart, and was later in the Army Reserves.

After his service, he joined Paramount Sleep Co., his family's mattress business, and rose from truck driver to president.

"He didn't get bogged down in the details," said his son Richard, the managing director of the company. "He managed at a very high level, which allowed the people who reported to him to develop and, in a lot of cases, develop successfully. You'd state your case, he'd ask you thoughtful questions, and he'd let you run with it."

Diamonstein also made it a point to get to know his employees. "He made such a deep connection with so many people, regardless of their role," said his daughter, Anne Fleder. "He treated everybody with the same respect."

Until the pandemic, "Arthur came to work every day, even after being diagnosed with Alzheimer's, just to continue to feel the pulse of the organization he helped build," his obituary said.

Diamonstein was significantly active in several civic organizations. He was chairman of the board of The General Douglas MacArthur Foundation, the Norfolk Convention and Visitors Bureau and the Fort Norfolk Retirement Center (Harbor's Edge). He was vice president of Norfolk Academy's board and treasurer of the Chrysler Museum of Art's board. He also served on the boards of Ohef Sholom Temple, the Virginia Opera, the Virginia Symphony Orchestra and Tidewater Winds. Diamonstein was named First Citizen of Norfolk by the Cosmopolitan Club in 2001.

"His life was all about his family, his business and his community," Richard said in his eulogy. "He followed his heart and commitment to others."

Thank you to our partners

The George and Grace Dragas Family Foundation

The Dragas Family is proud to support Old Dominion University’s sound economic analysis and policy work for the betterment of the people of Hampton Roads and the Commonwealth of Virginia.



Headquartered in Hampton Roads since 1959, Chartway Credit Union has been unlocking the potential of individuals and families so they can thrive. Member-owned and values-driven, our Chartway team helps our growing 200,000+ member base meet their financial goals. Since 1999, our charitable arm, the Chartway Promise Foundation, has raised nearly \$14 million to bring joy, hope, and smiles to children facing medical hardship. Chartway’s values reflect a bright way forward for members, communities, and team members. To learn more, visit Chartway.com



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Inflation, Drones, and the Economy of Hampton Roads



INFLATION, DRONES, AND THE ECONOMY OF HAMPTON ROADS

“A powerful Navy we have always regarded as our proper and natural means of defense; and it has always been of defense that we have thought, never of aggression or of conquest. But who shall tell us now what sort of Navy to build? ... When will the experts tell us just what kind we should construct – and when will they be right for ten years together?”

President Woodrow Wilson, December 8, 1914

The relationship between the United States Navy and Hampton Roads has deep roots, tracing all the way back to the founding of the nation. The USS Chesapeake, one of the six original frigates of the U.S. Navy, was built in Portsmouth. Over time, the Navy’s presence in the region expanded, building upon the deepwater port at Norfolk and the growing defense-industrial base at the shipyards in Norfolk, Portsmouth, and Newport News.

Today, Hampton Roads is not only home to five of the nation’s aircraft carriers, it is the place where these and other ships are built and maintained. Tens of thousands of the region’s residents are employed directly or indirectly through the billions of defense spending dollars that flow into Hampton Roads on an annual basis. In many ways, the U.S. Navy and other armed services are part of the foundation upon which the regional economy has been built.

Yet, as we look back over the past 12 months, we must ask whether we have arrived at an inflection point, not only in military affairs but also how the region’s economy may change in the future. Russia’s invasion of Ukraine in February of this year shocked global commodity markets and contributed to a global surge in energy prices, fueling inflation in the United States and other nations. While many experts doubted Ukraine’s ability to withstand the onslaught of Russian forces¹, the truism that no plan survives contact with the enemy was borne out by events on the ground. Ukraine’s decisions to invest in the professionalization of its armed forces and to procure modern unmanned aerial vehicles (UAVs or drones) proved prescient. Ukrainian UAVs have

destroyed tanks, infantry fighting vehicles, transport vehicles, and Russian patrol and supply ships.² The use of UAVs on the modern battlefield is not new, but it is now clear that these systems offer an asymmetric cost advantage. Drones, whether home-built or military-grade, are relatively inexpensive, can be produced quickly, and have demonstrated the ability to wreak havoc on more expensive legacy weapons systems. Many of the weapon systems built, maintained, and based in Hampton Roads are threatened by this revolution in military affairs, a revolution that will likely shake the foundations of the regional economy in the coming decades.

The economic shocks of the COVID-19 pandemic also continue to reverberate through the region. While the policy responses to the COVID-19 pandemic-related economic shock in the spring of 2020 likely staved off a deep, prolonged recession, the same policy responses rapidly expanded liquidity, most obviously in the form of dramatic increases in the size of the money supply by the Federal Reserve System. Increasing demand as the U.S. and other economies recovered resulted in price pressures as supply-chain shocks

¹ <https://www.reuters.com/business/aerospace-defense/how-ukraines-armed-forces-shape-up-against-russias-2022-02-01/>

² <https://www.aviacionline.com/2022/05/first-successful-anti-ship-mission-of-bayraktar-tb2-drone-in-ukraine/>

continued to roil the flow of goods and services. As prices surged at the pump and grocery store, consumer sentiments soured and inflationary expectations hardened, leading the Federal Reserve to shift its policy stance aggressively from promoting employment to combatting inflation, even if it meant increasing the risk of recession. Inflation not only has caused pain for consumers and businesses, but it also reduced the buying power of the Department of Defense (DoD) by tens of billions of dollars. Department of Defense spending in Hampton Roads may increase in nominal terms in 2022 and into 2023, but once we account for the impact of inflation, real (inflation-adjusted) DoD spending will likely decline in the region in the coming years.

Hampton Roads again finds itself looking wistfully at the economic performance of its peers. Many of the jobs we lost in 2020 have come back; however, our recovery is, at best, incomplete. While the headline unemployment rate approached 3% in the summer of 2022, these gains were driven, in part, by the relatively tepid recovery in the region's civilian labor force. There were almost 45,000 fewer residents working or looking for work in May 2022 when compared to February 2020, a decline of almost 5%. The outmigration of residents, especially in the prime working years, is another signal of declining economic competitiveness as people are voting with their feet about economic conditions in the region.

Not all the news is dire. Nominal defense spending is likely to increase in the region in 2023, although the Navy's plans to downsize its existing fleet may threaten these increases in future years. The Port of Virginia is on track for another record year. The hotel industry continues to outperform the Commonwealth and the nation. Ongoing discussions about closer collaboration between Eastern Virginia Medical School (EVMS) and Old Dominion University (ODU) (something we have recommended in the past) are likely to bear fruit in the coming years.

Regionalism does not mean that cities and counties will lose their distinctive character, but that together, we can build a better future for Hampton Roads. These bright spots illustrate the potential of Hampton Roads, while simultaneously highlighting the need for the region's localities to work together to lift economic development. To paraphrase Abraham Lincoln, a region divided against itself cannot stand.

In this chapter, we examine Hampton Roads' economic fortunes in 2022 and how the economy may fare in 2023. We ask how far labor markets have rebounded and how the region fares compared to its peers. We discuss opportunities for growth even as developments threaten parts of the defense-industrial base in the region. The challenge is before us; the question is whether we can all work together at the task at hand?

The Pandemic: In the Background but not Forgotten

Looking across Hampton Roads in the summer of 2022, one might reach the conclusion that the COVID-19 pandemic had receded into a distant memory for most residents. While masks were occasionally seen in the spring of 2022 (largely in health care settings), restaurants, bars, clubs, and sporting events went on as they did prior to the onset of the pandemic. The raging debates concerning whether one should get vaccinated have, to some extent, been relegated to the edges of social media as consumers have been more focused on prices at the gas station and grocery store. Yet, infections, hospitalizations, and sadly, deaths from COVID-19 continued to shape life in Hampton Roads, Virginia, and the nation.

From June 15, 2020, to June 17, 2022, there were more than 350,000 reported cases of COVID-19 in Hampton Roads, resulting in over 11,000

hospitalizations.³ According to the Virginia Department of Health (VDH), there were almost 3,800 COVID-19-related deaths in Hampton Roads over this period. Graph 1 presents the proportions of COVID-19 deaths by race relative to their share of population over this period. Black residents of the region were 30.7% of the population in 2019 but accounted for 48.0% and 41.3% of COVID-19-related hospitalizations and deaths, respectively. White residents, who made up 58.6% of the Hampton Roads population in 2019, accounted for approximately 41.0% and 51.7% of the region's hospitalizations and deaths, respectively, from COVID-19.

Vaccinations remain a significant defense against hospitalization and mortality associated with COVID-19. A study of hospitalizations between December 2021 and March 2022 found that three mRNA doses reduced the likelihood of hospital admission due to COVID-19 by approximately 90%.⁴ A 2022 study found that receiving two or three doses of an mRNA COVID-19 vaccine reduced the risk of COVID-19 invasive mechanical ventilation or death by 90%.⁵ Another study, examining adolescents, found the risk of hospitalization was 92% and 94% lower for 12- to 15- year-olds and 16- to 17- year-olds, respectively.⁶ Even in the face of new variants and subvariants, the evidence continues to show that vaccines are broadly effective at reducing the risk of hospitalization, intubation, and death.

Graph 2 displays the percentage of the population fully vaccinated by selected age groups and cities in Hampton Roads. As one might expect, vaccination rates are higher for older than younger residents of the region. Part of this can be explained by the effort to vaccinate those who are, on average, at higher risk from COVID-19. A recent survey of the literature found that younger individuals had lower intentions to vaccinate.⁷ Why these intentions are lower remains a matter of debate, with some suggesting that education and wealth influence the decision and others arguing there is a strong negative correlation with social media consumption.⁸

Graph 3 displays vaccinations by race in Hampton Roads and Virginia through June 21, 2022. In the summer of 2021, Black residents of Virginia were less likely to be fully vaccinated than white residents. Over the last 12 months, the story has changed. The latest data available show that a higher proportion of Black residents (60.3%) were fully vaccinated than white residents of the Commonwealth (57.0%). A matter of concern, however, is that Hampton Roads lags the Commonwealth. The disparity in vaccination rates was the highest for Latino residents, with only 46.5% of the Latino population considered fully vaccinated in the region, about 25 percentage points less than the Commonwealth average.

According to a recent report from the Kaiser Family Foundation, differences in vaccination rates for Black, Hispanic, and white people have narrowed over the course of the vaccine rollout. Nationally, for example, the gap in vaccination rates between white and Black people fell from 14 percentage points to 6 percentage points from April 2021 to April 2022. The narrowing gap likely reflects the impact of concerted efforts to address disparities in vaccination rates. The Kaiser Family Foundation also notes that data paint an incomplete picture of vaccination rates, with race and ethnicity unknown in approximately one-quarter of vaccinations nationally. The data we do have suggest that Hampton Roads lags behind the Commonwealth in vaccination rates and that continued outreach and education are necessary to lower the risk of severe disease for a number of residents of the region.

While inflation, supply-chain shocks, and geopolitical crises have dominated the news in 2022, COVID-19 remains a concern for the public health of Hampton Roads. Even as the virus diminishes from public discourse (as one can easily see on social media feeds), it retains the ability to dramatically alter lives. Working to improve vaccination rates is a battle worth fighting.

³ We recognize that COVID-19 infections are likely underreported, especially with the increasing use of at-home tests. We thus focus on hospitalizations and deaths from COVID-19.

⁴ https://www.cdc.gov/mmwr/volumes/71/wr/mm7113e2.htm?s_cid=mm7113e2_w

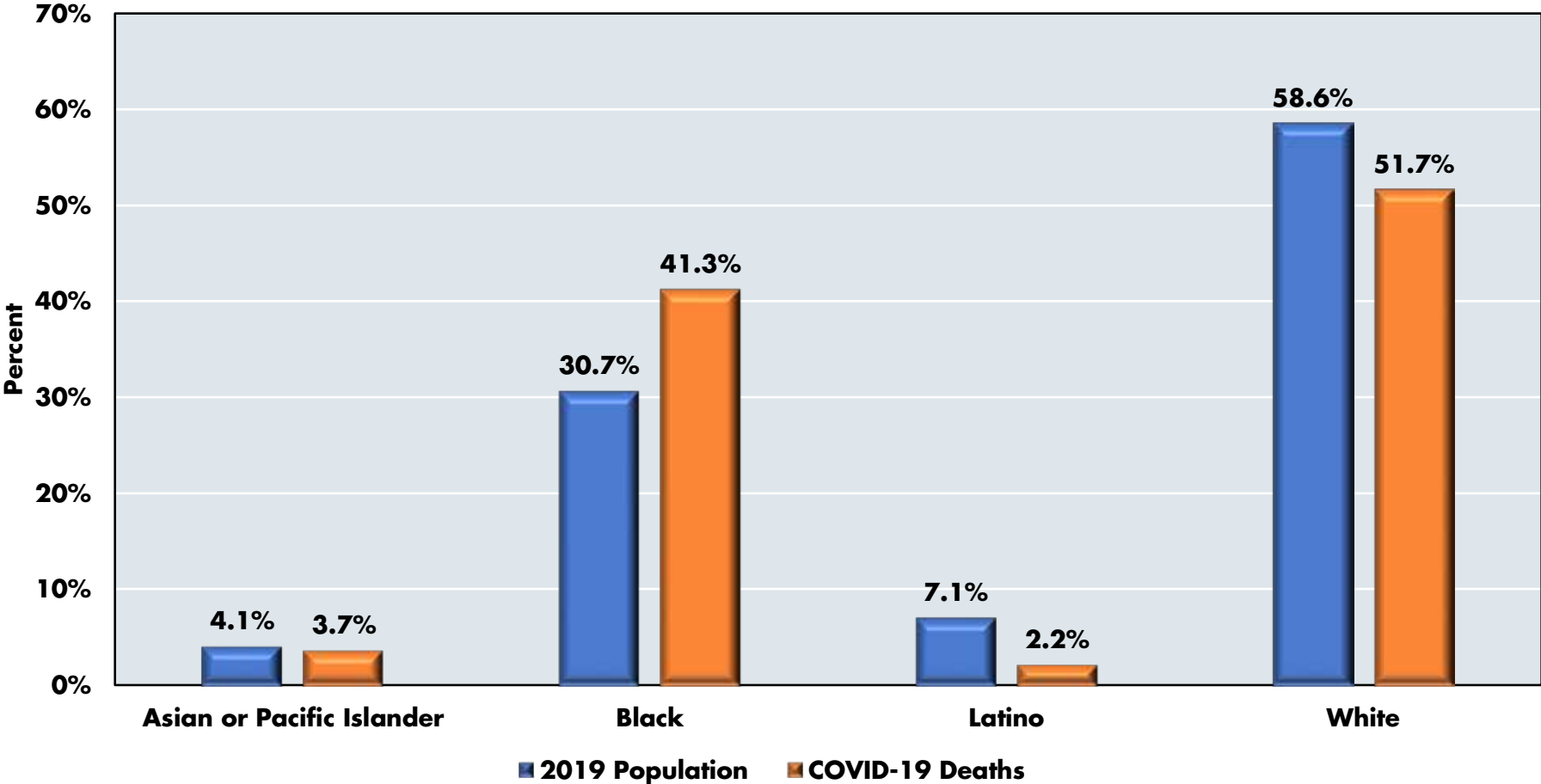
⁵ https://www.cdc.gov/mmwr/volumes/71/wr/mm7112e1.htm?s_cid=mm7112e1_w

⁶ https://www.cdc.gov/mmwr/volumes/71/wr/mm7109e3.htm?s_cid=mm7109e3_w

⁷ <https://onlinelibrary.wiley.com/doi/full/10.1111/jocn.15951>

⁸ <https://www.mdpi.com/2076-393X/10/4/559>

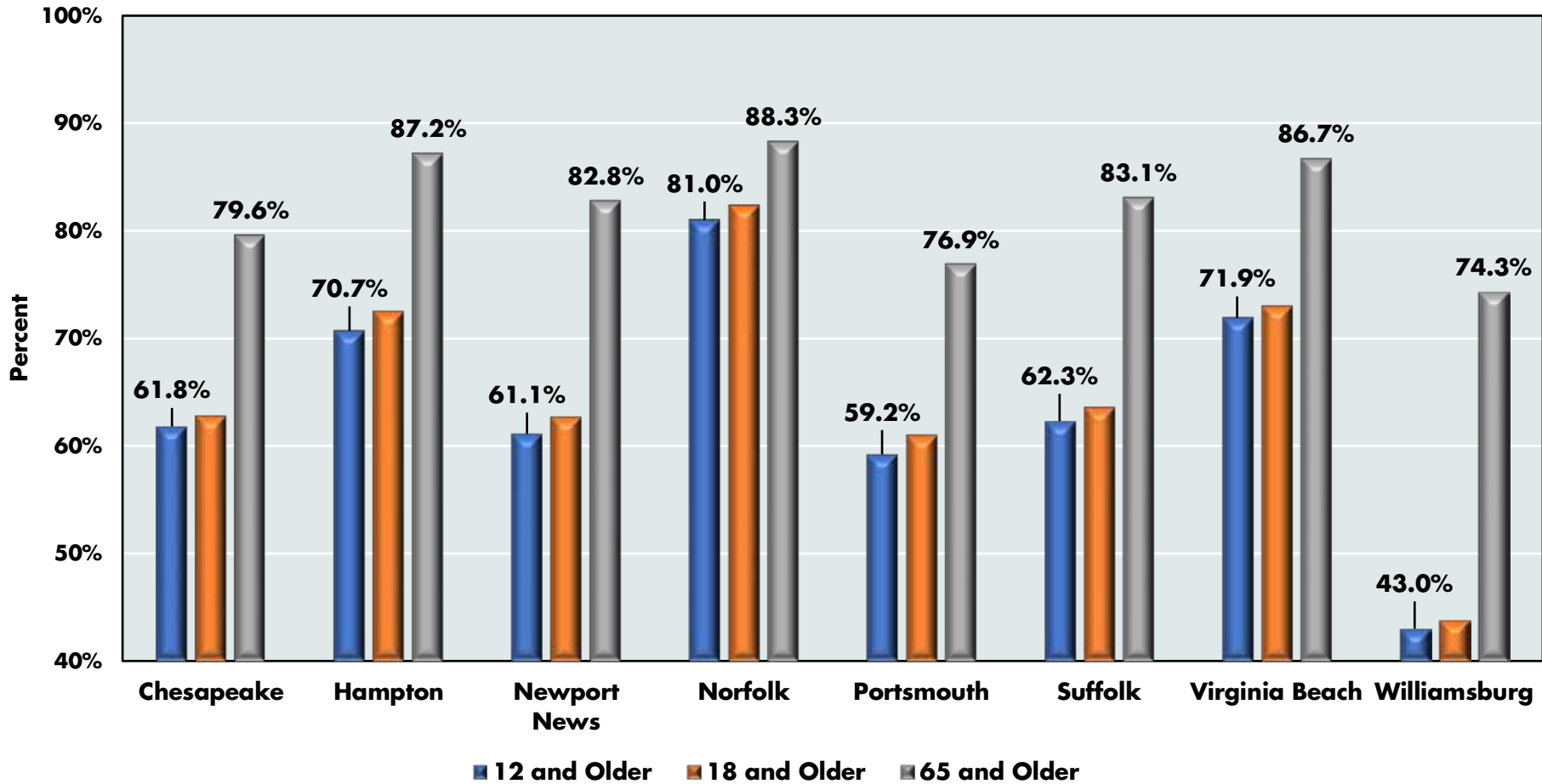
GRAPH 1
DISTRIBUTION OF POPULATION AND COVID-19 DEATHS
HAMPTON ROADS*
JUNE 15, 2020–JUNE 17, 2022



Sources: Virginia Department of Health and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Population data are from the 2019 American Community Survey 1-year estimates. COVID-19 data, from the Virginia Department of Health, cover the health districts of Chesapeake, Hampton, Norfolk, the Peninsula, Portsmouth, Virginia Beach, and Western Tidewater. *Data at the city and county level are not available prior to June 15, 2020.

GRAPH 2

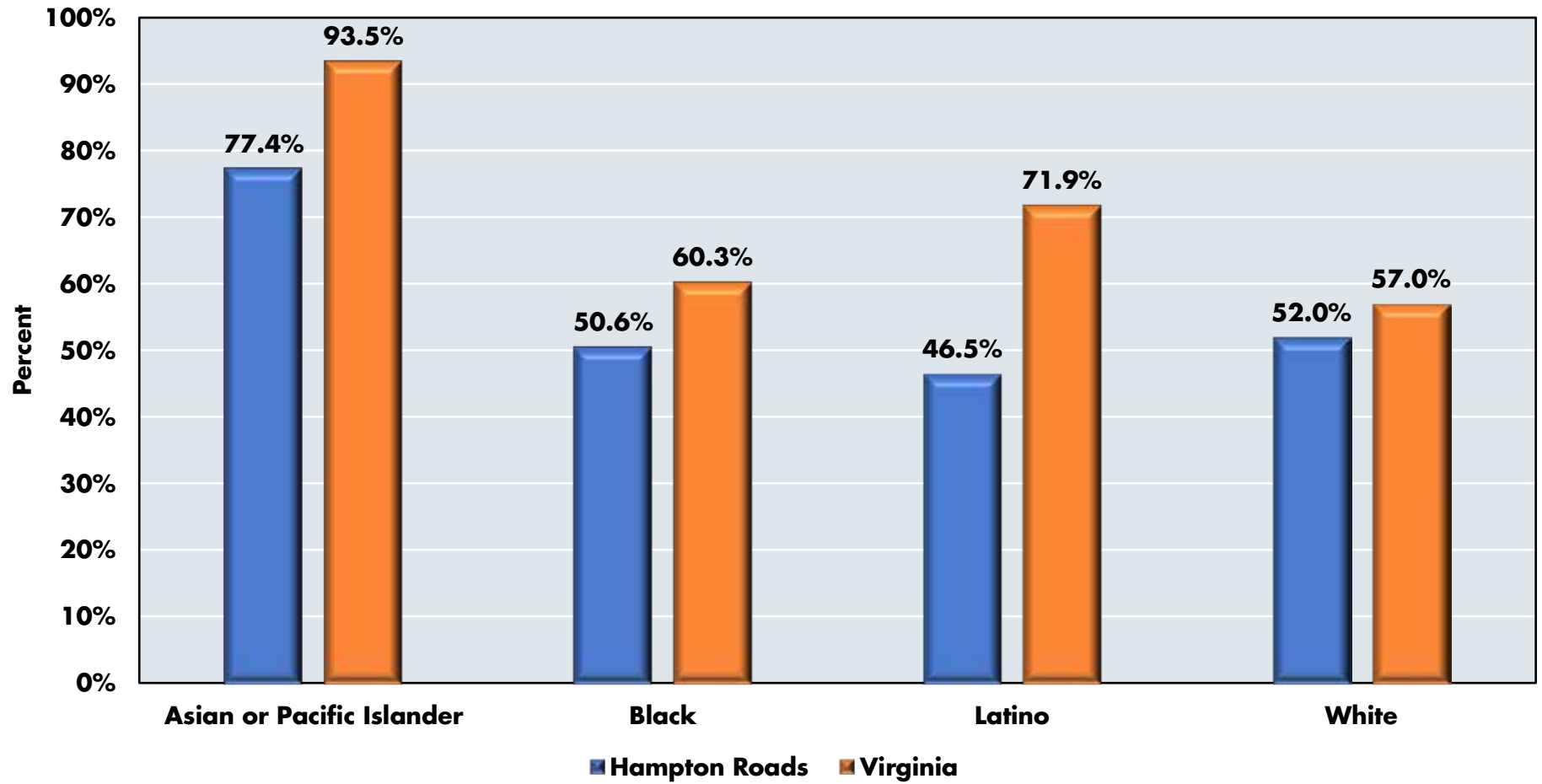
**PERCENTAGE OF THE POPULATION FULLY VACCINATED:
SELECTED CITIES AND AGE GROUPS IN HAMPTON ROADS
AS OF JUNE 17, 2022**



Sources: Centers for Disease Control and Prevention, County Level Vaccination Data, COVID-19 Integrated County View. Data as of June 17, 2022. Individuals are considered fully vaccinated two weeks after their second dose in a two-dose series or after a single-dose of the J&J/Janssen vaccine. See <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/faq.html> for more information.

GRAPH 3

**VACCINATIONS BY RACE:
HAMPTON ROADS AND VIRGINIA
AS OF JUNE 21, 2022**



Sources: Virginia Department of Health and the Dragas Center for Economic Analysis and Policy, Old Dominion University. The data do not include doses administered by federal agencies.

Growth Returns: Will It Continue?

We estimate that real (inflation-adjusted) economic activity in Hampton Roads grew by 3.0% from 2020 to 2021, a rebound from the 3.9% contraction in 2020 due to the COVID-19 economic shock (Table 1).⁹ We project that annual real GDP growth will moderate to 2.4% in 2022, even in the face of inflation and global uncertainty. Increases in federal spending, continued growth in traffic through the Port of Virginia, and increases in the hotel and tourism sector will fuel the ongoing recovery in the region. However, our forecast must be tempered by the rise in petroleum prices, continued increases in interest rates, and the possibility of another unforeseen economic shock that leads to a more significant contraction in equities and real estate markets.

The economic recovery in Hampton Roads is good news but must be tempered by comparison with the Commonwealth and nation. Graph 4 illustrates that the region's economic performance left much to be desired prior to the pandemic, with the regional economy growing by only 16.1% from 2001 to 2019, compared to 35.1% and 43.5% for the state and nation over the same period, respectively. Real GDP in Hampton Roads, the Commonwealth, and the nation all contracted in 2020, but the recovery from 2020 has been more rapid at the state and national level. At the end of 2021, real GDP in the United States and Virginia was higher than 2019, the last full year prior to the COVID-19 pandemic. Even though we estimate the Hampton Roads economy grew by 3.0% in 2021, it was insufficient to make up for the losses of 2020. We project that regional economic activity will regain most (if not all) the lost ground in 2022; however, increasing recessionary risk threatens these gains in 2023.

⁹ As we have noted in previous reports, the regional GDP estimates of the Bureau of Economic Analysis (BEA) should be viewed with caution. The BEA estimates are significantly lagged; the advance estimates for 2021 will only be released in December 2022. The estimates are also frequently subject to significant revision.

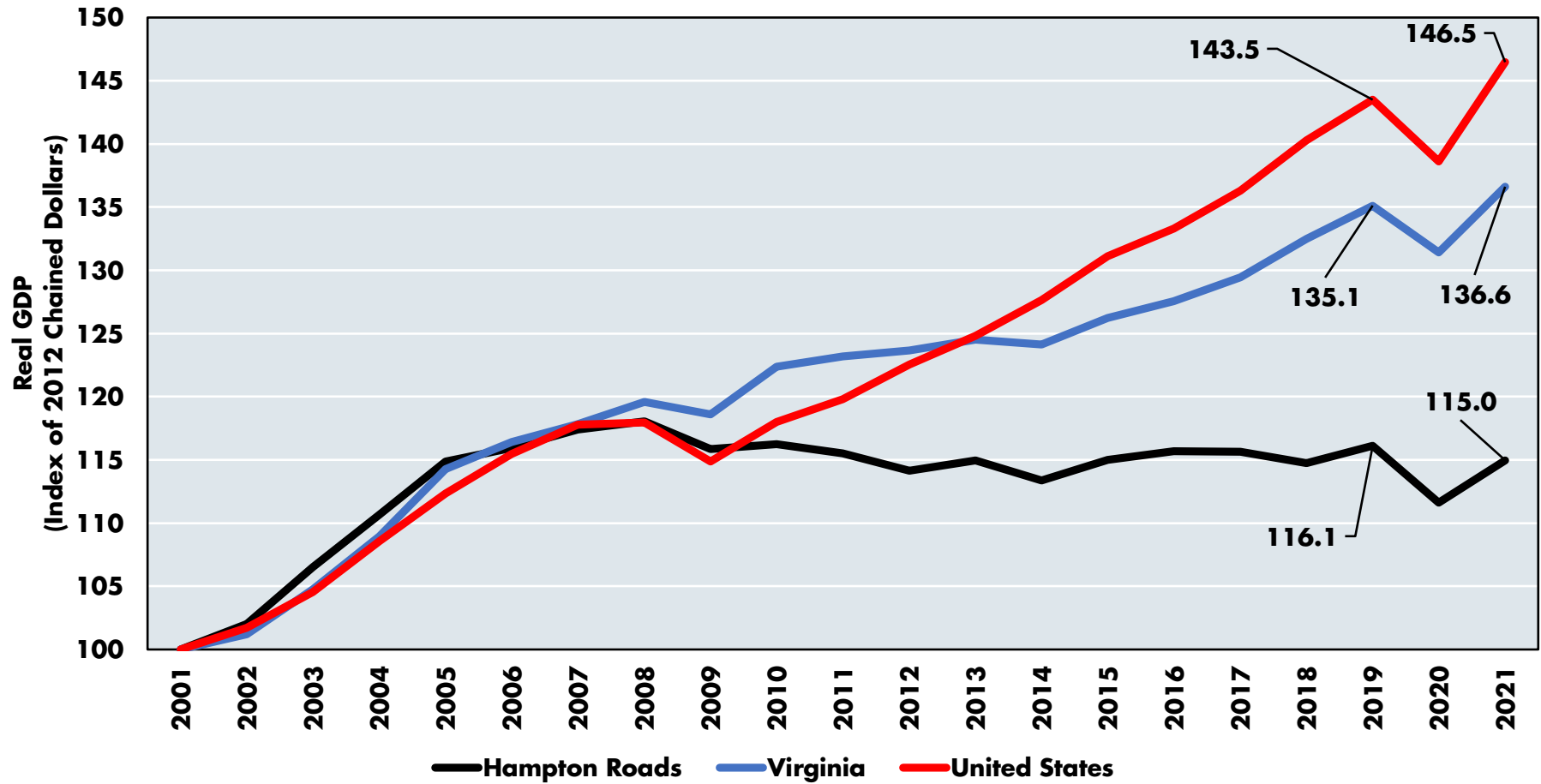
**TABLE 1
NOMINAL AND REAL (INFLATION-ADJUSTED) GROSS
DOMESTIC PRODUCT IN MILLIONS OF DOLLARS
HAMPTON ROADS, 2001 – 2022***

	Nominal GDP	Real GDP (Base Year – 2012)	Year-over-Year Change in Real GDP
2001	\$56,929	\$73,393	---
2002	\$59,704	\$74,864	2.0%
2003	\$63,921	\$78,165	4.4%
2004	\$68,089	\$81,228	3.9%
2005	\$72,734	\$84,303	3.8%
2006	\$75,630	\$85,081	0.9%
2007	\$78,859	\$86,173	1.3%
2008	\$80,833	\$86,640	0.5%
2009	\$81,382	\$85,019	-1.9%
2010	\$82,540	\$85,326	0.4%
2011	\$83,077	\$84,794	-0.6%
2012	\$83,770	\$83,770	-1.2%
2013	\$85,988	\$84,359	0.7%
2014	\$86,702	\$83,221	-1.3%
2015	\$90,208	\$84,393	1.4%
2016	\$92,190	\$84,916	0.6%
2017	\$93,505	\$84,890	0.0%
2018	\$94,642	\$84,210	-0.8%
2019	\$98,050	\$85,214	1.2%
2020	\$96,337	\$81,926	-3.9%
2021*	\$101,154	\$84,384	3.0%
2022*	\$107,223	\$86,409	2.4%

Source: U.S. Bureau of Economic Analysis and the Dragas Center for Economic Analysis and Policy, Old Dominion University. *2021 represents our estimate while 2022 represents our forecast. Base year of real GDP is 2012.

GRAPH 4

**INDEX OF REAL GROSS DOMESTIC PRODUCT
UNITED STATES, VIRGINIA, HAMPTON ROADS
2001-2021***



Source: U.S. Bureau of Economic Analysis. Real GDP in 2012 chained dollars. *2021 forecast for Hampton Roads. Base year of the index is 2001.

A Limited Recovery in Labor Markets

By now, the story is familiar. Prior to the onset of the pandemic, the civilian labor force (the number of people working or actively looking for work) in Hampton Roads reached a record 877,229 people in December 2019. Individual employment peaked in February 2020, with 854,032 individuals reporting to the Bureau of Labor Statistics (BLS) that they were gainfully employed (Graph 5).¹⁰ By April 2020, with social distancing measures in place, the civilian labor force and individual employment had dropped to 855,913 and 747,661 individuals, respectively. If we compare April 2020 to February 2020, there were 21,059 fewer individuals in the civilian labor force, and 106,371 people reported that they were no longer gainfully employed. To say the decline in employment in two months was historic continues to understate the magnitude of the shock to labor markets.

The recovery to date can be best characterized as incomplete and, at worst, troubling. The civilian labor force in Hampton Roads rebounded slightly in June and July of 2020 and then proceeded to decline through August 2021. Over 32,000 people left the labor force in the region from June 2020 to August 2021. While there have been some small gains since August 2021, there were approximately 45,000 fewer people willing to work in Hampton Roads in May 2022 when compared to the pre-pandemic peak. Individual employment has recovered somewhat more quickly than the labor force, gaining over 57,000 jobs from the trough of April 2020. However, employment in May 2022 remained almost 50,000 individuals below the pre-pandemic peak. There is certainly more road to travel before we can characterize the labor market recovery complete in Hampton Roads.

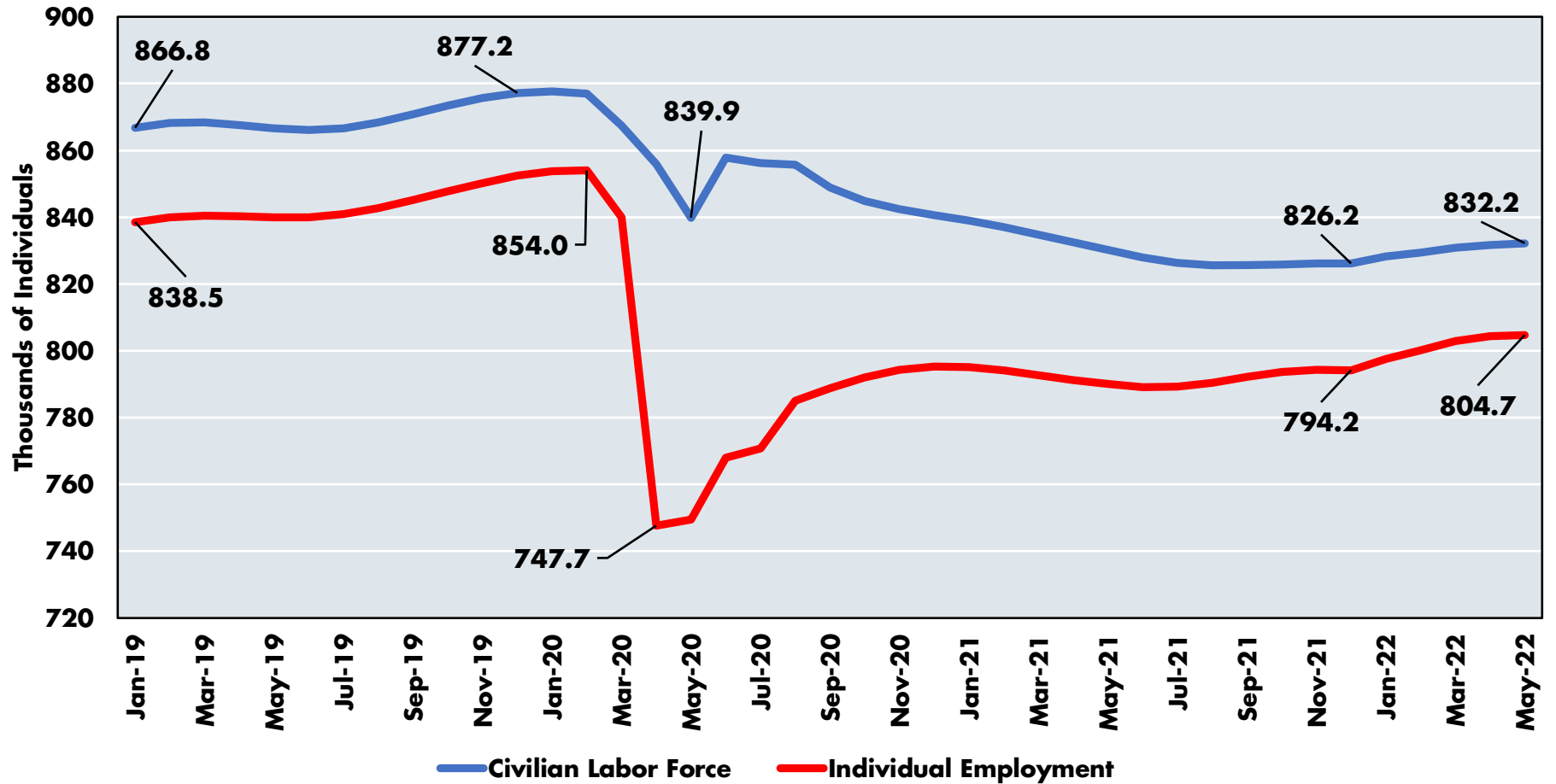
The headline unemployment rate is equal to the ratio of the number of unemployed people in the labor force to the overall labor force. After peaking at 12.6% in April 2020, the unemployment rate declined to 3.3% in May 2022 (Graph 6). The unemployment rate fell for two reasons: one good (fewer unemployed residents) and one concerning (fewer residents in the labor force). While there were fewer unemployed people over the period in question, the numerator of the unemployment rate (the civilian labor force) was smaller, biasing the unemployment rate downward.

We conduct a simple thought experiment to illustrate how departures from the labor force affect the headline unemployment rate in Hampton Roads. In Graph 6, we construct an alternative measure of the unemployment rate by treating exits from the labor force as unemployed individuals. In May 2022, for example, there were 45,425 fewer individuals in the labor force than January 2020. Adding these individuals to the 27,491 unemployed in May 2022 yields an unemployment rate estimate of 8.3%, more than 2.5 times the reported unemployment rate. If there is a modicum of good news, it is that the civilian labor force and individual employment both increased in the spring of 2022; however, it is an open question whether these gains can be sustained in the face of increasing economic uncertainty.

¹⁰ According to the BLS, individuals are classified as employed if, during the survey reference week, they meet one of the following criteria: (1) worked at least one hour as a paid employee, (2) worked at least one hour in their own business, profession, trade, or farm, (3) were temporarily absent from the job, business, or farm, regardless of whether they were paid or not, or (4) worked without pay for a minimum of 15 hours in a business or farm owned by a member of their family.

GRAPH 5

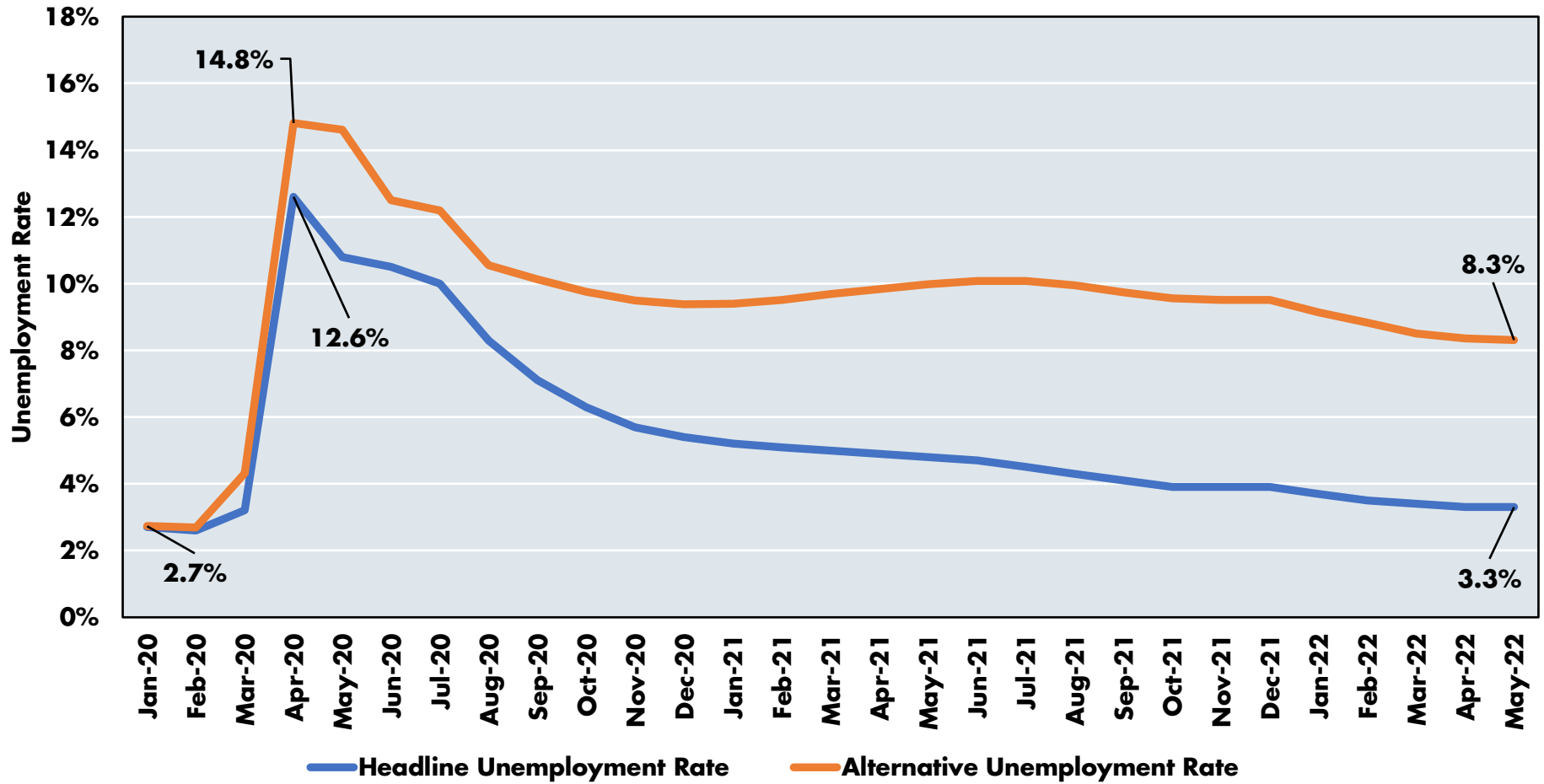
CIVILIAN LABOR FORCE AND INDIVIDUAL EMPLOYMENT:
HAMPTON ROADS, JANUARY 2019-MAY 2022



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

GRAPH 6

HEADLINE UNEMPLOYMENT RATE AND ALTERNATIVE UNEMPLOYMENT RATE
HAMPTON ROADS, JANUARY 2020-MAY 2022



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

Unemployment Claims In Hampton Roads

When discussing unemployment claims, it is important to make the distinction between initial and continued claims. Initial claims represent the number of people who have filed a request for unemployment benefits after separation from an employer. Continued claims, or what is known as insured unemployment, reflect those who have already filed their initial claim, had the claim accepted by the government and continue to file claims to receive benefits for the current week of unemployment. In other words, continued claims represent the number of insured unemployed people, while initial claims reflect the number of initial requests for unemployment benefits in a given week.¹¹

In 2007, before the full impact of the Great Recession was felt in Hampton Roads, an average of 2,733 initial unemployment claims were filed monthly (Graph 7). Even though the recession was officially over in 2009, average monthly initial unemployment claims continued to rise in the region, peaking at 8,257 a month in 2010. Initial claims declined and fell below the 2007 average in 2017, bottoming out at an average of 2,174 a month in 2019. The impact of the pandemic is clearly visible, with average monthly claims jumping 10-fold in 2020 to an average of 28,656 a month before falling to 13,672 in 2021 (which would have been, by itself, a historic level for average initial claims).

Graph 8 shows the rapid rise in monthly initial unemployment claims in Hampton Roads and the subsequent recovery. In February 2020, 1,961 initial claims were filed in the region. By April, 76,723 claims were filed in Hampton Roads, more in one month than in many of the previous years. As infections surged in December and January 2021, initial claims jumped, then rapidly declined into the early fall before increasing again as the summer travel season

¹¹ In the spring of 2020, Congress passed, and President Trump signed into law, the Pandemic Unemployment Assistance (PUA) and Pandemic Emergency Unemployment Compensation (PEUC) programs. The PUA program provided up to 79 weeks of unemployment benefits for the self-employed, freelancers and independent contractors who would not typically qualify for regular state unemployment benefits. The PEUC program provided an additional 13 weeks of unemployment benefits for those who exhausted their benefits. Authorization for these programs lapsed in September 2021. Data for these programs were only available at the federal and state level.

was over, and infections again increased in the region. In 2022, we have observed a continued decline in initial claims, reflecting an increasing demand for labor and a smaller pool from which employers can hire. Initial claims were essentially at pre-pandemic levels by the spring of 2022.

As the flow of newly unemployed into the unemployment system declined in 2022, it should be no surprise that the levels of continued claims declined as well. An individual receiving continued unemployed benefits remains in the labor force and must actively search for employment each week.¹² Continued unemployment claims data only became available in the spring of 2020 but provide a picture into the trajectory of the labor market in Hampton Roads.

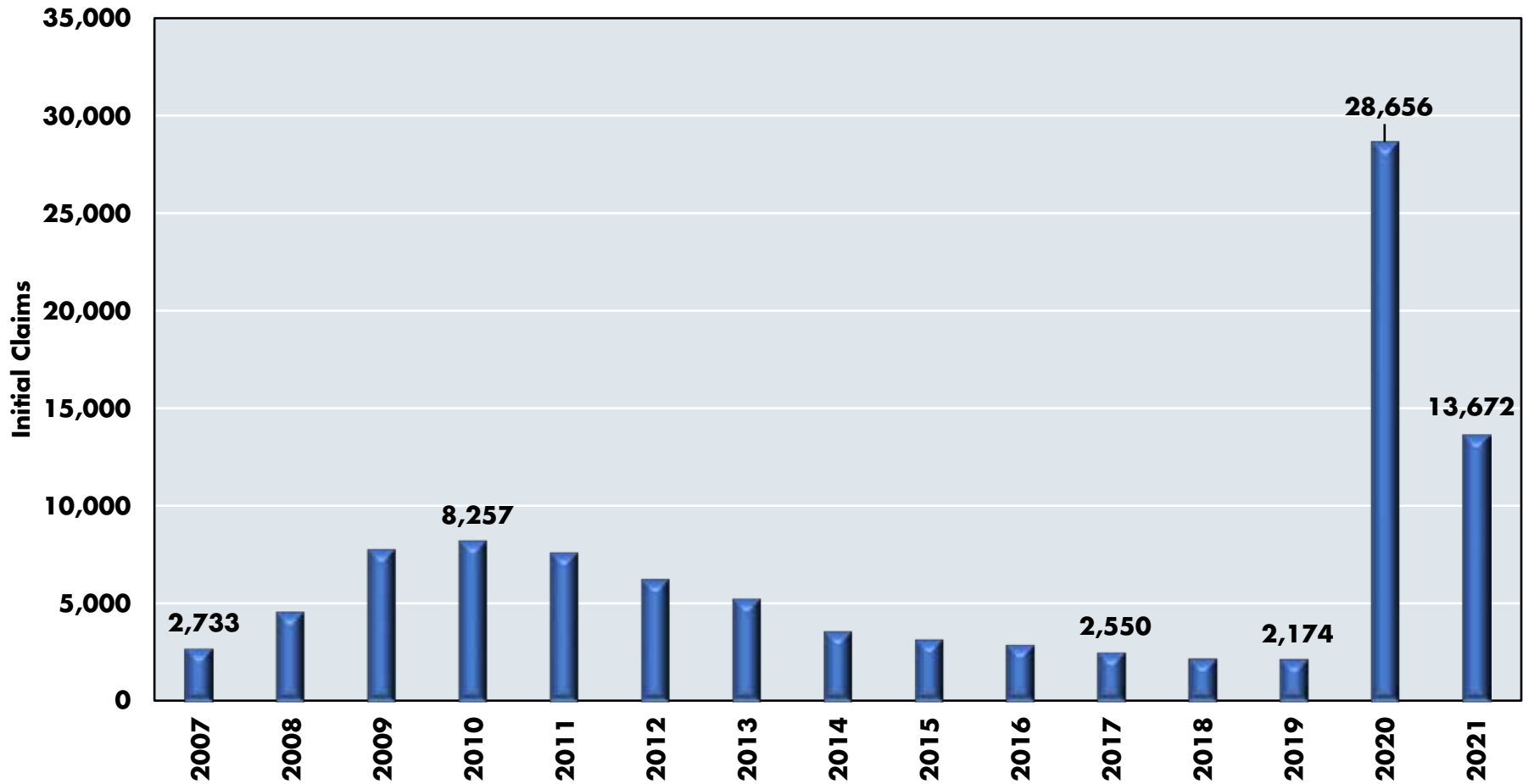
Graph 9 highlights the jump in continued claims from 4,315 for the week ending March 14, 2020, to 88,436 for the week ending May 16, 2020. At the peak, more than 1 in 10 workers in the region received unemployment benefits. As individuals returned to work, continued claims declined to 13,754 for the first week of January 2021. Claims continued to fall through most of 2021. In the first week of January 2022, there were 2,611 continued claims and less than 2,000 claims in the most recent data.

The levels of initial and continued unemployment claims suggest there is not much 'slack' in the Hampton Roads labor market among those willing and able to work. Transitional unemployment, that is, individuals moving from job to job, likely dominates the pool of available unemployed labor. Unless there is a surge of new residents into Hampton Roads, future increases in employment must be drawn from individuals currently outside the labor force. In other words, if there is 'slack' in labor markets, it exists in the form of individuals who are not participating in the labor force rather than individuals who are actively working or seeking employment. Even if labor force participation returns to pre-pandemic levels, the longer-term declines in labor force participation remain an issue of concern. In the meantime, employers will continue to compete to attract and retain talent among the existing pool of workers.

¹² In March 2020, Virginia Gov. Ralph Northam temporarily waived the requirement that unemployed individuals must actively search for work. This requirement came back into force on June 1, 2021. Virginians receiving unemployment benefits must apply for two or more jobs a week and report the details to the Virginia Employment Commission.

GRAPH 7

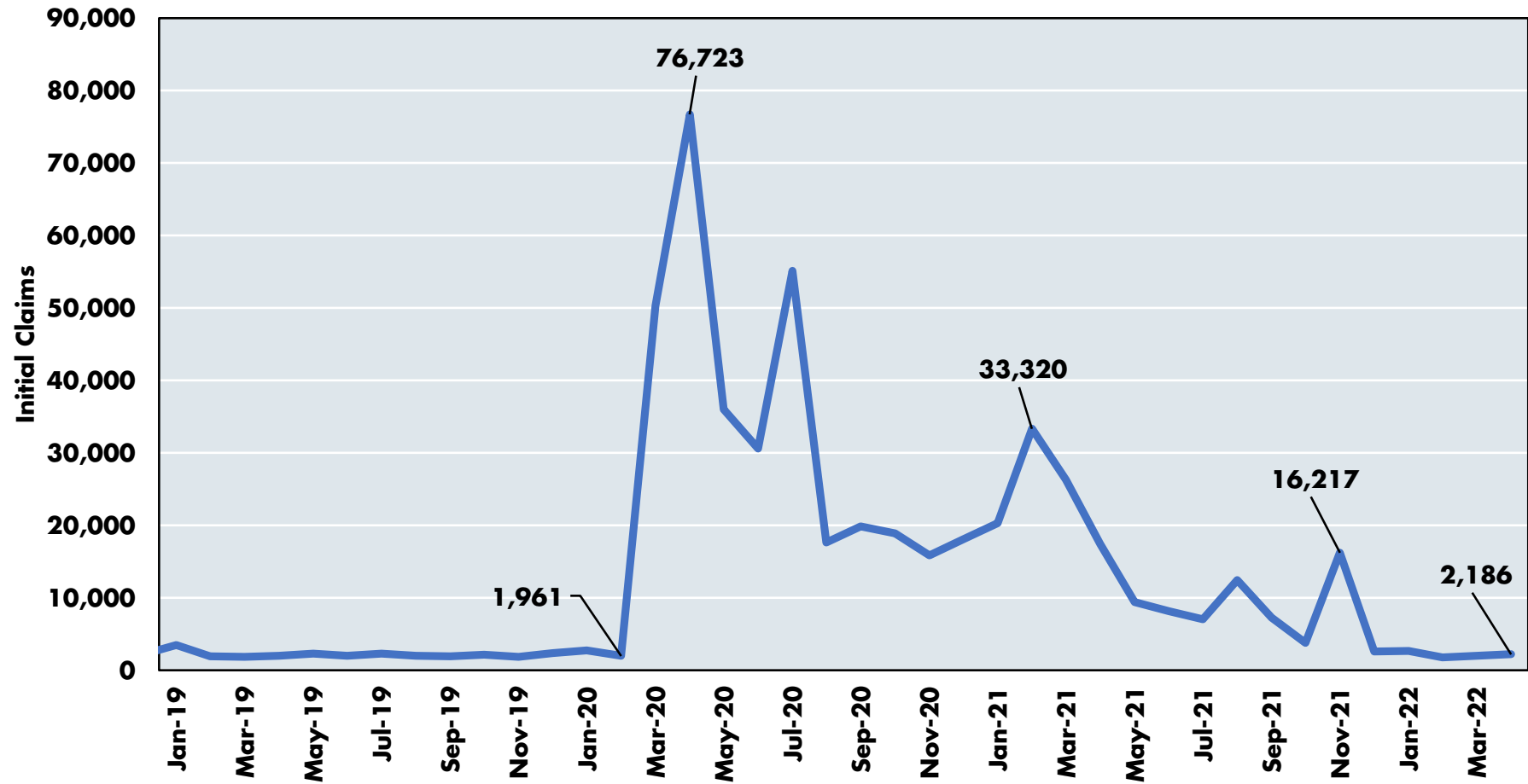
**AVERAGE MONTHLY INITIAL UNEMPLOYMENT CLAIMS:
HAMPTON ROADS, 2007-2021**



Sources: Virginia Employment Commission and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Data are not seasonally adjusted and do not include PUA and PEUC claims.

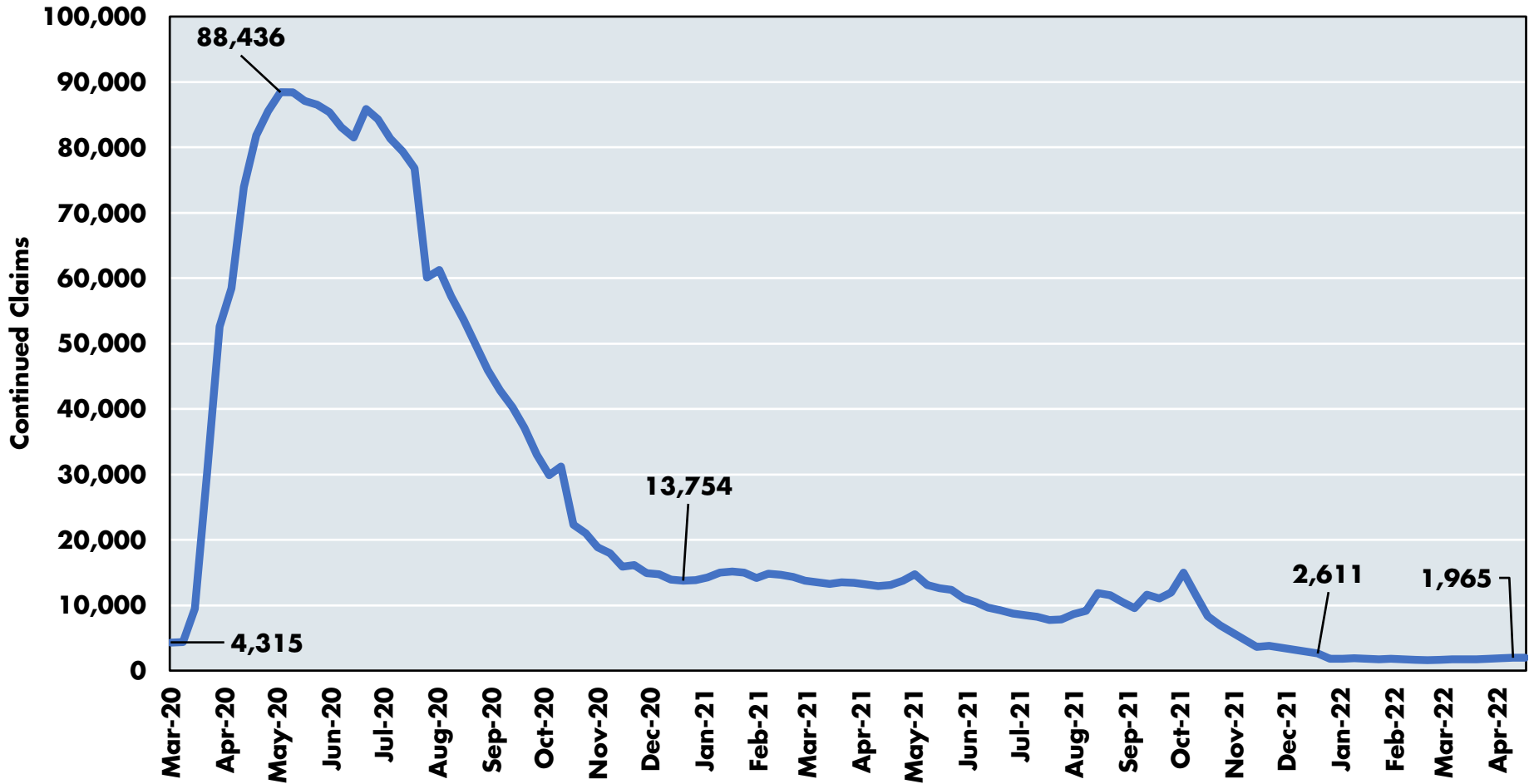
GRAPH 8

**MONTHLY INITIAL UNEMPLOYMENT CLAIMS:
HAMPTON ROADS, JANUARY 2019-APRIL 2022**



Sources: Virginia Employment Commission and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Data are not seasonally adjusted and do not include PUA and PEUC claims.

GRAPH 9
CONTINUED UNEMPLOYMENT CLAIMS:
HAMPTON ROADS,
WEEK ENDING MARCH 14, 2020-APRIL 30, 2022



Sources: Virginia Employment Commission and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Data are not seasonally adjusted and do not include PUA and PEUC claims.

Jobs in Hampton Roads

Prior to the onset of the pandemic, Hampton Roads lagged the Commonwealth and nation in job growth. From the trough in nonfarm payrolls (jobs) in February 2010 to February 2020, the number of jobs in Hampton Roads grew by 9.4% (Graph 10). Across Virginia, the number of jobs over the same period increased by 13.7% while there were 17.6% more jobs nationally. Proportionately, for every job created in Hampton Roads, almost two jobs were created nationally in the decade prior to the pandemic.

Even though job growth lagged in Hampton Roads, there were a record 803,300 jobs in the region in February 2020 (Graph 11). In the space of two months, however, not only did the 63,000 jobs gained over the previous decade disappear, another 38,500 were swept away in the pandemic shock. The scale of the decline in nonfarm payrolls was truly staggering. In about eight weeks, employers shed 1 out of every 8 jobs in Hampton Roads.

Fortunately, many of these job losses were short-lived, with 50,000 jobs returning by the summer of 2020. By the end of 2020, Hampton Roads remained 40,200 jobs below the pre-pandemic peak. There was modest job growth through 2021 so that by December 2021, the region had 29,800 fewer jobs than February 2020. The modest gains in jobs continued in the first half of 2022, but the recovery was not complete. By the summer of 2022, there were almost 25,000 fewer jobs in the region than prior to the onset of COVID-19.

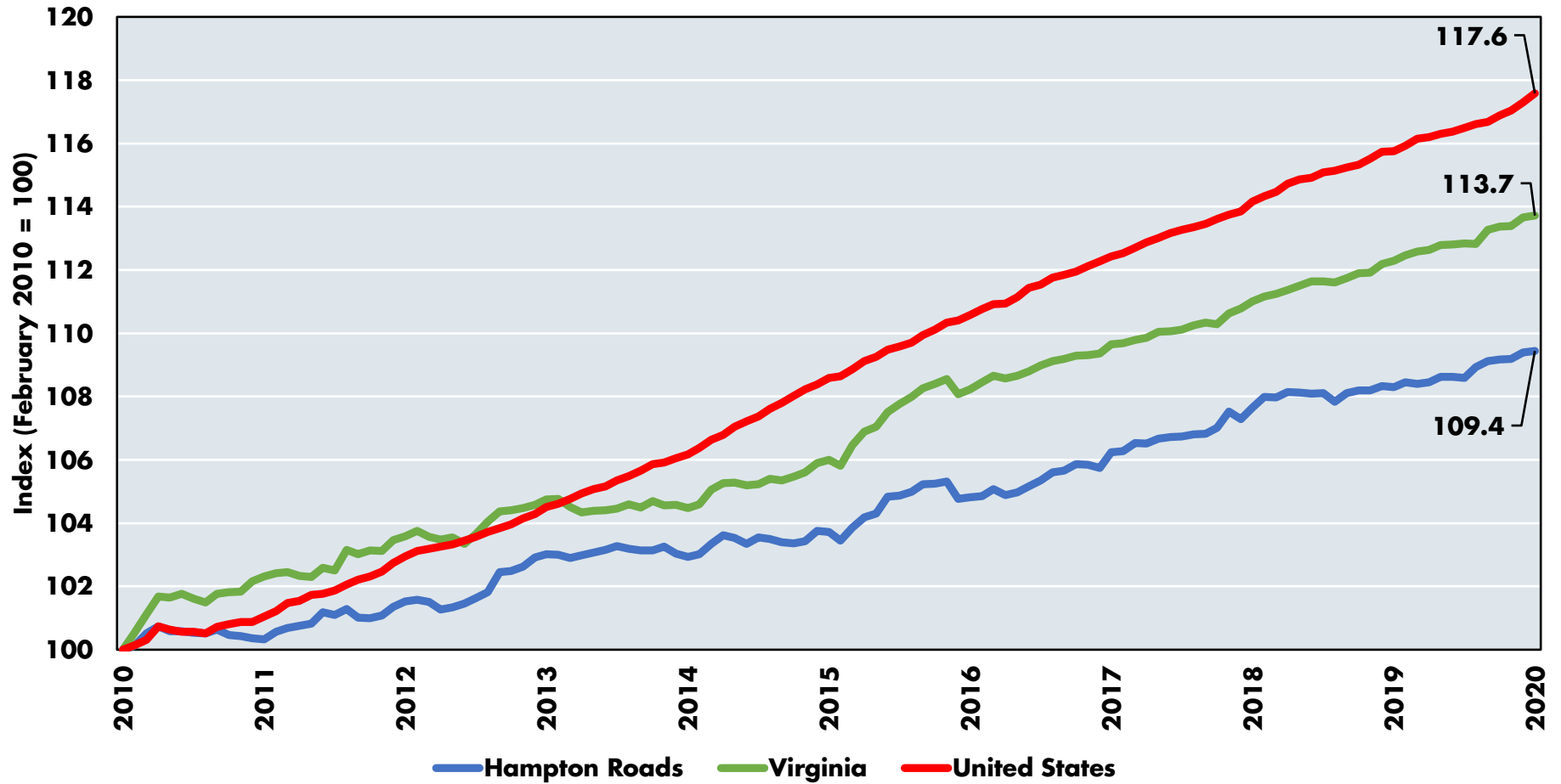
Graph 12 highlights the recovery in jobs from the depths of the economic shock from April 2020 to May 2022. In the first six months of the recovery, jobs grew in Hampton Roads at almost the same pace as the United States. Hampton Roads actually regained jobs faster than Virginia through the summer of 2021, at which point job growth continued to slow in the region. By the end of Spring 2022, the nation had almost fully recovered the jobs lost during the pandemic while Virginia was on track to completely recover by

the fall of 2022. At Hampton Roads' current pace of job growth, it may take another 18 to 24 months to recover all the lost jobs. If the job growth slows due to inflation, supply-chain shocks, or another unexpected geopolitical event, then it may be years before Hampton Roads revisits the pre-pandemic peak in nonfarm payrolls.

When we compare Hampton Roads to its peer and aspirant metropolitan regions, the tale of regional economic underperformance becomes stark (Graph 13). From February 2020 to May 2022, Hampton Roads ranks last in terms of job growth among its peers. Several metro areas have not only recovered all the jobs lost in 2020, but they are also in the midst of a new economic expansion. The Raleigh metro area had almost 5% more jobs in May 2022 than in February 2020. The Durham-Chapel Hill and Nashville regions had 4% more jobs than the pre-pandemic peak while Charleston (1.0%), Charlotte (2.0%), and Jacksonville (3.6%) were all exhibiting signs of economic growth. The performance of Hampton Roads (-3.0%), Richmond (-2.5%), and Northern Virginia (-1.0%), the three metro areas that account for more than 7 in 10 jobs in Virginia, document Virginia's lagging economic performance in terms of job growth relative to that of neighboring states and the nation.

GRAPH 10

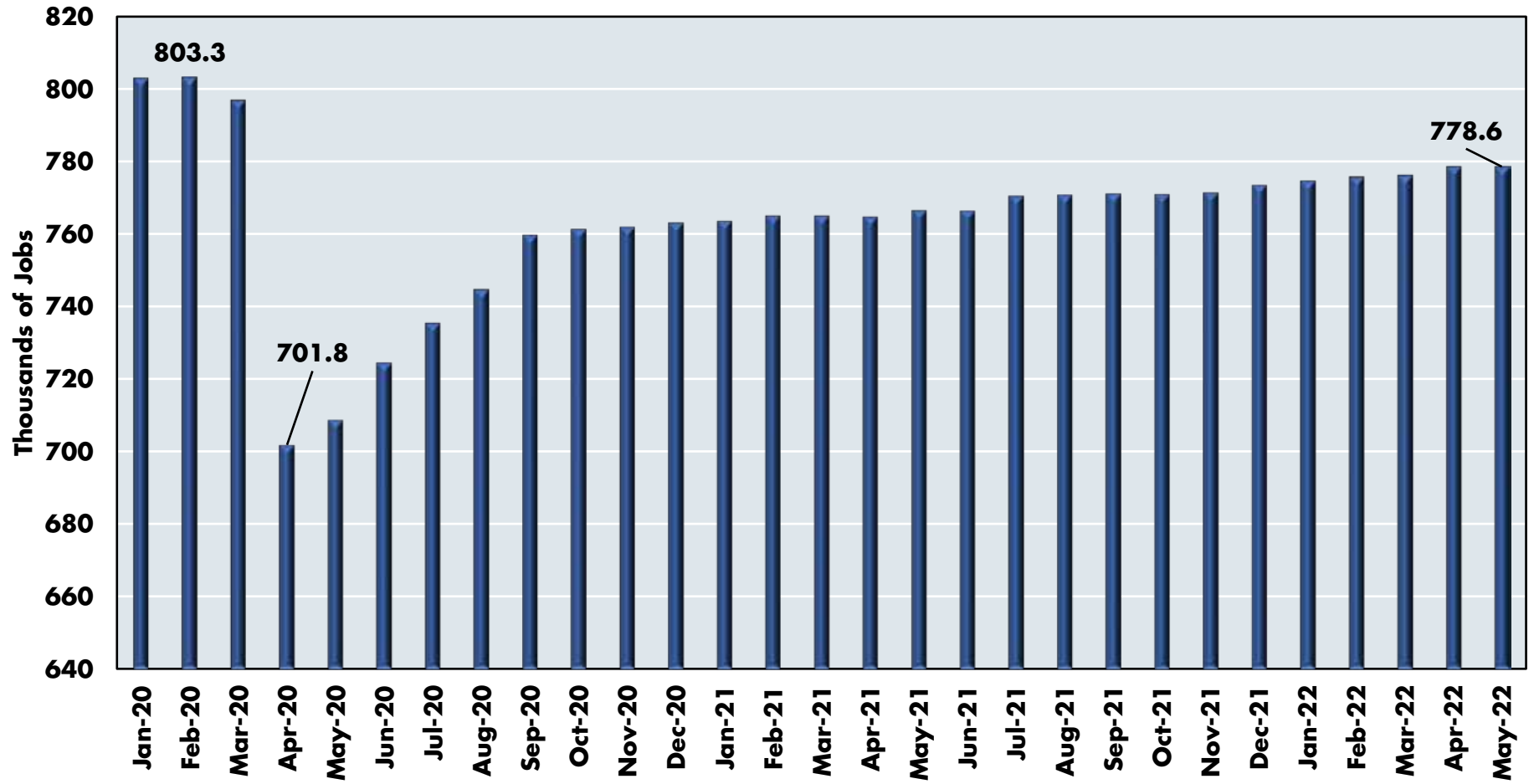
INDEX OF NONFARM PAYROLLS (JOBS)
UNITED STATES, VIRGINIA, HAMPTON ROADS,
FEBRUARY 2010–FEBRUARY 2020



Source: U.S. Bureau of Labor Statistics and the Dragas Center for Economic Analysis and Policy, Old Dominion University. The index measures the change in nonfarm payrolls (jobs) relative to February 2010. An index value of 100 means that the number of jobs is equal to that observed in February 2010. Seasonally adjusted data.

GRAPH 11

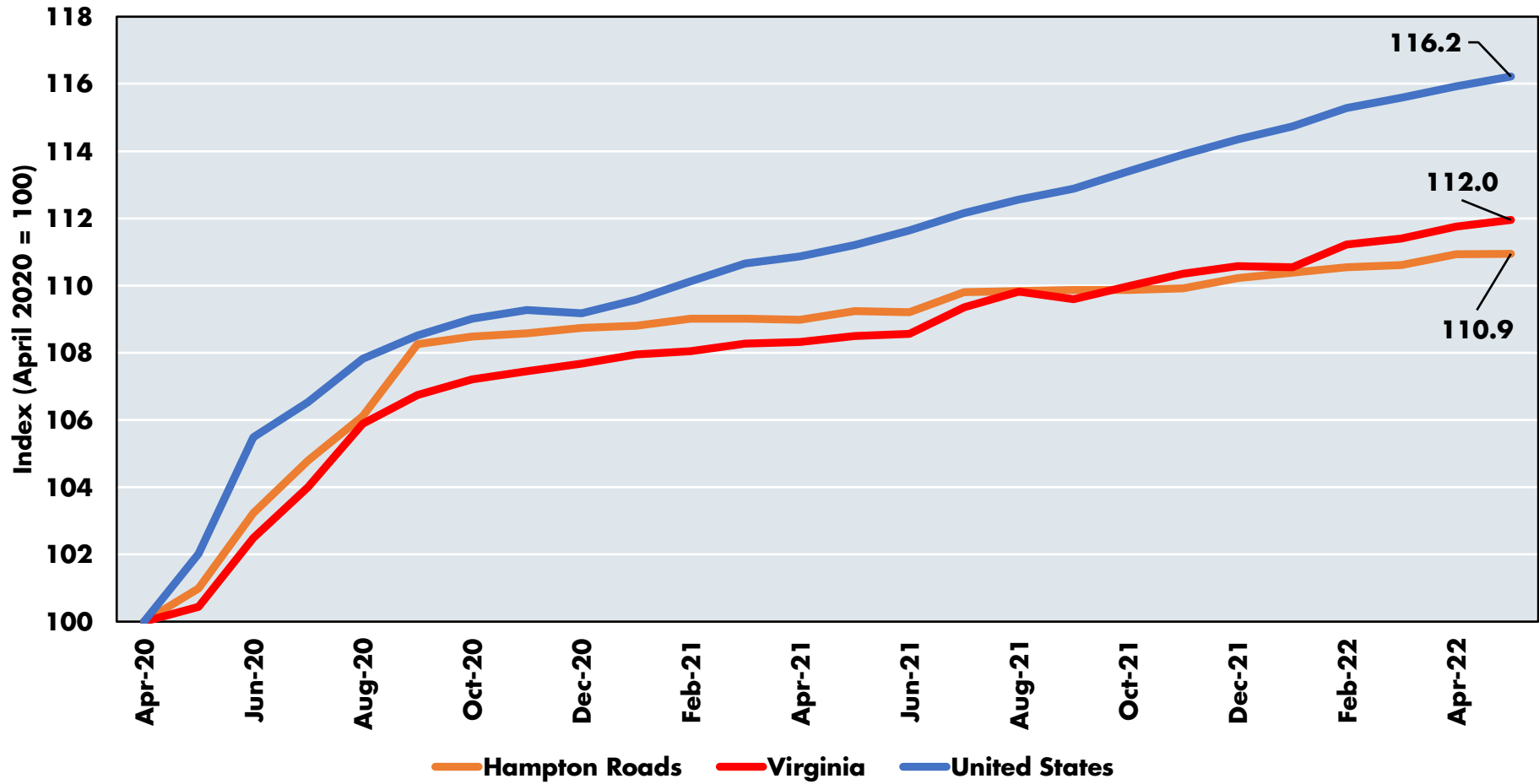
NONFARM PAYROLLS (JOBS) IN HAMPTON ROADS
JANUARY 2020-MAY 2022



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

GRAPH 12

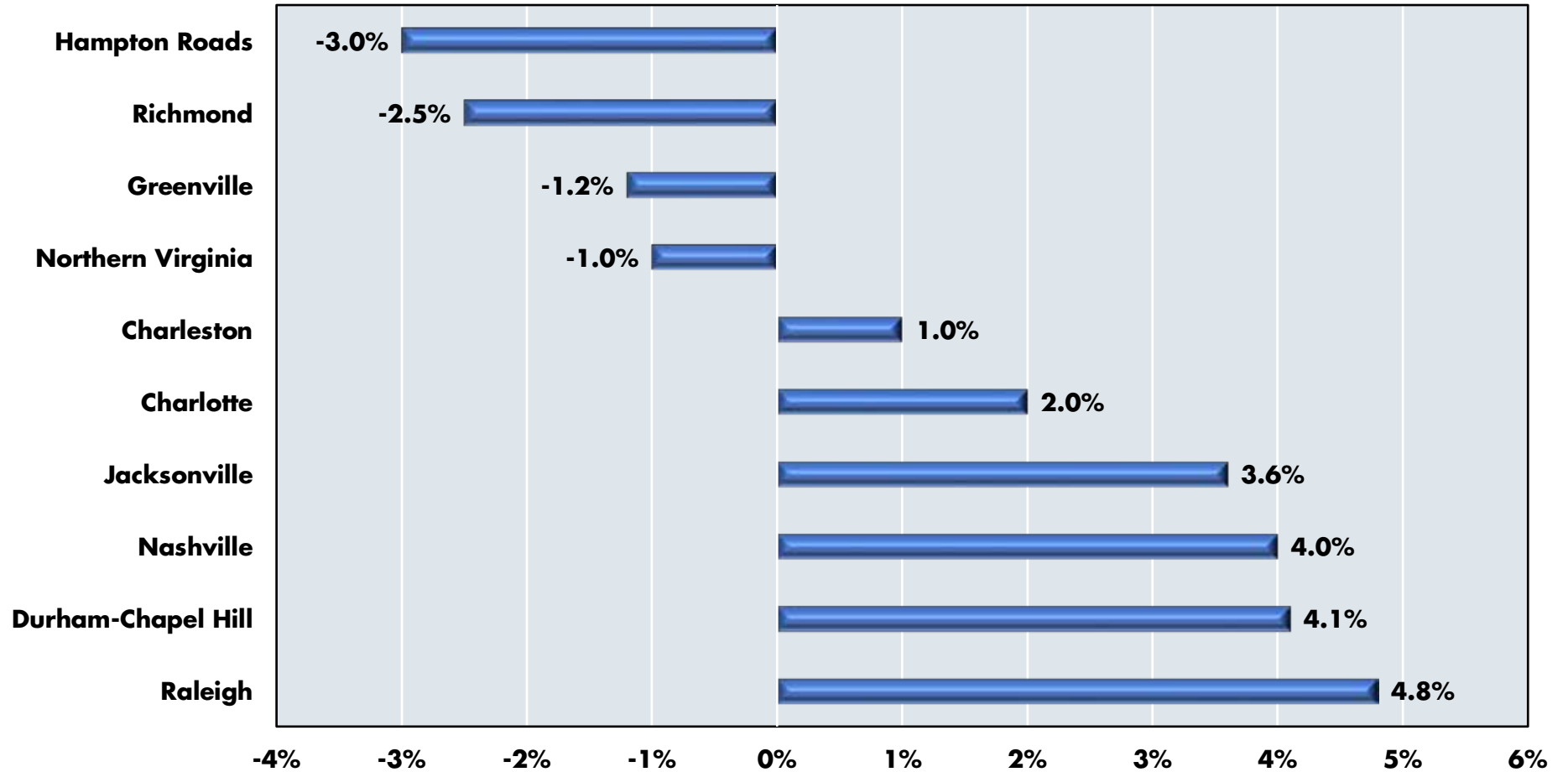
CUMULATIVE GROWTH IN NONFARM PAYROLLS (JOBS):
UNITED STATES, VIRGINIA, AND HAMPTON ROADS
APRIL 2020-MAY 2022



Sources: U.S. Bureau of Labor Statistics and the Dragas Center for Economic Analysis and Policy, Old Dominion University. The index measures the change in nonfarm payrolls (jobs) relative to April 2020. An index value of 100 means that the number of jobs is equal to that observed in April 2020. Data are seasonally adjusted.

GRAPH 13

**CUMULATIVE GROWTH IN NONFARM PAYROLLS (JOBS):
SELECTED METROPOLITAN STATISTICAL AREAS, FEBRUARY 2020-MAY 2022**



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

Where are the Job Gains and Losses in Hampton Roads?

Job losses and gains have not been spread evenly across sectors in Hampton Roads. Graph 14 compares the change in jobs from May 2019 to May 2022; we observe a mild expansion in two sectors: transportation, warehousing, and utilities; and mining, logging, and construction. Given the increased levels of activity through the Port of Virginia and increased demand for housing, it should be no surprise that these sectors have outperformed over this period. Several other sectors appear to be on the cusp of an expansion, presenting the possibility that Hampton Roads may recover all its lost jobs over the next 18 to 24 months.

How the story of recovery has changed over the last 12 months is illuminating. In 2020, the largest job losses were concentrated in three sectors: leisure and hospitality, education and health services, and local government. Leisure and hospitality jobs were down due to the declines in travel, tourism, and business-related travel. Education and health service jobs were down due to the impact of COVID-19 on elective procedures in the health field and school closures. Local government jobs were cut in anticipation of a downturn in tax revenues and a decline in the demand for some services (public libraries and recreation services, for example) due to social distancing measures.

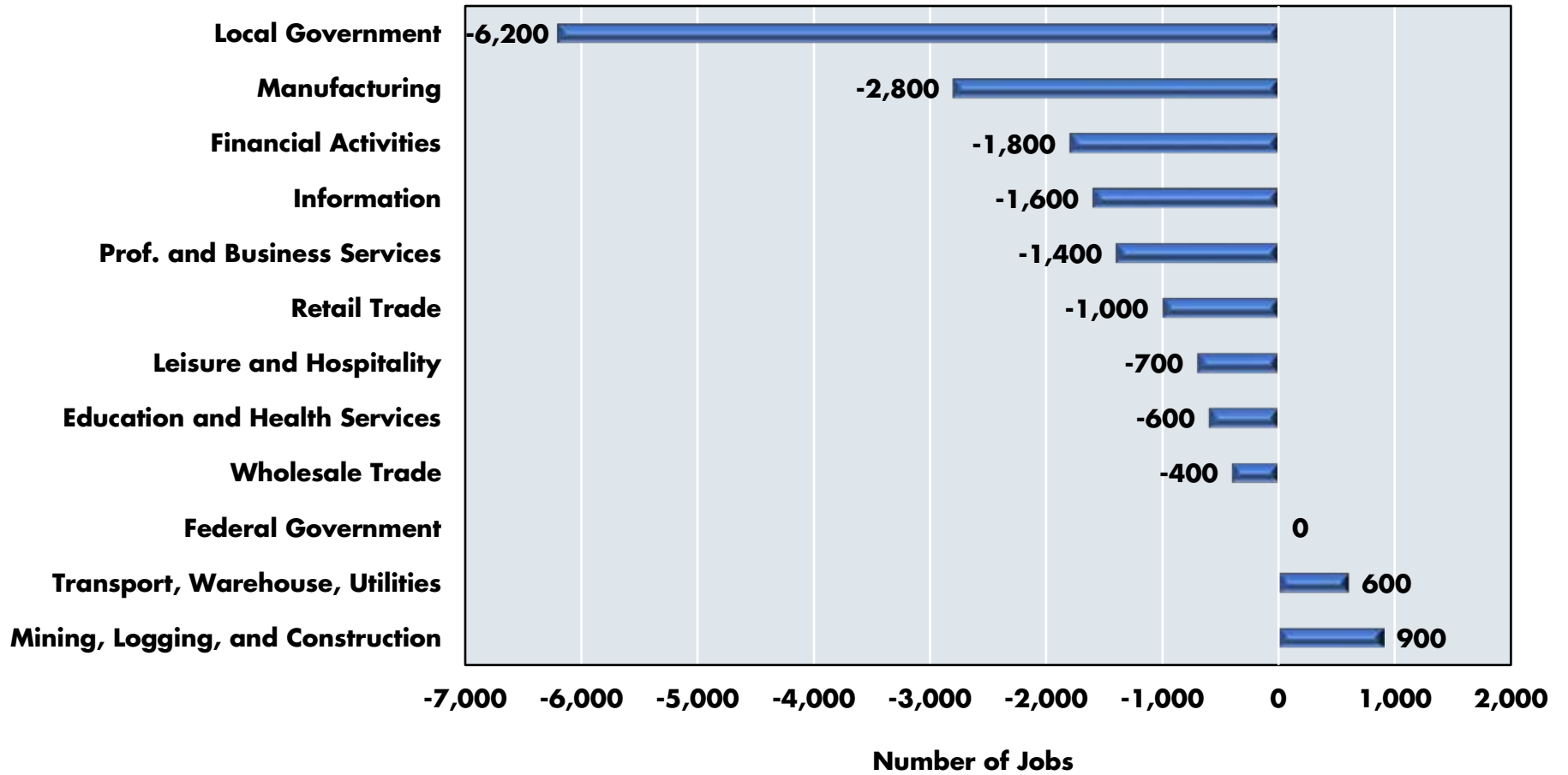
Times, as the saying goes, have changed for two of the three sectors. The hotel industry in Hampton Roads has outperformed the state and nation. The complete recovery of leisure and hospitality jobs was not due to a lack of demand but constrained supply. Job quits and a shrinking pool of available labor hampered employers' ability to fill open positions. The education and health services sector had also almost completely recovered by the spring of 2022, but the number of teachers quitting may limit the ability of this sector to expand in the fall of 2022.

Local governments in our region have yet to expand the number of jobs back to 2019 levels. The reductions in revenues failed to materialize at the state level, and increasing property valuations bolstered local property taxes in many cities. Local governments, however, have not been able to nimbly respond to inflation and its impact on wage demands. As with other employers, local governments are competing in a shrinking labor pool and several jobs were left unfulfilled. Until more residents return to the labor market, it is unlikely that a full recovery will occur for the local government sector.



GRAPH 14

**CHANGE IN NONFARM PAYROLLS: HAMPTON ROADS
MAY 2019–MAY 2022**



Sources: U.S. Bureau of Labor Statistics, Federal Reserve Bank of St. Louis, and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Nonseasonally adjusted data.

The Port: Records Set (Again)

The Port of Virginia continues to be a harbor of good news for Hampton Roads amid economic turmoil. The port's turnaround over the last decade is well documented and demonstrates the continued wisdom of making targeted investments to increase its capacity and efficiency. While other ports struggled to move cargo traffic over the last 12 months, the Port of Virginia increased traffic without noticeable delays. Market share remains a concern, however, this may be a function of the lackluster performance of the regional economy rather than the port's lack of action.

Graph 15 displays the total number of twenty-foot equivalent units (TEUs) moved through the Port of Virginia from January 2019 to June 2022. Empty TEUs are represented by the distance between the total and loaded TEU lines. The number of loaded TEUs dipped to 159,829 in May 2020 but exceeded pre-pandemic levels by the fall of the same year. The number of total and loaded TEUs passing through the port continued to climb, setting and breaking records in the spring and fall of 2021. The good news continued in 2022, with record levels in May for total and loaded TEUs. The demand for TEUs worldwide was so strong that the port set a record for moving empty TEUs in the spring of 2022. Empty TEUs accumulate when imports are greater than exports and are moved to other ports only when a financial incentive exists to do so.

Graph 16 dives into the composition of loaded TEUs from January 2019 to June 2022 to ask what was driving their generous increases. Not surprisingly, the pandemic surge in consumer demand led to higher levels of imports nationally and through the Port of Virginia. TEUs carrying imports set records in late 2020, broke those records in 2021, and set a new bar in 2022. The story is different for exports. The level of TEUs carrying exports fell in early 2020 and only recovered in spring 2021 to pre-pandemic levels. However, these gains were short lived as the number of loaded exports TEUs fell in the summer of 2021.

Graph 17 displays the share of total loaded TEUs for four major East Coast ports from 2006 through the spring of 2022. Two phenomena are readily observable: the rise of the Port of Savannah and the relative decline of the Port of New York/New Jersey through 2020. The fortunes of the two ports appeared to change in 2021, with the Port of New York/New Jersey gaining market share at the expense of the Port of Savannah.

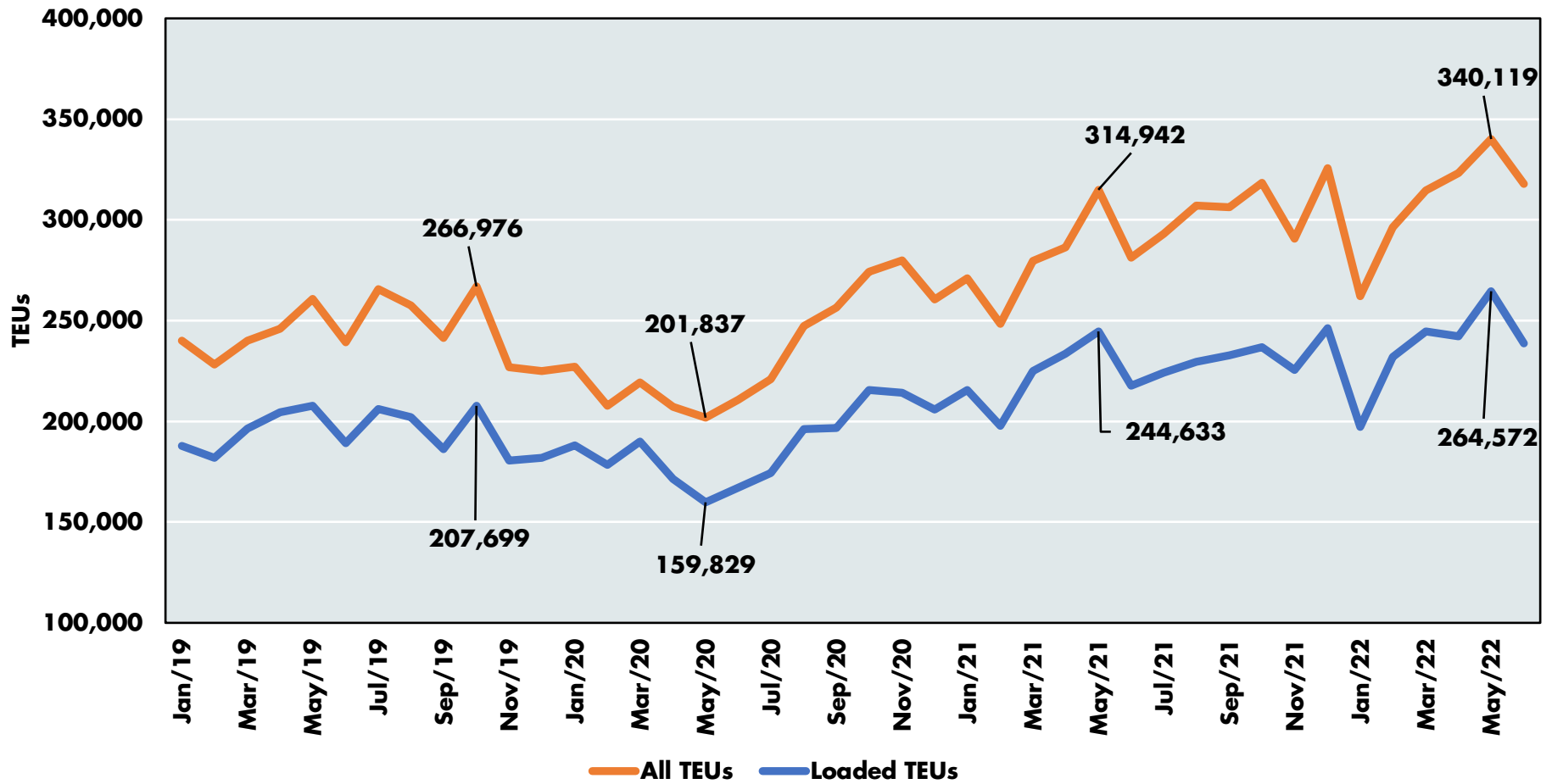
As for the Port of Virginia, its market share in 2022 is about the same as it has been for the past decade. At times, the port's market share has increased or decreased, but these gains and losses have not persisted over time. Yes, the total amount of cargo moving through the Port of Virginia has increased, especially in the last 24 months, but it has also increased through other ports as well. The continuing challenge for the Port of Virginia is to gain market share and, to its credit, it has continued to make improvements and argue the case for infrastructure investments. It should continue to do so in the coming years.

We would be remiss if we did not note that the Port of Virginia is part of a larger economic system. The Port of Virginia cannot control economic conditions in Hampton Roads, Virginia, or the neighboring states. Economic development in Hampton Roads, especially ready-made value-added manufacturing sites, is in the interest of the port. Import and re-export is a tried-and-true strategy, but the port needs action beyond its domain for this to come to fruition. We laud the port's gains but also caution that other ports and states are not standing still. Regional and state action is needed to shift more of the port's cargo from "pass through" goods to goods that are used in value-added manufacturing and then exported to other regions, states, and nations.



GRAPH 15

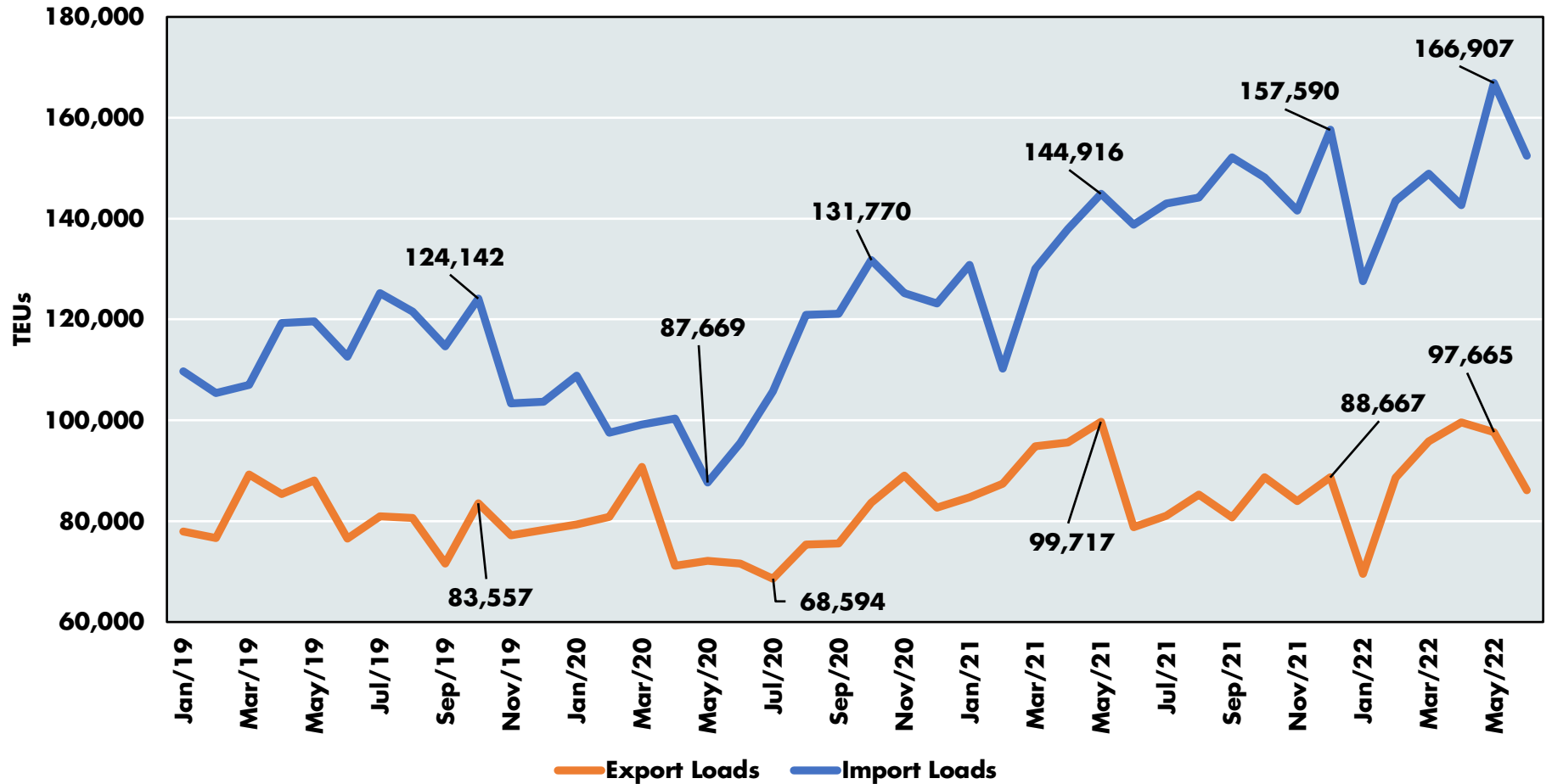
TOTAL AND LOADED TWENTY-FOOT EQUIVALENT UNITS (TEUS):
PORT OF VIRGINIA, JANUARY 2019-JUNE 2022



Sources: Virginia Port Authority and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Data are not seasonally adjusted.

GRAPH 16

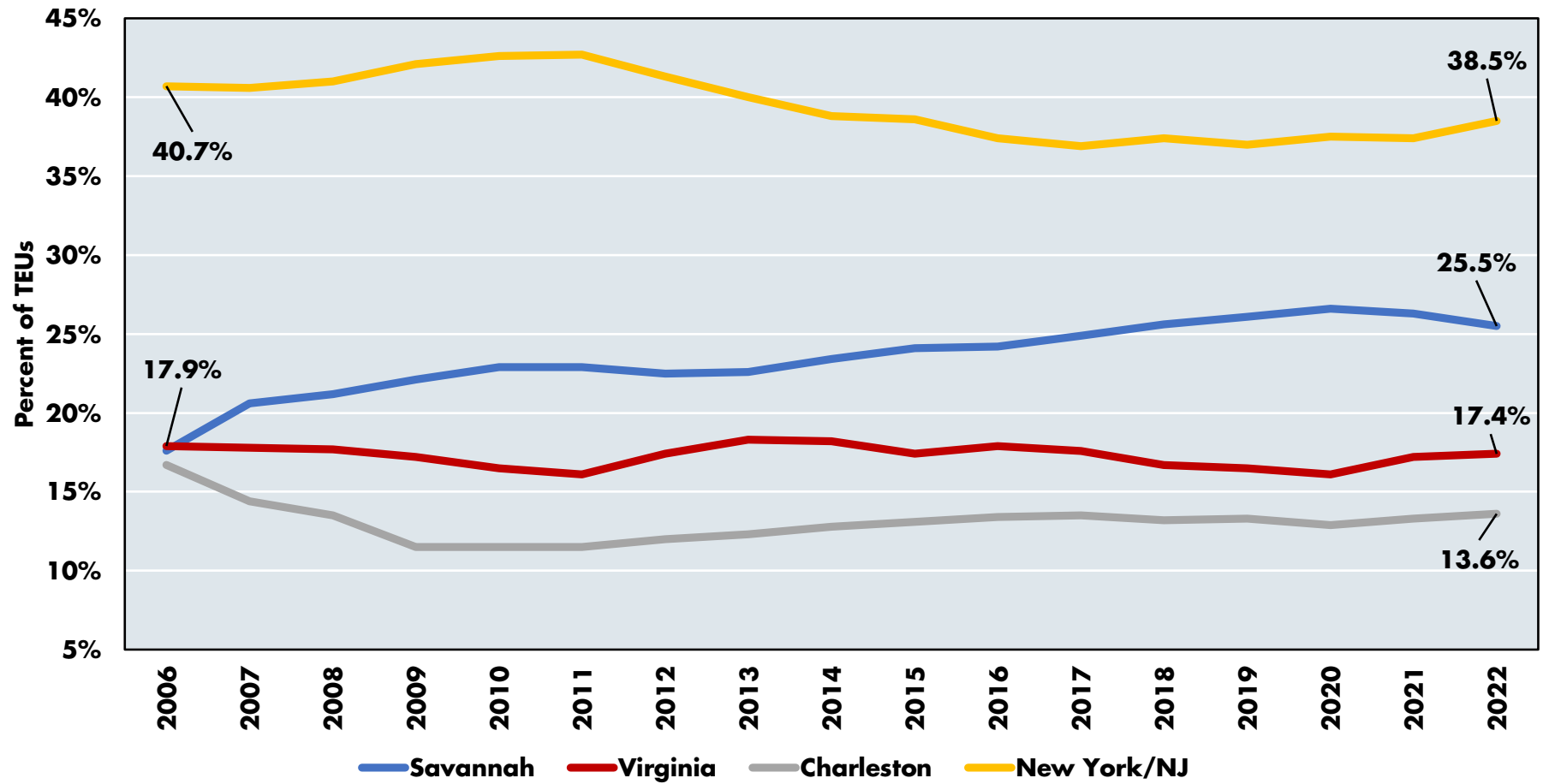
EXPORT AND IMPORT LOADED TWENTY-FOOT EQUIVALENT UNITS (TEUS):
PORT OF VIRGINIA, JANUARY 2019-JUNE 2022



Sources: Virginia Port Authority and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Data are not seasonally adjusted.

GRAPH 17

SHARE OF TOTAL LOADED TEUS FOR SELECTED EAST COAST PORTS,
2006-2022*



Sources: American Association of Port Authorities, port websites and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Market shares are based on TEUs for Baltimore, Boston, Charleston, Virginia, New York/New Jersey and Savannah. *Data for 2022 are through May 2022.

Good News for Defense Spending: Can It Last?

To say that Department of Defense (DoD) spending is one of the pillars of the Hampton Roads economy is an understatement of the importance of DoD spending to the regional economy. Direct DoD spending in the region likely exceeded \$24 billion in 2021 and is projected to top \$25 billion in 2022 (Graph 18). When we account for the ripple effects of direct DoD spending on the regional economy, we estimate that 4 out of every 10 dollars of economic activity is the result of DoD spending in the region. DoD spending is the “long pole” in the tent around which other parts of the region revolve.

In the short term, we expect that DoD spending will continue to increase. In FY 2021, DoD’s base budget was \$703.7 billion, increasing to \$742.3 billion in FY 2022 (Graph 19). When one includes supplemental appropriations for Operation Allies Welcome (the DoD response to the Afghanistan government’s collapse and the subsequent withdrawal of U.S. forces) and assistance to Ukraine, the enacted DoD budget in FY 2022 was \$756.6 billion. For FY 2023, President Biden proposed to increase the DoD base budget to \$773 billion, a request that authorizers and appropriators in Congress have viewed as too low relative to the national security needs of the nation. In all likelihood, the DoD base budget will exceed \$800 billion in nominal dollars in FY 2023.

While the DoD base budget is increasing in nominal dollars, inflation will erode these gains by reducing the purchasing power of DoD dollars. In Graph 20, we compare the DoD base budget projections President Biden submitted to Congress with the same projections adjusted for the impact of inflation. In one scenario, we use the inflation estimates contained in the presidential budget submission. In the other scenario, we use more current data on inflation and assume that inflation will take time to moderate to pre-pandemic levels.

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

What is missing here is a discussion of the size of the U.S. Navy in terms of the number of ships. It continues to decline, and no projected budget would reverse this. This bodes badly both for ship construction and ship repair. Building numerous smaller ships would make strategic and economic sense, but it could devastate our region.

Even while the purchasing power of the DoD is being undermined by inflation, the federal government continues to spend more money than it brings in. The last federal government surplus in FY 2001 is a distant memory (Graph 21). Budget discipline has waned as Congress and successive presidents have vacillated between increasing expenditures and reducing tax rates. The structural imbalance between revenues and expenditures only increased after the passage of the Tax Cuts and Jobs Act of 2017 and the abandonment of discretionary spending cuts. The fiscal response to the COVID-19 pandemic pushed the annual deficit in FY 2020 to more than \$3 trillion and to \$2.75 trillion in FY 2021. While the federal deficit is projected to be “only” \$1.03 trillion in FY 2022, it would be malpractice not to recognize that this would be largest deficit in a non-recessionary period in the last 50-plus years. Even the President’s FY 2023 budget submission recognizes that deficits will only increase over the remainder of the decade.

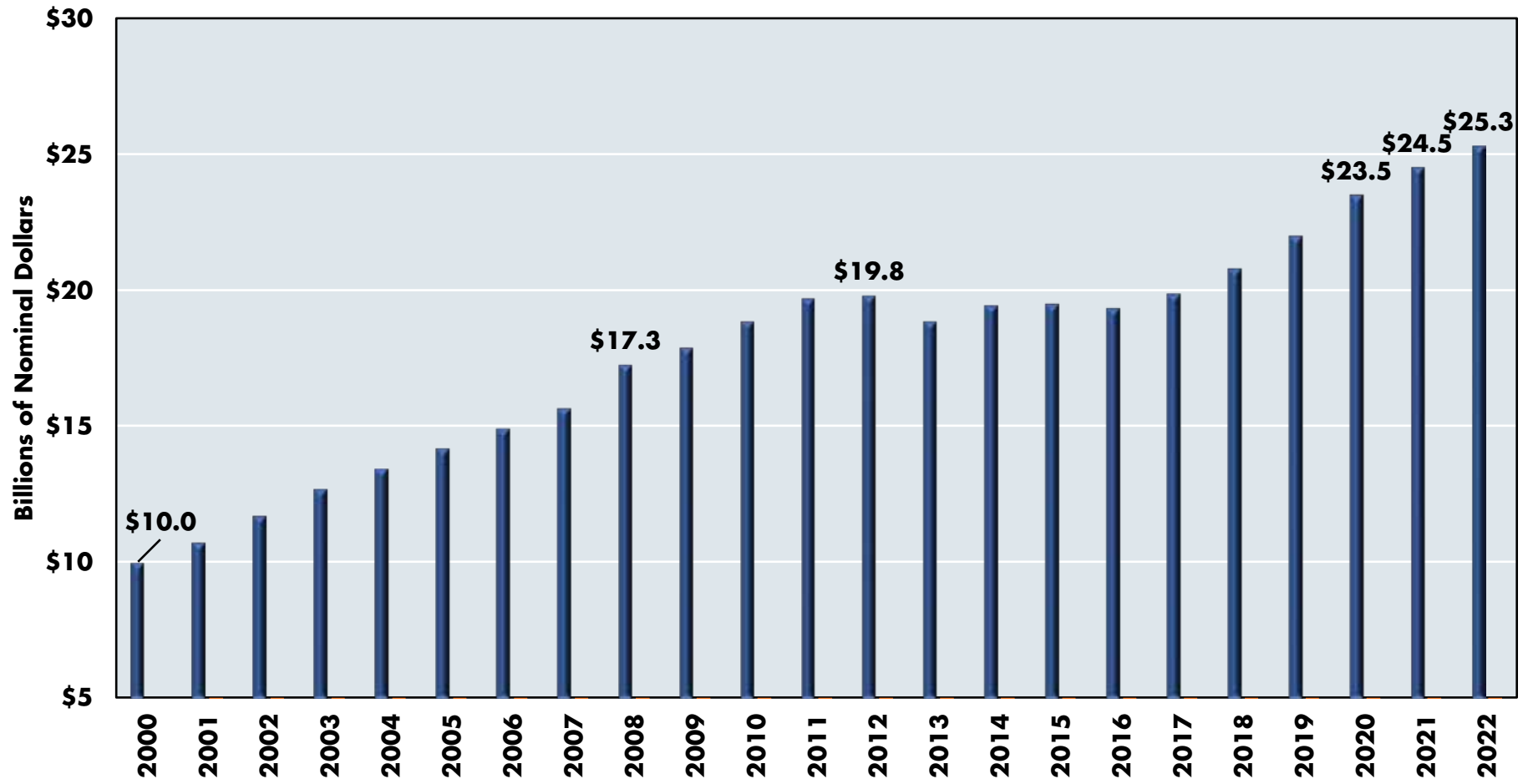
In 1946, in the aftermath of World War II, the public held \$2.7 trillion in FY 2021 dollars of federal debt or 106.1% of GDP. In 1980, the federal debt held by the public was \$2.0 trillion or 18.4% of GDP. Publicly held federal debt would steadily increase to \$17.5 trillion or 79.4% of GDP in FY 2019.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

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



GRAPH 18

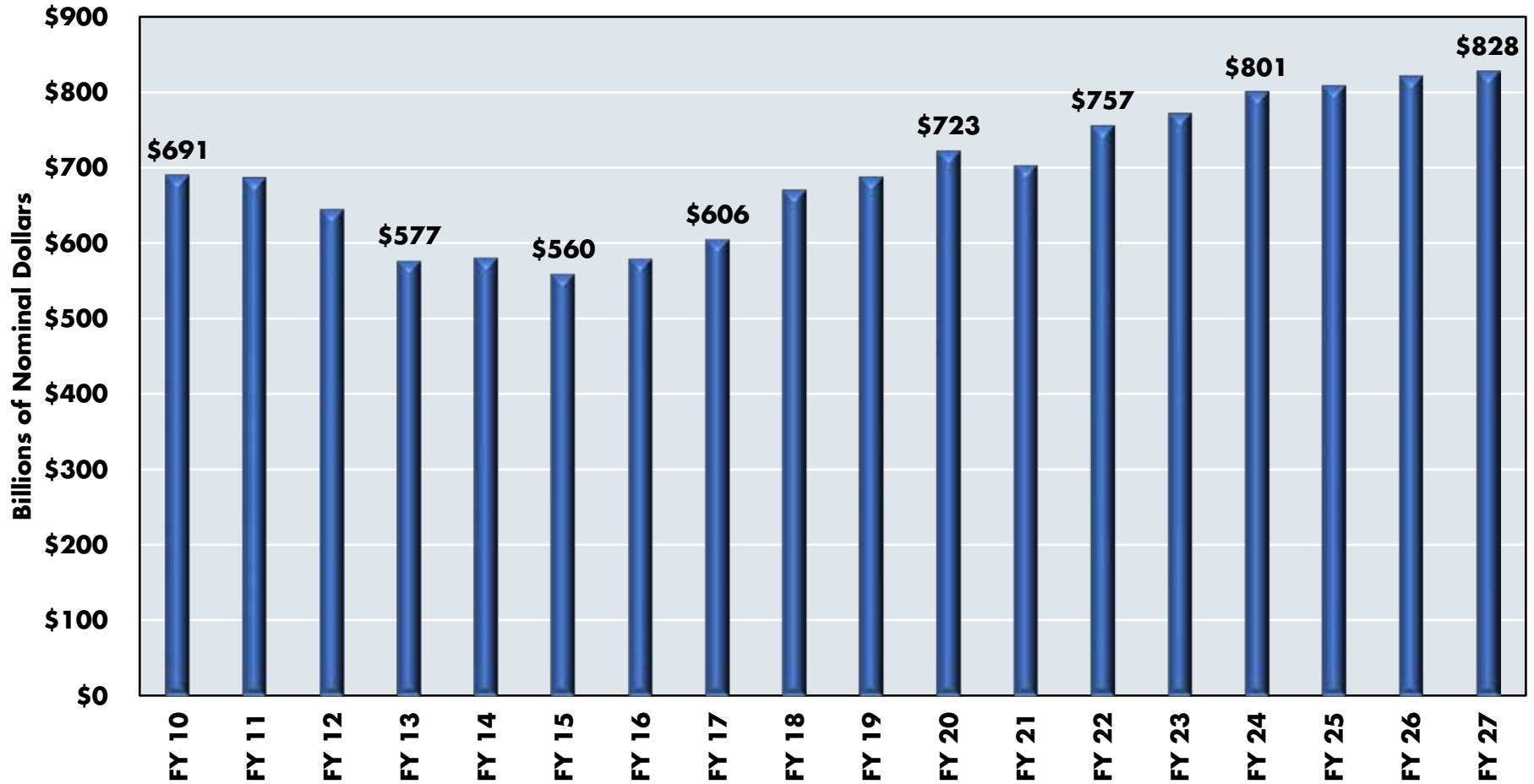
**ESTIMATED DIRECT DEPARTMENT OF DEFENSE SPENDING IN HAMPTON ROADS,
2000-2022**



Sources: Department of Defense and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Includes federal civilian and military personnel and procurement. Data for 2020, 2021, and 2022 are estimates. Last updated on Dec. 19, 2020. Procurement data updated on January 5, 2022.

GRAPH 19

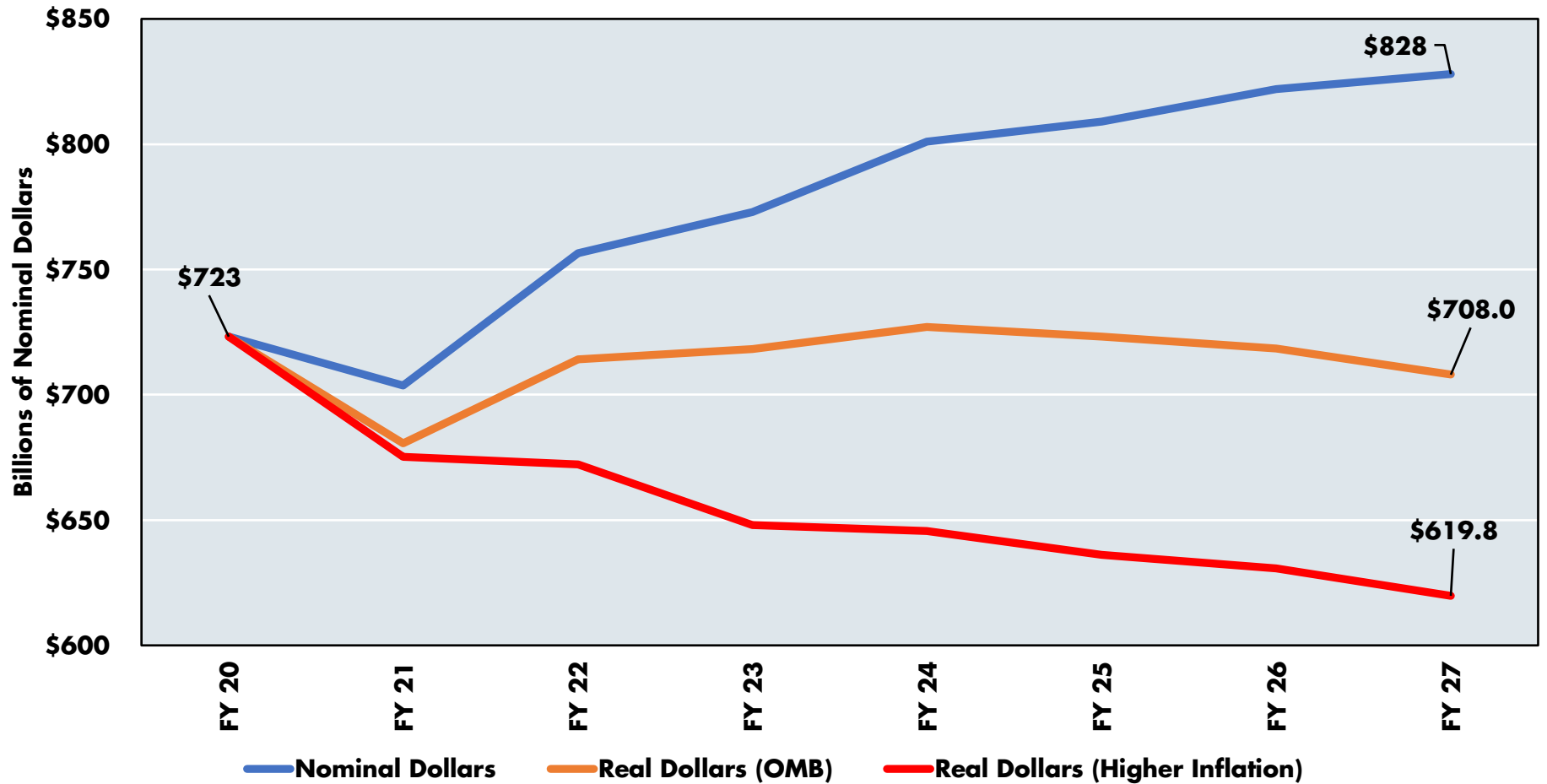
DEPARTMENT OF DEFENSE DISCRETIONARY BUDGET AUTHORITY,
FISCAL YEAR 2010-2027



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

GRAPH 20

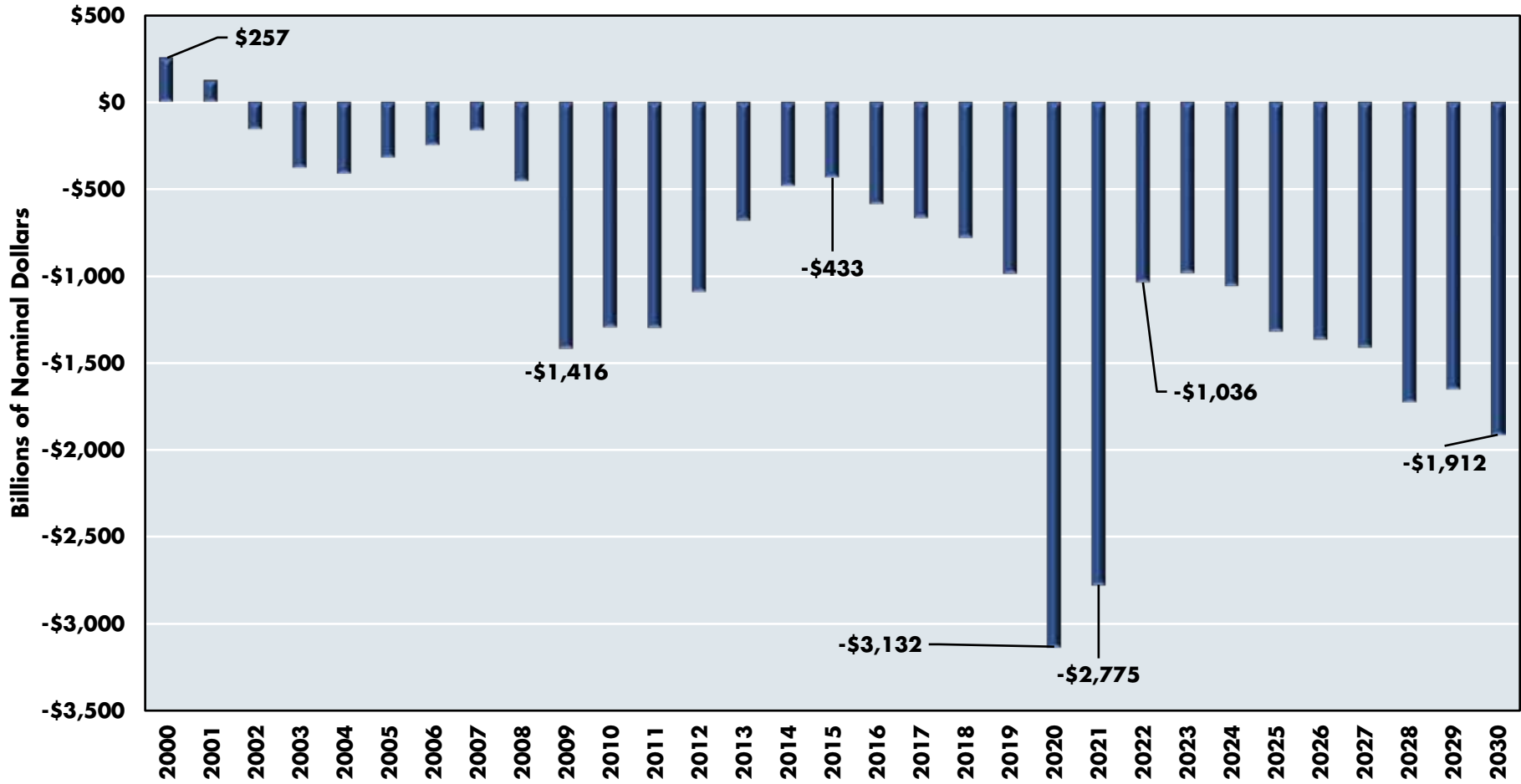
THE IMPACT OF INFLATION ON DEPARTMENT OF DEFENSE DISCRETIONARY BUDGET AUTHORITY,
FISCAL YEAR 2020–FISCAL YEAR 2027



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

GRAPH 21

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



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

Is a Revolution Coming for Hampton Roads?

In his 1956 essay, "The Military Revolution, 1560-1660," Michael Roberts argued that military revolutions are defining points in history where what is possible in war changes, and those military organizations that grasp the potential of these shifts obtain advantages over less nimble counterparts. In 2001, MacGregor Knox and Williamson Murray in their book, "The Dynamics of Military Revolution, 1300-2050" argued that Robert's thesis can be broken into two parts: Military Revolutions (MR) and Revolutions in Military Affairs (RMA). While RMA focuses on the impact of technology on the character of war, MR is a broader concept, asking how technology has a sweeping impact on war and society. Knox and Williamson identified five revolutions in modern history: (1) the 17th century rise of the modern nation state, (2) the French Revolution, (3) the Industrial Revolution, (4) the First World War, and (5) the onset of the nuclear age.

Russia's invasion of Ukraine has increased the visibility of unmanned aerial vehicles (UAVs) on the modern battlefield but is only the latest instance of how UAVs can reshape tactics and, eventually, strategy. Ukraine has deployed UAVs ranging from off-the-shelf commercial drones that can be purchased online to more sophisticated platforms from Turkey and the United States. Russia has used UAVs as well but has found itself behind in the ability to integrate UAVs into combined arms operations (a byproduct of Russia's centralized command and control approach to warfare).

The increasing use of UAVs will, without adaption, undermine advantages long held by the United States on the battlefield. Tanks, for example, are increasingly vulnerable to UAVs (and anti-armor weapons such as the U.S. Javelin) and UAVs can range far behind the "front lines." The concentration of forces, long a dictum of military tactics, also results in a "target rich" environment for UAVs that can loiter on the battlefield for 24 hours or more. The Ukrainian defense forces have sunk Russian patrol ships using UAVs, forcing the Russian navy to move farther away from the coastline. While this may not seem like much of an advantage, it has forced the Russian navy

to shift toward more expensive and complex weapons systems as stand-off weapons. On the modern "come as you are" battlefield, forcing an adversary to deplete war stocks that cannot be readily replaced is one of the potential paths to victory.

UAVs will also exacerbate existing cost asymmetries. First, UAVs are relatively cheap, especially when compared to manned aircraft and ships. Second, the destruction of a UAV does not come at the cost of personnel. It is easier to place numerous UAVs at risk to gain a tactical advantage instead of manned assets. Nations that are slow to embrace this revolution will need to invest significant resources to defeat UAVs, further exacerbating the cost asymmetries. In the coming years, naval UAVs and ground combat UAVs will enter the battlespace, eroding other advantages held by the U.S. armed forces. Iran, for example, continues to heavily invest in UAVs to offset U.S. advantages in ships and aircraft.

As technological change increases the abilities of UAVs, the number of commercial applications for UAVs will also grow exponentially. Long-haul ground transportation will readily shift to ground-based drone vehicles while short-haul delivery will likely move toward UAVs over the coming decades. Walmart and Amazon are already piloting drone deliveries and while this promised tomorrow has not yet arrived, it is certainly a glimmer on the horizon.¹³ Consumers will benefit from cheaper transportation and more delivery options, but truck drivers are increasingly facing an uncertain future. When coupled with increasing automation, the future of many segments of the workforce is, at best, cloudy.

How will this play out for Hampton Roads? The region produces weapon systems that have grown increasingly complex and costly. As inflation erodes the purchasing power of the DoD, it will continue to seek to remove current ships, airplanes, and vehicles from its inventory to free up funds for future investments. Yet, these future investments are increasingly at risk on the modern battlefield. The open question is whether the armed forces will seek to transform their strategy and tactics by moving toward unmanned systems of all forms or whether change will be forced upon it.

¹³ <https://www.freightwaves.com/news/walmart-droneup-expanding-drone-delivery-to-six-us-states>

Change is difficult. Hampton Roads played a seminal role in the founding of the modern U.S. Navy. The Navy is not going away, but the Navy over the coming decades will be markedly different than it is today. Much like aircraft carriers replaced battleships as the focal point of naval strategy in the Pacific in World War II, unmanned ships and aircraft are likely to become dominant in the coming decades. These changes will likely lead to fewer military personnel in the region. A revolution is upon us; the question is whether we have the foresight to adapt to a changing world or whether we will continue to hope that the regional economic ship will remain on course, ignoring the looming storm on the horizon.

Final Thoughts

In December 1776, Thomas Paine eloquently wrote “These are the times that try men’s souls: the summer soldier and the sunshine patriot will, in this crisis, shrink from the service of his country...” Looking back over the last 24 months, one would be forgiven if they argued that Paine’s words were really about today rather than the American Revolution. We have lived through a historic economic contraction, restrictions on public and private life, school closures, and raging debates on the safety and efficacy of vaccines. Even as a recovery started, the echoes of the decisions made in 2020 continued to play out. Emergency department visits for mental health crises spiked, drug and alcohol abuse continued apace, and numerous parents reported that their children had fallen behind (and continued to remain behind) in school. We only now are starting to grasp how the COVID-19 pandemic has altered our definition of normal.

Yet, we would be remiss if we did not report there is good news to consider. Regional leaders are more closely collaborating with each other on the future of Hampton Roads. There is a growing recognition that doing business as usual will only result in the same sad economic story.

There is a discernible shift to focus economic development efforts on four industry clusters: (1) shipbuilding and ship repair, (2) renewable energy, (3) health care and biomedical research, and (4) data collection and analytics. As we have long argued, diversification of the regional economy is in the interest of the residents of Hampton Roads and the DoD. A robust regional economy provides jobs for residents and military spouses, family members, and veterans. Now is the time to push forward with these efforts.

Conversations about improved regional collaboration only need to look at Hampton Roads’ peers to see how working together pays off. This effort will need cities and counties to give up some authority to regional organizations. If a firm locates in one city in Hampton Roads, we know from U.S. Census data that, on average, more than 50% of its workers will reside in another city. The more we compete with each other, the easier it is for our competitors to point to our inability to get along as a reason for moving to their region instead of ours. We cannot continue to act like we have in the past and expect results to be any different.

We continue to argue that consolidating public services across the cities and counties of Hampton Roads will yield benefits to taxpayers and improve regional collaboration. How many library systems, fire departments, and police and sheriff departments are necessary for a region of 1.7 million people? Each local system requires an administrative support structure. As Parkinson’s law notes, “work expands so as to fill the time available for its completion,” and the numerous, duplicative administrative structures in our region are no exception. If a trip to the General Assembly is needed to obtain the appropriate legal authorities, taxpayers would surely be supportive of such an effort to lower costs and increase efficiency.

Change is coming. We cannot control every aspect of how the future will shape our lives in Hampton Roads. However, this also does not mean we do not have the ability to shape the future and determine better outcomes for the residents of Hampton Roads. The choice is ours: Will we get to work, or will we let our fate be determined by others?



The Rent is Too Damn High: Housing in Hampton Roads



THE RENT IS TOO DAMN HIGH: HOUSING IN HAMPTON ROADS

"It is hard to argue that housing is not a fundamental human need. Decent, affordable housing should be a basic right for everybody in this country. The reason is simple: Without stable shelter, everything else falls apart."

Matthew Desmond in Evicted: Poverty and Profit in the American City

Hampton Roads appears to be a paradox with regard to economic growth. The region boasts sandy beaches, historical attractions, cultural events and festivals, and an industrial base that supports the national defense of the nation. While the region has lagged the Commonwealth and nation with regard to growth in Gross Domestic Product (GDP), public and private sector leaders continue to tout the "high quality" of life in the region. Yes, the region is heavily dependent on defense spending and faces the challenge of sea level rise, but its lackluster economic performance is, in part, because we are not telling our story well. If we can only convince employers and employees of the affordability of the region, then we could raise the region's attractiveness. We just need to market ourselves better and growth will follow.

When one compares Hampton Roads to Northern Virginia, this story appears to gain traction. The median rent for all bedrooms and property types in Washington, D.C., was \$2,440 in May 2022, 30.1% higher than the median rent in Virginia Beach.¹ The Zillow Home Value Index for Arlington, Va., in May 2022 was \$816,610, multiples of that in Chesapeake (\$357,733), Newport News (\$246,834), Norfolk (\$268,773), and other cities in Hampton Roads. Rents are higher in the Washington, D.C., metropolitan area and average apartment sizes are smaller, so renters are paying more for less.

If apartment rents and housing values were the only side of the affordability story, then Hampton Roads would be viewed favorably when compared to Northern Virginia and other major metropolitan areas in neighboring states. There are, however, two sides to every coin. Cost is one side of the proverbial coin; ability to pay is the other side. Instead of only examining the cost of housing, we need to compare the cost of housing to household income. The housing cost burden, which is the ratio of housing expenses to household income, provides a more complete picture of housing affordability.

¹ Virginia Beach, Virginia Rental Market Report, Zillow Inc. June 4, 2022.

For Hampton Roads, rents and home prices must be compared to household incomes, and, when we do so, the picture that emerges stands in stark contrast to the story that Hampton Roads is an affordable place to live for many of its residents.

The U.S. Department of Housing and Urban Development (HUD) counts households as cost burdened and severely cost burdened if more than 30% and 50%, respectively, of their household income goes to pay for housing. Between 2015 and 2019, there were approximately 654,000 households in Hampton Roads. Thirty-five percent of the households in the region (about 229,000) spent more than 30% of their household income on housing. Of the approximately 229,000 housing cost-burdened households, about 97,000 were severely cost burdened, spending more than 50% of their household income on housing. In other words, about 1 in 3 households in the region paid more than 30% of their income for housing while 1 in 7 households paid more than

50% of their income for housing. When compared to its peers, Hampton Roads ranks near the bottom, only ahead of Northern Virginia in terms of housing affordability.

When households spend a greater percentage of their income on housing, there are fewer dollars to spend on groceries, health care, and other necessities. Cost-burdened households are less able to weather negative life events, such as losing a job or the death of a loved one, and have an increased chance of being evicted or going bankrupt. If the “rent is too damn high,” it should be no surprise that some residents move (or attempt to move) in search of increased affordability and improved job opportunities.²

Kwamane Woodhouse, a resident of Virginia Beach, experienced the increasing cost of housing in Hampton Roads. Recently, the rent on his one-bedroom apartment increased from \$1,550 to \$1,668, an increase of 7.6%.³ When he searched for cheaper apartments, he soon realized that he was, in effect, “locked in.” A new apartment would require the payment of application fees, administrative fees, security deposit, and first (and perhaps more) month’s rent. Finding somewhere cheaper to live would mean leaving the area entirely. His story is not unique, and a cursory search of social media provides many other examples of the region’s residents struggling to find an affordable place to live.

The question of housing affordability drives squarely at the question of regional competitiveness. A 2020 study by the Joint Legislative Audit & Review Commission (JLARC) found that Hampton Roads had the highest percentage of cost-burdened households in the Commonwealth.⁴ Jason El Koubi, director of the Virginia Economic Development Partnership (VEDP), recently noted that housing affordability is key to attracting new firms. He recently recounted how affordability influences whether a firm decides to locate in Virginia. “During the recruitment process, the company expressed concerns around the housing inventory within the community that would be

2 Tiebout, Charles. 1956. “A Pure Theory of Local Expenditures,” *Journal of Political Economy*, University of Chicago Press, vol. 64, pages 416-416.

3 Jones, Kelsey. “It’s not sustainable”: Renters face tough decisions as rent prices rise in Hampton Roads. WTKR, Feb. 17, 2022.

4 “Affordable Housing in Virginia.” Joint Legislative Audit and Review Commission. 2020.

required to accommodate the growth from a project of its scale. Virginia was ultimately eliminated for various different reasons, but we believe workforce housing issues were a chief concern.”⁵

In this chapter, we examine housing affordability from several different angles. We start by looking at how housing values have changed in Hampton Roads over the last two decades and what may have driven these changes. We follow this with a closer look at Hampton Roads housing affordability, how we compare to other regions, and some final thoughts on where to go from here. We focus on the time frame before the Covid-19 pandemic due to the availability of data. However, the rising prices in the housing and rental markets since its onset, along with the uneven labor market recovery, likely only exacerbated local housing challenges.



5 Freehling, Emily. “Hitting a brick wall.” *Virginia Business*. March 30, 2022.

How Did We Get Here? Single-Family Housing Prices in Hampton Roads

In nominal terms, the median sales price for an existing home in Hampton Roads increased from \$99,900 in 2000 to \$279,000 in 2021. We can break down the market for existing single-family homes in Hampton Roads over the past two decades into three distinct periods: rising home prices from 2000 to 2007 (123% increase); decreasing home prices from 2007 to 2011 (19% decline); followed by a period of rising home prices through 2021 (55% increase) (Graph 1). Even while median sales prices continued to increase in the first half of 2022, the open question is whether we are entering an era of slower price growth (or an outright contraction) due to rising interest rates and slowing economic growth.

We observe similar price trends in neighboring metropolitan areas, at the state level for Virginia and North Carolina, and at the national level in Table 1. The All-Transactions Home Price Index (HPI) reported by the Federal Housing Finance Agency (FHFA) is a broad measure of the movement of single-family house prices. Compared to the Commonwealth and the nation, the HPI increased more rapidly in Hampton Roads prior to the Great Recession. The region then felt steeper declines than many peer or aspirant metros, Virginia, and the United States in the aftermath of the Great Recession. While prices in Hampton Roads increased from 2012 to 2021, other regions saw more rapid increases in economic growth, and thus steeper increases in the demand for and prices of single-family housing.

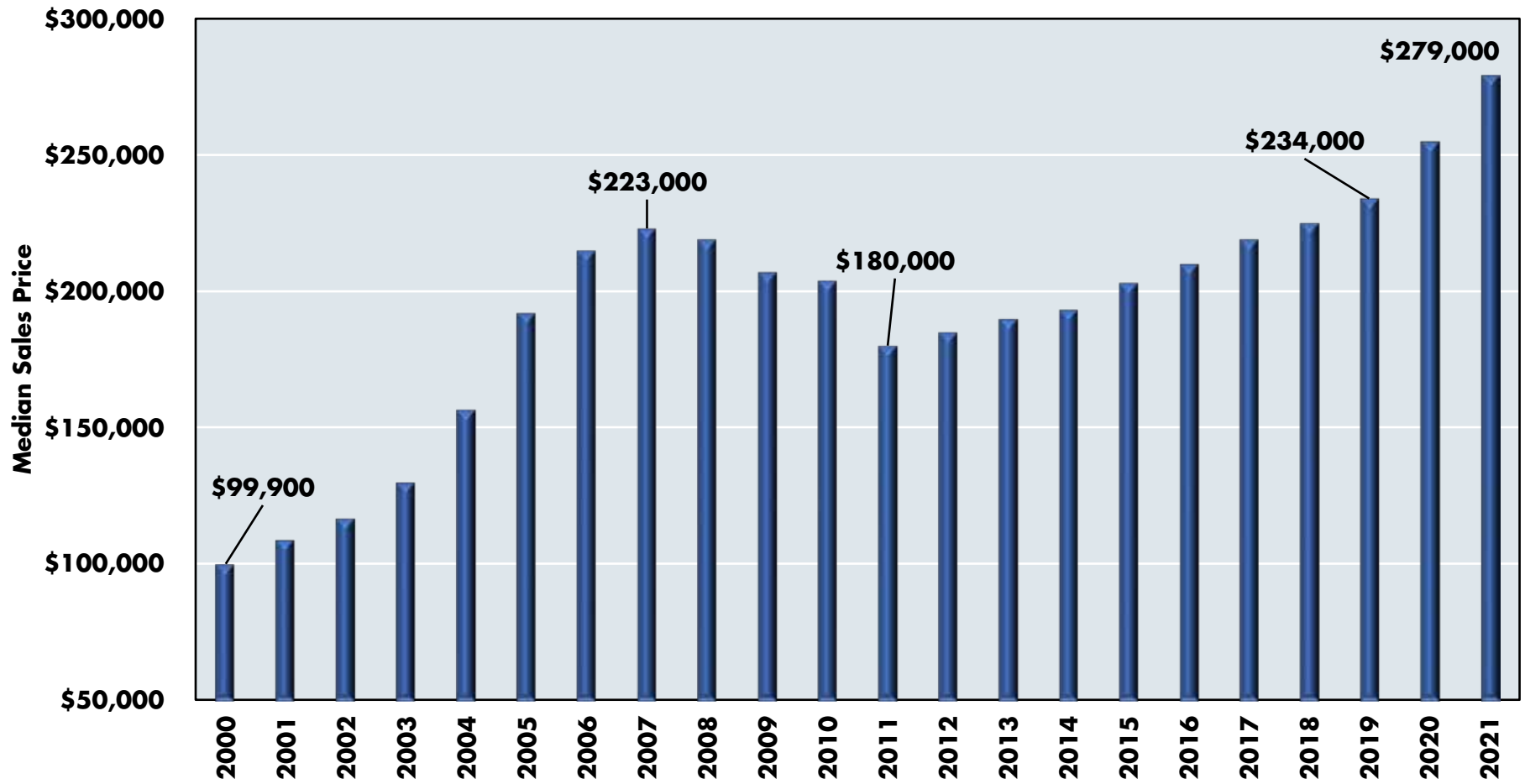
TABLE 1
PERCENT CHANGE IN ALL TRANSACTIONS
FHFA PRICE INDEX
SELECTED METROPOLITAN AREAS,
NORTH CAROLINA, VIRGINIA, AND THE UNITED STATES
2000 TO 2021

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

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

GRAPH 1

**MEDIAN SALES PRICE OF EXISTING HOMES
HAMPTON ROADS, 2000-2021**



Sources: Real Estate Information Network and the Dragas Center for Economic Analysis and Policy, Old Dominion University.

Explaining Single-Family Housing Price Trends in Hampton Roads

Why did home prices rise so rapidly in Hampton Roads prior to the Great Recession? Recall that the economy of the region rests on three pillars: defense, the Port of Virginia, and the tourism and hospitality industry. Each of these pillars experienced significant growth in the years prior to the Great Recession. However, robust economic growth, by itself, does not fully explain the rapid increase in single-family housing prices during this period.

As illustrated in Graph 2, the proportion of conventional loans (any mortgage loan not insured or guaranteed by the government) in Hampton Roads increased dramatically prior to the Great Recession, from more than 1 in 3 loans in 2000 to almost 8 out of 10 loans in 2005. Some buyers undoubtedly could have also qualified for a Veterans Administration (VA) or Federal Housing Administration (FHA) loan; however, the declining cost of conventional loans incentivized them to switch. Loan standards also declined during this period with the rise of “no documentation loans” and “NINJA loans” (No Income, No Job, No Assets) in subprime mortgage markets. Those seeking loans and those originating them were incentivized to move funds as quickly as possible, knowing that the loans would be securitized (“bundled”) and sold on financial markets. Soon, these securities became known as “toxic,” not necessarily because the underlying homes had depreciated in value, but because markets were not able to accurately judge whether the securities were what they claimed to be.⁶

The decade following the Great Recession was one that many real estate professionals and homeowners in Hampton Roads would prefer to forget. Tightening loan standards and foreclosed properties weighed down a recovery in single-family home prices. The passage of the Budget Control Act of 2011, the sequestration of defense spending in Fiscal Year 2013, and further limits on federal discretionary spending meant that defense spending in the region was

⁶ Chamley, Christophe, Laurence J. Kotlikoff, and Herakles Polemarchakis. 2012. “Limited-Purpose Banking—Moving from ‘Trust Me’ to ‘Show Me’ Banking.” *American Economic Review*, 102 (3): 113-19. DOI: 10.1257/aer.102.3.113.

essentially flat from 2007 to 2017. In this environment, it was no surprise that the recovery in home prices was relatively tepid. In 2018, a full decade after the start of the financial crisis, single-family home prices finally eclipsed the previous peak observed in 2007.

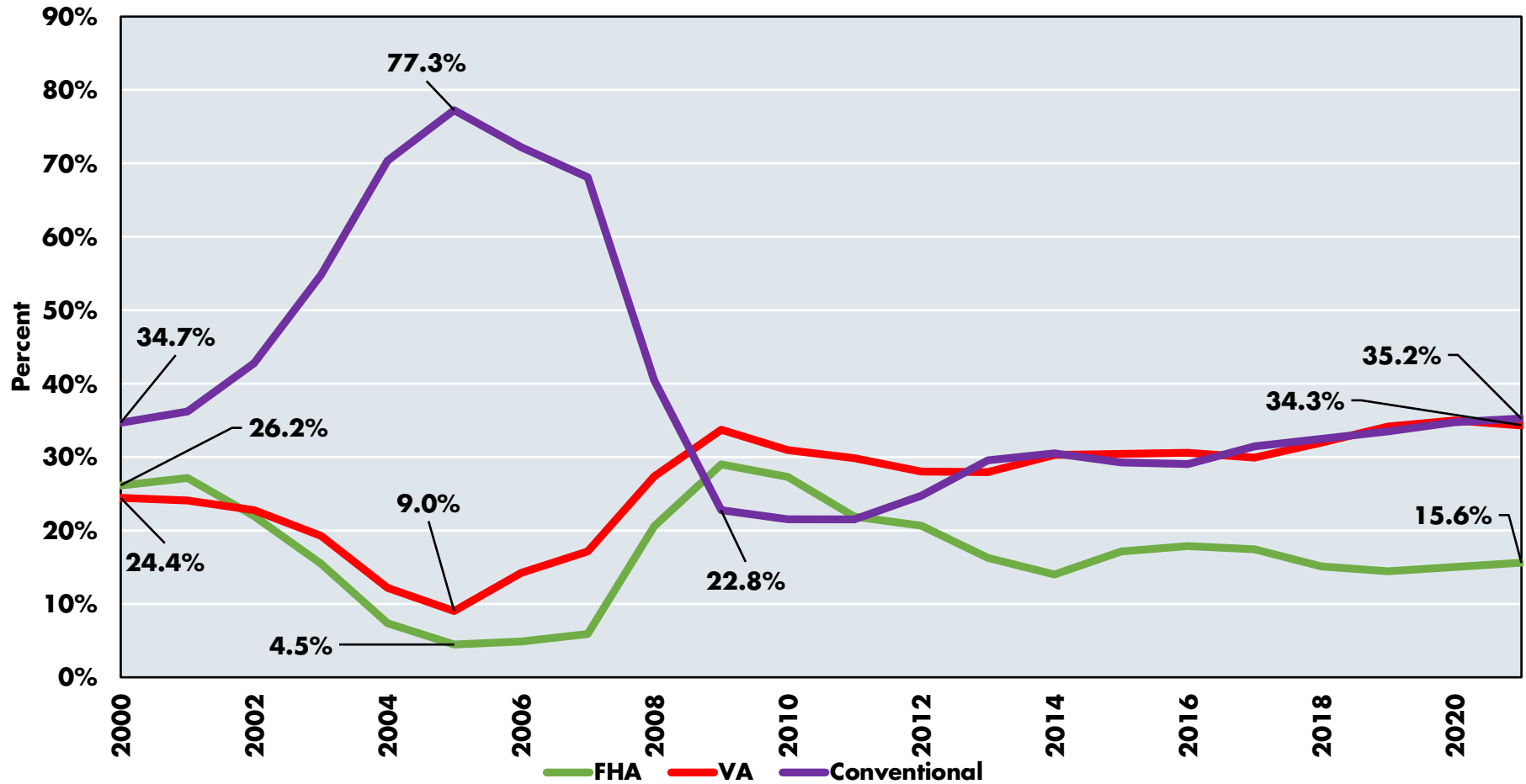
The most recent period of price growth has been driven by constrained supply and increasing demand. Regional economic growth ticked upward in the latter half of the last decade as defense spending increased, the Port of Virginia continued to see increases in traffic, and the tourism and hospitality industry saw record numbers of hotel guests. At the same time, the Federal Reserve maintained a highly accommodative monetary policy stance. In 2000, the annual average 30-year fixed mortgage rate was 8.05%. In 2010, the average 30-year rate was 4.69%. In 2019, nearing the end of the longest peacetime economic expansion in U.S. history, the average 30-year rate was 3.9%, falling to an average of 3.11% and 2.96% in 2020 and 2021, respectively, in the aftermath of the COVID-19 economic shock.

The supply of single-family homes, however, has not kept pace with rising demand. In 2003, building permits for single-family homes (a measure of new homes coming to market) peaked at 7,850. By 2009, permits had fallen to 2,888, a decline of 63.2%. (Graph 3). While permits rebounded off the 2009 low, the number of permits issued in 2021 was still 40.7% below the 2003 peak.

Graph 4 illuminates another point of evidence on the constrained supply of homes in Hampton Roads. In 2000, approximately 1 in 5 homes sold in the region were new construction. By 2010, the share of new homes had fallen to about 1 in 8 homes. In 2021, only 1 in 10 homes were new construction. As the inflow of new construction has fallen over the last two decades, existing single-family home sales have captured a greater share of the market. Buyers have increasingly found themselves competing for a shrinking pool of homes for sale.

GRAPH 2

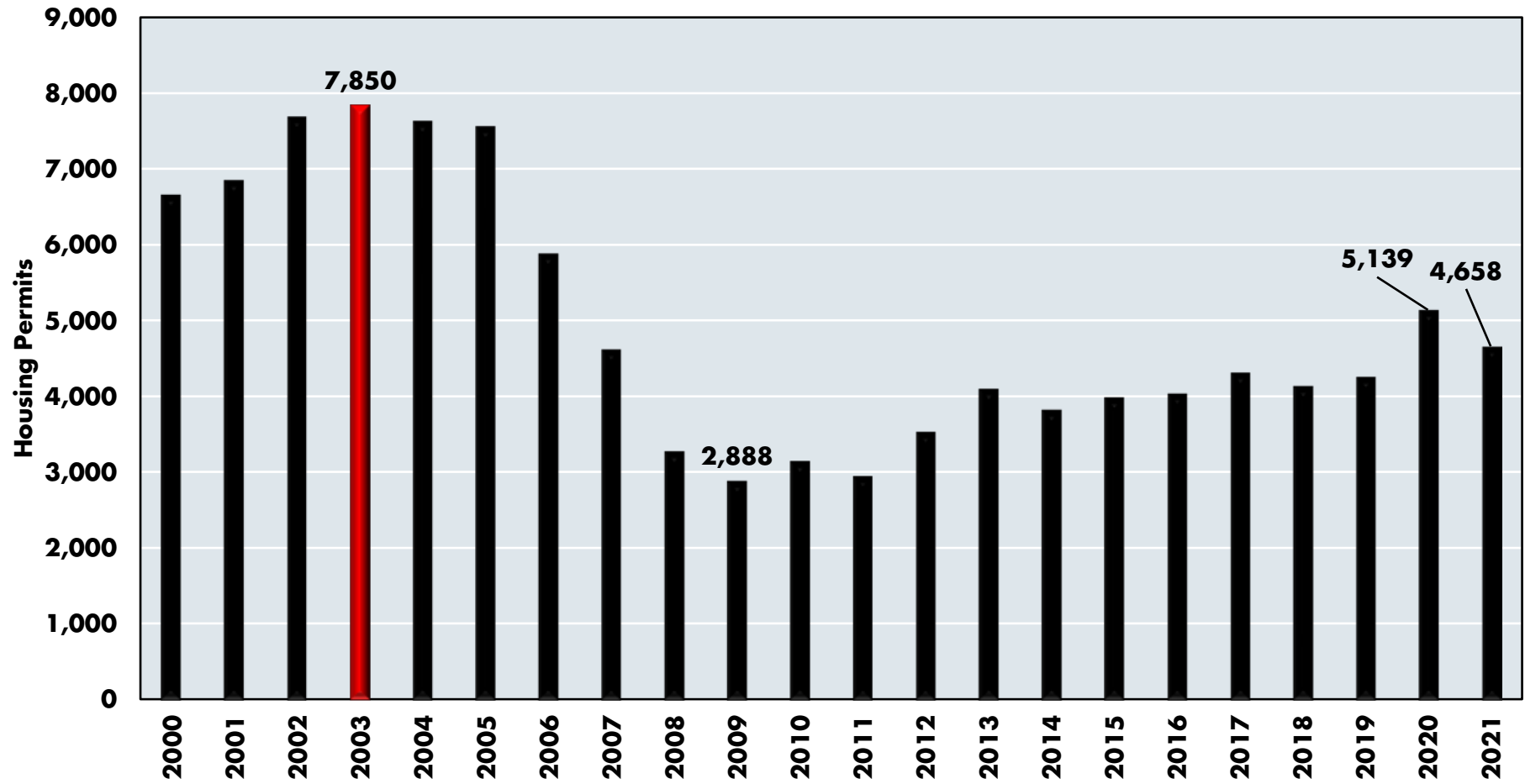
**DISTRIBUTION OF EXISTING HOME SALES BY FINANCING TYPE
HAMPTON ROADS, 2000 - 2021**



Sources: Real Estate Information Network and the Dragas Center for Economic Analysis and Policy, Old Dominion University.

GRAPH 3

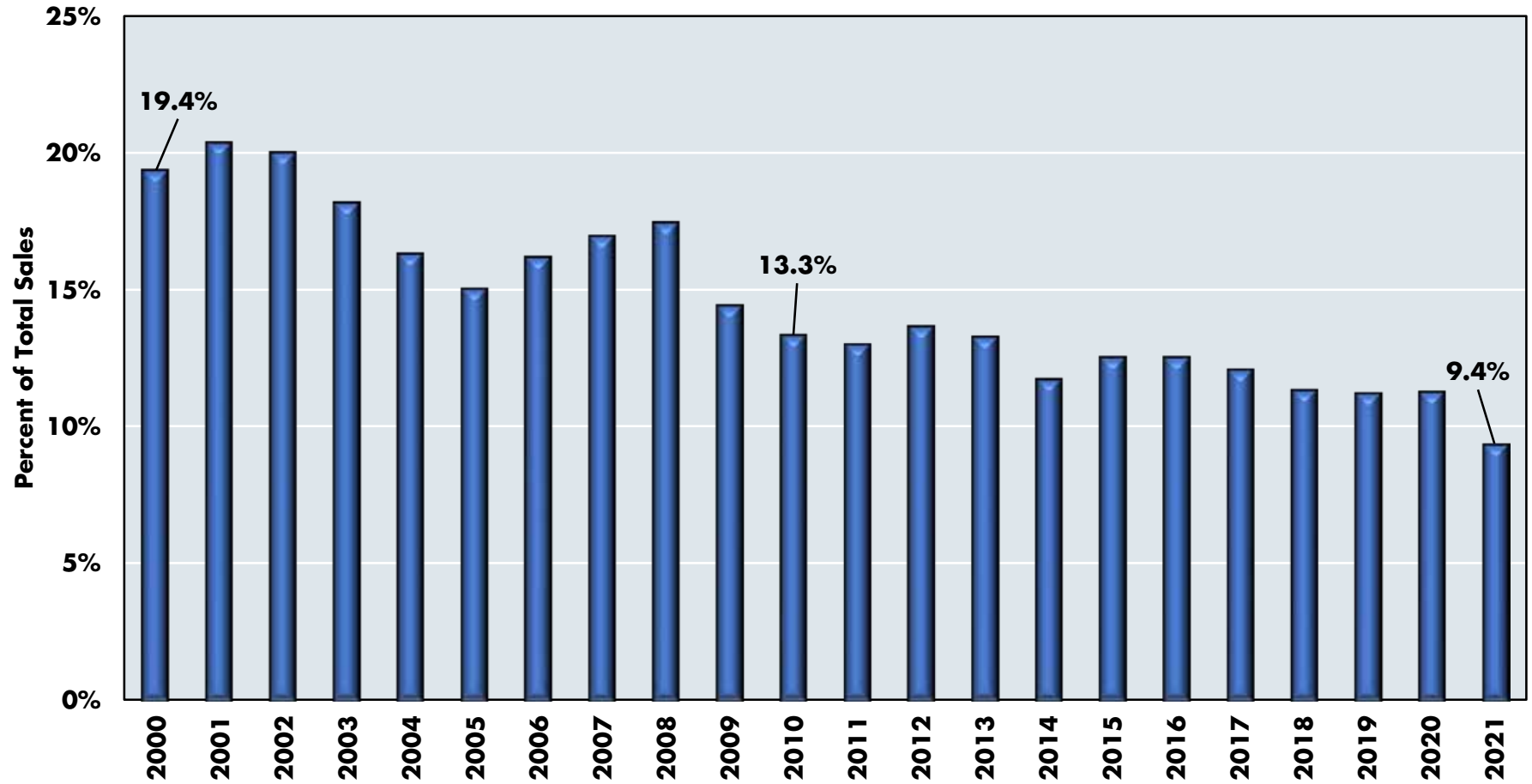
**NUMBER OF BUILDING PERMITS FOR ONE-UNIT FAMILY HOMES
HAMPTON ROADS: 2000 TO 2021**



Sources: U.S. Census Bureau and the Dragas Center for Economic Analysis and Policy, Old Dominion University.

GRAPH 4

**NEW CONSTRUCTION SALES AS A PERCENT OF TOTAL SINGLE-FAMILY HOME SALES
HAMPTON ROADS, 2000-2021**



Sources: Real Estate Information Network and the Dragas Center for Economic Analysis and Policy, Old Dominion University.

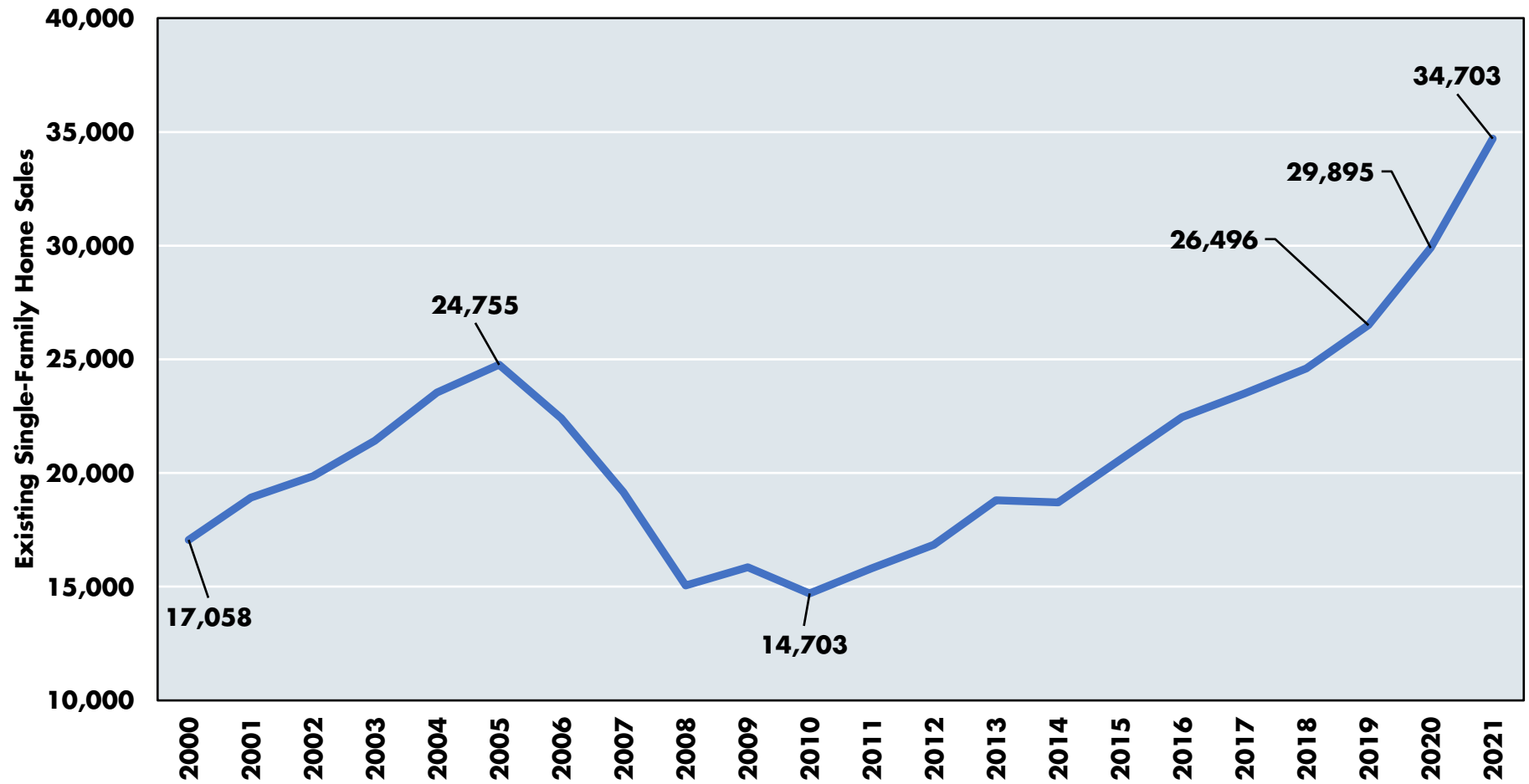
The recent scramble of existing homes is visible in the sales data (Graph 5) and the number of days listings are on the market (Graph 6). Existing single-family home sales in 2019 (26,496) broke the previous record set in 2005 (24,755). This record was, in turn, broken in 2020 (29,895) as the COVID-19 pandemic and declines in home mortgage interest rates increased the demand for single-family homes. In 2021, existing home sales increased another 16.1% to 34,703, though expectations of another record are diminished for 2022 as mortgage rates increase and economic growth slows in the face of inflation and global commodity shocks.

Not surprisingly, as sales of existing homes have increased and the supply of new homes has remained below pre-Great Recession levels, the average days a home is on the market has continued to decline. In 2004, the average days on market was 27, increasing to 102 in the aftermath of the Great Recession. As the supply of foreclosed homes declined and interest rates continued to trend lower, average days on market fell to 53 in 2019. In 2020, average days on market fell to 41, falling again (and setting a record) to 24 days in 2021. A reasonable forward-looking expectation is that days on market will increase in 2022 and into 2023 as the demand for single-family housing slows in the face of rising interest rates.



GRAPH 5

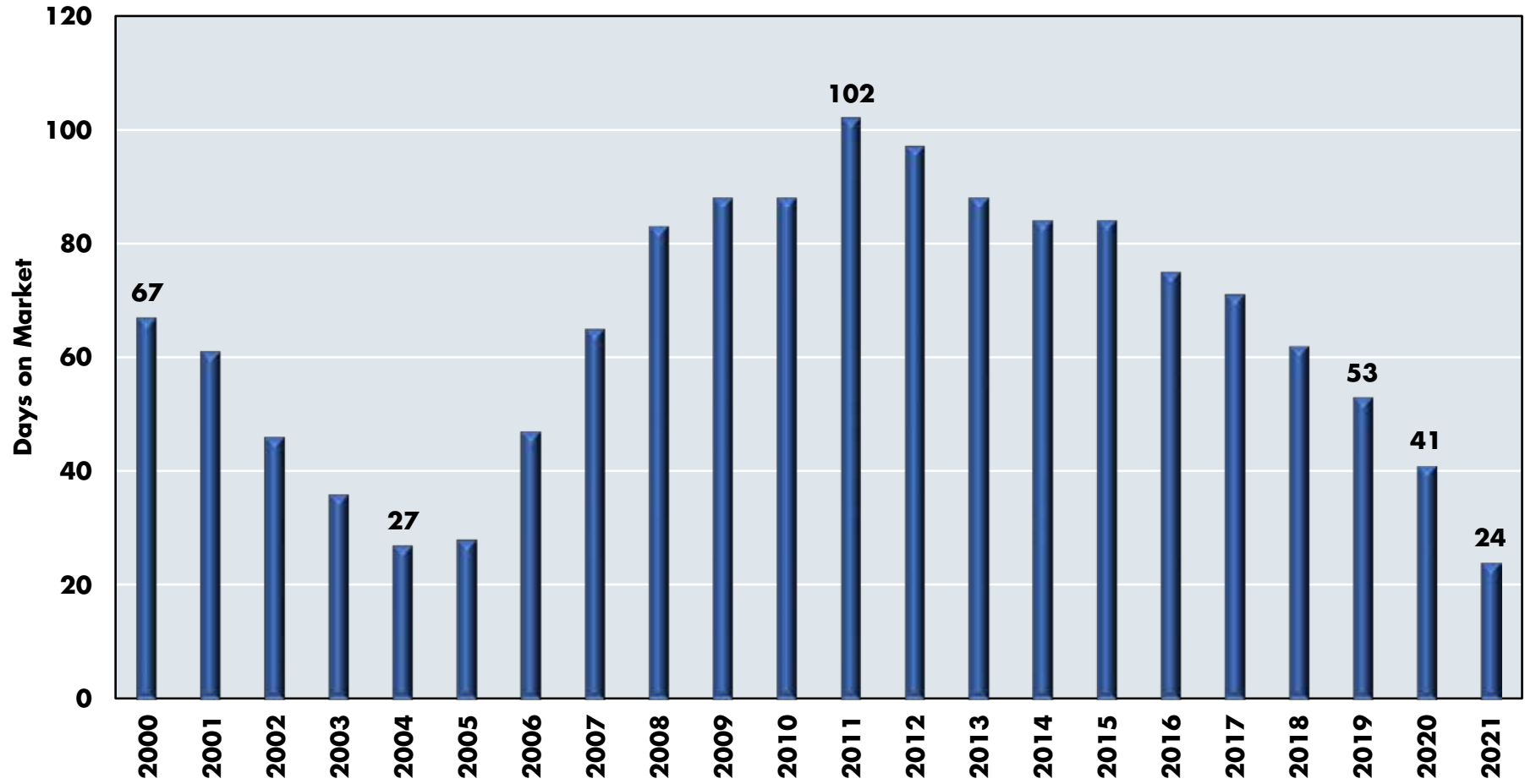
**EXISTING SINGLE-FAMILY HOME SALES VOLUME
HAMPTON ROADS, 2000-2021**



Sources: Real Estate Information Network and the Dragas Center for Economic Analysis and Policy, Old Dominion University.

GRAPH 6

**AVERAGE DAYS ON MARKET FOR EXISTING SINGLE-FAMILY HOMES
HAMPTON ROADS, 2000-2021**



Sources: Real Estate Information Network and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Days on Market is calculated from the date listed to the Under Contract date for existing homes sold.

A Closer Look at Housing Affordability in Hampton Roads

To understand housing affordability in Hampton Roads, we need to examine housing costs relative to household income. **Recall that, according to HUD, a cost-burdened household spends 30% or more of their household income on housing, while for an extremely cost-burdened household, this ratio is 50% or greater.** HUD also classifies households in a region relative to an area’s median income (AMI). Extremely low-income households have incomes below 30% of AMI, very low-income households have incomes between 31% and 50% of AMI, low-income households are between 51% and 80% of AMI and finally, middle-income households have incomes from 81% to 100% of AMI. Households whose incomes exceed a region’s AMI are classified into the “above AMI” category. Table 2 illustrates Hampton Roads AMI in 2009 and 2019 as well as the income ranges for each group.⁷

TABLE 2

REAL AREA MEDIAN HOUSEHOLD INCOME (AMI) IN 2019 DOLLARS HAMPTON ROADS, 2005 - 2009 AND 2015 - 2019

Percentage of AMI	Household Category	2005 - 2009 Real Household Income Limits	2015 - 2019 Real Household Income Limits
100%	Median	\$67,011	\$66,759
80%	Low	\$53,609	\$53,407
50%	Very Low	\$33,505	\$33,380
30%	Extremely Low	\$20,103	\$20,028

Sources: U.S. Census Bureau, American Community Survey, 5-year data for 2005-2009 and 2015-2019, and the Dragas Center for Economic Analysis and Policy, Old Dominion University. The values are deflated by the Consumer Price Index for all urban consumers from the U.S. Bureau of Labor Statistics.

⁷ We use data from the 2005 – 2009 and 2015 – 2019 5-year ACS from the U.S. Census to estimate real median household income for Hampton Roads in 2019 constant dollars. The use of ACS data allows us to estimate cost burdens for respondents in each ACS sample.

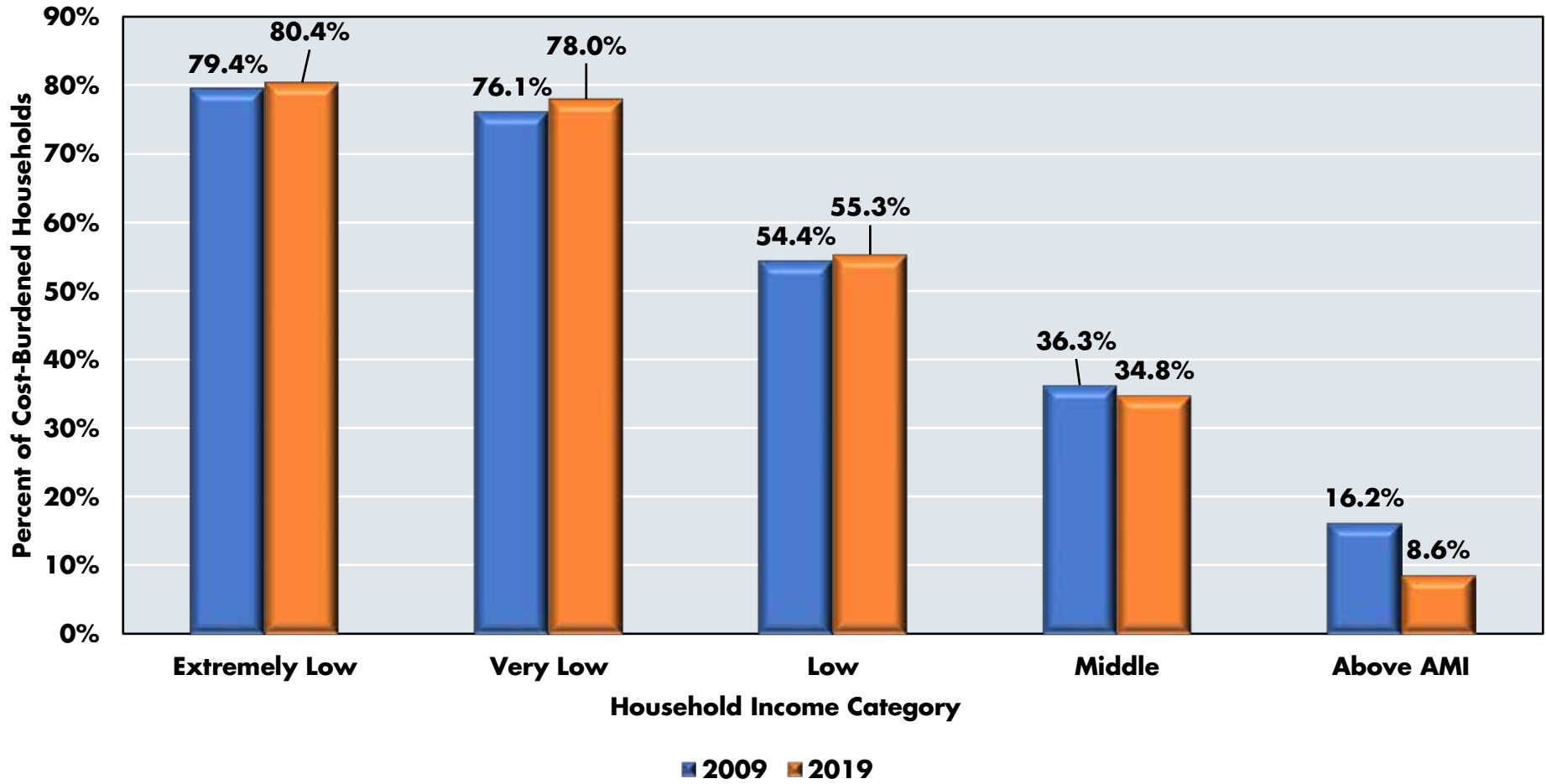
Graph 7 shows the percentage of households in Hampton Roads in each income quintile that were cost burdened using the U.S. Census five-year estimates ending in 2009 and 2019. Two observations immediately stand out. As one might expect, as income rises, the percentage of households that were cost burdened fell in both periods. However, for those in the highest income group, the percentage of those cost burdened fell from 16.2% in 2009 to 8.6% in 2019. Falling interest rates, even in the face of higher home prices, allowed many homeowners (who would typically fall in the higher income groups) to purchase or refinance at lower cost over the decade.

While higher income households saw cost burdens decrease over the last decade, households with fewer means saw their burdens increase. The proportion of cost burdened households increased from 79.4% in 2009 to 80.4% in 2019 for extremely low-income households (earning 30% or less of AMI). For those households in the very low-income category (earning between 30% and 50% of AMI), the proportion of cost-burdened households increased from 76.1% in 2009 to 78.0% in 2019. Housing supply and demand obviously played a factor, but demographic change may also be partly responsible for the increase in cost-burdened households.

Graph 8 illustrates this demographic change between the U.S. Census five-year estimates in 2009 and 2019. These changes could come from households moving into the region or movement up (or down) the income ladder for current residents. The region saw an increase of 13,137 households with very low or extremely low income, which more than offset the 10,574 increase in households above the AMI. One possible explanation is that residents with the means to do so have left in search of improved economic opportunities. Census population data points to this phenomenon as Hampton Roads has seen a decline in those in their prime working years over the last decade. As these higher-educated, higher-income residents leave, some have been replaced with new residents of lower means. A larger number of households in the poorest income categories increases the competition for already scarce affordable housing, limiting the ability of these households to save for an emergency, cope with an unexpected job or family shock, or invest in their education.

GRAPH 7

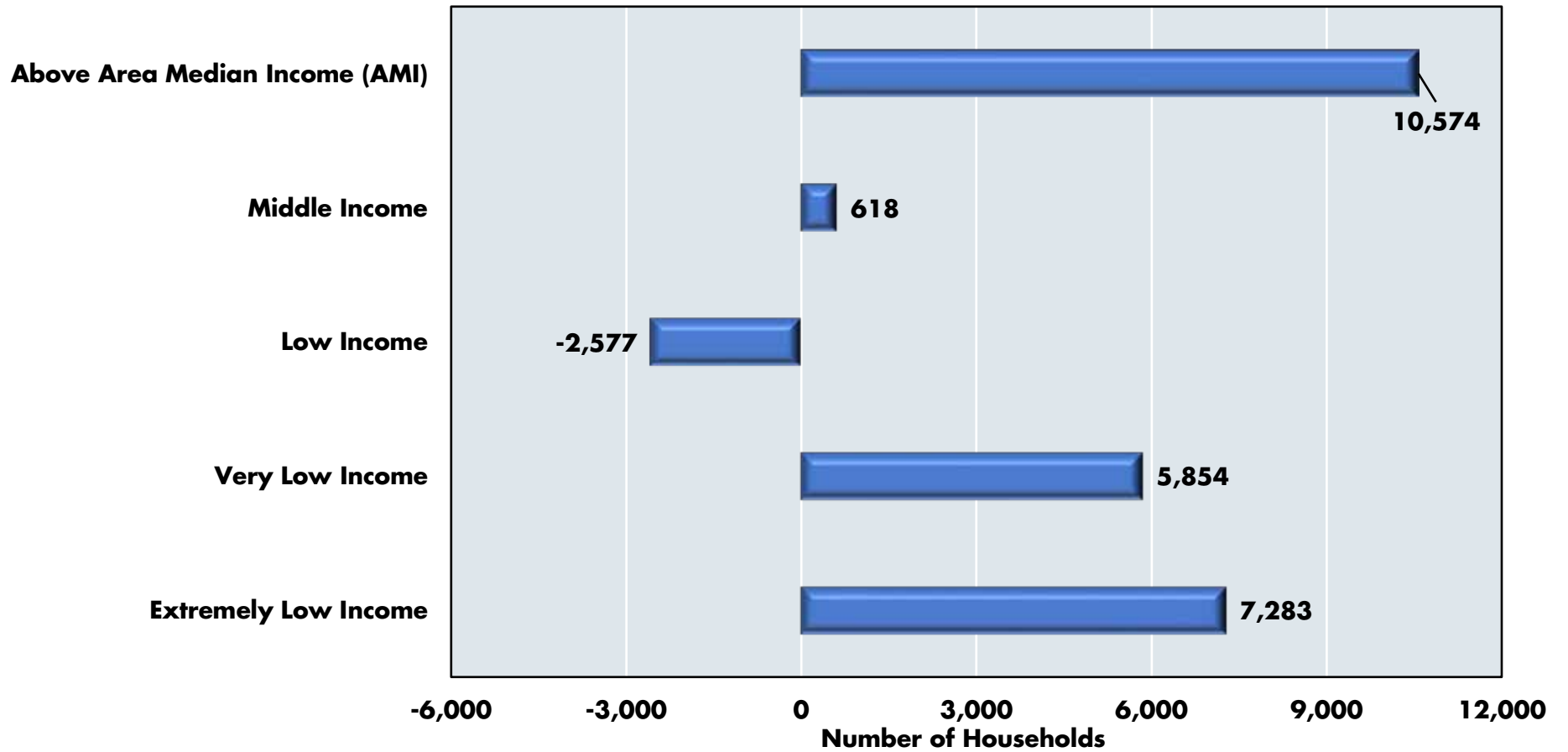
**PERCENTAGE OF COST-BURDENED HOUSEHOLDS BY INCOME GROUP
HAMPTON ROADS, 2009 AND 2019**



Sources: U.S. Census Bureau, American Community Survey, 5-year data for 2005-2009 and 2015-2019, and the Dragas Center for Economic Analysis and Policy, Old Dominion University.

GRAPH 8

**CHANGE IN NUMBER OF HOUSEHOLDS BASED ON DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT INCOME THRESHOLDS
HAMPTON ROADS, 2009-2019**



Sources: U.S. Census Bureau, American Community Survey, 5-year data for 2005-2009 and 2015-2019, and the Dragas Center for Economic Analysis and Policy, Old Dominion University.

The Characteristics of Cost-Burdened Households

Hampton Roads, like many regions, has a stark demographic disparity between households considered cost burdened (those spending more than 30% of household income on housing) and not cost burdened (those spending less than 30% of household income on housing). According to Table 3, the median income for cost-burdened households in 2019 was \$30,350, only 15% higher than the 2019 Federal Poverty Guideline for a four-person household. In contrast, median income for not cost-burdened households was \$88,000 in 2019, nearly three times higher than their cost-burdened peers. In addition to income level, the ownership status of one’s dwelling plays an important role in determining into which group a household fell. While renters and owners were split nearly evenly in the cost-burdened group, 73% of non-burdened households owned their homes.

Graph 9 further illustrates the difference between renters and owners. Between the five-year periods ending in 2009 and 2019, the cost burden for renting households slightly rose, while the burden for homeowners with and without mortgages declined. While the overall cost burden for the region fell, this change was primarily driven by homeowners. Specifically, the largest decline was seen with mortgage-owning homeowners, which was likely driven by refinancing and historically low interest rates.

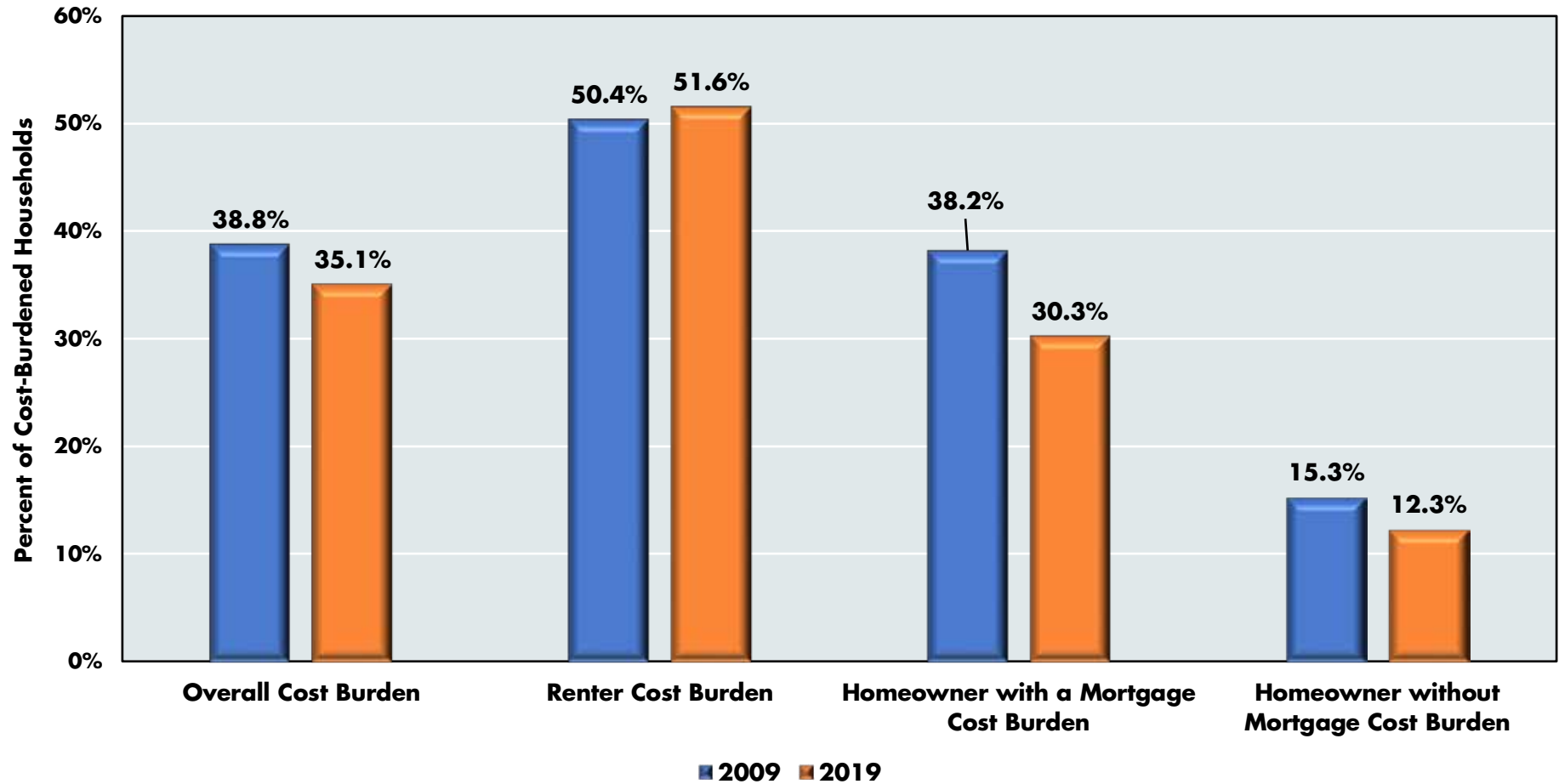
Is this trend the same across all cities in the region? Table 4 shows this renter-owner burden breakdown for each city and county in Hampton Roads. The total cost burden was highest in many of the more urban cities within the region (Norfolk, Newport News, Portsmouth) while the renter cost burden was indiscriminate about urban-rural status, with areas like Williamsburg and Franklin having similar shares of cost-burdened renter populations.

		Cost-Burdened Households	Not Cost-Burdened Households
Median Income		\$30,350	\$88,000
Median Percentage of Income Spent on Housing		45%	17%
Housing Type	renter	54%	27%
	owner	46%	73%
Median Age of Householder		48	52
Race of Householder	White	51%	66%
	Black	38%	25%
	Asian	2%	3%
	Other Races	9%	7%
Ethnicity	Non-Hispanic	94%	96%
	Hispanic	6%	4%
Gender of Householder	Male	40%	53%
	Female	60%	47%
Median Number of People in Household		2	2

Sources: U.S. Census Bureau, American Community Survey, 5-year data for 2015-2019, and the Dragas Center for Economic Analysis and Policy, Old Dominion University.

GRAPH 9

**PERCENT OF COST-BURDENED HOUSEHOLDS BY HOUSING TYPE
HAMPTON ROADS, 2009 AND 2019**



Sources: U.S. Census Bureau, American Community Survey, 5-year data for 2005-2009 and 2015-2019, and the Dragas Center for Economic Analysis and Policy, Old Dominion University.

TABLE 4

**COST-BURDENED HOUSEHOLDS BY LOCALITY
HAMPTON ROADS, 2015 - 2019**

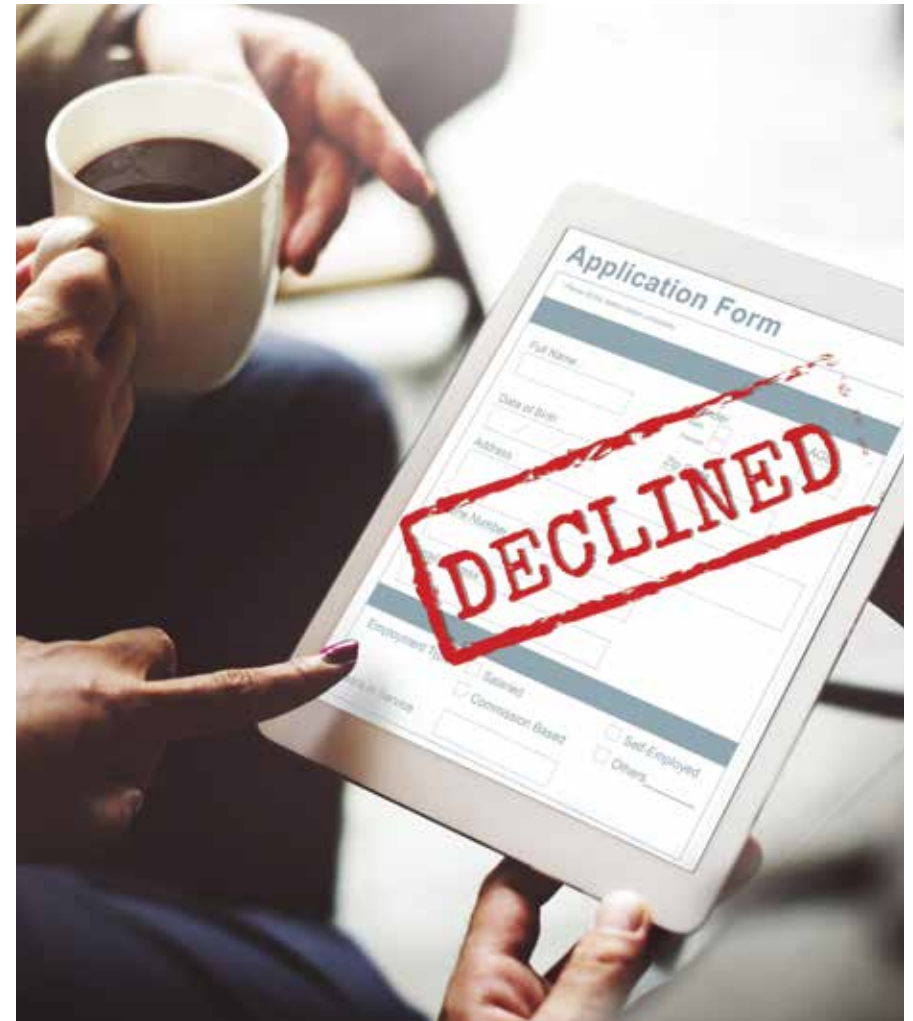
Locality	Total Cost Burden	Owner Cost Burden	Renter Cost Burden
Camden County	30.2	26.8	51.1
Chesapeake city	32.6	24.3	54.4
Currituck County	27.0	22.8	50.0
Franklin city	37.5	22.4	54.2
Gates County	28.3	25.5	41.7
Gloucester County	24.8	19.2	46.9
Hampton city	37.9	27.0	52.2
Isle of Wight County	27.1	21.9	46.5
James City County	26.5	20.6	47.3
Mathews County	26.7	22.2	52.7
Newport News city	40.0	25.7	54.1
Norfolk city	42.1	29.3	52.3
Poquoson city	25.5	22.3	42.3
Portsmouth city	40.5	29.0	55.5
Southampton County	26.1	20.8	46.2
Suffolk city	33.9	25.7	53.0
Virginia Beach city	34.7	26.9	48.6
Williamsburg city	34.9	15.3	55.3
York County	27.7	19.7	48.7
Hampton Roads	35.1	25.3	51.6

Sources: U.S. Census Bureau, American Community Survey, 5-year data for 2015-2019, and the Dragas Center for Economic Analysis and Policy, Old Dominion University.

How Does Hampton Roads Compare to Other Metropolitan Areas?

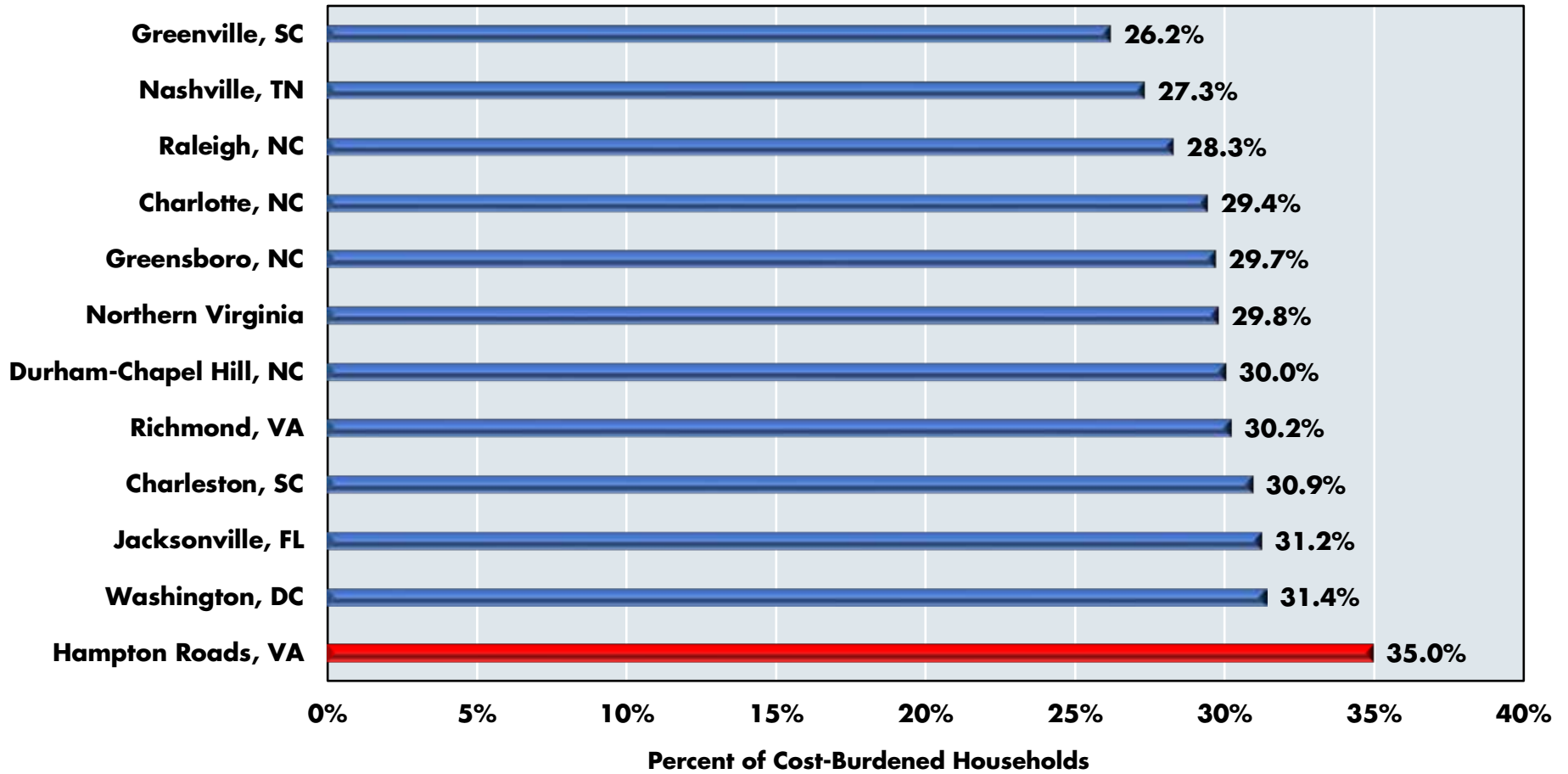
Whether or not Hampton Roads is affordable relative to other metropolitan statistical areas (MSAs) is more than an academic question. Public pronouncements often tout the quality of life and affordability of the region, especially relative to higher-cost areas like Northern Virginia. If we are to succeed in changing the narrative of the region, we need to know where we stand, regardless of whether the news is good or bad.

Graphs 10 and 11 compare the percentage of cost-burdened and severely cost-burdened households in Hampton Roads with selected metro areas in Virginia and neighboring states. In the five-year period ending in 2019, Hampton Roads had the highest percentage of households that were classified as cost burdened and severely cost burdened, more than any other selected metropolitan area. While the cost of housing may be higher in Northern Virginia, for example, incomes are higher, and thus housing cost as a percentage of income is lower for many households. Indeed, the number of cost-burdened households was 5 percentage points lower in Richmond, our closest geographic competitor along I-64.



GRAPH 10

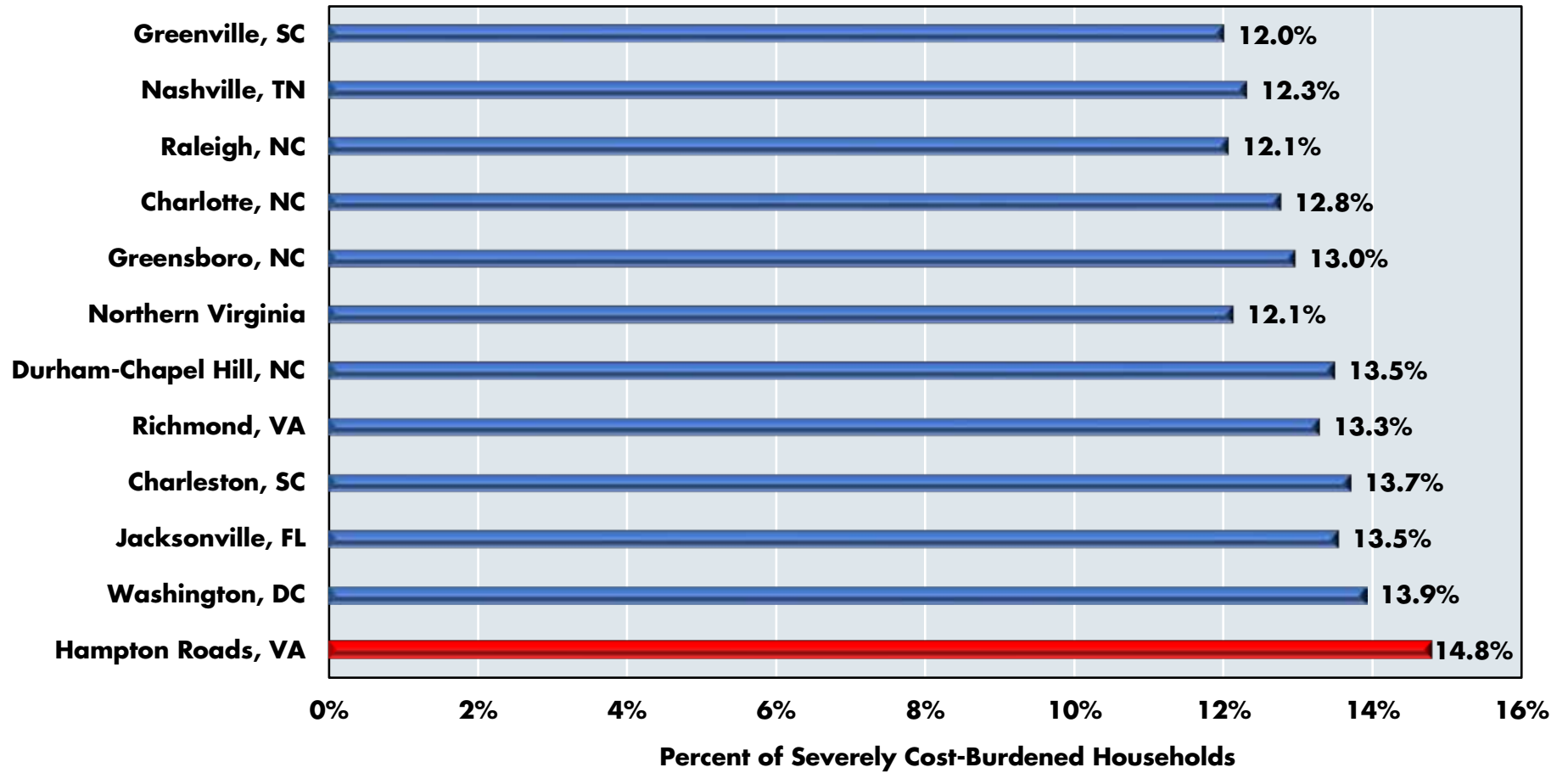
**PERCENT OF COST-BURDENED HOUSEHOLDS BY SELECTED REGION
2015 - 2019**



Sources: U.S. Census Bureau, American Community Survey, 5-year data for 2015-2019, and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Cost-burdened households spend 30% or more of their income on housing.

GRAPH 11

**SEVERELY COST-BURDENED HOUSEHOLDS BY SELECTED REGION,
2015 - 2019**



Sources: U.S. Census Bureau, American Community Survey, 5-year data for 2015-2019, and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Severely cost-burdened households spend 50% or more of their income on housing.

Renters Are Most Cost Burdened in Hampton Roads

While the American dream may include owning a single-family residence, many residents of Hampton Roads live in multi-family housing. Renters are disadvantaged by the tax code as they are unable to deduct a portion of rent, unlike many homeowners who might be able to claim a deduction for mortgage interest. Homeowners were also able to refinance into lower-interest mortgages over the past decade, lowering their housing payments, a financial alternative not available to those who rent. Renting may also be the only alternative for households with lower incomes and insufficient savings.

Table 5 provides estimates of the proportion of households that are cost burdened (spending between 30% and 50% of household income on housing) and severely cost burdened (spending more than 50% of household income on housing). While Hampton Roads was only fourth-highest in the share of selected MSA households that were severely cost burdened, the overall cost burden share in the region was more than a percentage point above Washington, D.C., the MSA with the second-highest share. Some of our closest neighbors, including Raleigh, Durham, and Charlotte, had a cost-burdened share up to 5 percentage points lower than our region.

	Cost Burdened (Between 30 - 50%)	Severely Cost Burdened (Greater than 50%)	Overall Cost Burdened Households (Greater than 30%)
Hampton Roads, VA	27.3	23.5	50.8
Washington, DC	25.0	24.3	49.3
Richmond, VA	24.6	24.1	48.7
Greensboro, NC	26.0	22.6	48.6
Nashville, TN	24.6	23.4	48.0
Jacksonville, FL	26.2	21.5	47.7
Charleston, SC	25.2	22.4	47.7
Greenville, SC	22.5	24.6	47.1
Charlotte, NC	25.2	21.3	46.5
Durham-Chapel Hill, NC	23.7	22.0	45.6
Raleigh, NC	24.6	20.8	45.4
Northern Virginia	24.8	20.6	45.3

Sources: U.S. Census Bureau, American Community Survey, 5-year data for 2015-2019, and the Dragas Center for Economic Analysis and Policy, Old Dominion University.

Does What Makes Hampton Roads Unique Make It Less Affordable?

Many places in the U.S. have characteristics that make them unique and subsequently drive their local economy and housing market. Nashville has its music scene, Las Vegas has its vices, and Detroit is the Motor City, to name a few. For Hampton Roads, it is access to the water, which can be a blessing and a curse, along with the region's ties to federal spending, most notably the Navy. Let us first look at how the attractiveness of the region may reduce housing affordability.

For those that love the temperate Mid-Atlantic climate and warm sandy beaches, Hampton Roads is a desirable place to take a vacation or live. It is what economists call a high-amenity area. Amenities are difficult to directly measure, but this could explain some of the lack of housing affordability in Hampton Roads.

The economic idea is simple and goes back to pioneering economist Alfred Marshall in 1890.⁸ If a region, such as Hampton Roads, has better amenities than other areas, then to keep everyone from moving in, housing costs must increase, wages decrease, or some combination of the two. Another way to think about this is that some Hampton Roads residents are willing to have a higher housing cost burden to live in the region because of the amenities they enjoy. Selling a region on "quality of life" implicitly argues that too many new people may "ruin" the region.

Another way amenities could influence housing affordability is through tourism and the short-term rental market. Short-term rental companies like Airbnb are continuing to expand their reach in high-amenity locations throughout the region. Short-term rentals could impact affordability in two ways, both of which are challenging to measure. First, the popularity of short-term rentals could lead investors to purchase properties in desirable locations, such as near Virginia Beach's oceanfront or downtown Norfolk. Housing units transitioned

⁸ Marshall, Alfred. 1890. *Principles of Economics*. London: Macmillan.

to short-term rentals decrease the supply of available housing and subsequently increase housing expenses for residents. This relationship is corroborated by several studies in peer-reviewed academic literature.⁹ Current residents could also use Airbnb or other short-term rental platforms on a temporary basis to earn additional income to offset a high housing cost burden.

The water in Hampton Roads can also encroach in ways that harm the housing market. Using this line of reasoning, geographic constraints such as water, swamp, or marsh can make housing construction difficult and expensive. In economics, this concept is quantified in the housing supply elasticity, which measures how responsive the quantity of housing units is to changes in the price of housing. For example, an elasticity greater than 1.00 means that for a 1% change in price, the increase in housing supply will be greater than 1%. Conversely, an elasticity less than 1.00 means that for a 1% change in price, the increase in housing supply will be less than 1%.

Table 6 shows estimates of the housing supply elasticity for selected metro areas from a widely cited academic study by Albert Saiz. Based on its physical features, Hampton Roads has a supply elasticity like Miami and San Francisco. Interpreting the region's elasticity literally means that increasing the housing price by 1 percent only yields a 0.78 percent increase in the number of housing units. Intuitively, if more households want to move to the region, we are more likely to see housing prices increase relative to expansion in housing units through new construction or renovations. In contrast, many other East Coast cities, such as Raleigh, Charleston, or even Washington, D.C., tend to see an increase in the number of housing units as the housing prices rise. Simply put, more housing units could lead to more affordable housing.

⁹ For example, Horn, Keren, and Mark Merante. "Is home sharing driving up rents? Evidence from Airbnb in Boston." *Journal of Housing Economics* 38 (2017): 14-24. Lee, Dayne. "How Airbnb short-term rentals exacerbate Los Angeles's affordable housing crisis: Analysis and policy recommendations." *Harvard Law & Policy Review* 10 (2016): 229.

TABLE 6

HOUSING SUPPLY RESPONSIVENESS BY MSA, 2010

Region	Housing Supply Elasticity
Hampton Roads, VA	0.78
Washington, DC	1.28
Nashville, TN	2.03
Jacksonville, FL	1.06
Greenville, SC	2.70
Greensboro, NC	2.39
Raleigh, NC	1.50
Charleston, SC	1.38
Miami, FL	0.57
San Francisco, CA	0.59
Wichita, KS	5.16

Source: Housing supply elasticity estimates from Saiz, Albert. "The geographic determinants of housing supply," *The Quarterly Journal of Economics* 125.3 (2010): 1253-1296.

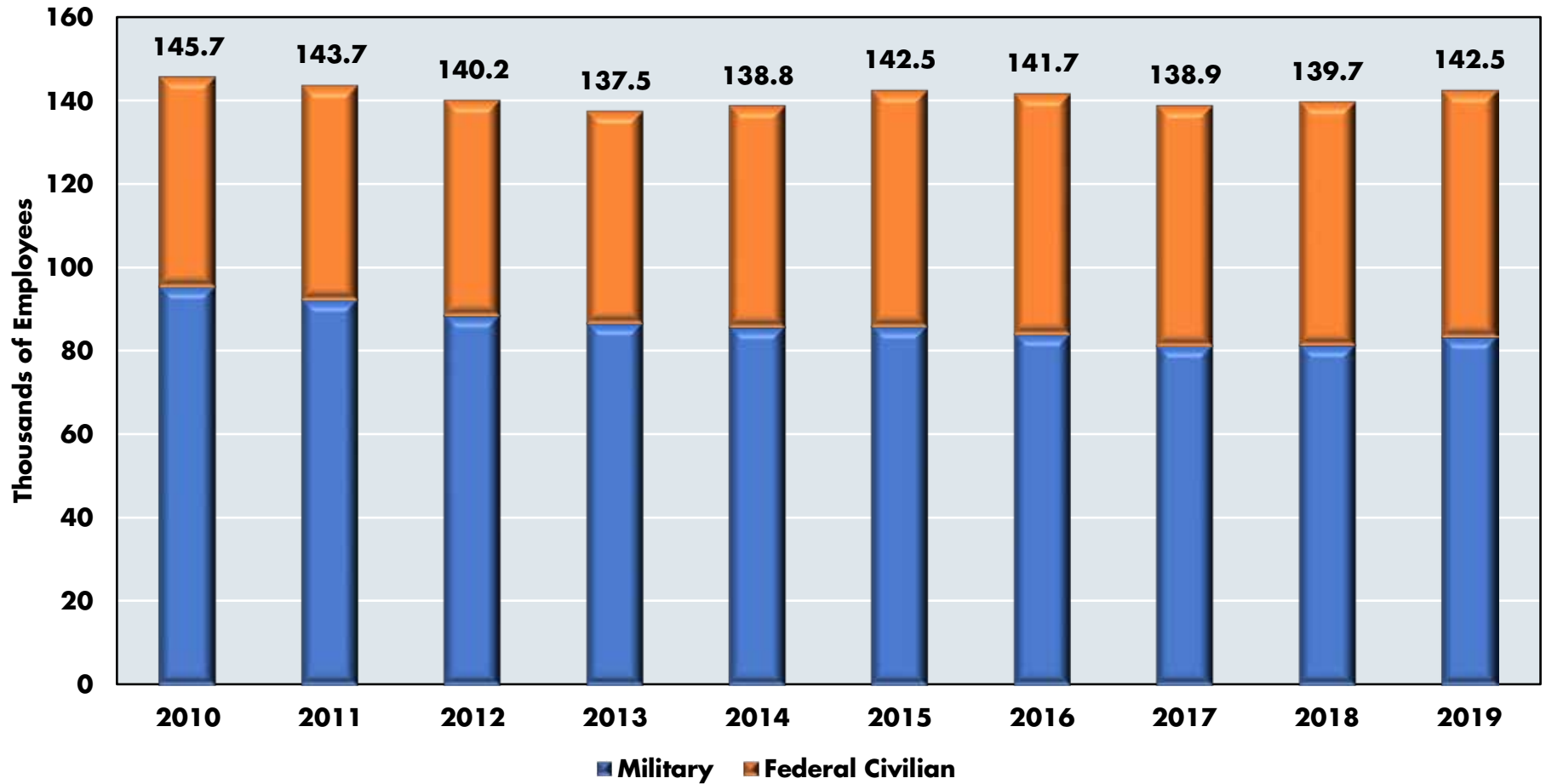
The Federal Government: Is it Contributing to the Problem?

It is no secret to those in Hampton Roads that the federal government, specifically the Department of Defense, is a crucial player in the local economy. In many obvious and some subtle ways, the regional housing market and housing affordability are based on spending and personnel decisions made in Washington, D.C.

Graph 12 shows how large and steady federal employment has been in Hampton Roads. The region has averaged over 140,000 military and federal civilian workers over the last decade. Even though the number of military personnel has declined, the federal civilian workforce has grown to bridge the gap. Furthermore, the federal workforce in Hampton Roads enjoys competitive wages and benefits compared to the private sector. Table 7 shows how the average military and federal civilian workers' compensation stacks up with the average compensation for workers in the private sector. Federal civilian employees earned upwards of \$118,000 in 2019, followed by military personnel at \$100,000, while private nonfarm workers earned on average \$48,000. The sheer size, job stability, and purchasing power of federal workers puts pressure on the housing market, especially for low-wage civilian workers.

GRAPH 12

**MILITARY AND FEDERAL CIVILIAN EMPLOYMENT
HAMPTON ROADS, 2010 TO 2019**



Source: Bureau of Economic Analysis.

TABLE 7

**AVERAGE EARNINGS BY OCCUPATION
HAMPTON ROADS, 2001, 2018, 2019**

	Average Earnings in 2001	Average Earnings in 2018	Average Earnings in 2019	Cumulative Average Growth Rate 2001 to 2010	Cumulative Average Growth Rate 2010 to 2019	Percent Change 2018 to 2019
Military	\$47,043	\$97,063	\$100,764	7.21%	1.51%	3.81%
Federal Civilian Govt. Employees	\$62,931	\$115,544	\$118,211	4.53%	2.61%	2.31%
Private Nonfarm	\$33,237	\$47,059	\$48,161	2.68%	1.48%	2.34%

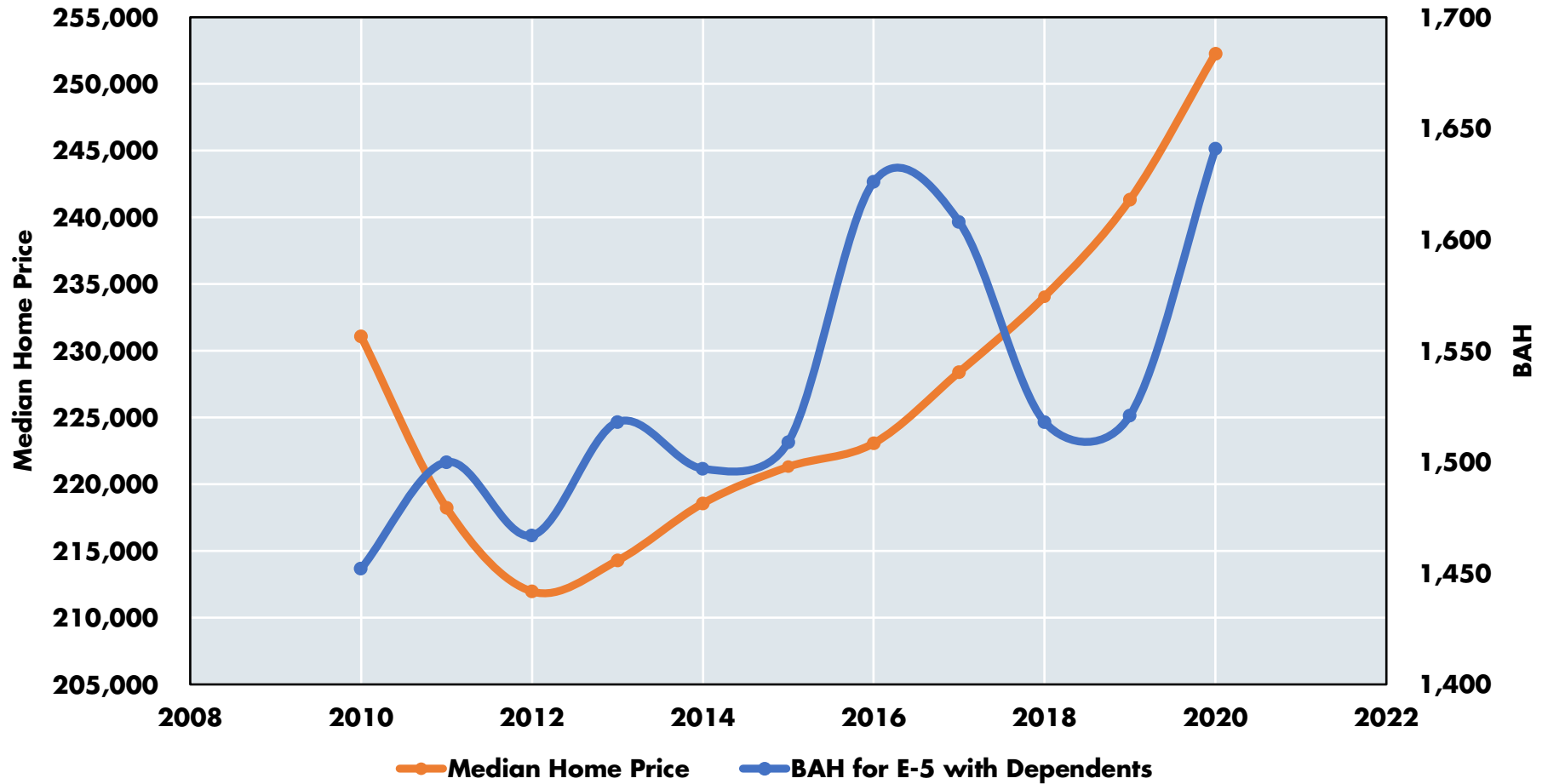
Source: Bureau of Economic Analysis. Data as of November 17, 2020.

Military personnel typically have access to unique financing options, such as Veterans Administration (VA) loans, and part of their overall compensation includes an allowance (in many cases) to offset housing costs. VA loans may require a small or no down payment and may increase upward price pressure in the region. Furthermore, local military installations have some housing available to service members, but there are not enough units (or the quality level demanded by some service members) to cover all military personnel and their families. This has led the Department of Defense to find ways to encourage military personnel to find housing in the private sector. The chief way they accomplish this is by including a Basic Allowance for Housing (BAH) in their compensation. The BAH is based on rank, years of service, and location (military housing area), and is designed to cover approximately 95% of housing rental and utilities.

The BAH serves as a way for the Department of Defense to adjust military compensation based on the local housing market. The stated goal of the program is to mimic local housing markets to ensure adequate housing near each duty station. Graph 13 provides some evidence that this is true by comparing the evolution of the median home price for Hampton Roads and the BAH for an E-5, a Petty Officer Second Class, one of the largest ranks by personnel in the Navy. Despite matching the trends in the local housing market, real estate and leasing professionals point to the BAH as a reference point for setting rents. For example, due to the number of military personnel that cycle through the region every few years, it is common for landlords to base their rent on the BAH for a particular rank.

GRAPH 13

MEDIAN HOUSING PRICES AND THE BASIC ALLOWANCE FOR HOUSING
HAMPTON ROADS, 2010 TO 2020



Sources: Zillow, the Department of Defense and the Dragas Center for Economic Analysis and Policy, Old Dominion University. BAH reflects the Norfolk-Portsmouth military housing area.

Final Thoughts

Increasing housing affordability is a thorny problem. Many players are involved in the housing market: developers, builders, landlords, current residents, future residents, regulators, and policymakers, among others. With the web of entrenched interests, it will take more than a single program, policy, or political party to change our fortunes. An important first step, though, is to admit we have a problem. Because there is one practically universal truth, we can either pay the consequence now, or pay it later, but we will face the music at some point.

While housing affordability includes both the cost of housing and household income, meaningful progress likely needs to come from increasing the supply of affordable housing units. Local solutions will require both some degree of creativity and resolve.

Create efficiencies and rethinking zoning. Cities and counties will need to look for ways to reduce “red tape” for new construction, particularly for affordable units, as well as reducing exclusionary zoning – land use and building code requirements that keep affordable housing units out of some neighborhoods. In contrast, so-called inclusionary zoning policies show promise.¹⁰ Inclusionary zoning is a set of tools to ensure private developments set aside some affordable units (either at the same site or a separate site) at below-market rates or pay into a fund to develop those units directly.

Increasing density without concentrating poverty. While the “American Dream” is to own a single-family, detached residence, we must also recognize that we cannot (nor do we want to) create an urban sprawl like Houston or Los Angeles. Water limits our ability to spread out and so one choice is to build up, not out. In this respect, urban movements like “the missing middle”¹¹ provide a blueprint for how diverse housing options, such as duplexes, fourplexes, and cottage courts can add density and affordability.

With the baby boomer generation aging out of single-family housing, the demand for condominiums and apartment housing is likely to only increase in the coming decade. We must take care not to build denser housing that creates concentrations of poverty. One only needs to look at how these types of public housing projects have failed their residents and communities in the past.

Explore New Financing Methods. Finally, developers are feeling the squeeze from pandemic-related supply chain issues, rising construction costs, and climbing interest rates. To ensure more affordable units enter the pipeline, it will be important to find creative ways to bridge the financing gap. Public schools are sometimes built using the “sale and leaseback” financing model, and it may be useful to explore this and other models of financing that create value for residents and developers over time. While expanding the Section 8 housing voucher program may reduce the cost burdens faced by some households, the waiting lists for affordable housing are long and growing. Building new affordable housing is necessary; the question is whether we have the political will to increase density and change zoning to make this happen. While no solution is easy, we do know this: Without action, the rent will remain too damn high for many in Hampton Roads.

¹⁰ Burnett, Komarek, Stacy, Noble, & Hodge. *Inclusionary Zoning*. Urban Institute. July 2021.

¹¹ Parolek, Daniel G. *Missing Middle Housing: Thinking Big and Building Small to Respond to Today's Housing Crisis*. Island Press, 2020.



Splish – Splash – Cash: Swimming in Hampton Roads



SPLISH – SPLASH – CASH: SWIMMING IN HAMPTON ROADS

“The City of Hampton envisions a city of swimmers, where residents and visitors alike enjoy water recreation with confidence in their swimming ability. Swimming is an essential skill that all children should learn; however, many Hampton—and Hampton Roads—residents do not know how to swim.”

Mary Bunting, City Manager, Hampton, Virginia

In April 2022, Nicole Anderson, project manager with Clancy & Theys Construction Company, led a tour of a large construction site in Hampton, Virginia. Located near the Hampton Coliseum, the construction site was the center of intense interest, especially among those who spend time in the water. Ms. Anderson noted the structure, when complete, would possess unique architectural features including a “paddock excavator” to filter chlorinated air out of the building to an advanced acoustic deck that would distribute sound more evenly. With large double doors to allow natural light, the facility would become home to athletes from around Hampton Roads, and, in time, host events that will bring competitors and their dollars to the region.

Now, with the doors about to open, the Hampton Virginia Aquaplex is moving to live up to its promise, inviting residents from around the region and beyond to come jump in the pool. The Hampton Aquaplex is the largest (and newest) aquatic facility in the Commonwealth of Virginia. It represents the culmination of a multi-year effort by the city of Hampton and decades of hope and encouragement from local swimmers. The Aquaplex is not just about having a more convenient place to swim or play in the pool, it is also about the potential for being an economic catalyst of sports tourism in Hampton and the greater metropolitan region.

“I’m excited. The Aquaplex will be Hampton Roads’ headquarters for competitive swimming and diving events,” said Mary Bunting, City Manager for Hampton. A swim parent herself, Bunting said Hampton Roads’ swimmers have needed to travel to other Virginia, Maryland and North Carolina cities in order to compete in facilities large enough to accommodate regional meets. The Aquaplex may not be the first Olympic-length (50-meter) pool in the region, but it has been purposely built with sports tourism in mind. The combination of an eight-lane competition pool with a state-of-the-art timing and scoring system, a second “programming” pool, elevated seating for

1,500 spectators and room for 760 competitors on deck, makes it a unique community asset.

The facility cost of \$29.5 million meant that approval of the Aquaplex was hard-won. “That’s a big number,” said Katy Arris-Wilson, president of TIDE Swimming in Virginia Beach, the region’s largest competitive club. However, the city of Hampton hopes to recoup that investment by hosting regional and national events. In July 2021, the Hampton Convention & Visitor Bureau announced the Aquaplex as host site for the 2023 USA Artistic (Synchronized) Swimming Junior Olympic Championship. “We are proud to announce this national competition as the first on the books for this sparkling new aquatic venue,” said director Mary Fugere.

Still, a few years of packed council meetings with passionate proponents and opponents has convinced the city that the Aquaplex needed to be a true community asset. “It was a hard sell for the 50% of the community that does not feel connected to swimming. It took six years of conversation to get it across the finish line,” Bunting said. Through the Aquaplex, which will replace the Hampton Aquatics Center on Butler Farm Road, the city of Hampton will provide learn-to-swim lessons for every second grader enrolled in Hampton

Public Schools. “We envision a city of swimmers, where residents and visitors alike are able to enjoy water recreation with confidence in their swimming ability.”

Simple geography suggests that Hampton Roads should be a regional and national leader in aquatic recreation; the region is surrounded on three sides by water. Between club and recreational swimming, high school and college competitions, swimming lessons, and life-long swimmers doing the sport for fitness, tens of thousands of Hampton Roads residents touch the water in some fashion. Yet, the region does not share the depth of facilities and quality of competition of other regions like Fredericksburg and Christiansburg in Virginia or Cary and Greensboro in North Carolina. Cost is a concern, as swimming pools typically do not generate sufficient revenue to offset operating and maintenance expenditures. Asking taxpayers to fund such a facility involves frank discussions of who swims and who pays for the facility.

The Aquaplex is a tangible investment in the sport. What else is needed to help nurture a healthy, water-safe population in the community? This chapter of the State of the Region report will look at issues such as the region’s lack of access to swimmable water, the concerning demographic differences in water safety aptitude (and the more concerning historic reason for that), and the generational shortage of lifeguards in the region. It will also ask whether the Aquaplex could be an inflection point for swimming in Hampton Roads.

Swimming in the United States and Virginia

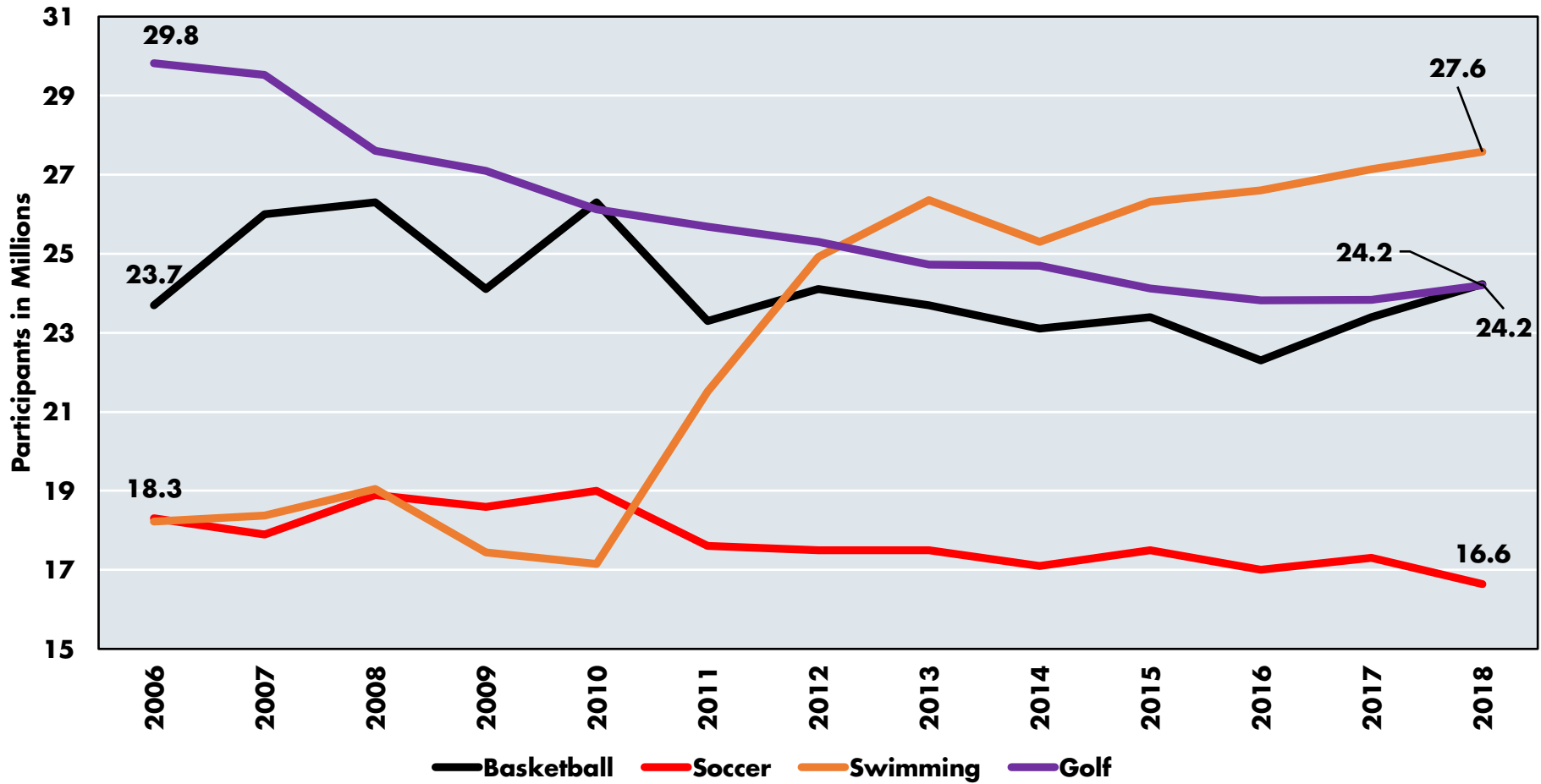
There is an important difference between what sports Americans watch and in which sports Americans participate on a regular basis. Professional baseball, basketball, football, hockey, and soccer sit atop national television ratings. In terms of individual participation, however, swimming ranks among the most popular (if not the most popular) recreational activity (Graph 1). Since 2006, swimming has ascended, with almost 9 million more individuals in the water while golf, on the other hand, has lost over 5 million active participants.

Graph 2 displays membership in USA Swimming, the national governing body for the sport of swimming in the United States, from 2000 to 2020. Membership in USA Swimming is a gauge of interest in swim team membership and a precursor to swimming in high school and college. Membership in USA Swimming is also proxy for the health of the sport as it primarily captures younger swimmers (the median swimmer was 12 years old in 2020). From 2000 to 2017, USA Swimming added 133,120 members before experiencing a slight decline in membership prior to the COVID-19 pandemic. The impact of the pandemic is evident, with membership declining from 411,672 in 2019 to 363,093 in 2020, a loss of 11.8%.

While national level data on who participates in swimming by race are not readily available, we do have data from USA Swimming and the National Collegiate Athletic Association (NCAA). We focus first on USA Swimming year-round swimmers. When these members and their families were asked to self-identify their race or ethnicity, approximately one-third chose not to respond in 2020. With this caveat in mind, Graph 3 displays the responses to the race or ethnicity question for 2020. The data strongly suggest, even accounting for non-responsiveness, that many USA year-round swimmers identify as white (45.2%). Only 4,490 of 294,046 respondents (1.5%) self-identified as African American or Black, with 3.4% identifying as Hispanic or Latino, and 8.8% identifying as Asian.

GRAPH 1

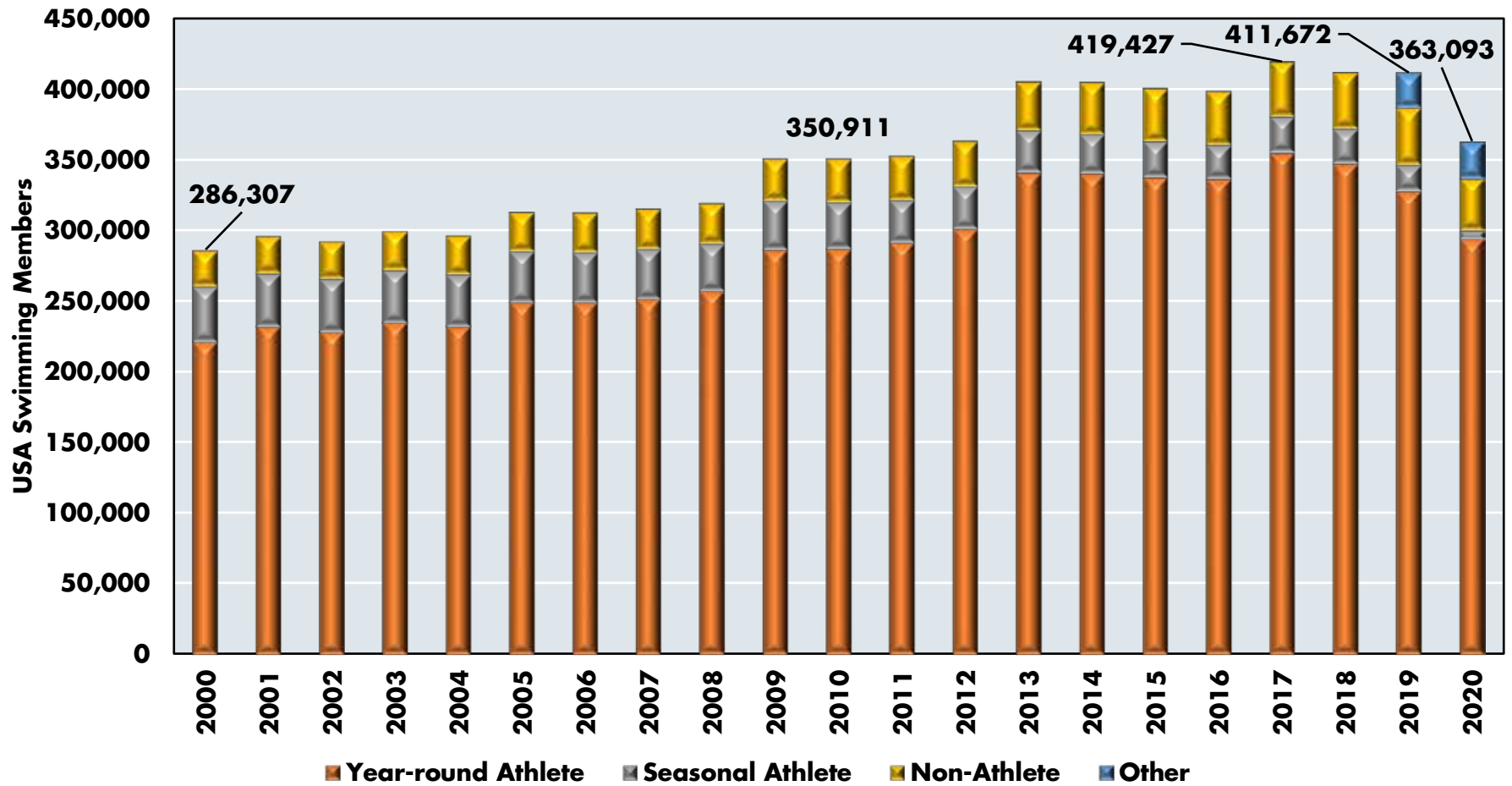
PARTICIPATION IN BASKETBALL, GOLF, SOCCER, AND SWIMMING
MILLIONS OF PARTICIPANTS
UNITED STATES, 2006-2018



Source: Statista.com. Soccer includes participants of outdoor and indoor soccer.

GRAPH 2

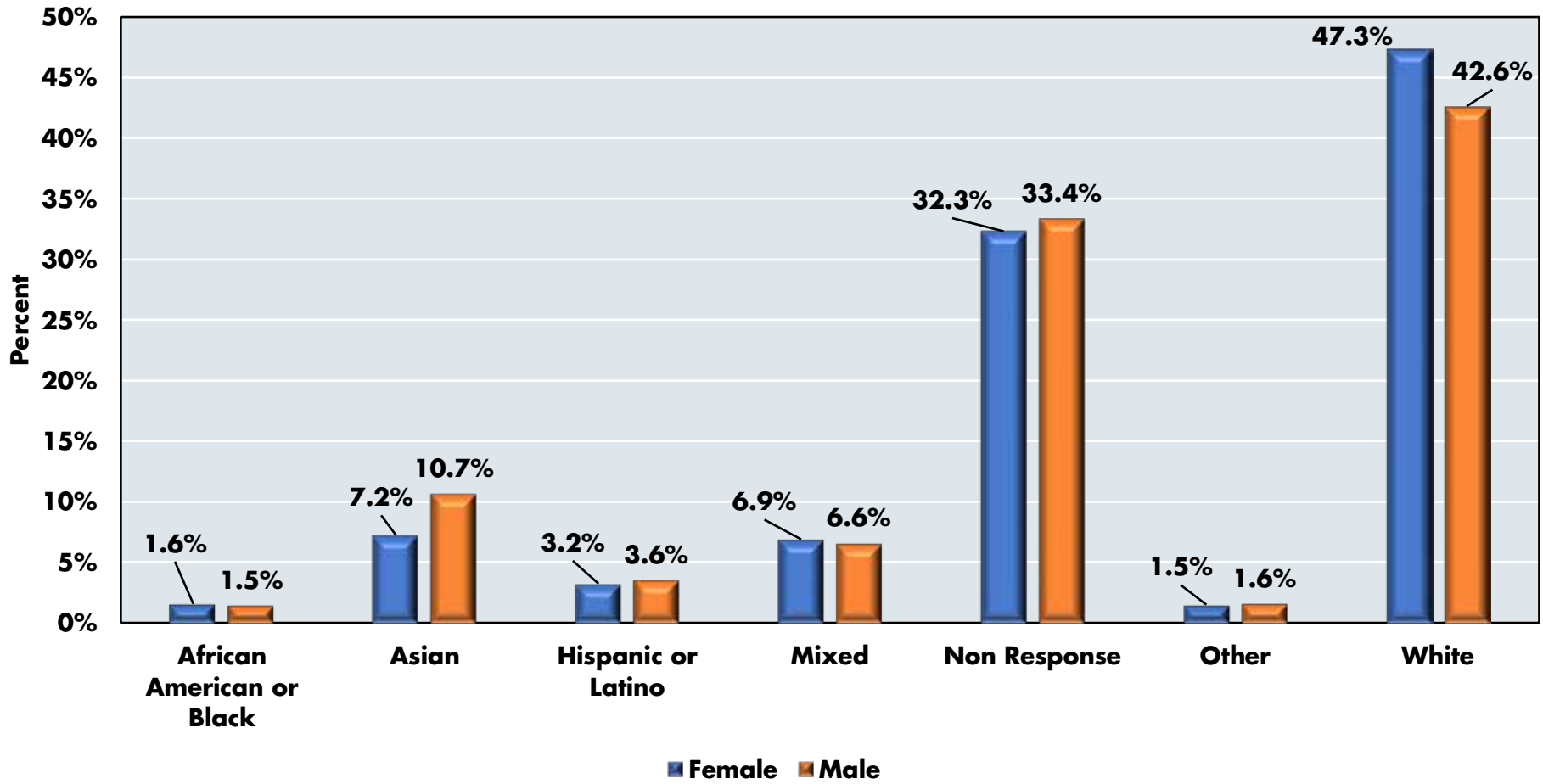
MEMBERSHIP IN USA SWIMMING
2000-2020



Source: USA Swimming 2020 Membership Demographics Report. Non-athletes are coaches, officials, board members, parents, and other individuals who do not swim. "Other" includes flex athletes (a new type of member starting in 2019) and single meet/open water athletes.

GRAPH 3

**DEMOGRAPHICS OF PREMIER AND OUTREACH MEMBERS
USA SWIMMING, 2020**



Source: USA Swimming 2020 Membership Demographics Report.

In Table 1 we compare the distribution of athletes by race and selected sport for 2012 and 2021. Compared to other major sports and the U.S. population, African Americans are underrepresented in NCAA swimming. In 2012, 150 women and 151 men who identified as Black participated in swimming at the college level. In 2021, the number of Black athletes had increased to 401. In 2021, more than 7 out of 10 collegiate swimmers were white compared to about 2 out of 100 Black swimmers. There appears to be significant weight to the argument that low levels of minority representation in youth swimming reduces the talent pipeline flowing into colleges and universities.

In Virginia, while swimming at the high school level has grown over the last decade, its growth is eclipsed by sports such as soccer and basketball. In Graph 4, we present the most recent athletics participation survey data from the National Federation of High Schools for several sports boys and girls play in Virginia. Basketball, soccer, and outdoor track and field all eclipse swimming and diving participation in 2018–2019 (the last year that pre-COVID data are available). Swimming and diving participation was roughly equivalent to cross-country for girls, but boys’ participation was about 60% of that for cross-country.

What explains the demographics of swimming? First, swimming participation appears to be tightly correlated with household income. A 2014 report commissioned by USA Swimming found, not surprisingly, that the average USA Swimming family household income was \$125,000, almost double that of the median household in the United States.¹ Almost 80% of children in families with household incomes less than \$50,000 in 2017 had “no/low” swimming ability. If parents had “no/low” swimming ability, there was a high likelihood their children lacked the ability to swim.² This held true even though many parents would like their children to swim more, especially if other swimmers were of the same race or ethnicity. The lack of minority representation in swimming, however, means there are fewer swimmers to model what swimming can do, a deficit that swimming

¹ Woessner, Geri. (2014). “Where’s the Beef? What are my sponsorship assets worth?” *USA Swimming*.
² “USA Swimming Foundation Announces 5-10 Percent Increase in Swimming Ability.” *USA Swimming*. May 25, 2017.

organizations in Hampton Roads, Virginia, and the United States are working to address.

Second, swimming facilities are capital intensive, not only to build but also to operate and maintain over time. Building a competition-size pool typically runs in the millions of dollars and does not include the costs associated with the chemicals, heating, and regular maintenance. High schools without pools on campus must find locations to swim, often at recreation centers, YMCAs, or colleges and universities. The lack of onsite facilities makes it harder to interest students in the sport and creates another logistical and financial hurdle to those who want to swim.

TABLE 1
STUDENT-ATHLETE DEMOGRAPHICS BY SELECTED SPORT,
2012 AND 2021
NATIONAL COLLEGIATE ATHLETIC ASSOCIATION

Sport	2012 White	2012 Black or African American	2012 Other	2021 White	2021 Black or African American	2021 Other
Men’s Basketball	43.2%	45.9%	10.9%	37.7%	44.5%	17.8%
Men’s Soccer	68.6%	7.3%	24.1%	54.9%	8.6%	36.5%
Men’s Swimming	81.1%	1.7%	17.2%	72.7%	2.1%	25.1%
Women’s Basketball	55.3%	33.2%	11.5%	50.2%	30.3%	19.6%
Women’s Soccer	80.7%	3.7%	15.6%	72.6%	4.5%	23.0%
Women’s Swimming	83.2%	1.2%	15.5%	76.3%	1.6%	22.2%

Source: National Collegiate Athletic Association (2021) NCAA Demographics Database. 2012 and 2021 reflect 2011-2012 and 2020-2021 school years, respectively.

Ryan Gregory grew up in an athletic family, just not a swim family. “He had no idea what he was in for,” said his wife, Betsy Lavin. The couple has three nationally ranked junior swimmers, son Liam, 17, and daughters Gracie, 16, and Elizabeth, 14. “Liam wants to swim in college. Gracie and Elizabeth want to qualify for the Olympics,” Lavin said. For the family, that means practice six days per week, plus 20 to 25 weekends on the road every year, paying for gas, hotels, and food for championship meets. “It’s really frustrating. Virginia is one of the fastest (growing) swim states in the country, and there are so few good practice facilities,” Lavin said.

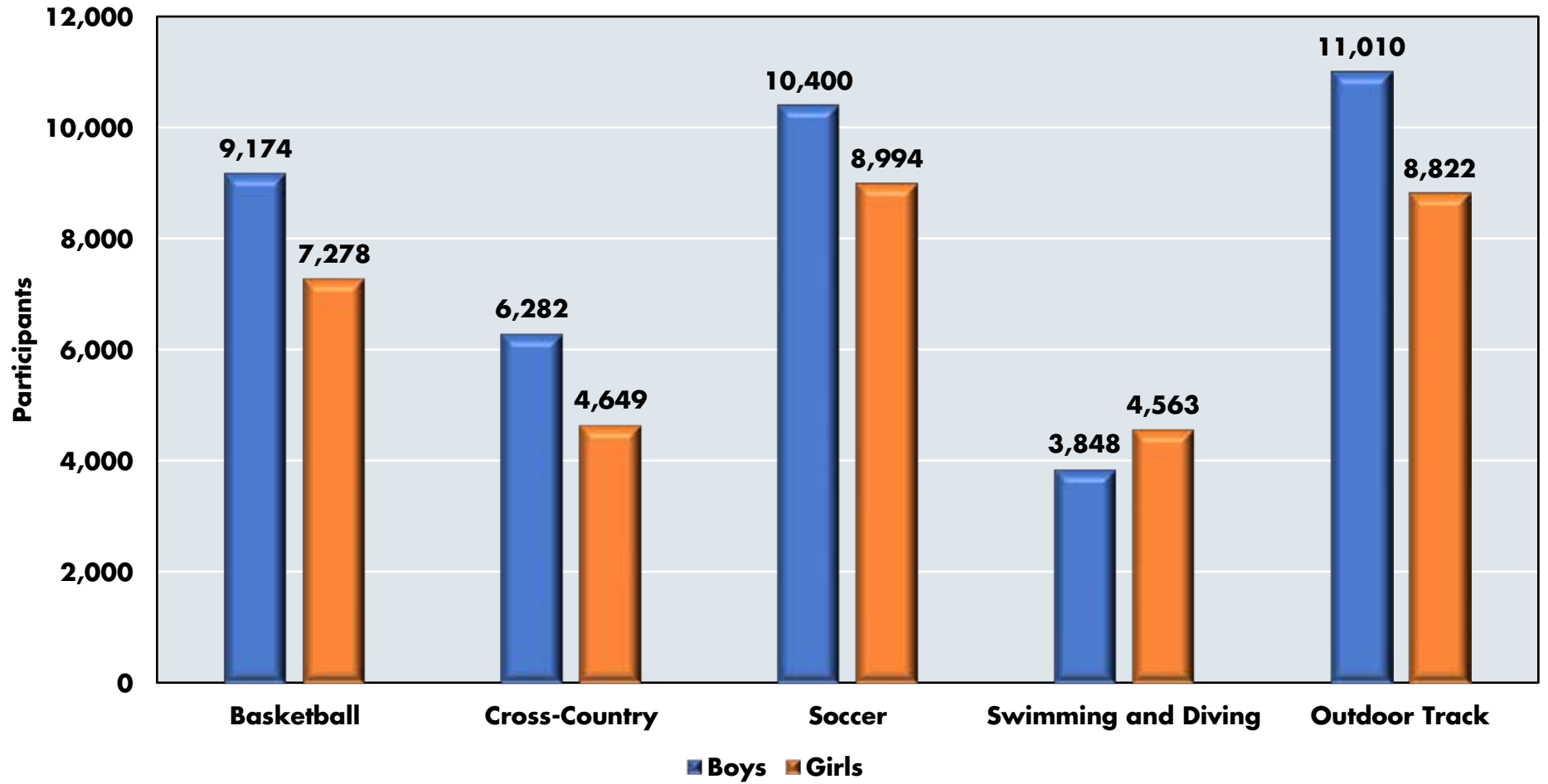
That challenge was exacerbated for a year or more by COVID-19 occupancy restriction mandates. As a workaround, Lavin and Gregory erected a small rectangular pool with a camping heater in their screened porch during the early days of the pandemic, with their kids swimming using tethers. That affordable, homemade fix meant 10 weeks of swimming in place until outdoor pools opened up. The cost savings was an anomaly. Between travel costs (multiple hotel nights during larger meets), club and meet dues (\$600-\$700 per month for the family), hydrodynamic competition suits (as much as \$600 for a girl’s suit) and other swim equipment, the bills add up quickly.

“I honestly don’t know how much it costs to swim for a month,” Lavin said. “For us it’s worth it. I like that it gives them discipline. I can probably count on one hand the number of times our kids said they didn’t want to go to swim practice.”



GRAPH 4

**SELECTED SPORT PARTICIPATION BY VIRGINIA HIGH SCHOOL ATHLETES BY GENDER
SCHOOL YEAR 2018-2019**



Source: Participation Data, NFHS. https://members.nfhs.org/participation_statistics.

Swimming, Drowning, and Disparities in Ability

Though millions of Americans enjoy swimming and other water sports every year, organizations such as the Red Cross have raised concerns about the numbers of citizens who are not comfortable in the water. The Red Cross has identified five basic swimming skills that must be performed in order to demonstrate basic swimming competency. The five basic skills are: (1) step or jump into water over your head; (2) return to the surface and float or tread water for one minute; (3) rotate in a full circle and find an exit; (4) swim 25 yards to an exit; and (5) exit from the water (if in a pool, exit without a ladder). In a 2014 Red Cross survey, 80% of respondents stated they could swim but, when asked if they could perform all five skills, only 54% responded in the affirmative.³ For African Americans, only 33% of respondents believed they could perform all five functional skills.

Table 2 presents data from the Virginia Department of Health on the number of drowning deaths by age group from 2016 to 2021. An average of 111 Virginians perished annually from drowning over this period or about one Virginian every three days. While more adults died from drowning, when we account for the size of each age group, the likelihood of dying from drowning is higher for young children than adults.

According to the Centers for Disease Control and Prevention (CDC), the leading cause of death for children ages 1 to 4 is drowning, and most drownings occur in swimming pools. Drowning is not limited to the youngest children, as it was the second-leading cause of unintentional injury death for children ages 1 to 14 in the United States and Virginia from 2010 to 2020 (Graph 5). Young males were more than two times more likely to die from drowning over this period than young females.⁴

³ American Red Cross (2017). American Red Cross Water Safety Poll. <https://www.redcross.org/content/dam/redcross/enterprise-assets/pdfs/Water-Safety-Poll-2014.pdf>

⁴ Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS) [Online]. Available at <http://www.cdc.gov/injury/wisqars>. Accessed June 8, 2021.

TABLE 2
NUMBER OF DROWNING DEATHS OF ALL TYPES
BY AGE GROUP
VIRGINIA, 2016 - 2021

Age Group (years)	2016	2017	2018	2019	2020	2021*
<1	0	0	0	1	0	0
1-4	6	9	7	11	5	11
5-9	2	4	4	3	0	2
10-14	1	4	2	1	0	2
15-19	3	3	5	1	13	4
20-24	8	6	9	5	8	4
25-34	16	11	19	12	16	20
35-44	13	6	15	16	15	13
45-54	20	11	13	9	17	10
55-64	20	21	19	22	19	17
65-74	9	13	14	19	10	22
75-84	7	9	9	6	6	9
85+	4	3	3	0	5	4
Unknown	0	0	0	0	1	1
Total	109	100	119	106	115	119

Source: Virginia Department of Health (2022). *2021 data may be incomplete, preliminary, and subject to change.

When we examine the data by race, we observe that Black children ages 1 to 14 were more likely to die from drowning than white children from 2010 to 2020 (Graph 6). For the United States, 1.7 Black or African American children per 100,000 died on average from drowning from 2010 to 2020, compared to 1.1 per 100,000 for whites. For Virginia, the story remains the same: Black children were more likely to die from drowning over the last decade than white children.

We have already noted the financial barriers to swimming in the United States, but that cannot fully explain how we ended up where we are today. Historians of the sport of swimming trace the gap in proficiency between races to resistance to court-ordered desegregation. In 1954, the U.S. Supreme Court ruled in *Brown v. Board of Education* that segregation of public schools violated the equal protection clause of the Fourteenth Amendment.⁵ Soon after, in 1955, the 4th U.S. Circuit Court of Appeals, in *Dawson v. Mayor and City Council of Baltimore*, found that segregation in public parks and beaches was also unconstitutional. In part, the 4th Circuit wrote:

“...it is obvious that racial segregation in recreational activities can no longer be sustained as a proper exercise of the police power of the State; for if that power cannot be invoked to sustain racial segregation in the schools, where attendance is compulsory and racial friction may be apprehended from the enforced commingling of the races, it cannot be sustained with respect to public beach and bathhouse facilities, the use of which is entirely optional.”⁶

In the decade following these rulings, municipalities closed or withdrew funding from hundreds of public pools nationwide. In one instance, the city of Jackson, Mississippi, closed four public pools and leased the fifth to the YMCA, which operated it for whites only.⁷ The city argued that it could do so because it negatively impacted Blacks and whites equally. This action was upheld in *Palmer v. Thompson*, when the Supreme Court held that a city could choose not to provide a public facility and that the court would not invalidate this decision “solely based on the asserted illicit motivation by the enacting legislative body.”⁸ In other words, if, on its face, a decision appeared to impact everyone equally, the burden was on the plaintiffs to prove the action was driven by racial animus. In 2021, National Geographic wrote that public swimming pools were still “haunted” by the legacy of backlash to desegregation, leading to the rise of private club pools, constructed with the “assurance of not having to swim with Black Americans.”⁹

5 *Brown v. Board of Education of Topeka*, 347 U.S. 483. May 17, 1954.

6 *Dawson v. Mayor City of Baltimore City*, 220 F.d 386. March 14, 1955.

7 Public pools used to be everywhere in America. Then racism shut them down. McGhee, Heather. Marketplace. February 15, 2021.

8 *Palmer v. Thompson*, 403 U.S. 217. June 14, 1971.

9 Public swimming pools are still haunted by segregation’s legacy. Blakemore, Erin. National Geographic, June 11, 2021

While there were a number of private pools in the Hampton Roads area in the 1960s and 1970s, these pools are implicitly desegregated by housing ownership and financial charges. In 1975, the city of Hampton opened its first public pool in the Old Hampton Community Center. Today, Hampton has two indoor community pools at the Hampton Aquatics Center and the Fort Monroe pool. There are also five neighborhood pools that residents can use for free during Community Pool Days (May 28-30, 2022, and June 24-29, 2022). As noted by Hampton City Manager Mary Bunting, “With Buckroe Beach, Grandview, Fort Monroe, and nearly every type of water recreation to be enjoyed here in Hampton, our residents have the potential to enjoy an improved quality of life if they are comfortable and confident when they enter the water.”

The challenges in aquatic recreation extended beyond pools. The Hampton History Museum featured “Historic Black Beaches: Bay Shore Beach and Other Memorable Sands” this year and the exhibit also included, “Memorable Sands: Beaches of Northeast North Carolina and Southeast Virginia,” a traveling exhibit from the Museum of the Albemarle in Elizabeth City, North Carolina, which looks at five beaches that African Americans flocked to in North Carolina and Virginia because they were forbidden from attending “whites only” beaches. The exhibit chronicled the rise and fall of Hampton’s Bay Shore Beach, a summertime hub of the local African American community located next to Buckroe Beach for more than 75 years.

History certainly plays a role in the gaps in swimming ability and participation, but a lack of facilities can make it difficult for those who want to swim to do so. Chesapeake is the largest city in the United States without a single public pool. When we spoke with Chesapeake Mayor Rick West in spring of 2022, he put it bluntly, “I think it’s embarrassing to be a city of this wealth ... and size without a public swimming pool.” In July, the Chesapeake City Council approved a \$9 million appropriation from the state for the construction of its first public pool, with another \$3 million anticipated in federal funding. The pool, according to Chesapeake’s Parks, Recreation

and Tourism Director Mike Barber, is expected to be the anchor for an expanded aquatics program in the coming years.¹⁰

While the YMCA of South Hampton Roads fills some of the gap, the fact remains that previous proposals to build public pools in Chesapeake have failed, including an ambitious, \$40 million proposal for a multi-use pool facility that would have been built in Chesapeake City Park. This time, momentum has built behind construction of the city's first public swimming pool at the Dr. Clarence V. Cuffee Community Center in the Campostella Commons neighborhood. In his State of the City Report in March, West announced that \$9 million in funds from the Commonwealth had been pledged for the facility, which would have a price tag of \$15 million.

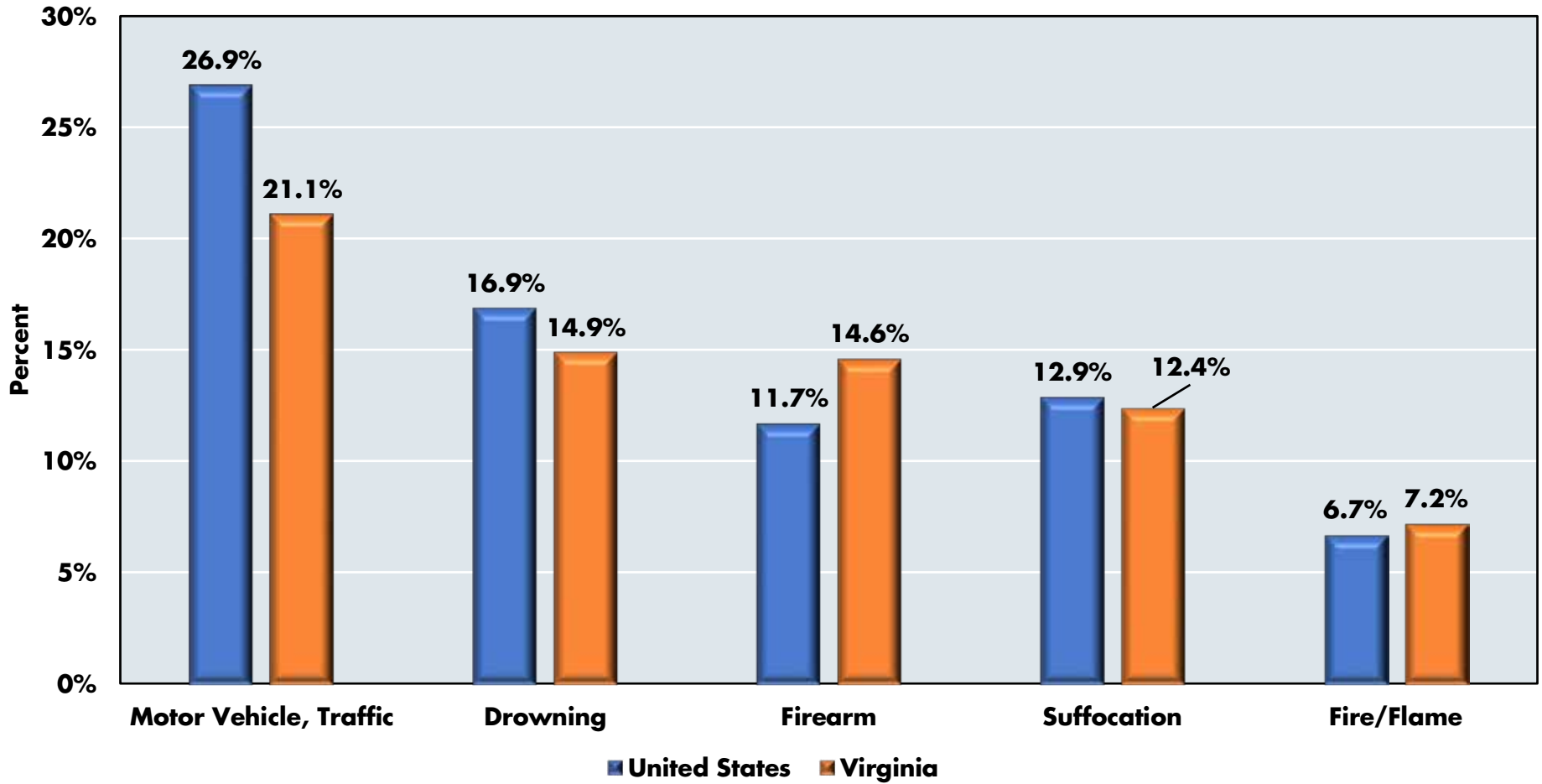
In addition to providing indoor aquatic space to a traditionally underserved part of the community, West thinks the facility could ultimately act as an economic engine, attracting local and regional swim meets. "I think when you make a statement, and you build a \$15 million facility, particularly in a community with such a history of problems, you're sending a message," West said. "Not only does this meet a critical need for the community, it's an opportunity for that community to feel like the city believes they are important."



¹⁰ <https://www.pilotonline.com/cities/chesapeake/vp-nw-chesapeake-pool-cuffee-20220705-t7ns662flzfcne6jk2zlbjui-story.html>

GRAPH 5

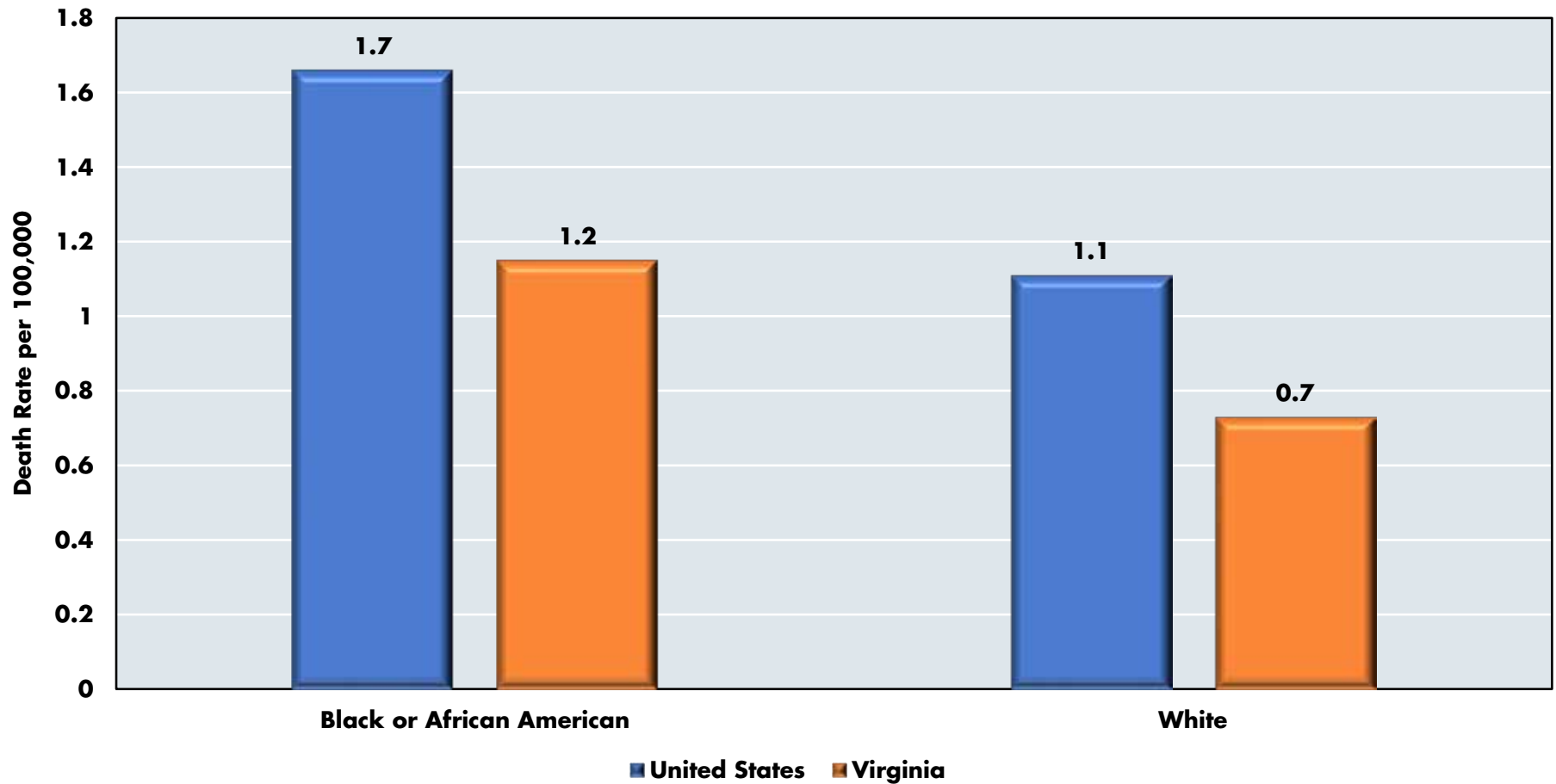
**CAUSES OF INJURY-RELATED DEATHS FOR CHILDREN AGES 1 TO 14
UNITED STATES AND VIRGINIA, 2010 - 2020**



Source: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS).

GRAPH 6

**DEATH RATE FOR DROWNING BY RACE, CHILDREN AGES 1 TO 14
UNITED STATES AND VIRGINIA, 2010-2020**



Source: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS).

Swim Clubs in Hampton Roads

TIDE Swimming, based in Virginia Beach, is the largest competitive club in the region. Club president Katy Arris-Wilson believes strongly that its 600-plus swimmers are getting much more than fitness from swimming their laps in the pool. “I am passionate about the sport because I know what impact that it has and can have on young people,” said Arris-Wilson, a former NCAA champion swimmer at the University of Texas.

TIDE is one of a handful of competitive clubs in the region that cater to nearly 2,000 swimmers, total. Other clubs include Coast Guard Blue Dolphins in Hampton/Newport News, Williamsburg Aquatic Club and 757Swim in Williamsburg, and Old Dominion Aquatic Club in Virginia Beach (Table 3). Those competitive teams send athletes to regional and national meets year-round. Hosting such events has been more challenging for this region because of the lack of a large, competition-ready pool.

In 2010, TIDE Swimming approached the city of Virginia Beach to assess the city’s ability to build an indoor, Olympic-size pool to both host events and develop competitive swimmers. The city of Virginia Beach balked at the \$15 to \$20 million price tag but offered land to develop it. In tandem with the YMCA of South Hampton Roads, an outdoor 50-meter pool was constructed, opening in 2015. Fundraising fell short, so a roof could not be placed on the facility. TIDE Swimmers use the facility year-round, but there are limitations on what the club can do with the facility.

“In many ways we’ve made progress,” Arris-Wilson said. “I think the ‘but’ to that is that it’s always a struggle. And the struggle ... is creating a business model that makes the sport affordable and provides the resources to the clubs to have them be successful.” Participation in the club has grown from fewer than 100 members to more than 600 in less than two decades. But without additional swimming capacity, the club is limited in how much it can further expand. “I think the pain point is clearly (access to) water,” she said.

“The YMCA of South Hampton Roads has been a fabulous partner with TIDE Swimming. But we’ve also gotten to the point where we’re a victim of our own success. We’re having to turn kids away, which we hate doing. Trying to get access to water is a nut that we’re trying to crack. We could handle the annual operating expenses. We don’t have the capital to make the investment in construction.”

TABLE 3

COMPETITIVE SWIM CLUBS IN HAMPTON ROADS

Name	Area
757Swim	Williamsburg
Coast Guard Blue Dolphins	Newport News, Yorktown, Williamsburg
Coastal Virginia Aquatic Club	Norfolk, Virginia Beach, Chesapeake
Nansemond Swim Club	Suffolk
Old Dominion Aquatic Club	Norfolk, Virginia Beach, Chesapeake, Suffolk
Reign On Aquatics	Norfolk
YMCA of Virginia Peninsulas	Williamsburg, Hampton, Mathews County, York
TIDE Swimming	Virginia Beach, Chesapeake, Portsmouth
Tribe Aquatics	Williamsburg
Williamsburg Aquatic Club	Williamsburg

Source: USA Swimming (2022), does not include facilities, institutions of higher education, or community swim clubs that are not members of USA Swimming. Find a team or learn to swim, USA Swimming. <https://www.usaswimming.org/find-a-team>

The Hampton Virginia Aquaplex

Ironically, it was success with another sport that convinced the city of Hampton of the value of a competition-worthy swim venue. The 135,000-square-foot Boo Williams Sportsplex, which opened in 2008 less than two miles from the site of the Aquaplex, has hosted USA Volleyball, high school track and field competitions and other amateur sporting events. It also attracts a full schedule of national basketball events because of the high profile of its namesake. “Boo was the draw. He is a national name in AAU basketball, specifically the girls,” said Andy Ballard, vice president of Eastern Sports Management, the private management company that will run the Aquaplex. “Hampton saw the traffic that he was generating at his facility and immediately began supporting that at a very high level. They were 15 years ahead of their time.”

In 2018, the design team of Clancy & Theys Construction Co. and GuernseyTingle submitted a proposal for the project under Public-Private Education Facilities and Infrastructure Act guidelines. The accepted blueprint for the facility was included in Hampton’s capital plan in 2019, calling for \$15.8 million for a community pool (replacing the Hampton Aquatics Center), \$4.5 million for Splashdown Park — a 26,000-square-foot splash pad and lazy river adjacent to the main pool building — and \$9.15 million for a competition venue. Funding for the facility was secured through a bond issue and is being generated via a \$1 per night hotel room tax.

The challenge swim facilities face is they are expensive to build and to operate. There is no incentive for a private investor to erect a building like the Aquaplex with private funds, given the tight margins public athletic facilities frequently operate under. “Even if I’ve got the capital, I’m not dumping it in something that’s so risky that has no return,” Ballard said. What Eastern Sport Management can do is operate such a facility at closer to a break-even status. “We’re the management company. That’s the space we fill,” Ballard said. “Our charge is to always bring as many outside users to the facility and do that without subsidy.” The company partnered with the city of Hampton as the

facility manager early in the process, which Bunting said helped the city make the most beneficial decisions for the facility.

There are significant fixed costs with a new facility such as the Aquaplex, which can result in higher fees for groups in the local aquatic recreation community. The payoff comes through tourism dollars generating economic impact for the community. “What we try to do as much as possible is both teach and guide municipalities to capture as much of that revenue as possible,” Ballard said. The eight-day 2023 USA Artistic Swimming Junior Olympic Championship is forecast to generate 2,100 local hotel room nights and have a \$3.7 million economic impact for Hampton Roads. There was no cash bid for the event, just an opening rental rate for USA Artistic Swimming and the lure of hosting the first national event in the new facility, Bunting said.

Joey Stickle, a long-time local swim coach at Kecoughtan High School in Hampton, was part of a local aquatics group a decade ago whose proposal for a new pool in Hampton was rejected because it was seen as cost prohibitive. Six years ago, Stickle joined a delegation in the swim community advocating for the facility once again. This time, a trip by city councilors to visit four or five larger, regional pools helped convince local decisionmakers to proceed with the facility. “That’s what finally won people over,” Stickle said. “I think the pool in Cary, North Carolina, told us they have a meet 32 weekends of the year. All those people coming in, staying at your hotels, eating at your restaurants, shopping at your shops.” Katy Arris-Wilson of TIDE Swimming said her Virginia Beach-based competitive club is eager to cross the water to host competitive meets in the Aquaplex. “From the swim community perspective, I’m pumped. It’s going to be awesome. Will it pay off for the citizens of Hampton? I hope it does,” she said.

A review of public pools nationwide suggests they can provide benefit to citizens and communities, but they do frequently come with a price that some municipalities have deemed too steep. Among nationwide closures in the past decade have been pools in Anderson, South Carolina; Troy, New York; and Lansing, Michigan. Each were met with outcry from local swim communities, then resignation about the cost to maintain the facilities for public use. In Tennessee, a battle is underway to preserve the massive Oak Ridge Outdoor Pool, a 2.2-million-gallon, spring-fed pool originally built by the U.S. Army

Corps of Engineers for families of Manhattan Project workers. The city council voted against closure of the pool in 2019, but a private group known as Friends of the Oak Ridge Outdoor Pool maintains an advocacy campaign on behalf of the historic facility, to fend off further attempts at its closure.

On the complete other end of the spectrum lies Omaha, Nebraska, which improbably turned itself into a swimming Mecca by winning the right to host the U.S. Olympic Trials for four consecutive Olympics, ending with last summer's Tokyo Games. For each of the prestigious competitions, two Olympic-size temporary pools were erected and filled with 2 million gallons of water. The 2021 event paid significant dividends to the eastern Nebraska economy, generating an economic impact of \$74 million, according to the Omaha Sports Commission.

There are few guarantees, however, in the high-stakes world of top-flight amateur sport. The bid for the 2024 Olympic Trials has been won by the city of Indianapolis. For a community pool to be viewed as a broader asset, sometimes its impact needs to transcend dollars and cents. That is something the city of Hampton is attempting to do with the Aquaplex, providing free learn-to-swim instructions for second graders in Hampton City Schools in partnership with Eastern Sport Management and the Coast Guard Blue Dolphins swim team. The partnership is also seeking corporate sponsorship, to ensure children have a suit, towel, swim cap, T-shirt, comb, and swim bag to carry their clothing, personal items and wet gear.

Managing the Facility

Given the loudly expressed concerns about the availability of indoor aquatic facilities in Hampton Roads, one can imagine the challenge that poses to the managers of the scarce facilities. "I think that's been a challenge in the area for a while," said Tommy Miller, supervisor of aquatics and beach safety for the city of Newport News. Until the opening of the Aquaplex, Newport News owned and operated the region's only Olympic-length indoor pool, the Brittingham-Midtown Community Center. The first community center built in Newport News since World War II when it opened in 1998, the facility had a price tag of \$11 million. The 80,415-square-foot facility has indoor and outdoor basketball courts, dance and exercise studios, community rooms, and a pool deck with capacity for 500 spectators. Miller said non-aquatic visitors to the pool are impressed by its size and scope. Those involved in the sports that use indoor water realized its limitations almost immediately.

"I started with the city in 2007," he said. "When the pool was built, it was kind of on the back end of what design technology was at that time for an aquatics natatorium. By 2002, we were theoretically obsolete. We did not have enough seating for spectators. We did not have enough seating off the pool deck. Then it became a challenge to do things like a championship where you wanted to charge admission."

Within those limitations, Midtown has helped meet a critical need on the Peninsula. "I'm from York County, where they don't have any public aquatics," said Amy Rowley, recreation superintendent for athletics, aquatics and athletic field maintenance for Newport News. "Especially coming out of COVID, with so many facilities taking so long to open back up, Tommy (Miller, supervisor of aquatics and beach safety) and his staff did a real juggling act opening back up after COVID."

As public assets, Miller sees the Hampton Aquaplex and Midtown Aquatic Center as collaborators, not competitors. "Becoming a facility that can offer more opportunity to smaller groups is where we see our new niche," he said. Miller noted that having a large number of swim meets is not always the best use of a swimming pool. A smaller number of meets allows more niche groups

to use the facility and gain traction. In the end, he observed, the goal is to build up to a larger facility over time.

What the Aquaplex is not likely to do, long-term, is solve the region's chronic shortage of indoor aquatic facilities. Although in its short-course configuration, the new facility offers 18 to 24 lanes for swimming, plus diving, Miller said

more young swimmers are likely to be inspired to try the sport. "Five years from now, we'll be saying we need another pool, which is actually a good thing," he said. "People fill that space and then there's people looking from the outside asking, 'How do I get into that space?'"

Joey Stickle retired in September after 40 years at Newport News Shipbuilding. However, he shows no sign of retiring from his job that has been a lifelong labor of love, coaching swimming and acting as a promoter of the sport in Hampton Roads. A former collegiate swimmer at Old Dominion University, along with his wife, Suzanne (formerly Cox), Stickle was handed the reins of the Kecoughtan Invitational in 2004. "It got handed to me because I had four kids who were going to be swimming," Stickle said. Nearly 20 years later, the event has become one of the most prestigious invitational high school meets in the state.

"It's the only local meet where you can have all different classes, every high school in the state of Virginia," Stickle said. "We get kids who normally get to swim against each other at the high school level. And the private schools, I invite the private schools. It's very good competition, I get a lot of fast swimmers."

Stickle is excited for the meet — held the second Saturday of January every year (except for COVID-canceled 2021) — to move to the Hampton Aquaplex from Midtown Aquatic Center, where it currently is hosted. This coming January, the Kecoughtan Invitational will have its largest number of participants ever. "The meet had hit its ceiling. It's like how many people can you fit in a phone booth?" Stickle said. "Now I can have 750 swimmers on the deck and another 1,500 spectators watching. I think it's going to be great for the sport, and it's going to be great for the city. And it needs to be, because there's a lot of naysayers out there who think we shouldn't be spending money on this."

The Guy Trying to Find Enough Lifeguards

In 35 years working locally in aquatics recreation, Dan Jones has never seen a situation like this. For the past 15 years, Jones has been division head for aquatics and recreational water activities for the city of Norfolk, a position that followed 20 years working with the city of Newport News and Riverside Health Care in an aquatic recreation role. In his current position, Jones typically oversees a lifeguarding staff of 100 or more for Norfolk's pools and beaches. This year is anything but typical. "The pool of lifeguards is just gone," he said. "We can't find anybody."

In addition to the nationwide shortage of workers in every employment field, COVID-19 posed a unique challenge to the ranks of lifeguards. When facilities closed because of the pandemic, lifeguards, who are frequently part-time workers, moved to job opportunities that weren't halted by pool closures. In addition, because lifeguarding is a field where certification and training are required, the closure of aquatic facilities also shut off the pipeline of new lifeguards, who would replace the staff who left. And it robbed children of the opportunity to attend learn-to-swim classes such as the ones that will be offered at the Aquaplex.

Now, Jones is in a position of cutting pool hours and leaving beaches without guards throughout the busy summer months. "It's not a stretch to say that lives are saved by teaching kids to swim and having trained lifeguards to watch over them," Jones said. "COVID has really put a damper on things." And because of the halt in the pipeline of new lifeguard training, "we're going to suffer from this for quite some time," he said.

Lifeguards in Norfolk make \$15 an hour for pool hours and \$18 per hour on the beach, "and we're probably on the high side right now," Jones said. "It needs to be looked at as a way not just for teenagers to get part-time positions, but for full-time employment and potential careers. Certainly, the need is there. We can't run these programs without lifeguards."

The Economic Impact

Discerning the economic impact of a facility that has just opened is difficult as it involves assumptions about the future. Will the new Aquaplex attract visitors from outside Hampton Roads on a frequent basis, or will it be used predominately by residents of Hampton and the region? Will the outreach efforts by the Aquaplex succeed in attracting new swimmers, or will swimming (especially competitive swimming) remain predominantly white in Hampton Roads?

A 2015 feasibility study for the city of Hampton provides data that helps us explore these questions. The primary service area of a swimming facility located in Hampton is defined by a 25-mile radius, which places the primary service area within the Hampton Roads region. In other words, regular users of the swimming pool will come from within the region, shifting their recreational activities and dollars from one location in Hampton Roads to another. The economic impact of this shift in expenditures is minimal because money is merely being "recycled" within the region.

Will the facility require a public subsidy and who benefits? Here, the 2015 feasibility study notes that none of the proposed swimming facilities would be cost-neutral. Operating cashflow was estimated to be negative for each of the alternatives and, when one included capital replacement and debt service, the negative cash flow was projected to be more than \$1 million annually for each of the alternatives. Taxpayers, through the city budget, will need to subsidize the operation of the Aquaplex. We cannot quantify the public benefits of increasing minority participation in the sport of swimming, but reducing the risk of drowning for the city by increasing representation is one of the strongest non-monetary arguments for the Aquaplex.

Drawing upon the 2015 study, we can also examine the economic impact of visitors from outside Hampton Roads. The study assumes that 14,800 visitors from more than 60 miles away will use the facility annually. These visitors would spend more than \$2 million annually in Hampton Roads, increasing regional economic activity by more than \$1 million.¹¹ Tax revenues would also

¹¹ We use IMPLAN to generate estimates of economic impact of the Virginia Beach-Norfolk-Newport News metropolitan statistical area. Spending estimates are drawn from page 78 of the 2015 feasibility study. Estimates are in 2021 dollars.

rise by almost \$100,000 annually for Hampton. One significant qualifier is that the Aquaplex may draw more (or fewer) visitors from outside the region over time. As the number of visitors rises (or falls), the economic impacts of the Aquaplex will shift accordingly.



Final Thoughts

Hampton Roads is a region defined by its relationship with the water. For its residents, the water can be a challenge (having to cross bridges and tunnels to move about the region) and a blessing (beaches and lakes abound). Yet, there are marked disparities in our relationships with the water. For those who know how to swim, water represents an opportunity for recreation and fitness. For those who lack the ability to swim, water is a hazard. The combination of history, lack of facilities, and expense has meant there are stark gaps in participation between the residents of Hampton Roads on the basis of race.

If you build it, will they come? In our discussions with coaches, parents, swimmers, and others in the region, there is a common complaint: a lack of competition-size swimming facilities that can host large events. This complaint rings true across a number of sports in the region and has led to a number of projects aimed to improve capacity and attract events. The Virginia Beach Sports Center is the largest (and newest) indoor sports complex on the East Coast and joins facilities such as the Hampton Roads Soccer Complex and the Warhill Sports Complex in Williamsburg. These facilities attract tournaments on a regular basis, bringing in athletes, parents, and coaches from across the state (and, in some cases, neighboring states). The Hampton Aquaplex joins this list and will serve as another sports tourism destination in Hampton Roads. Now, the region needs to collaborate for a one-stop shopping solution for tournaments, pooling its resources to attract events. Building it is a first step, but work remains to fully reap the rewards.

Address the racial divide: The proposal to build a \$29 million plus purpose-built swimming facility in Hampton sparked opposition from those concerned about both costs and who might benefit from such a project. The data strongly suggest that there is a stark racial divide in swimming ability but also points out what can be done. Increasing diversity in swimming is a positive feedback loop; that is, as diversity increases, representation increases, which, in turn, provides peer-examples for non-swimmers. Improving the capacity of all children to swim lowers risk and provides additional benefits in terms of health. Hampton, to its credit, continues to listen to its citizens. In 2019, the city's Parks, Recreation, and Leisure Services Department took the

first steps to updating the master plan for the city's parks and recreation system. Initial interviews and surveys identified an aquatics center as one of the new types of recreational facilities that should be included in the new master plan.¹² The challenge will be to reach out to underserved communities and increase participation. Otherwise, the new pool may provide most of its benefits for a minority of residents in Hampton.

Recognize the potential. Katy Arris-Wilson of TIDE Swimming left Hampton Roads in the late 1980s, embarking on an All-American swim career at the University of Texas. When she returned in the early 2000s, the region was producing fewer nationally ranked swimmers than when she left. "There were maybe five or six (competitive) teams when we returned, compared to one when I left. But we had gotten bigger, and we hadn't necessarily gotten better," she said. Through investments in its Princess Anne Olympic-size facility, and through attracting nationally recognized coaches such as Richard Hunter and Jack Roach, TIDE Swimming sent six swimmers to the 2021 Olympic trials, and athletes are "graduating" the youth program and moving on to Division 1 swimming scholarships. This includes Arris-Wilson's own daughter Kayla, a freshman swimmer at Stanford University this fall.

However, Arris-Wilson argues that both the broad-based participation model, with hundreds of kids competing in summer recreation meets, and the "center of excellence" model can thrive here. "If I look at our TIDE Swimming mission statement, it does not say: 'We want to create the next Olympians.' It says our vision is to create meaningful experiences through life and sport and team. We are about creating a culture that gives all our stakeholders a meaningful experience," she said.

Having an Olympic medalist from your region is a bit of a genetic lottery, but to Arris-Wilson, it would unquestionably help boost local swimming. "If there is one thing that non-swimmers can relate to in the sport, it's Olympic swimming. Everyone knows Michael Phelps. I think most everyone knows Katie Ledecky. To have someone like that from our area would be phenomenal," she said. "What I think it would do is elevate the profile of our sport, and get more people excited about engaging in it. And it would get municipal leaders more excited about finding ways to support it."

¹² <https://peninsulachronicle.com/2022/06/27/hampton-parks-recreation-seeking-input-to-update-master-plan/>

In her work as a private equity investor and adviser, Arris-Wilson talks with senior executives making decisions about relocating companies. She said one of the questions asked repeatedly is about available kids' sport activities. "Hampton Roads supports its youth sports, and its athletes are succeeding at national levels. I think that's a big, important branding item for us, so we're not seen as second tier," she said. "We don't need to be second fiddle to Richmond or Northern Virginia. Let's keep building on those strengths and creating a buzz."



Does Hampton Roads Have Enough Nurses?



DOES HAMPTON ROADS HAVE ENOUGH NURSES?

"Nursing is an art: and if it is to be made an art, it requires an exclusive devotion as hard a preparation, as any painter's or sculptor's work; for what is the having to do with dead canvas or dead marble, comparing with having to do with the living body?"

Florence Nightingale, 1820 - 1910

To many, it was no surprise that nursing was rated as the most trusted profession in the latest Gallup poll of honesty and ethics.¹ In the 2021 Gallup poll, 81% of respondents viewed nurses as having "very high/high" honesty and ethics, a full 14 percentage points over the next highest profession, medical doctors, and 76 percentage points over the lowest ranked profession, lobbyists. Yet even though many Americans believe nurses are to be trusted and have high ethical standards, the profession has been the target of disinformation during the COVID-19 pandemic. Social media is awash with conspiracy theories that nurses, along with doctors, are mistreating COVID-19 patients, resulting in long-term injury and death. As disinformation rises, it should be no surprise that many nurses feel under attack, with too many patients to care for, too many demands on the profession, and not enough support from the system that would grind to a halt without their efforts.

The prevalence of violence against nurses is, unfortunately, nothing new. A 2009 survey of more than 3,000 Emergency Department (ED) registered nurses found that approximately 20% reported experiencing verbal abuse more than 200 times during the previous three years. More than 25% of the registered nurses reported 20 or more physical violence encounters over the same period.² According to a 2019 survey by the American Nurses Association (ANA), one in four nurses has been physically assaulted on the job.³ The onset of the COVID-19 pandemic appears to have only intensified these outbreaks of verbal and physical abuse. The problem is not limited to Hampton Roads, Virginia, or the United States. A 2020 study across 173 countries found that health care workers were more likely to experience stigma

from working with COVID-19 patients and bullying than from individuals outside the health care setting.⁴

Registered nurses in Hampton Roads have not escaped the toll of workplace violence and the COVID-19 pandemic. In October 2021, a patient at Riverside Regional Medical Center was arrested and charged with malicious assault, assault, shoot/stab in the commission of a felony, and battery on a health care provider in connection with an attack on an Emergency Department nurse.⁵ Karen Mitchell, chief nursing officer at the Children's Hospital of The King's Daughters, noted that nurse resignations and transfers increased as the pandemic wore on. "At the beginning of the pandemic, a lot of nurses didn't leave their jobs because of the uncertainty. ... We feel these increases

1 Lydia Saad, "Military Brass, Judges Among Professions at New Image Lows," Gallup, January 12, 2022.

<https://news.gallup.com/poll/388649/military-brass-judges-among-professions-new-image-lows.aspx>

2 Journal of Nursing Administration, "Violence Against Nurses Working in US Emergency Departments", July/August 2009, 340-349.

3 American Nursing Association. (2019). Reporting Incidents of Workplace Violence." Available at: <http://www.nursingworld.org/~495349/globalassets/docs/ana/ethics/endabuse-issue-brief-final.pdf>

4 Dye TD, Alcantara L, Siddiqi S, et al. "Risk of COVID-19-related bullying, harassment and stigma among health care workers: an analytical cross-sectional global study." *BMJ Open* 2020 (10):e046620. Available at: doi:10.1136/bmjopen-2020-046620

5 <https://www.13newsnow.com/article/news/local/mycity/newport-news/police-investigate-stabbing-by-riverside-regional-medical-center-newport-news/291-e76a4418-83b8-4614-a335-99c7a4b4ef2c>

in resignations and transfers are due to a backlog from mid-2020. ... Stress, burnout; it's challenged the typical resiliency we've had in the past."⁶

In the coming decade, we project that Hampton Roads will not produce enough new registered nurses to meet anticipated demand. As nursing shortages increase regionally, across the state, and across the nation, the competition for existing nurses and new graduates will only intensify. Hampton Roads is likely to see the rise of "nurse deserts" where some rural areas of the region may not have immediate access to a registered nurse. Without sufficient access to health care, the urban-rural divide will only increase, further exacerbating health care inequalities in Hampton Roads.

In this chapter, we examine the role of registered nurses in Hampton Roads health care and ask how demands on the profession have changed over time. We then examine whether there is a nursing shortage in the region, Commonwealth, and United States. We discuss nurses' education levels in Hampton Roads and what barriers prevent more nurses from entering the workforce. We conclude with thoughts on the role and prospects for the nursing profession in Hampton Roads.



⁶ <https://www.13newsnow.com/article/news/health/stress-burnout-national-nursing-shortage-impacting-virginia/291-71ff0f4c-6f73-4f1e-b9c0-01b8af2706f6>

Registered Nurses: A Primer

The history of modern professional nursing traditionally begins in the mid-19th century with Florence Nightingale, the daughter of wealthy British parents, who challenged social conventions and became a nurse. At that time, providing health care to citizens either in hospitals or in their homes was not viewed as a respectable career for the affluent. However, Nightingale, who organized women to care for soldiers during the Crimean War, believed that well-educated women, using scientific principles and information about health and well-being, could dramatically improve health outcomes of the sick and injured. She also believed that nursing provided women an avenue for intellectual and social freedom. Nightingale's influence on her patients' health and well-being established many of today's nursing care models.

Registered nurses (RNs), however, both men and women, are among the most highly educated and respected members of the health care delivery team. With about 4 million nurses across all fields, nursing is the largest of the health professions in the United States. Registered nurses' roles continue to change and expand with the demands of an increasingly complex health care industry, advanced education in nursing, greater patient longevity, and advancements in health care and technology.

According to the International Council of Nurses (ICN), the scope of nursing practice "encompasses autonomous and collaborative care of individuals of all ages, families, groups, and communities, sick or well and in all settings." As clinicians, registered nurses develop and implement individual plans of care, monitor and record patients' health care needs and changing physiological conditions, administer, monitor the effects of, and at times prescribe medications and treatments, educate patients on self-care and the prevention of illness, conduct health screening tests and procedures, and supervise other nursing personnel. Registered nurses with additional education and training can specialize as advanced practice nurses. There are four types of advanced practice nurses in the U.S.: nurse practitioners, nurse midwives, clinical nurse specialists, and nurse anesthetists. RNs can also work as educators, administrators, executives, consultants, and researchers.

According to the Bureau of Labor Statistics, there were approximately 3 million RNs, 641,000 Licensed Practical Nurses (LPNs), and 1.3 million Certified Nursing Assistants (CNAs) in the United States in May 2021. CNAs provide basic care to patients and help them with daily activities they might have trouble doing on their own, such as bathing and getting dressed. LPNs, who provide higher level care than CNAs, may assist RNs and physicians. Graph 1 depicts the median annual wage for RNs, LPNs, and CNAs in the United States in 2021.

In 2008, the Robert Wood Johnson Foundation (RWJF) and the Institute of Medicine (IOM) launched a two-year initiative to assess and transform the nursing profession. As a result, in 2011 the IOM released the report “The Future of Nursing: Leading Change, Advancing Health” which recommended that nurses 1) practice to the full extent of their education, training, and licensure; 2) achieve higher levels of education and training through an improved education system that promotes seamless academic progression, and 3) become full partners, with physicians and other health professionals, in redesigning health care in the U.S.

There are essentially three traditional degree pathways to becoming a registered nurse: associate, bachelor’s, and nursing diploma programs. Nursing diploma programs differ from the more traditional college or university-based associate and bachelor’s degree programs in that they are typically run by (or in close conjunction with) hospital systems, lasting one to three years to prepare students for licensure as a registered nurse. In Hampton Roads, the last nursing diploma program was offered by Riverside Health System, which now offers an associate degree RN program.

Graph 2 displays the number of postsecondary awards in the United States from 2009 to 2019. What immediately stands out is that while the number of associate degrees has remained relatively constant over this period, the number of other degrees has increased significantly. Bachelor’s, master’s, and doctoral degree awards increased by 101.1%, 153.4%, and 462.5%, respectively, from 2009 to 2019. In our conversations with nurses in Hampton Roads, these shifts can be partly explained by the preference of employers to hire nurses with four-year (or higher) degrees and the need for continuing education among the existing nursing workforce. Research has also highlighted

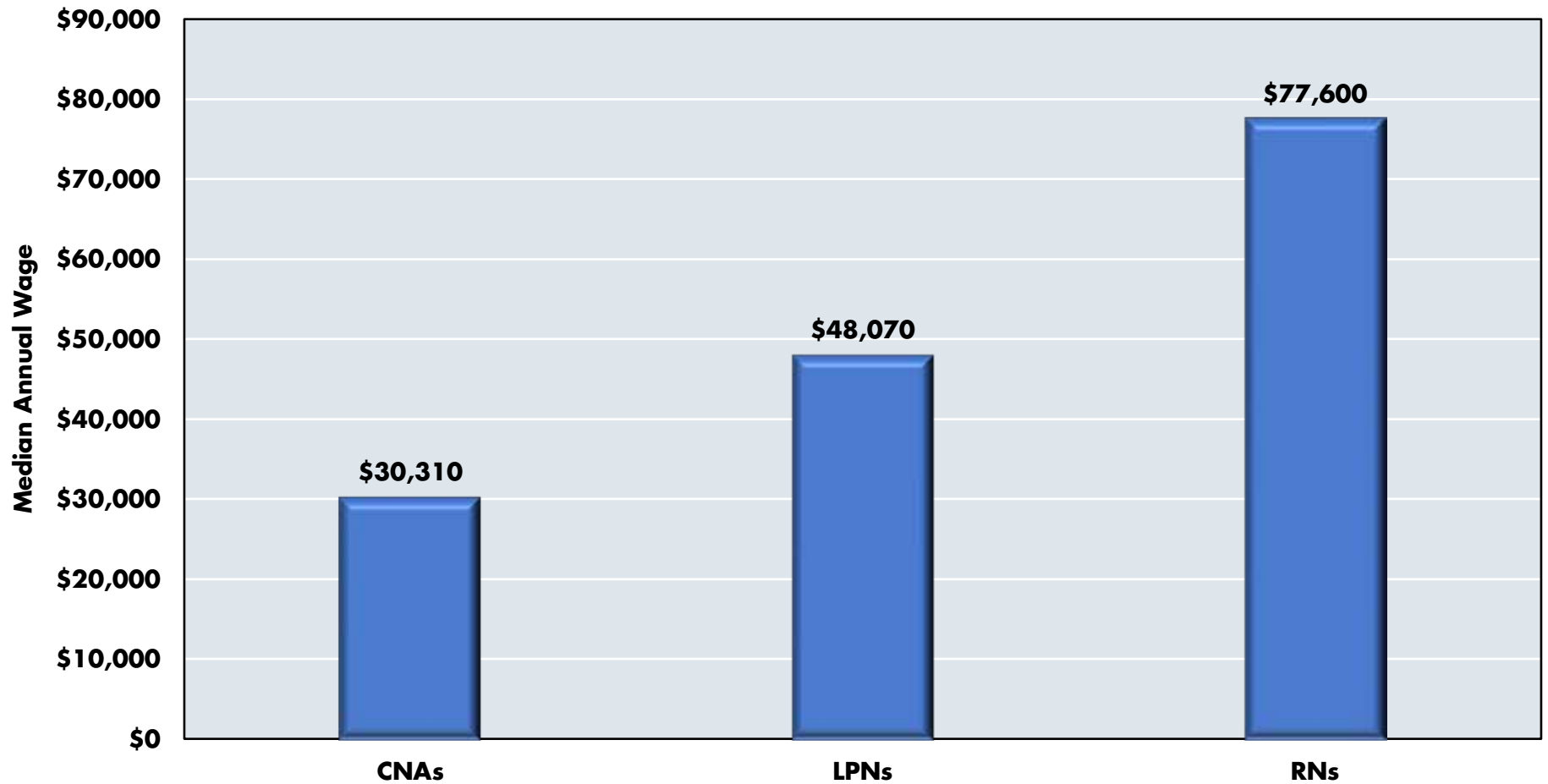
the quality and safety educational gaps between associate and bachelor’s nurse graduates, a factor that may influence the demand for bachelor’s programs among higher quality students over time.⁷

Graph 3 displays nursing awards in Hampton Roads from 2009 to 2019. The trends in the region appear to be different from that of the nation. First, the number of bachelor’s degrees awarded to students in the region peaked at 634 in the 2017 – 2018 academic year (AY) and then fell to 576 in the 2019 – 2020 AY. On the other hand, the number of associate degrees jumped from 528 in the 2017–2018 AY to 1,114 in the 2019–2020 AY. The rapid increase in associate degree awards can be attributed to Riverside Health introducing an associate degree and Bryant and Stratton opening its Virginia Beach campus.

In 2021, there were 81 registered nursing programs in the Commonwealth. Thirty-eight of these programs awarded an associate degree and 30 awarded a bachelor’s degree. Eleven programs offered an accelerated baccalaureate and master’s degree. Two programs were online and allowed students to earn an associate or bachelor’s degree. Thirty-six of the 81 programs in Virginia also offered a Registered Nurse – Bachelor of Science (RN-BSN) pathway. Hampton Roads does not appear to lack nursing programs, with 18 institutions offering degrees ranging from associate to Ph.D. (Table 1). However, as we discuss later in the chapter, the supply chain of new nurses faces critical bottlenecks that limit the region’s ability to increase supply in the near term.

⁷ Maja Djukic, Amy Witkoski Stimpfel, Christine Kovner. (2019). “Bachelor’s Degree Nurse Graduates Report Better Quality and Safety Educational Preparedness than Associate Degree Graduates.” *The Joint Commission Journal on Quality and Patient Safety*, Volume 45, Issue 3, 180-186, <https://doi.org/10.1016/j.jcjq.2018.08.008>.

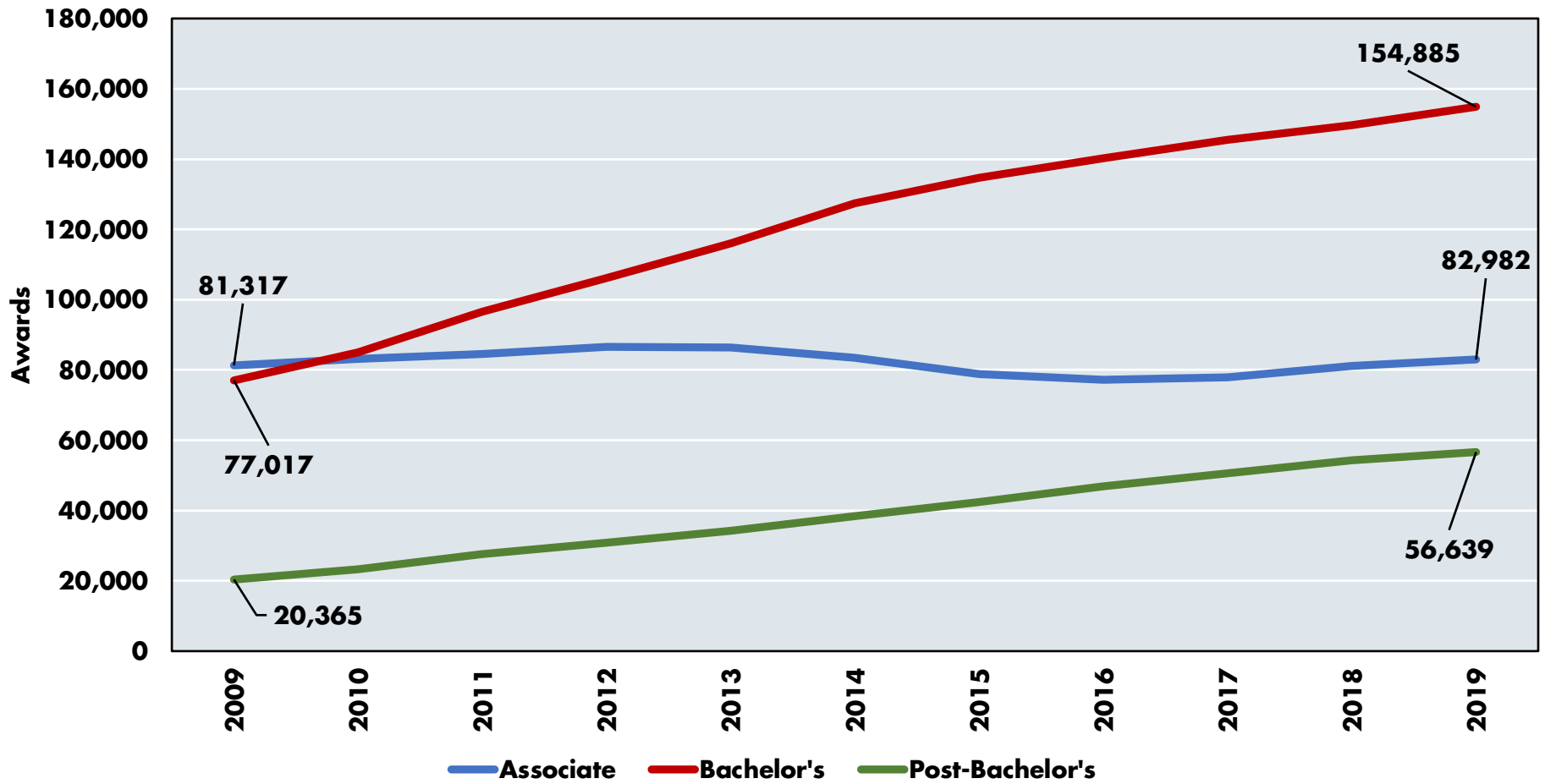
GRAPH 1
MEDIAN ANNUAL WAGE OF NURSING PROFESSIONS
UNITED STATES, 2021



Source: Bureau of Labor Statistics, Occupational Employment and Wage Statistics (OEWS), May 2021.

GRAPH 2

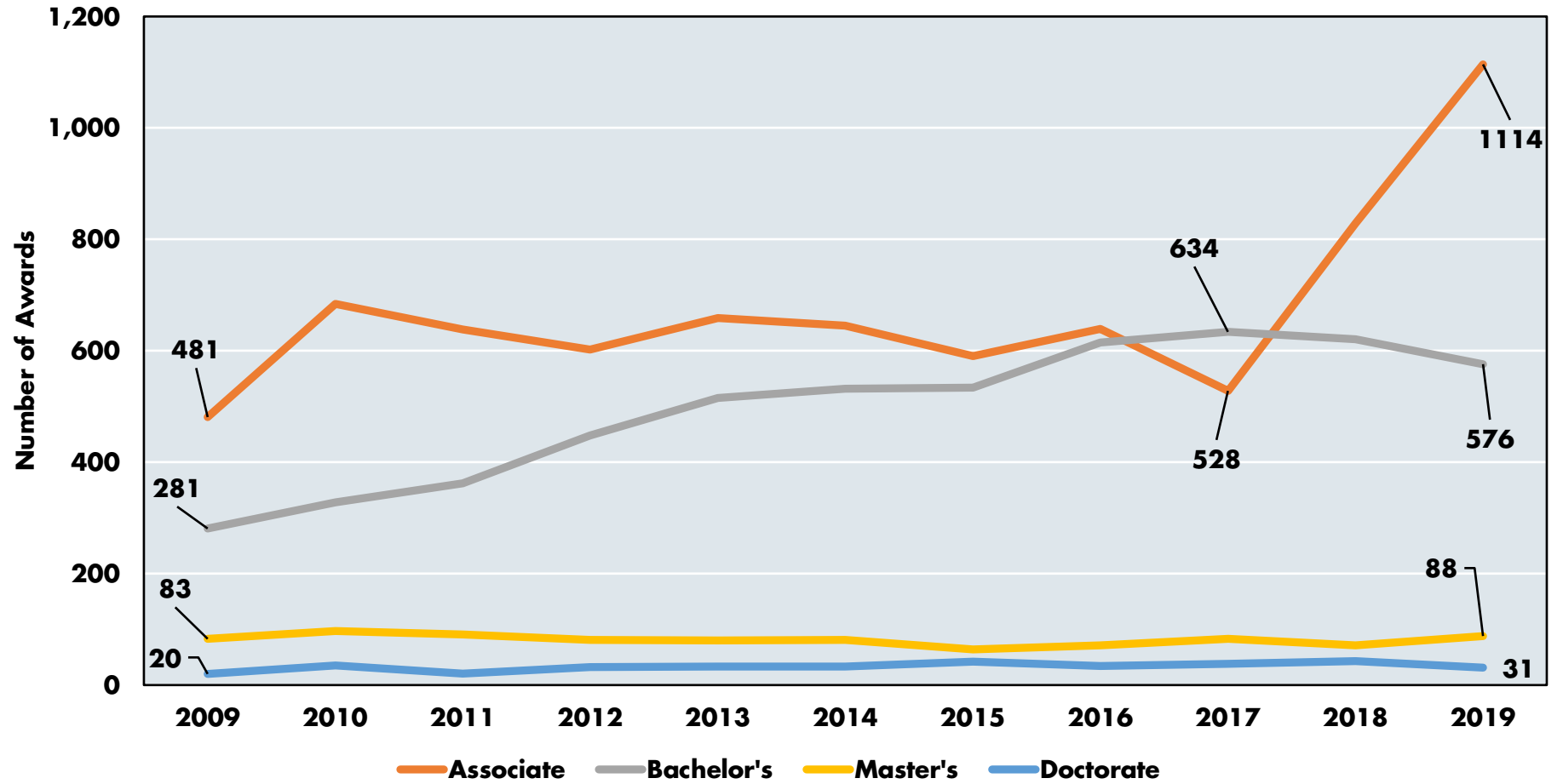
AWARDS IN POSTSECONDARY DEGREE PROGRAMS FOR REGISTERED NURSING
UNITED STATES, 2009-2019



Source: IPEDS Awards by 6-digit CIP code. Reflects awards for 17 postsecondary degree programs linked to the Registered Nursing Occupation as defined by the National Center for Education Statistics (NCES) and Bureau of Labor Statistics (BLS) CIP-SOC Crosswalk. Years reflect academic years, that is, 2009 is the 2009 - 2010 academic year.

GRAPH 3

**AWARDS IN POSTSECONDARY PROGRAMS FOR NURSING HAMPTON ROADS INSTITUTIONS
ACADEMIC YEAR 2009-2010 TO 2019-2020**



Source: IPEDS Awards by 6-digit CIP code. Reflects awards for 17 postsecondary degree programs linked to the Registered Nursing Occupation as defined by the National Center for Education Statistics (NCES) and Bureau of Labor Statistics (BLS) CIP-SOC Crosswalk.

TABLE 1

SELECTED NURSING PROGRAMS IN HAMPTON ROADS AS OF MAY 2021

	Associate	RN to BSN	Bachelor's	Graduate Degrees
Averett University – Norfolk		X		
Bryant & Stratton College – Hampton	X	X		
Bryant & Stratton College – Virginia Beach	X	X		
ECPI – Newport News	X			
ECPI – Virginia Beach	X	X	X	
Fortis College – Norfolk	X			
Hampton University		X	X	X
Old Dominion University		X	X	X
Paul D. Camp Community College	X			
Norfolk State University		X	X	X
Rappahannock Community College	X			
Regent University		X		X
Riverside College of Health Careers	X			
Sentara College of Health Sciences		X	X	X
South University		X	X	
Virginia Peninsula Community College* – Hampton	X			
Virginia Peninsula Community College* – Williamsburg	X			
Tidewater Community College	X			

* Formerly Thomas Nelson Community College

Sources: Dragas Center for Economic Analysis and Policy and Virginia Department of Health Professions (2022), available at: <https://www.dhp.virginia.gov/media/dhpweb/docs/nursing/reports/ProgramLists/RNPrograms.pdf>

Before COVID: A Younger Profession in Demand

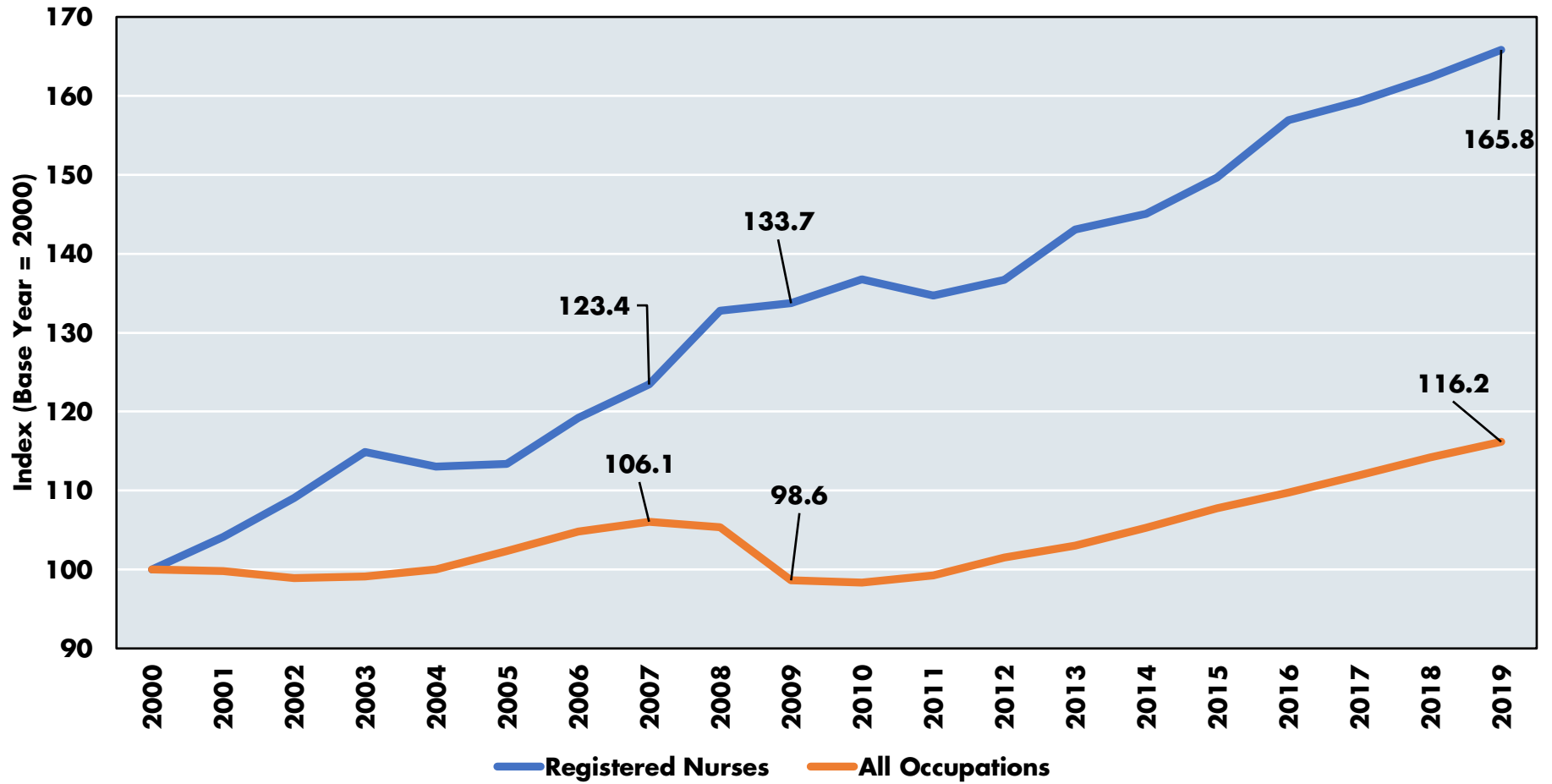
Even before the COVID-19 pandemic increased the strain on the health care system in the United States, registered nurses were in high demand. Graph 4 compares the employment growth of RNs and all occupations in the United States from 2000 to 2019. A familiar story emerges with an increase in overall employment prior to the Great Recession of 2007 to 2009. In the aftermath of the Great Recession, full-time employment declined by 7.2% in 2010. From this trough, the longest peacetime economic expansion would occur, as full-time employment rose by 18.1% from 2010 to 2019. There were 16.2% more full-time wage and salary workers in 2019 than 2000, and full-time employment was 9.5% higher than the previous pre-recessionary peak.

For registered nurses, on the other hand, employment surged over the past two decades. From 2000 to 2007, employment grew by 23.4% and increased another 10.8 percentage points during the Great Recession. RN employment continued to grow over the previous decade, and by 2019, there were 65.8% more employed nurses than there were in 2000. As the employment of nurses increased, it should be no surprise that nurses have gotten younger, on average, over time. Graph 5 shows the median age of registered nurses and all workers in the United States from 2011 to 2019. Over the period, the median age of registered nurses in the United States declined from 44.7 years to 43 years while the median age of all workers increased from 42.1 years to 42.3 years.



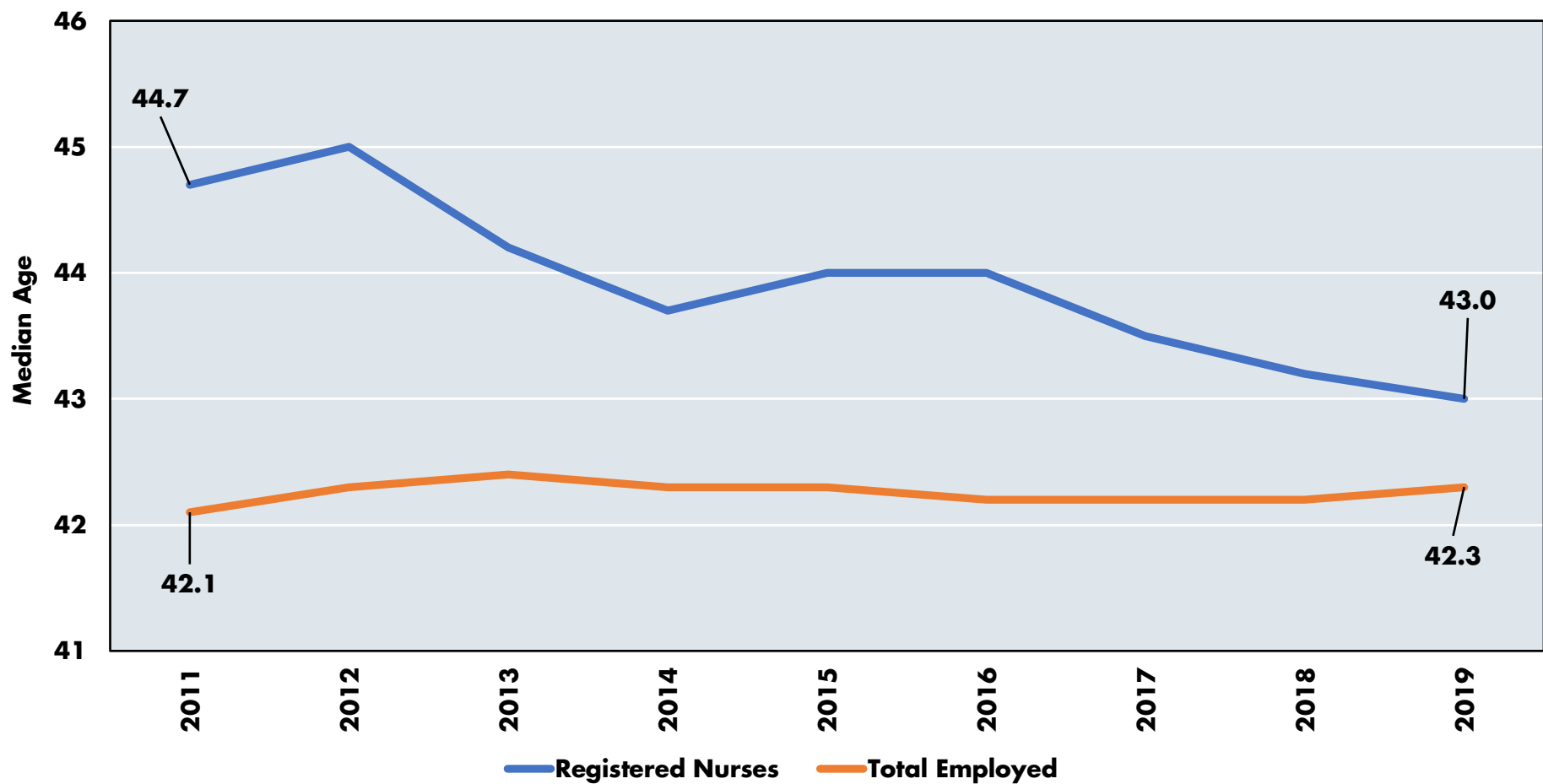
GRAPH 4

**EMPLOYMENT GROWTH OF FULL-TIME WAGE AND SALARY WORKERS
REGISTERED NURSES AND ALL OCCUPATIONS
UNITED STATES, 2000-2019**



Source: U.S. Bureau of Labor Statistics, employed full time: Wage and salary workers: Registered nurses occupations: 16 years and over [LEU0254487900A], retrieved from FRED. Data are not seasonally adjusted.

GRAPH 5
MEDIAN AGE OF WORKERS
REGISTERED NURSES AND ALL OCCUPATIONS
UNITED STATES, 2011-2019



Source: U.S. Bureau of Labor Statistics, Current Population Survey (CPS). Table 11b. Employed persons by detailed occupation and age.

Stress, Overwork, and Burnout: The Impact of COVID-19

Limited empirical data are currently available about the impact of COVID-19 on the nursing workforce in Hampton Roads. Anecdotally, the COVID-19 pandemic has had a significant and long-lasting impact on the supply of nurses and demand for nursing services across the Hampton Roads area and nationwide. We can start by identifying nurse burnout as a human condition that results from excessive and prolonged emotional, physical, and mental stress points, leaving nurses feeling depleted, exhausted and at times traumatized.

Between March of 2020 and March of 2022, an already overtaxed nursing workforce was asked to do a whole lot more; one study estimated that COVID-19 hospital staffing demands increased by 245%, or 50,000 nurses' worth, from September 2020 to December 2020.⁸ As a result, hospital systems in the region reported nurses moving to non-bedside jobs or leaving the profession altogether.

In an equal but opposite scenario, nearly 100,000 registered nurses nationwide found themselves unemployed through furloughs or terminations because non-COVID staffing needs in areas such as elective surgeries, procedures, and other health care operations were down. This resulted in many nurses experiencing financial and emotional distress, for perhaps the first time ever, given the otherwise recession-proof nature of the job. In the Commonwealth, RNs are slightly less likely to be employed in the profession today than they were in 2016 (89% vs. 90%) and only 1% of licensees report being involuntarily unemployed, likely because of the coronavirus pandemic.⁹ Even with COVID-19 cases decreasing in 2022, there are reports now of chronic burnout and persistent understaffing in some areas.

8 Teriakidis, A., McNeill, J., McAllister, M., Sizemore, O., Lindemann, P. (January 5, 2021). "COVID-19 Impact on Nurse Staffing and ICU Beds." Epic Research, <https://epicresearch.org/articles/covid-19-impact-on-nurse-staffing-and-icu-beds>

9 Department of Health Professions.

The lack of adequate personal protection equipment (PPE) throughout the pandemic had an adverse impact on nurses. Nurses reported feeling betrayed by management, whom they felt did not prioritize their safety.¹⁰ The unavailability of basic PPE during the onset of the pandemic and beyond caused some nurses to resign, retire, or leave the profession, which exacerbated workforce shortages across the nation.¹¹

While limited data are currently available about the number of nurses in Hampton Roads who suffer ongoing health issues or have died from COVID-19, it is estimated that thousands of nurses nationwide suffer ongoing adverse effects after caring for COVID-19 patients. Through their "Lost on the Frontline" project, which aims to document the life of every US medical worker who dies from COVID-19 after helping patients during the outbreak, The Guardian and Kaiser Health Network estimate that nurses comprise 32% of all health care worker deaths due to COVID-19.¹²

10 Arnetz JE, Goetz CM, Sudan S, Arble E, Janisse J, Arnetz BB. Personal Protective Equipment and Mental Health Symptoms Among Nurses During the COVID-19 Pandemic. *J Occup Environ Med.* 2020 Nov;62(11):892-897. doi: 10.1097/JOM.0000000000001999. PMID: 32804747.

11 Chan, G.K., Bifton, J.R., Allgeyer, R.L., Elliott, D., Hudson, L.R., Moulton Burwell, P., (May 31, 2021) "The Impact of COVID-19 on the Nursing Workforce: A National Overview" *OJIN: The Online Journal of Issues in Nursing* Vol. 26, No. 2, Manuscript 2.

12 Kaiser. <https://khn.org/news/lost-on-the-frontline-health-care-worker-death-toll-covid19-coronavirus/>

Are Registered Nurses Leaving the Profession?

Even though we are two-plus years into the COVID-19 pandemic, quantifying the impacts on registered nurses remains a story in progress. In Graph 6, we examine the growth in RNs in the United States. In 2018 and 2019, the number of full-time RNs increased by 1.9% and 2.2%, respectively. In 2020, not surprisingly, employment grew by another 2.3%. However, in 2021, the number of employed full-time RNs in the United States fell by 3.2% even while full-time employment for all occupations increased by 3.5%.

One possibility is that the demand for health care workers (and by extension, registered nurses) declined as the pandemic ground into its second year. However, as Graph 7 illustrates, the demand for health care workers continued to outstrip the supply of available workers. In 2019, the gap between job openings and hires averaged about 560,000 a month. In 2020, this gap declined to approximately 410,000 as attempts to contain the pandemic led to reductions (if not outright stoppages) in elective medical procedures. However, in 2021, the average gap between job openings and hires widened to 947,000 a month and jumped again to approximately 1.2 million in 2022. There does not appear to be much support for the argument that the demand for health care workers has fallen over time.

Another possibility is that registered nurses are quitting faster than they can be hired. The data are, again, somewhat limited, but we can examine the age

distribution of registered nurses to gain insight into this question (Graph 8). In 2021, the proportion of nurses in the youngest age group, 25 years to 34 years, declined a full percentage point to 25.7%. Likewise, the percentage of nurses in the next age group, 35 to 44 years, declined as well, from 25.6% in 2020 to 24.1% in 2021. On the other hand, in the same year, the proportion of nurses in the 45 to 54 age group increased by one percentage point, from 21.1% in 2020 to 22.2%. While one year does not make a trend, it may be a signal that younger registered nurses are leaving the profession. The decline in the median age of the profession (observed in Graph 4) may halt and reverse if this becomes a full-fledged flight by the youngest members of the profession. Without a steady influx of new registered nurses, the stresses on existing RNs will only increase over time.

Looking to the future, the demand for registered nurses is likely to outpace the supply. Over the next decade, the average difference in the United States between the increase in the supply of nurses and the increase in demand for nurses will exceed 29,000 a year (Table 2). In other words, on average, there will be 29,000 unfilled RN positions a year because there will not be sufficient entrants into the nursing profession. We caution that these projections do not account for the toll that COVID-19 has taken on the profession. If anything, these workforce gap estimates may be optimistic.

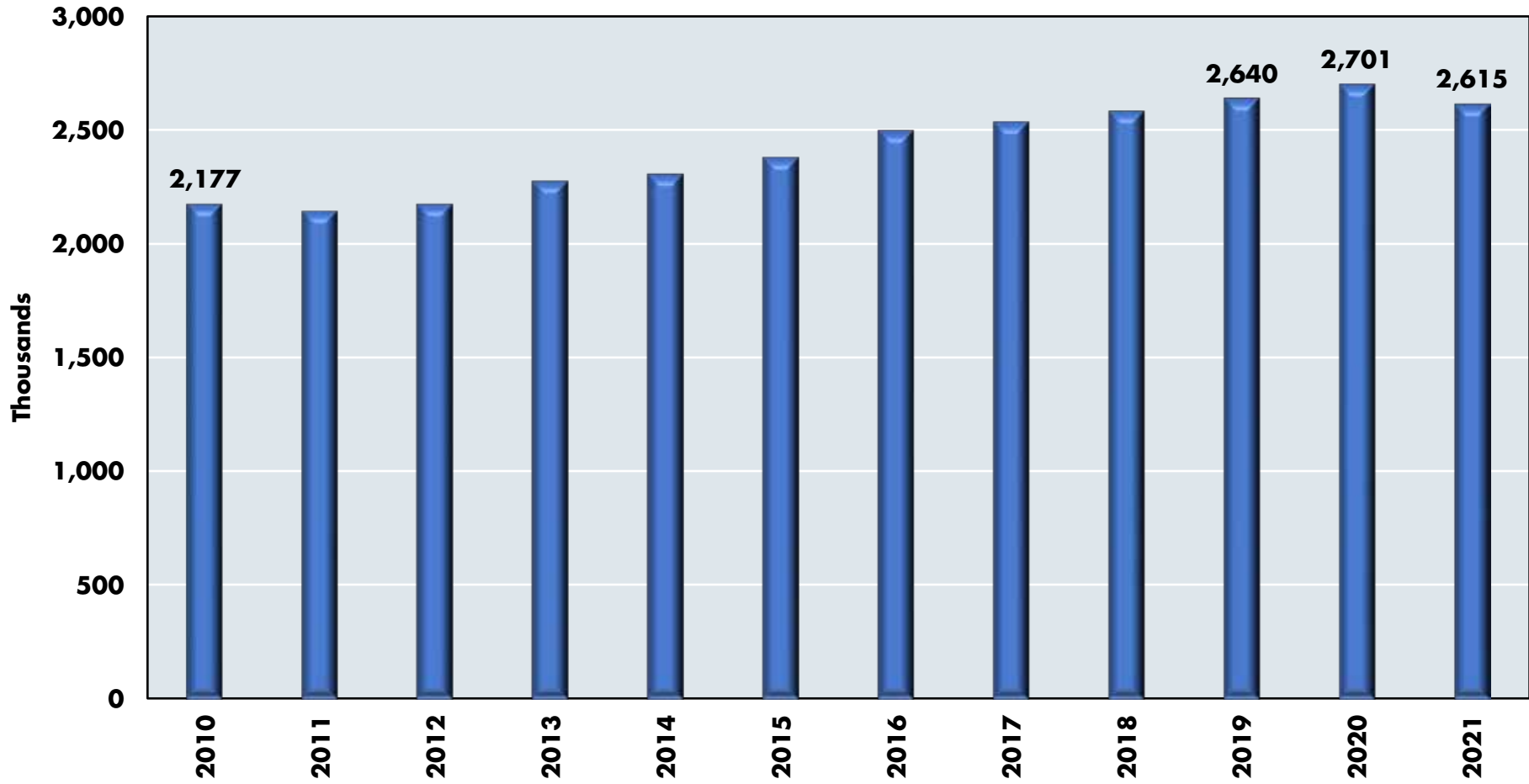
TABLE 2

POTENTIAL AVERAGE ANNUAL OCCUPATION GAPS FOR REGISTERED NURSES UNITED STATES, 2021-2031

Current Employment 2021 Q4	Projected Employment 2031	Annual Employment Growth	Average Annual Supply	Average Annual Demand	Annual Supply Gap
3,064,458	3,298,848	0.7%	110,983	140,000	-29,016

Source: JobsEQ. Annual employment growth reflects the compound annual growth rate. Annual supply and demand estimates reflect the annual average accumulated supply and demand projections.

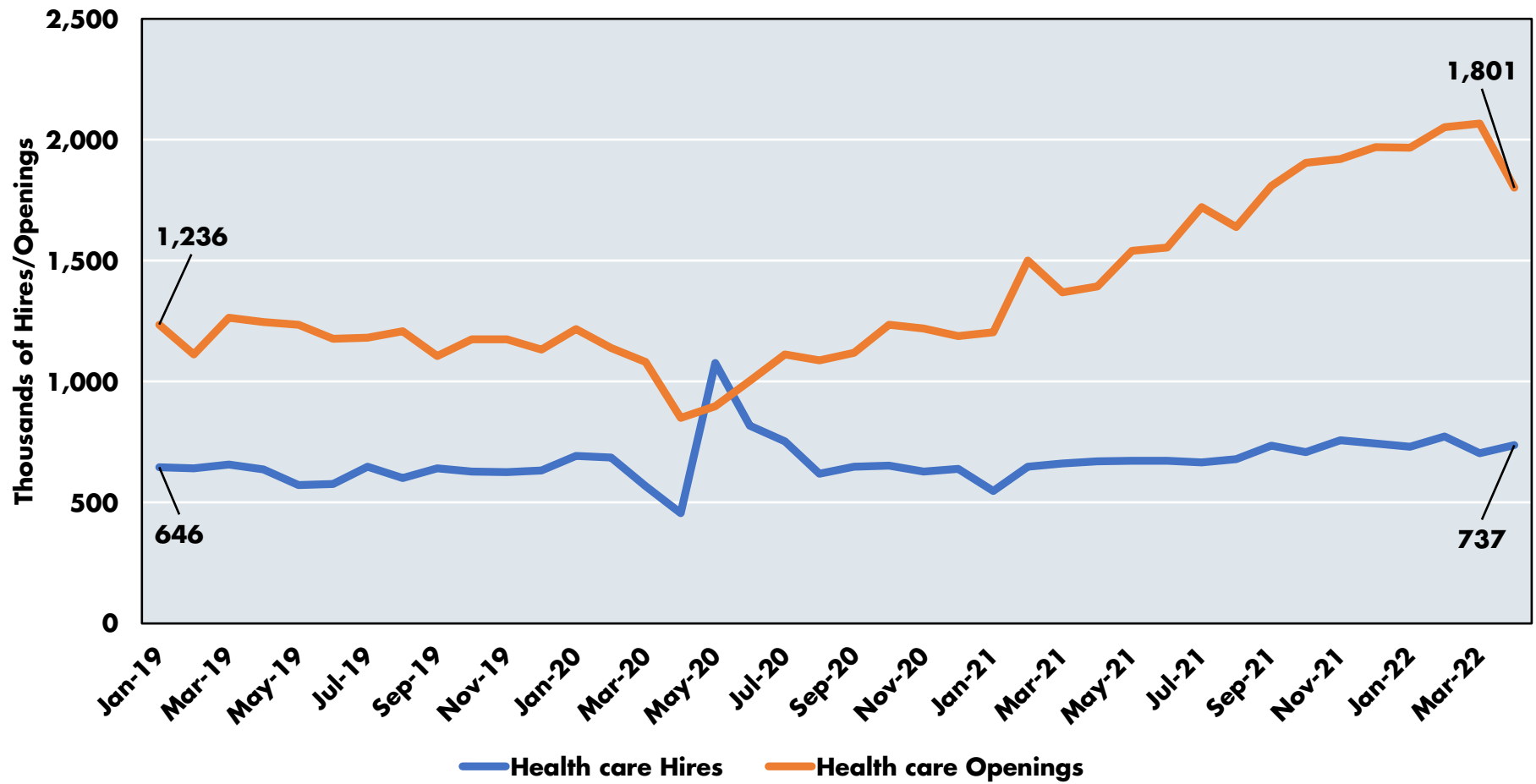
GRAPH 6
FULL-TIME REGISTERED NURSES
UNITED STATES, 2010-2021



Source: U.S. Bureau of Labor Statistics, employed full time: Wage and salary workers: Registered nurses occupations: 16 years and over [LEU0254487900A], retrieved from FRED.

GRAPH 7

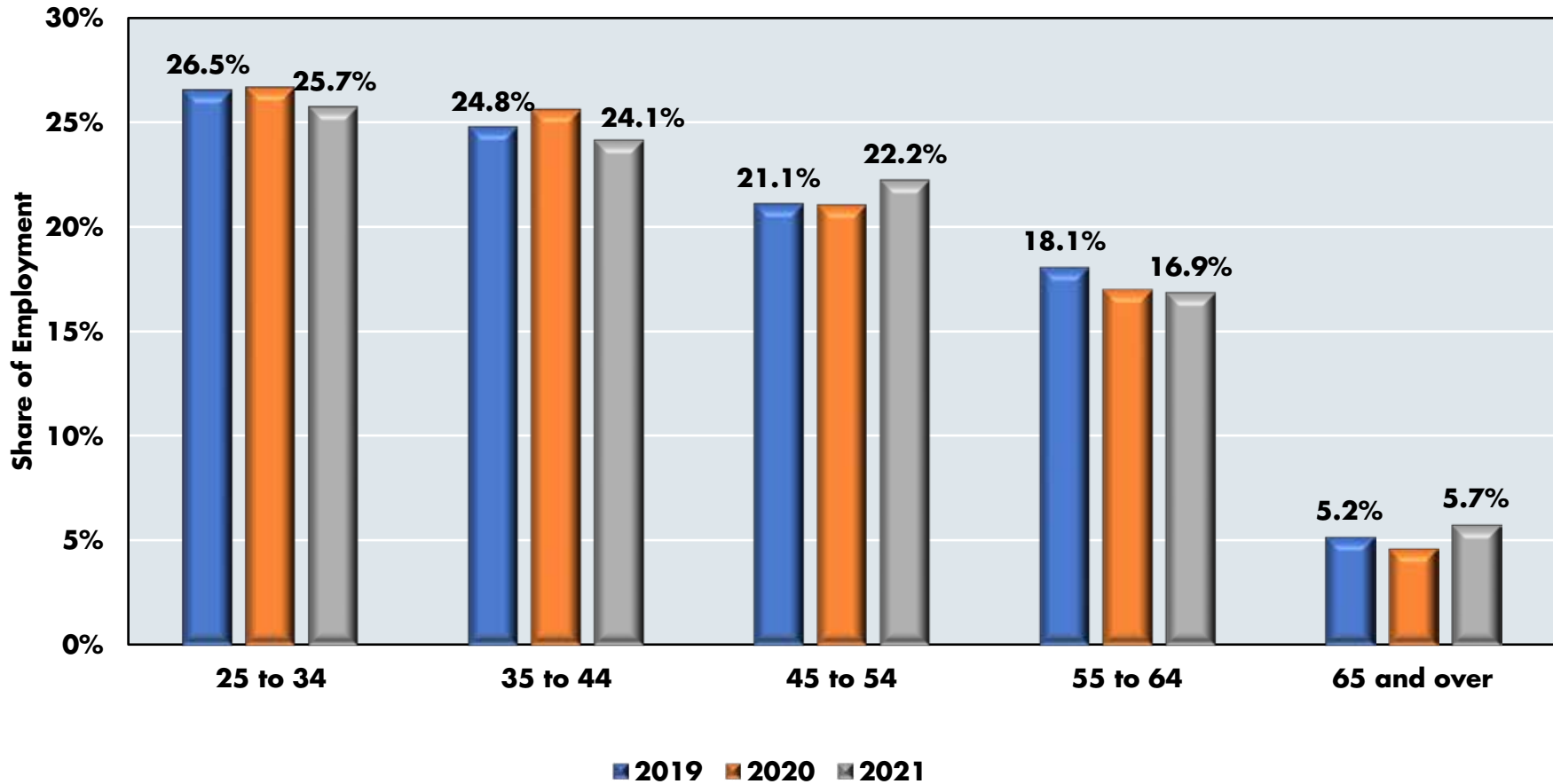
HEALTH CARE INDUSTRY JOB OPENINGS AND HIRES
UNITED STATES, JANUARY 2019 – APRIL 2022



Source: U.S. Bureau of Labor Statistics, Job Openings and Labor Turnover Survey (JOLTS). Data are seasonally adjusted.

GRAPH 8

**REGISTERED NURSE EMPLOYMENT BY AGE GROUP
UNITED STATES, 2019, 2020, AND 2021**



Source: U.S. Bureau of Labor Statistics, Current Population Survey (CPS). Table 11b. Employed persons by detailed occupation and age. Excludes age groups 16 to 19 years and 20 to 24 years.

Registered Nurses in Hampton Roads

In the 2015 State of the Region: Hampton Roads Report, we asked whether Hampton Roads was facing a shortage of nurses. We concluded that the region produced enough registered nurses to mitigate the impact of impending retirements. To say that the environment in which registered nurses work has changed would be an understatement. Given the impact of the COVID-19 pandemic, the national shortage of registered nurses, and the projected imbalance between the supply of new nurses and new jobs for those nurses, we need to revisit our analysis and ask what the future may hold for Hampton Roads.

We draw upon two sources to examine the state of the nursing profession in Hampton Roads: the Bureau of Labor Statistics (BLS) and the Virginia Department of Health Professions (DHP). The BLS administers the Occupation Employment Survey, a semiannual nationwide survey that is conducted with state employment agencies. The DHP collects feedback on an annual survey of nurses renewing their license in Virginia. License renewal is completed every two years, so for any given year only half of the nurses will have access to the survey. More than 80% of nurses who are eligible to renew their nursing license responded to the survey, which provides one of the best opportunities to understand our regional nursing workforce.

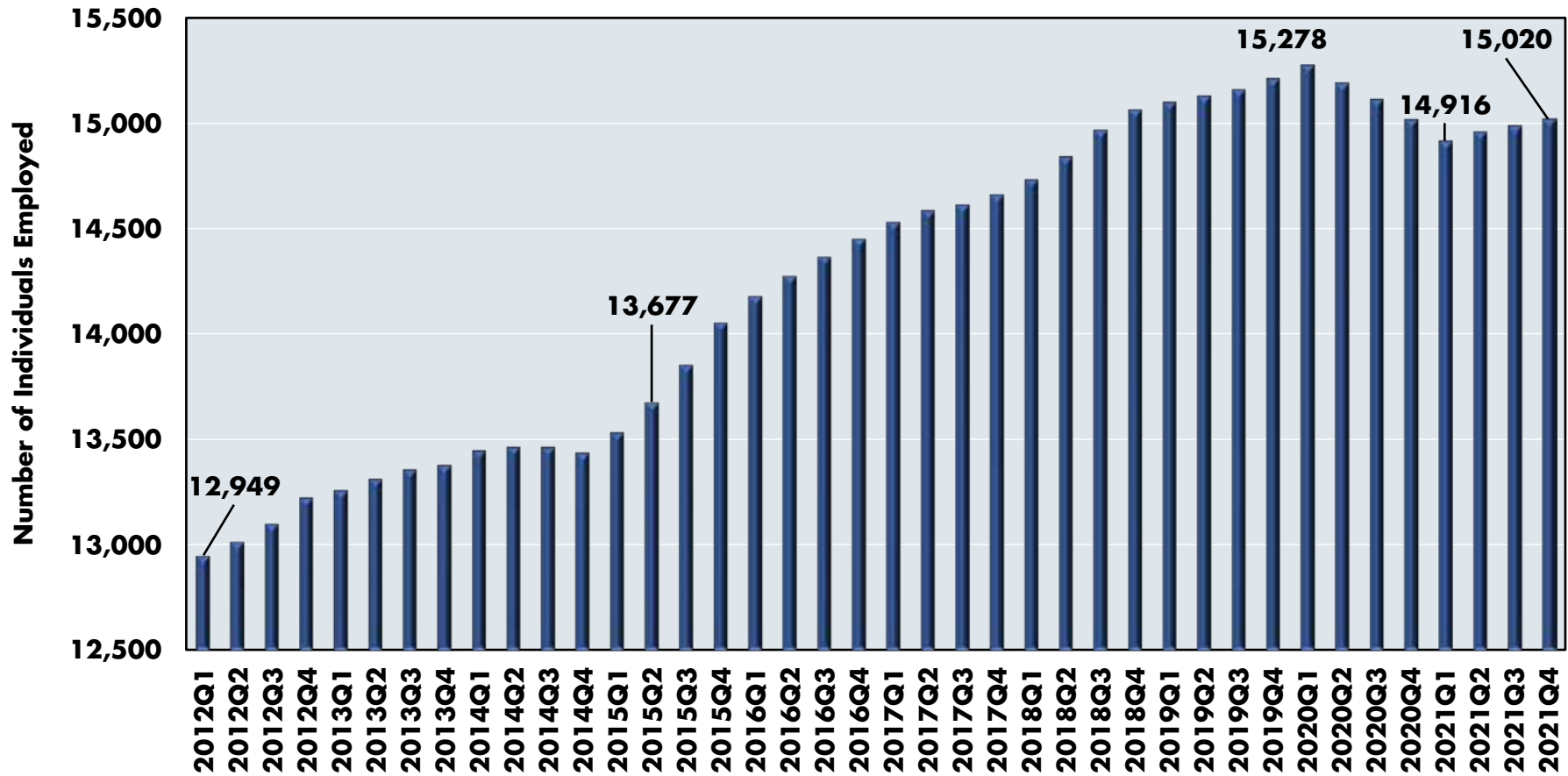
Graph 9 displays data from the BLS on the employment of registered nurses in Hampton Roads from the first quarter of 2012 to the fourth quarter of 2021. From 2012 Q1 to 2019 Q4, the average annual rate of employment growth for registered nurses in the region was 2.1%, higher than the overall rate of employment growth over the period.¹³ Employment did fall from 15,278 nurses in 2020 Q1 to 14,916 in 2021 Q1 (a decline of 2.4%), in part due to the measures designed to limit the spread of COVID-19. However, the recovery in registered nursing employment has been somewhat tepid, with employment only growing by 0.7% from 2021 Q1 to 2021 Q4, significantly below the pre-COVID average rate of growth.

Graph 10 compares the growth in employment for registered nurses and all occupations in Hampton Roads from 2012 Q1 to 2021 Q4. Registered nurses experienced less of a shock to employment than most workers in Hampton Roads. While RN employment declined 1.9% from 2019 Q4 to 2021 Q1, overall employment dropped by 6.6%. Since the 2021 Q1 trough in employment, overall employment increased by 3.0%, more than four times that of RNs. However, we must note that the estimated unemployment rate for registered nurses in Hampton Roads in 2021 Q4 was 1.3% compared to 4.6% for all employees. It should be no surprise that tepid economic growth and relatively tight labor market for RNs has limited the pace of employment recovery.

¹³ The compound annual growth rate (CAGR) is equal to $((\text{Last Period}/\text{Initial Period})^{1/\text{number of periods}})-1$

GRAPH 9

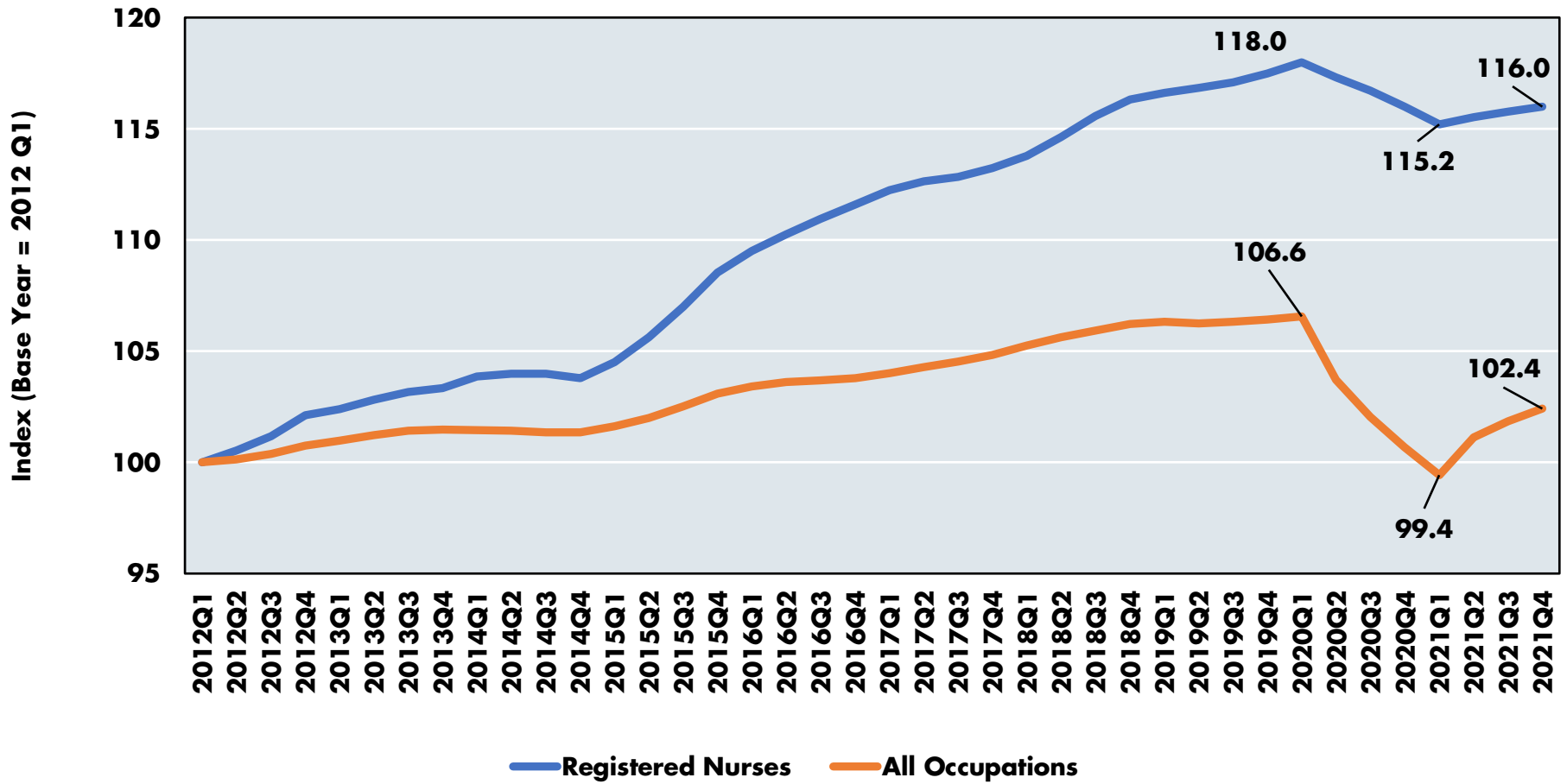
REGISTERED NURSES EMPLOYMENT
HAMPTON ROADS, 2012 Q1 - 2021 Q4



Source: JobsEQ, four-quarter moving average. Employment by place of work. SOC 29-1140. Data as of 2021 Q4.

GRAPH 10

GROWTH IN EMPLOYMENT
REGISTERED NURSES AND ALL OCCUPATIONS
HAMPTON ROADS, 2012 Q1-2021 Q4



Source: JobsEQ, four-quarter moving average. Employment by place of work. Data as of 2021 Q4.

Will There Be Enough Nurses in Hampton Roads?

One factor driving the demand for nurses over the coming years will be the aging of the national, state, and regional populations. Graph 11 displays the proportion of the population age 65 and older in Hampton Roads, Virginia, and the United States in 2020 and the projected proportions for 2030 and 2040. In 2020, approximately 1 in 6 of the region’s population was 65 or older. By 2030, it is anticipated that almost 1 in 5 residents of Hampton Roads will be age 65 or older.

As the population of the region ages, the demand for health care and, consequently, registered nurses will increase as well. The population projections also do not account for the increase in the demand for health care for those suffering from long-COVID-19. Concerns about the workload facing nurses may also lead to many stricter limits on patient-to-nurse ratios as research has shown that higher patient-to-nurse ratios are causally related to worse patient outcomes.¹⁴ Other research has shown that as nurse activities (workload) increases, patient mortality in intensive care units increases.¹⁵ In either case, restricting the number of patients a nurse can care for or limiting nursing workload (which would reduce the number of patients also) would increase the number of registered nurses required to maintain normal operations.

Table 3 provides estimates of the annual gap between the supply of and demand for registered nurses in Hampton Roads from 2021 to 2031. Even before we account for stress, burnout, and retirements, the supply of nurses in the region falls short of anticipated demand. Hampton Roads faces an average shortfall of 139 nurses a year over the coming decade. Compounding the regional shortage of nurses is the likelihood of state and national shortages, leading to increased

¹⁴ Driscoll, A., Grant, M. J., Carroll, D., Dalton, S., Deaton, C., Jones, I., Lehwaldt, D., McKee, G., Munyombwe, T., & Astin, F. (2018). The effect of nurse-to-patient ratios on nurse-sensitive patient outcomes in acute specialist units: a systematic review and meta-analysis. *European journal of cardiovascular nursing*, 17(1), 6–22.
¹⁵ Margadant, Charlotte MSc1,2; Wortel, Safira MSc1,2; Hoogendoorn, Marga MSc2,3; Bosman, Rob MD2,4; Spijkstra, Jan Jaap MD2,5; Brinkman, Sylvia PhD1,2; de Keizer, Nicolette PhD1,2 The Nursing Activities Score Per Nurse Ratio Is Associated With In-Hospital Mortality, Whereas the Patients Per Nurse Ratio Is Not*, *Critical Care Medicine*: January 2020 - Volume 48 - Issue 1 - p 3-9

competition for nurses across the nation. Even if Hampton Roads increases its supply of new nurses, other regions are likely to attract some (if not many) from this region due to higher prevailing wages.

The gap between the supply of nurses and the demand for nurses is not merely a question of academic importance. As illustrated in Table 4, more rural areas of Hampton Roads are likely to face increasing shortages of registered nurses over the coming decade. As the wage gap between urban and rural areas continues to increase, registered nurses (and other health professionals) will gravitate toward higher paying jobs in urban areas of the region, Commonwealth, and nation. Much like we now observe “food deserts” in some areas of the region, we will see the rise of “nurse deserts” in the coming years.

TABLE 3

POTENTIAL AVERAGE ANNUAL OCCUPATION GAPS FOR REGISTERED NURSES HAMPTON ROADS, 2021-2031

Current Employment 2021 Q4	Projected Employment 2031	Annual Employment Growth 2021 - 2031	Average Annual Supply	Average Annual Demand	Annual Supply Gap
15,020	15,368	0.2%	504	644	-139

Source: JobsEQ. Annual employment growth reflects the compound annual growth rate. Annual supply and demand estimates reflect the annual average accumulated supply and demand projection.

TABLE 4

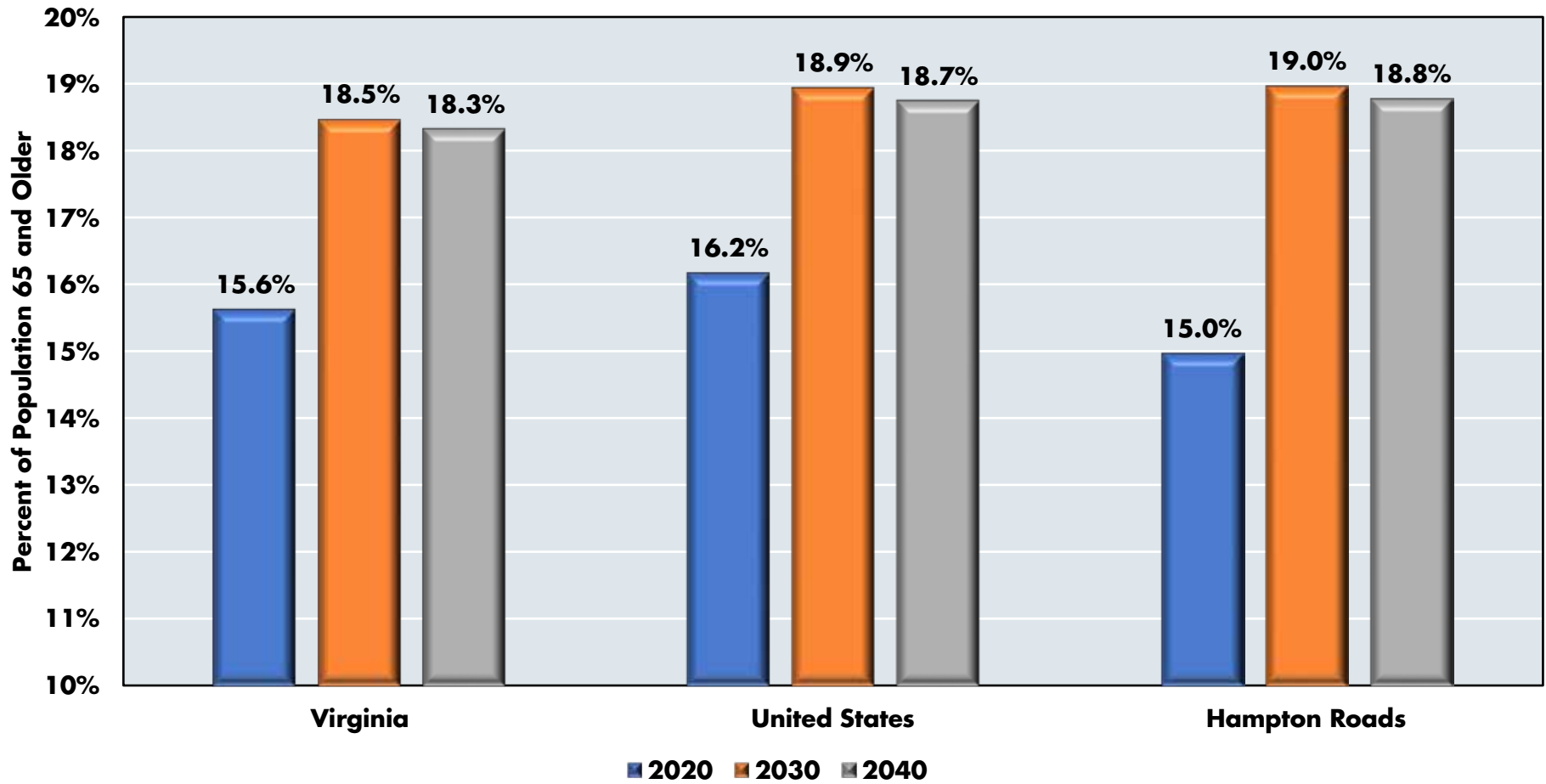
**CURRENT AND PROJECTED EMPLOYMENT GROWTH OF REGISTERED NURSES
HAMPTON ROADS CITIES AND COUNTIES, 2021 Q4 – 2031 Q4**

	RN Employment 2021 Q4	RN Share of Total Employment 2021 Q4	Location Quotient	Share of Population Age 65 and Older (2020)	10-Year Forecast Growth Rate	Retirements (Annual)	Retirement Rate (Annual)	2020 Median Annual Wage
Gloucester County	216	2.1%	1.04	19.2%	2.1%	6	2.3%	\$64,100
Isle of Wight County	52	0.4%	0.22	19.0%	9.4%	5	2.1%	\$69,000
James City County	304	1.0%	0.52	25.4%	3.9%	12	2.1%	\$71,400
Mathews County	39	2.0%	1.03	30.1%	0.4%	2	2.7%	\$56,700
Southampton County	20	0.5%	0.26	20.0%	-2.1%	2	2.3%	\$63,600
York County	157	0.7%	0.36	16.2%	1.2%	12	2.2%	\$69,800
Chesapeake	1,099	1.0%	0.52	13.2%	7.8%	36	1.9%	\$70,000
Franklin	133	3.1%	1.59	20.6%	2.0%	1	2.1%	\$63,700
Hampton	1,483	2.8%	1.42	15.3%	-8.2%	25	1.9%	\$67,700
Newport News	2,149	2.0%	1.04	12.9%	7.2%	25	1.7%	\$69,800
Norfolk	4,016	2.9%	1.46	11.2%	-1.9%	33	1.5%	\$73,300
Poquoson	32	1.6%	0.83	20.1%	2.2%	2	2.3%	\$63,400
Portsmouth	1,389	3.0%	1.54	14.7%	3.5%	12	1.6%	\$69,300
Suffolk	734	2.0%	1.03	14.5%	17.2%	15	1.8%	\$70,300
Virginia Beach	2,791	1.5%	0.77	14.2%	4.0%	68	1.8%	\$71,000
Williamsburg	334	2.8%	1.44	16.1%	-4.8%	3	2.2%	\$67,400
Camden County, NC	10	0.7%	0.33	17.6%	17.6%	2	1.7%	\$63,700
Currituck County, NC	43	0.5%	0.26	16.4%	18.6%	4	2.1%	\$67,500
Gates County, NC	19	1.1%	0.53	20.5%	-0.6%	2	2.6%	\$63,600
Hampton Roads MSA	15,020	1.9%	0.97	14.7%	2.3%	268	1.8%	\$70,700
Virginia	69,728	1.7%	0.86	15.4%	4.7%	1,241	1.8%	\$72,400
USA	3,064,458	2.0%	1.00	16.0%	7.6%	51,970	1.7%	\$75,300

Source: JobsEQ, Census Bureau, Population Estimates Program (PEP), and the Dragas Center for Economic Analysis and Policy, Old Dominion University.

GRAPH 11

**CURRENT AND PROJECTED SHARE OF THE POPULATION 65 AND OLDER
UNITED STATES, VIRGINIA, AND HAMPTON ROADS
2020, 2030, AND 2040**



Sources: Weldon Cooper Center for Public Service's Age and Sex Estimates, and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Virginia portion of the Virginia Beach – Norfolk – Newport News, VA-NC MSA.

Why Don't We Have More Registered Nurses?

According to the American Association of Colleges of Nursing's (AACN) report, "2019-2020 Enrollment and Graduations in Baccalaureate and Graduate Programs in Nursing," nursing schools across the nation, which include those in Hampton Roads, turned away over 80,000 qualified applications from baccalaureate and graduate nursing programs in 2019. In the 2020 – 2021 academic year, 19,666 individuals applied to registered nursing programs in the Commonwealth (Graph 12). Of these applicants, 13,333 were academically qualified, 9,219 were admitted, but only 7,580 ended up enrolling in the programs. In other words, about 1 in 2 qualified applicants were not admitted into a nursing program.

If we need more nurses, why can't we just rapidly expand the supply of new nurses in Hampton Roads and, by extension, the Commonwealth and nation? Unfortunately, the supply of new registered nurses is limited by bottlenecks in the nursing supply chain. Much like a shutdown in China or Russia's invasion of Ukraine can ripple through supply chains to limit goods at the local store in the United States, the supply of new nurses is constrained by a lack of qualified instructors, inefficient processes, and limits on the conventional factors of production. Let's briefly explore how these bottlenecks occur and the impact on the supply of new nurses.

HUMAN RESOURCE SHORTFALLS

Schools of nursing in the Hampton Roads region and across the Commonwealth and nation are functioning with significant faculty shortages because of budget constraints, retirements (aged faculty), and increased competition with clinical practice. In one undergraduate program in Hampton Roads, for example, workload calculations demonstrate the need for 26 full-time faculty where there are 14 currently employed. This significant gap is addressed through the process of continuously hiring, scheduling, calculating compensation, and evaluating over 50 adjunct faculty throughout the academic year. Adjunct faculty are essential in nursing education, but they do not traditionally have the capacity to assume other critical roles essential to

growing enrollment including mentors, committee members, advisers, tutors, alumni developers, recruiters, or ambassadors of programs because of their commitment to their clinical practice. Table 5 shows the distribution of full- and part-time faculty by type of registered nursing program in Virginia. The use of adjunct faculty is not a new phenomenon in academia, but unlike many faculty, nursing faculty can transition quickly to new jobs.

TABLE 5
FACULTY EMPLOYMENT
RN PROGRAMS IN VIRGINIA 2020-21 ACADEMIC YEAR

Program Type	Full Time	Part Time	Total	Percent Full-Time
Accelerated Baccalaureate	77	122	199	38.7%
Associate	328	396	724	45.3%
Baccalaureate	435	506	941	46.2%
Associate Online	4	3	7	57.1%
Baccalaureate Online	36	21	57	63.2%
Accelerated Master's	10	0	10	100.0%
All Programs	890	1,048	1,938	45.9%

Source: Department of Health Professions, Virginia's Nursing Education Programs: 2020 – 2021 Academic Year. https://www.dhp.virginia.gov/media/dhpweb/docs/hwdc/nurse-ed/NurseEducation_2020-2021.pdf

Within the next 10 years, it is anticipated that 23% of the current nursing workforce in the Commonwealth will retire. This is in line with the estimates from our 2015 report where we found that 26% of the nursing workforce in the Commonwealth would retire by 2025 and that the five-year periods with the most anticipated retirements are 2020-25 and 2025-30 for all areas in the region. Among RNs who are age 50 and over, 30% expect to retire by the age of 65. Should a large portion of baby boomer faculty RNs exit the workforce earlier than expected, the supply would decrease more precipitously and disrupt this niche of the region's labor market.

With rising wages for nurses in clinical practice, it is becoming more and more difficult to recruit nurses as faculty. The average salary of a registered nurse

working as a full-time employee in clinical practice in the Hampton Roads region is, on average, \$70,000-80,000 annually.¹⁶ By contrast, the average salary for a nurse working as a full-time faculty member in an undergraduate nursing program is around \$65k. With the growing number of travel nursing opportunities that carry a higher wage, this disparity can be substantially larger. Degree requirements also contribute to faculty shortages. To work as a faculty member in an undergraduate nursing program at a four-year university in the Commonwealth, the Virginia State Board of Nursing requires a minimum of a master's degree in nursing. To work in clinical practice, nurses are required to have an associate degree, with a bachelor's degree preferred.

INEFFICIENT OR POOR PROCESSES

Virginia law and Board of Nursing regulations require approval and oversight of all pre-licensure registered nursing programs located in Virginia and go to great lengths to ensure program quality. Once a program has been granted full approval, Board of Nursing regulations require an onsite survey of non-accredited programs every five years and accredited programs every 10 years. Programs must comply with several requirements including a minimum of 500 hours of direct patient care supervised by qualified faculty, that every faculty member must hold a graduate degree, and that preceptors must be licensed at a level at or above the level for which the students are preparing. While the purpose of the Board of Nursing is to ultimately ensure that nurses have the necessary knowledge and skills to practice safely and keep ethical standards, rigid compliance standards limit growth in enrollment.

In 2021, the AACN shared a new vision for academic nursing education derived in part from a review of current trends and “relevant assumptions regarding registered nurse preparation and practice.”¹⁷ Competency-based education is linked to explicitly defined performance expectations, based on observable behavior to a degree greater than it already is, and will require an increase in and more frequent return to demonstrations and performance assessments using advanced technology and simulation. It is anticipated that the adoption of a competency-based educational model to maintain accreditation will require smaller faculty-to-student ratios as well as additional simulation and administrative support staff. These and other concerns related

¹⁶ Department of Health Professions.

¹⁷ American Association of Critical-Care Nurses (AACN).

to accreditation requirements, such as impact on faculty development and resources and the financial impact on programs, have the potential to restrict growth in enrollment.

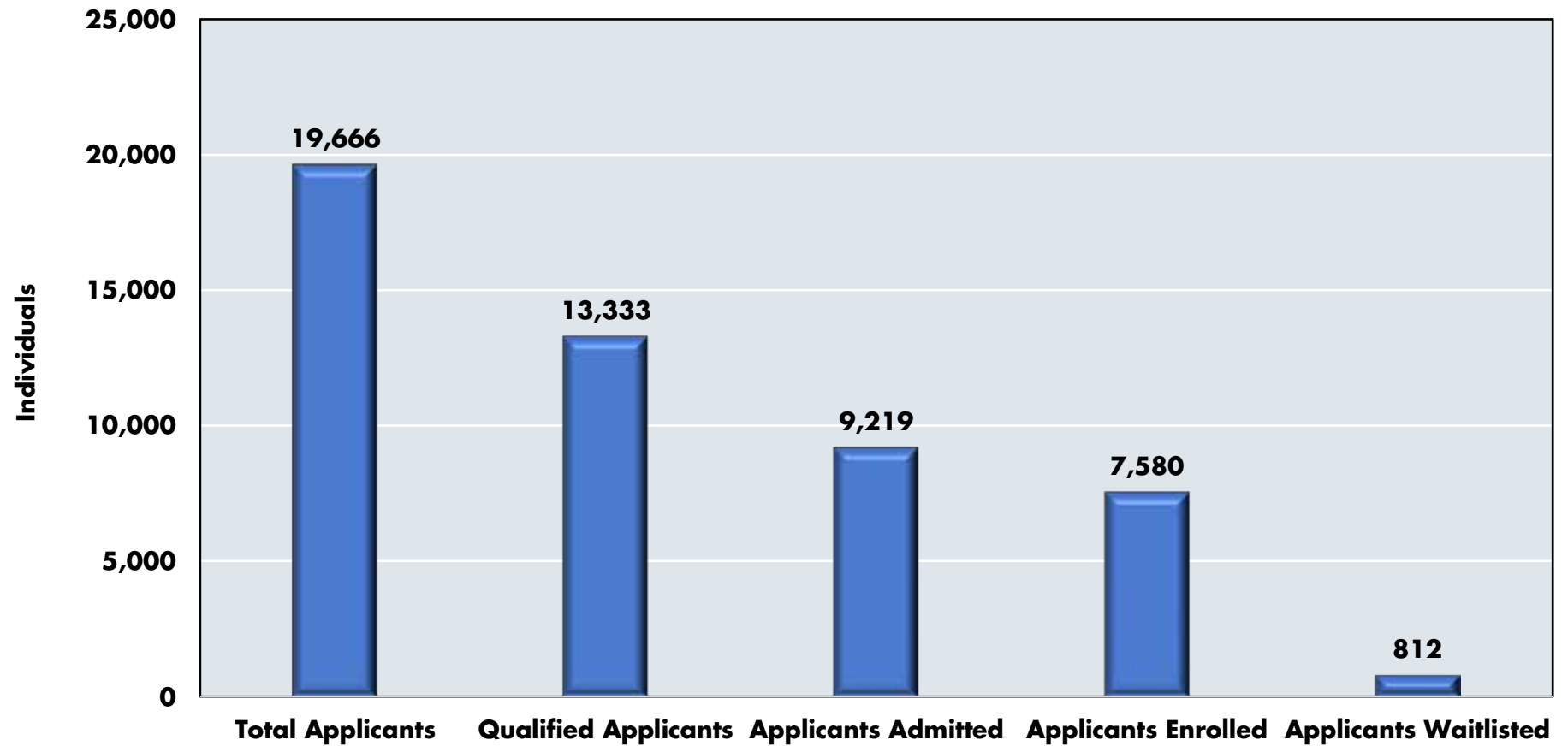
Further, many schools of nursing in the Hampton Roads area and throughout the Commonwealth struggle to establish reliable partnerships with health systems and other affiliates to firmly secure clinical training opportunities for students. For example, there is stiff competition among nursing programs for required clinical training experiences and preceptors, especially in the specialized areas of pediatrics, obstetrics, and psychiatric and mental health. There are currently over 20 different institutions with nursing programs in the Hampton Roads region that require clinical training in pediatrics and obstetrics. Further compounding the impact of such competition is the fact that proprietary schools of nursing in the region are better positioned to compensate clinical sites for training; this strategy is of little advantage to programs housed at four-year public universities. The clinical training processes employed in professional nursing education are inefficient and unpredictable; significant growth in enrollment is not likely to occur unless this problem is addressed.

LIMITS ON OTHER FACTORS OF PRODUCTION

Given the physical nature of professional nursing, programs are conducted with a significant degree of face-to-face, hands-on learning; this requires classroom and laboratory space. Faculty members teaching in face-to-face educational nursing programs need private offices to counsel students and carry out their work in a distraction-free work environment. Programs require administrative offices for staff and other professionals whose work supports programmatic success. Large classrooms are necessary for large groups of learners to convene. Space is finite and limits on the same restrict growth in enrollment. The growth in nursing programs in Hampton Roads has primarily come from new entrants, not from the expansion of existing programs, however, this is not a sustainable path forward to increasing the supply of new nurses in the future.

GRAPH 12

**APPLICATIONS TO REGISTERED NURSING PROGRAMS
VIRGINIA, 2020-21 ACADEMIC YEAR**



Source: Department of Health Professions, Virginia's Nursing Education Programs: 2020 – 2021 Academic Year. https://www.dhp.virginia.gov/media/dhpweb/docs/hwdc/nurse-ed/NurseEducation_2020-2021.pdf

The Economic Cost of Nursing Shortages

Analyzing medical death rate data over an eight-year period, Johns Hopkins patient safety experts have calculated that more than 250,000 deaths per year are due to medical error in the U.S.¹⁸ This figure surpasses the Centers for Disease Control and Prevention's (CDC's) third-leading cause of death, respiratory disease, which kills close to 150,000 people per year. While the health care system in the U.S. does not employ robust error-reporting mechanisms from which we can learn, patient safety experts have identified the root causes of many preventable medical mistakes. These include poor systems, inadequate communication, ineffective teamwork, and low levels of provider situation awareness. High levels of situation awareness are essential to quality care and patient safety in nursing and amounts to having a really good understanding of any given clinical situation. Inadequate situation awareness is a result of fatigue, distractions, stressful situations, high workload, vigilance failures, poorly presented information, forgetting key information and poor mental models.¹⁹ In nursing, inadequate situation awareness is more likely to occur when nurse staffing is low relative to the number of patients needing care.

There is a growing body of evidence that demonstrates a relationship between low RN staffing levels and changes in the quality and quantity of patient care interventions, indicating that a reduction in nurse staffing adversely affects care quality. Nurses' vigilance at the bedside is essential to their ability to ensure patient safety. Assigning increasing numbers of patients to each nurse eventually compromises his or her ability to provide safe care.²⁰

Nurses' education and training appear to be linked to patient outcomes. One study showed lower inpatient mortality rates for a variety of surgical patients in hospitals with more highly educated nurses. This finding has resulted in calls

18 Johns Hopkins Medicine, https://www.hopkinsmedicine.org/news/media/releases/study_suggests_medical_errors_now_third_leading_cause_of_death_in_the_us

19 Endsley

20 Phillips. <https://psnet.ahrq.gov/primer/nursing-and-patient-safety>

for all nurses to have at least a baccalaureate education, which was one of four key recommendations of the landmark Institute of Medicine report, "The Future of Nursing: Leading Change, Advancing Health."²¹

High-quality professional nursing care is a vital component of the economy and the health care system in Hampton Roads. More than 16,000 registered nurses are employed in the region (over 50% in hospitals), making registered nursing the largest health care profession in the region. As health care costs continue to increase, concerted efforts to improve the efficiency and effectiveness of the health care system must consider nurses' contributions to the same.



21 Institute of Medicine (IOM), <https://pubmed.ncbi.nlm.nih.gov/24983041/>

Travel Nursing: A Market Response to the Increased Demand for Nurses

The rise of contract or travel nursing has also become a major challenge for the health care industry. As COVID-19 hotspots and unprecedented nursing shortages continue to emerge across the country, staffing agencies are aggressively recruiting and contracting with nurses to travel to areas to provide care at much higher wages than they would earn as full-time hospital employees. A quick Google search turns up offers for critical care travel nurses for up to \$9,000 per week; nurses with specific types of training can earn even more. In contrast, a full-time registered nurse working on the staff in Hampton Roads earns an average of \$75,000 per year, according to the Department of Health Professions' report, Virginia's Registered Nurse Workforce: 2021. Travel companies also may offer additional benefits and may pay nurses a bonus to refer other nurses to them.

Some hospitals, including those in Hampton Roads, are left with no options but to bring travel nurses on board to fill the workforce gap without the capacity to offer competitive wages to their full-time staff. In travel arrangements, hospitals not only pay much higher wages for nursing services, but must also pay an additional amount, around 30%, to the staffing agency from which they hire the nurse. Additionally, the wage disparities between travel nurses and nurses that work as full-time employees of hospitals create disharmony in the workplace; it is common for these two providers to work side by side.



Final Thoughts

We recommend expanded efforts to identify and quantify the economic value of nursing in the Hampton Roads region because greater utilization of nurses in health care services has significant potential to control or possibly reduce costs related to care.²² These costs are distributed among different groups, including federal and state governments, who provide support for nursing education and research and pay for health care services provided through public health insurance programs; employers, who pay nurses' wages and pay much of the cost of health benefits; and health care consumers, who bear some costs of their own health care services and premiums.²³

Nursing also provides services with economic value in that nursing care generates payments to hospitals, home health agencies, nursing homes, clinics, and other providers. Nursing services output decreases hospital lengths of stay, prevents illness, and reduces preventable errors, complications, and readmissions, all of which save money for providers and health plans.²⁴ Similarly, excellent nursing care facilitates rapid recovery from illness and injury and decreases overall mortality, resulting in increased productivity.

There is significant potential for schools of nursing to develop nurse faculty residency-type programs that emphasize strategies to improve faculty recruitment, preparation, development, and retention. Schools should further develop their distance learning infrastructure to include programs that advance faculty competencies in the pedagogy of teaching and the evidence-based use of technology, simulation, and distance learning and teaching techniques. Educational programs with the capacity to do so can develop and operate nurse-led interprofessional primary care clinics in collaboration with community partners to serve homeless, uninsured, and Medicaid-eligible members of the Hampton Roads community; these clinics will also double as robust clinical training sites for nursing and other related health sciences students.

It is imperative that institutions of higher education develop strong, committed, and long-lasting partnerships with health care providers to create additional training sites in and around the Hampton Roads region to sustain growth in enrollment. Academic-practice partnerships are mechanisms for advancing nursing practice to improve the health of the public. Intentional and formalized relationships are based on mutual goals, respect, and shared knowledge between a nursing education program and a care setting. Such relationships are defined broadly and may include partnerships within nursing, other professions, corporations, government entities, and foundations.

One of the recommendations from our 2015 report on nursing was to make nursing more attractive as a profession. Hospital systems and other employers can extend some of the privileges afforded to physicians to their nursing staff. Hospital-funded lunches for physicians? How about hospital-funded lunches for nurses? Special parking privileges for physicians? How about special parking privileges for nurses? Hospitals often declare the important roles of nurses, but actions may speak louder than words. When some members of the team are treated differently from other members of the team, a hierarchy is established which communicates that some members have higher value than others. All health care providers play a critical role on the team and should be treated and recognized accordingly.

The U.S. health care system counts professional nurses as essential to expanding access to care for all, reducing costs related to health care, and improving health and the quality of health care for a thriving economy and enhanced quality of life. The National Academy of Medicine's (NAM) "Future of Nursing 2020-2030: Charting a Path to Achieve Health Equity" report identifies professional nurses as powerful agents to help all Americans live longer, healthier lives which, by default, boosts the economy. Academic institutions, the health care community, insurance companies, and government and community members must work together to create an efficient production process to connect those interested in becoming a nurse to the thousands of nursing jobs waiting to be filled.

^{22, 23, 24} Keepnews, David. (2013). "Mapping the Economic Value of Nursing: A White Paper." Seattle: Washington State Nurses Association.



Strangers in a Strange Land: Finding Refuge in Hampton Roads



STRANGERS IN A STRANGE LAND: FINDING REFUGE IN HAMPTON ROADS

"Refugees are mothers, fathers, sisters, brothers, children, with the same hopes and ambitions as us; except that a twist of fate has bound their lives to a global refugee crisis on an unprecedented scale."

Khaled Hosseini, Author and Global Ambassador for the
United Nations High Commissioner for Refugees (UNHCR), 2016

In 2022, a record-breaking 100 million people were forcibly displaced, fleeing war, persecution, and other forms of violence.¹ This humanitarian tragedy has been fueled by conflicts and crises far away from Hampton Roads — especially in Ukraine, Syria, Venezuela, Afghanistan, South Sudan, and Myanmar, the countries of origin that account for more than two-thirds of all displaced persons today.² Yet because of the U.S. military presence in Afghanistan that ended last year — as well as past and ongoing commitments in global hot spots such as Iraq, Syria, and Kosovo — many Hampton Roads residents have a firsthand connection to the affected populations. Others are helping the displaced find refuge right here in Hampton Roads.

The United States has traditionally been a global leader in the resettlement of refugees. Until recently, in fact, the U.S. offered refuge each year to more people than all other nations combined.³ The annual ceiling for refugee admissions, however, shifted significantly under President Trump's administration, falling from 85,000 in Fiscal Year (FY) 2016 to 18,000 in FY 2020. While President Biden's administration has increased the refugee admission ceiling to 125,000 in FY 2022 (the highest level since 1993), the number of actual admissions has continued to fall, in part due to lingering impacts of the COVID-19 pandemic and the defunding of the organizational infrastructure during the previous administration.⁴

The refugee resettlement environment has undoubtedly undergone dramatic shifts over the last 18 months, shifts that will impact the Hampton Roads region.

The collapse of the Afghan government and U.S. withdrawal from Afghanistan in 2021 led to the initiation of Operation Allies Welcome on August 29, 2021. This program has brought more than 78,000 Afghan nationals to the United States through humanitarian parole or the Special Immigrant Visa (SIV) process, special categories of admission that rely on much of the same institutional infrastructure as traditional refugee resettlement.

Russia's invasion of Ukraine on February 24, 2022 sparked the fastest-growing refugee crisis anywhere since the end of World War II. In response, the Biden administration announced that it will allow up to 100,000 displaced Ukrainians to take refuge in the United States. More than 12 million Ukrainians have been internally and externally displaced, a number that may continue to climb in the coming months if Russia's invasion grinds into 2023.

1 UNHCR: Ukraine, other conflicts push forcibly displaced total over 100 million for first time. Available at <https://www.unhcr.org/en-us/news/press/2022/5/628a389e4/unhcr-ukraine-other-conflicts-push-forcibly-displaced-total-100-million.html>

2 UNHCR Figures at a Glance, at <https://www.unhcr.org/en-us/figures-at-a-glance.html>

3 <https://www.pewresearch.org/fact-tank/2019/10/07/key-facts-about-refugees-to-the-u-s/>

4 Migration Policy Institute (2021). "U.S. Annual Refugee Resettlement Ceilings and Number of Refugees Admitted, 1980-Present," at <https://www.migrationpolicy.org/programs/data-hub/charts/us-annual-refugee-resettlement-ceilings-and-number-refugees-admitted-united>

Mohammad, Sediqa and their two young children came to the U.S. from Afghanistan in the fall of 2021. They initially stayed with family in Northern Virginia before opting to settle in Newport News. The city's lower cost of living was a driving factor behind their decision. With the assistance of Commonwealth Catholic Charities, they moved into their own apartment in the Denbigh neighborhood around Warwick Boulevard, which is now home to an Afghan restaurant and several international grocery stores. Because Mohammad had served as an interpreter for the U.S. military, he is already fluent in English. Aware of the importance of being able to drive in the United States, he began to study the rules of the road before even leaving Afghanistan. Both Mohammad and Sediqa have since earned their Virginia driver's licenses, and the family has purchased a secondhand car. Mohammad is receiving additional training to drive a commercial vehicle; he intends to pursue a career in trucking. Sediqa is attending English as a Second Language classes twice a week, and their children are enrolled in Newport News Public Schools. They told us that they have been surprised by some of the more arduous aspects of day-to-day life here — having to drive miles to shop for basic items, paperwork and bureaucratic procedures that can be difficult to negotiate, and the number of resources they will ultimately need to attain financial stability. Despite these obstacles, both are grateful for the opportunity to build a new life and stand on their own in the United States. "Here you can achieve anything," Mohammad told us.

This chapter explores how all of these developments are affecting Hampton Roads, which has received more than 300 Afghans and other political refugees over the past 18 months. We'll begin with a short introduction to the U.S. Refugee Admissions Program, and then take a closer look at resettlement in our region, discussing its economic impact and the role of Hampton Roads landlords and employers in integrating refugees. Finally, we'll point to ways that our region can continue to welcome this vulnerable but dynamic population.



A Short Primer on Refugee Policy in the United States

In order to understand how and why persons from all over the world come to find refuge in Hampton Roads, some definitions are helpful. To begin, not all migrants or displaced persons are considered refugees. The contemporary understanding of “refugee” emerged in the aftermath of World War II, as the global community grappled with (then) record numbers of persons who lacked state protection. A landmark United Nations Convention of 1951 defined a refugee as “a person who is outside his or her country of nationality or habitual residence; has a well-founded fear of being persecuted because of his or her race, religion, nationality, membership of a particular social group or political opinion; and is unable or unwilling to avail him- or herself of the protection of the country, or to return there, for fear of persecution.”⁵ This definition still guides international policy today.

According to the terms of the convention, refugees have the right not to be returned to a country where their life and freedom are endangered. The UN High Commissioner for Refugees (UNHCR) was established to protect and seek durable solutions for members of this group, including — as a last resort — resettlement in a third country. By acceding to the 1951 Convention and its 1967 Protocol, states agree to cooperate with the UNHCR and share responsibility for protecting refugees.

The United States made this commitment in 1968. The Refugee Act of 1980 incorporated the convention’s definitions into U.S. law and provides the basis for the U.S. Refugee Admissions Program. The U.S. president determines the overall cap and regional ceilings for refugee admissions each year, based on humanitarian concern and priorities set by the U.S. Department of State.⁶

⁵ UNHCR, “The 1951 Convention Relating to the Status of Refugees and its 1967 protocol” (September 2011), at <https://www.unhcr.org/en-us/about-us/background/4ec262df9/1951-convention-relating-status-refugees-its-1967-protocol.html>

⁶ See Refugee Admissions by Region since 1975 as of September 30, 2021, at <https://www.wrapsnet.org/archives/>

Graph 1 displays the annual ceiling on admissions and the actual number of admissions to the United States from FY 1980 to FY 2021. The first decade of U.S. refugee admissions was dominated by peoples from East Asia (Vietnamese, Cambodians, Laotians, and Hmong) who were displaced in the aftermath of the Vietnam War. The late 1980s and 1990s brought an influx of refugees from the Soviet Union and its successor states, as well as Bosnians, Kosovars, and others fleeing the violent breakup of Yugoslavia. The annual ceiling fluctuated somewhat during the first decade of the 2000s but generally remained between 70,000 and 80,000 refugees. In FY 2016, the final year of President Obama’s administration, the annual ceiling was 85,000. During President Trump’s administration, a stated preference was to reduce refugee admissions. The annual ceiling fell to 50,000 in FY 2017, then to 30,000 in FY 2019, and finally to 18,000 in FY 2020. On September 30, 2020, the Trump administration notified Congress that the FY 2021 annual ceiling would again be further reduced to 15,000 admissions.⁷

The initial FY 2021 ceiling of 15,000 was increased to 62,500 in the initial months of President Biden’s administration, however, admissions fell to a low of 11,411, due in part to the COVID-19 pandemic. In FY 2022, the initial ceiling rose to 125,000 (Table 1). However, because the admissions system has been overwhelmed by the large number of Afghans and Ukrainians who were quickly admitted on humanitarian parole, the proposed allocation of refugees from other parts of the world will certainly not be met.

Candidates for resettlement usually undergo an initial screening by the UNHCR, followed by a long series of interviews and background checks by multiple U.S. government agencies — a process that occurs entirely outside of our country’s borders and typically takes several years. If and when refugees are finally approved for resettlement, they must agree to repay the U.S. government for the cost of their travel. They may eventually apply to become lawful permanent residents, and then U.S. citizens, but they do not receive this status automatically. We note that Afghans and Ukrainians who enter the U.S. on humanitarian parole have, thus far, not been granted a similar path toward permanent residency.

⁷ Nick Miroff, “Trump cuts refugee cap to lowest level ever, depicts them on campaign trail as a threat and burden” (1 October 2020), at https://www.washingtonpost.com/immigration/trump-cuts-refugee-cap/2020/10/01/a5113b62-03ed-11eb-8879-7663b816bfa5_story.html

Refugees' legal status is different from asylum seekers, who travel on their own to a country where they desire protection; this scenario describes many of the thousands of migrants who cross the U.S.-Mexico border each year. Although asylum seekers' experiences of persecution may be no less dire, they face a very different legal process upon entering the United States. Likewise, persons fleeing their home countries for any other reason than political, ethnic, racial, or religious persecution (such as economic hardship or climate change) are not currently entitled to protection as refugees under international law.

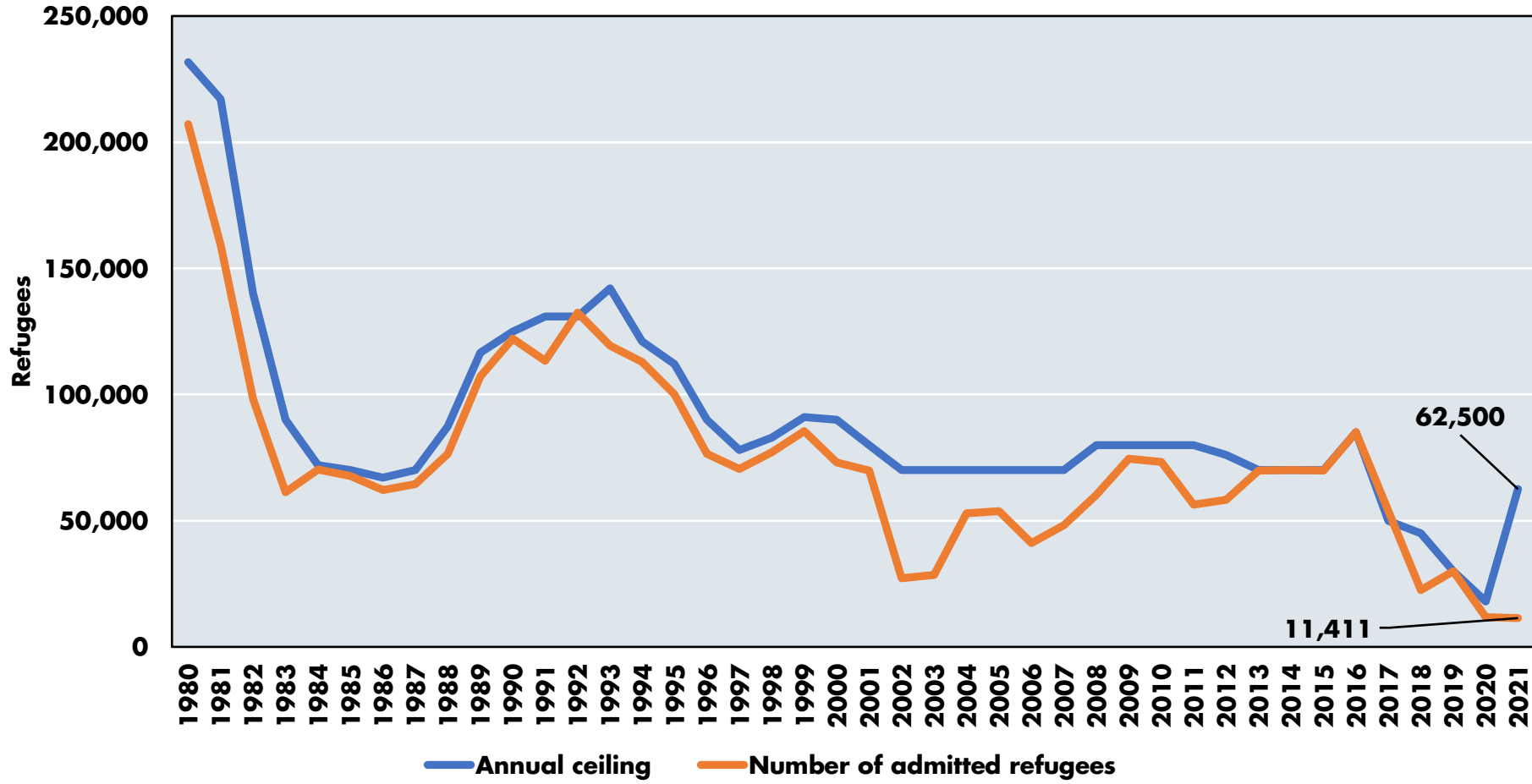


TABLE 1
UNITED STATES REFUGEE ADMISSIONS*
FY 2021 AND FY 2022

Region	FY 2021 Revised Ceiling	FY 2021 Projected Arrivals	FY 2022 Proposed Allocations
Africa	22,000	8,000	40,000
East Asia	6,000	1,000	15,000
Europe and Central Asia	4,000	1,000	10,000
Latin America/ Caribbean	5,000	500	15,000
Near East/South Asia	13,000	2,000	35,000
Regional Subtotal	50,000	12,500	115,000
Unallocated Reserve	12,500	0	10,000
Total	62,500	12,500	125,000

Source: Report to Congress on Proposed Refugee Admissions for Fiscal Year 2022, at <https://www.state.gov/report-to-congress-on-proposed-refugee-admissions-for-fiscal-year-2022/>. *Does not include admissions of refugees from Afghanistan or Ukraine on humanitarian parole.

GRAPH 1
ANNUAL CEILING AND ACTUAL REFUGEE ADMISSIONS
UNITED STATES, FY 1980 – FY 2021



Source: Migration Policy Institute (MPI) analysis of WRAPS data from the State Department Bureau of Population, Refugees, and Migration. Available at www.wrapsnet.org/admissions-and-arrivals/www.wrapsnet.org/admissions-and-arrivals/.

How Resettlement Works: Public-Private Partnerships

There are nine nonprofit volunteer agencies (sometimes called “volags”) that coordinate with the U.S. State Department to resettle refugees. Six of these agencies are faith-based (Table 2). Each volunteer agency is connected to a network of local affiliates that perform the grassroots work of resettlement, and each local affiliate may serve clients within a 100-mile radius. Refugees in Hampton Roads are resettled through the Newport News office of Commonwealth Catholic Charities (CCC), which is an affiliate of the United States Conference of Catholic Bishops (USCCB).

Between September 2021 and February 2022, CCC helped to resettle 225 Afghans in Hampton Roads (Graph 2). The overwhelming majority put down roots in Newport News, while a smaller number moved to Hampton, Virginia Beach, Williamsburg, and Chesapeake. Nearly all arrived on humanitarian parole through Operation Allies Welcome. This surge of newcomers from a single country is unusual, and can be attributed to the U.S. State Department’s temporary freeze on all other refugee admissions in the fall of 2021.

More typically, CCC welcomes refugees from all over the world in any given month, although newcomers from Afghanistan have predominated for the last several years. Whenever possible, refugees are resettled in communities where they have existing family ties, which helps to explain why the source countries of Afghanistan, the Democratic Republic of Congo, and Iraq have been particularly well represented in Hampton Roads (Table 3).

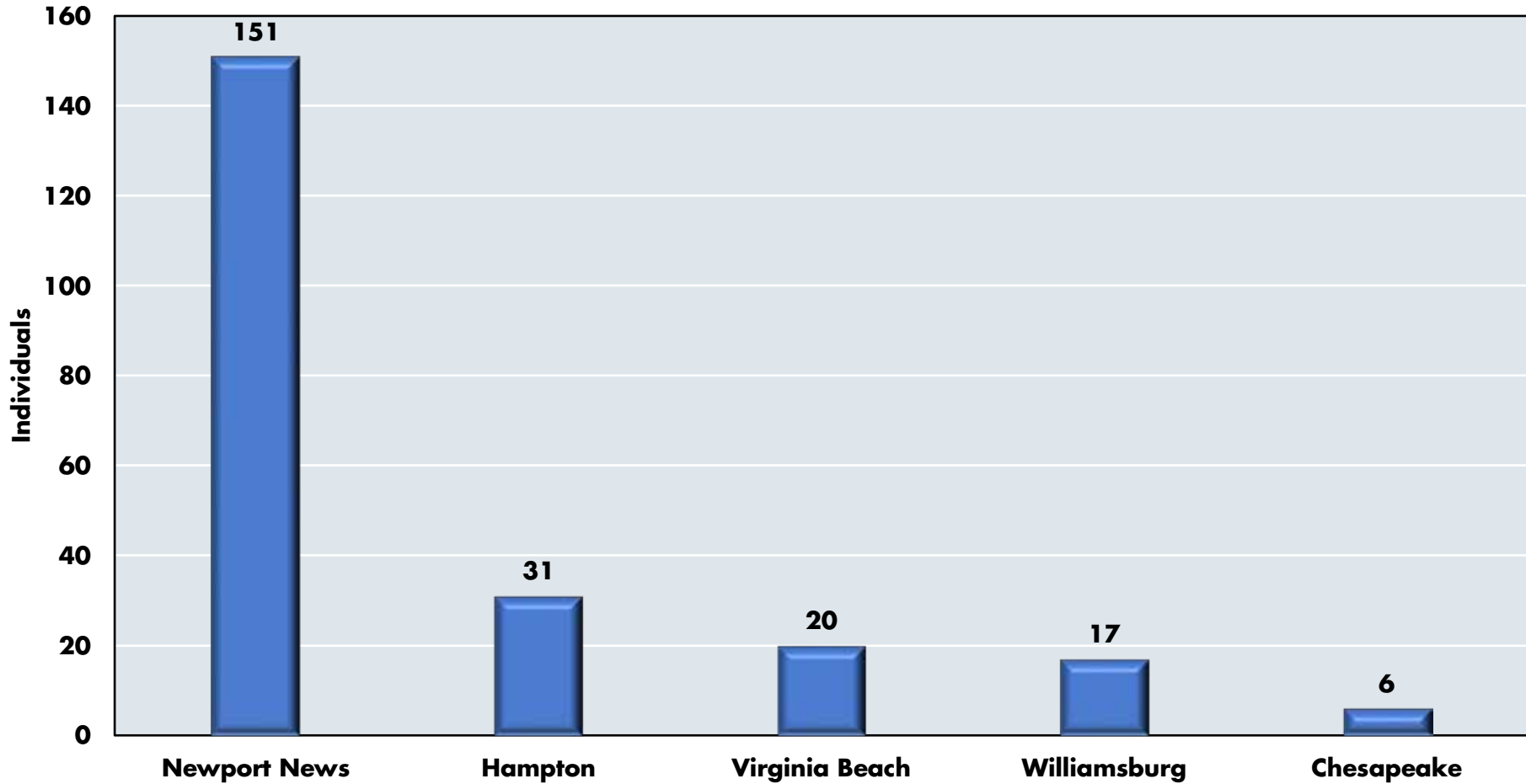
Kristen Larcher, director of operations for refugee and immigration services at CCC in Newport News, tells us that resettlement in Hampton Roads begins when the USCCB contacts her office with a request to accept new clients. Within weeks or even days, she and her staff must secure affordable housing for the incoming family, ensuring that an appropriate residence is furnished with a list of prescribed essentials. Refugees arrive in our community with almost no personal possessions.

Agency	Faith Affiliation	Virginia Affiliate	Virginia Location
Church World Service (CWS)	Christian (ecumenical)	Church World Service	Harrisonburg Richmond
Ethiopian Community Development Council (ECDC)	None	Ethiopian Community Development Council	Arlington
Episcopal Migration Ministries (EMM)	Episcopal	None	
Hebrew Immigrant Aid Society (HIAS)	Jewish	None	
International Rescue Committee (IRC)	None	International Rescue Committee	Charlottesville Richmond
Lutheran Immigration and Refugee Service (LIRS)	Lutheran	Lutheran Social Services of the National Capital Area	Fairfax Woodbridge/ Dale City
United States Committee for Refugees and Immigrants (USCRI)	None	None	
United States Conference of Catholic Bishops (USCCB)	Catholic	Catholic Charities Diocese of Arlington, Commonwealth Catholic Charities	Arlington Manassas/ Fredericksburg Newport News Richmond Roanoke
World Relief	Christian (ecumenical)	None	

Source: Dragas Center for Economic Analysis and Policy, Old Dominion University.

GRAPH 2

**ARRIVALS FROM AFGHANISTAN TO HAMPTON ROADS
SEPTEMBER 2021-FEBRUARY 2022**



Source: Commonwealth Catholic Charities (2022). Refugee arrivals include humanitarian parolees and SIV holders.

TABLE 3
REFUGEE ARRIVALS IN HAMPTON ROADS
COMMONWEALTH CATHOLIC CHARITIES – NEWPORT NEWS
FY 2016–FY 2021

Country	2016	2017	2018	2019	2020	2021	Total
Afghanistan	102	180	37	45	63	13	440
Burundi	8		4				12
Cuba	7	4					11
Democratic Republic of Congo	89	48	47	32	1	5	222
Eritrea	6	5	4			1	16
Ethiopia	4	14					18
Guatemala						1	1
Haiti		2				1	3
Iran	13	4					17
Iraq	36	29					65
Kenya	1						1
Myanmar	7			4			11
Other			1				1
Pakistan	6	3		1			10
Somalia	10	5					15
Total	289	294	93	82	64	21	843

Source: Virginia Department of Social Services, at https://www.dss.virginia.gov/community/ona/refugee_services.cgi

CCC's interactions with its clients are most intense within the next 90 days. The agency connects resettled families with social services, enrolls children in school, helps to secure necessary documentation, assists with job searches, coordinates health screenings, and offers cultural orientation, English language training, and other kinds of assistance as their staffing and resources allow. The office also helps to administer the \$1,025 one-time payment that each refugee receives from the U.S. State Department, which may only be spent on essentials such as rent, utilities, food, and clothing. The overarching goal of all these services is to enable the newcomers to become self-sufficient as soon as possible. In conjunction with the Office of Refugee Resettlement (part of the U.S. Department of Health and Human Services), the Office of New Americans (part of the Virginia Department of Social Services), and numerous local agencies, CCC continues to offer its clients occasional support in the areas of health, schooling, and employment for the next five years. After five years in the United States, resettled refugees are generally eligible to petition for citizenship.

Federal funding for resettlement agencies is directly tied to the number of incoming refugees they serve — which means that their staffing and financial resources have fluctuated dramatically over the past five years. While CCC resettlement services in Newport News remained open (but laid off staff), Catholic Charities USA closed 22 of its 72 resettlement offices around the country in 2017 and 2018. When we spoke to Kristen Larcher in January 2022, her team had rebounded from 5 to 11 employees in just a few months, and she was expecting to hire more staff soon. Even in a social services sector that is used to contending with the vicissitudes of geopolitics, public budgets, and private philanthropy, the challenges of the past year have been unprecedented.⁸ The CCC office in Newport News, like many of its counterparts around the country, received more clients between October 2021 and January 2022 than it had in the past three fiscal years combined.

⁸ Priscilla Alvarez, "America's System for Resettling Refugees is Collapsing," *The Atlantic* (9 September 2018), at <https://www.theatlantic.com/politics/archive/2018/09/refugee-admissions-trump/569641/>; Antonio Olivo, "Refugee aid groups in Washington region overwhelmed by Afghan caseloads," *The Washington Post* (12 December 2021), at <https://www.washingtonpost.com/dc-md-va/2021/12/12/afghan-refugees-washington-virginia-cases/>; and Nahal Toosi, "Thousands of Afghans stuck at U.S. military bases face long road to resettlement," *Politico* (20 December 2021), at <https://www.politico.com/news/2021/12/20/afghan-evacuees-future-525725>

Refugees and Housing: A Difficult Search

One of the greatest challenges in resettlement occurs before refugees have even arrived in our community. For every incoming family, CCC must secure housing that is safe, accessible by public transport, and affordable for workers who may be earning close to minimum wage in their first U.S. jobs. This is a tall order in the best of times, but the challenge has been particularly daunting in the present housing market. The surge of Afghan evacuees has coincided with rising rents and a shortage of affordable housing almost everywhere, so resettlement agencies all over the country have turned to makeshift solutions, including motels, mother-in-law-units, and Airbnbs.⁹ Kristen Larcher tells us that CCC has sometimes also placed new arrivals to Hampton Roads in extended-stay motels until more permanent housing can be found.

In early 2022, newly resettled refugees in Hampton Roads were paying monthly rents that ranged from \$600 (for a studio apartment) to \$1,300 (for a multi-bedroom house). These rents are well below the regional median. Refugees' first homes in Hampton Roads are typically serviceable but far from luxurious.

A further challenge is identifying property owners who are willing to rent to this group. CCC occasionally encounters landlords who may be reluctant to take on tenants from certain parts of the world. A much more common obstacle, however, is landlords' willingness to accommodate the special circumstances of refugees, who arrive in Hampton Roads without Social Security numbers and a U.S. employment or credit history. Landlords may not initially understand that refugees have already undergone an extensive, multi-agency vetting process that far surpasses any local background check, or that CCC works with its clients on money management and rental assistance in the first months after their arrival.

⁹ Miriam Jordan, "A Refugee Crisis Runs into a Housing Crisis," *The New York Times* (15 December 2021), at <https://www.nytimes.com/2021/12/15/us/afghan-refugees-housing.html>

In practice, therefore, many of our region’s incoming refugees have traditionally been resettled in a handful of apartment complexes in Newport News that have a history of renting to this group and a longstanding relationship with CCC. At best, this has created supportive communities of international newcomers who look out for one another and share resources. At worst, this has contributed to a kind of ghettoization that may sometimes hinder long-term integration. The lack of affordable housing in Hampton Roads only contributes to the challenge of resettling refugees in the region.

Although renting to refugees might initially seem risky, resettlement specialists note that those who have endured long waits and surmounted numerous obstacles to get to this country tend to be particularly resourceful and hardworking once they arrive. As we’ll see below, refugees as a group are, in fact, distinctive for their upward mobility and long-term economic success. Further, additional direct assistance from the U.S. State Department can now sometimes cover refugees’ first three to six months of rent, which is paid directly to landlords by the resettlement agency.

“The most difficult unmet need for refugees is housing,” Virginia’s State Refugee Coordinator Seyoum Berhe said at an event at ODU in March. CCC is actively searching for Hampton Roads landlords and property managers who would like to rent to refugee families. The need for large single-family homes (suitable for eight persons or more) is especially great.

Finding a Job: Refugees and Hampton Roads

At least one adult in each family is expected to find work soon after resettling in Hampton Roads. In practice, however, the wait for Social Security numbers and other official documentation necessary to begin employment can sometimes be prolonged and frustrating. CCC offers pre-employment training and sessions on topics such as financial literacy, interview preparation, and resume assistance. The agency works with programs such as Virginia Career Works and the Virginia Initiative for Education and Work (VIEW), and the local departments of human services, to connect clients with potential employers and other kinds of professional training.

The spectrum of educational and work experience among refugees is vast; some are highly skilled professionals with graduate educations, while others may never have learned to read or write in their native languages. U.S. employers may not necessarily recognize refugees’ professional credentials or past work experience. Some new arrivals — especially Special Immigrant Visa (SIV) holders who worked closely with U.S. nationals in Iraq or Afghanistan — may already be fluent in English, while others hardly know the language. The gender gap among refugees is often considerable, as women may have previously been discouraged from pursuing an education or working outside the home. Taken together, all of these barriers mean that resettled refugees typically start out in entry-level positions that are not necessarily in their previous fields, and then they must work their way up.

In the second quarter of the 2022 fiscal year, the average hourly wage of the 25 refugees that CCC helped to place in full-time jobs was \$12.99. There was a gap between the average wage for men (\$13.75) and that for women (\$12.25) — a reflection of the greater fluency in English and past work experience that the men typically possess upon arrival. One of our region’s largest employers of newly resettled Afghans is the Army & Air Force Exchange Service (AAFES) in Newport News. Burlington Medical, the City of Newport News, Christopher Newport University, and area hotels have also hired CCC’s recent clients.

This spring we spoke with Susan Durant, human resources manager at Burlington Medical, a Newport News company that designs and produces customized lead aprons and other protective medical equipment. She told us that around 25 of the plant's 145 employees are currently resettled refugees from Afghanistan and other Middle Eastern countries. Many have come to the company with a skill that is increasingly rare among our region's entry-level workers: they are highly proficient sewers. Some honed this talent at home, while others once worked as professional tailors. Thus, although these employees may initially have little knowledge of English, they possess valuable skills, a strong work ethic, and typically advance quickly. An established core of resettled refugees at the company has facilitated carpooling, and those with seniority now train new hires themselves. Durant told us that Burlington Medical is looking into the possibility of hosting English as a Second Language classes on site, an arrangement that could potentially benefit both the company and its employees.



The Economic Impact of Refugees on Hampton Roads

“Doing well by doing good” is a popular catchphrase for the idea that corporate profits and social conscience need not be mutually exclusive. Acting in a socially responsible way, so the argument goes, can be both lucrative and charitable. The same might be said for refugee resettlement, a humanitarian undertaking that offers some significant benefits for host communities. Although some politicians and pundits have decried the expense and purported dangers of welcoming refugees, these objections appear to be based more on cultural prejudices and party posturing than on sober economic analysis.

Research suggests that “refugees’ economic contributions far outweigh the initial costs of resettlement,” as scholar Anita R. Kellogg notes. She points to local studies that show how resettled refugees have added millions of dollars and hundreds of jobs to the economies of cities such as Cleveland and Detroit. Other scholarly investigations have produced comparable results. A 2017 National Bureau of Economic Research working paper finds that “refugees pay \$21,000 more in taxes than they receive in benefits over their first 20 years in the U.S.,” while a 2021 U.S. Immigration Policy Center policy brief concludes that “refugees have no statistically significant impact on state or local expenditures or revenues where they are settled, in the short- or long-term.”¹⁰

The economic achievement of refugees tends to outstrip that of other immigrants. A 2017 New American Economy report shows that refugees who had lived in the United States five years or less had a median income of just under \$22,000 — but their median income more than tripled in subsequent decades, “growing far faster than other foreign groups.” Further, refugees’ entrepreneurship rate (13%) is higher than that of other immigrants (11.5%) and the U.S.-born population (9%).¹¹

¹⁰ Anita R. Kellogg, “Why do some U.S. mayors want more refugees?” *The Washington Post* (28 June 2021), at <https://www.washingtonpost.com/politics/2021/06/28/why-do-us-mayors-want-more-refugees/>; William N. Evans and Daniel Fitzgerald, “The Economic and Social Outcomes of Refugees in the United States: Evidence from the ACS,” NBER Working Paper (June 2017), at <https://www.nber.org/papers/w23498>; and Reva Dhingra, Mitchell Kilborn, and Olivia Waldemikael, “Does Refugee Resettlement Impact State and Local Finances?” U.S. Immigration Policy Center (September 2021), at <https://usipc.ucsd.edu/publications/usipc-fiscal-impact-refugee-resettlement-methodological-appendix.pdf>.

¹¹ “From Struggle to Resilience: The Economic Impact of Refugees in America,” *New American Economy* (June 2017), at <https://research.newamericaneconomy.org/report/from-struggle-to-resilience-the-economic-impact-of-refugees-in-america/>

Refugees have assumed an especially vital role in older cities with shrinking populations. In Cleveland, Detroit, Buffalo, and elsewhere, refugees have moved into empty homes, started new businesses, and revived languishing neighborhoods.¹² While the overall population of Hampton Roads continues to grow at a modest rate, the localities in our region's older urban core have good reason to welcome refugees and other immigrants.

The New American Economy report indicates that Virginia ranks among the top five states in total refugee spending power (\$2.6 billion in 2015) and refugee contributions to state and local tax revenue (\$260 million). This is a product of our state's robust resettlement network, which has an especially strong foothold in the prosperous localities of Northern Virginia. While some U.S. states have recently shrunk their resettlement programs or resisted hosting Afghan evacuees, Virginia remains a leader in this field. CBS News reported in February 2022 that more than one-third of 67,380 Afghan evacuees processed at U.S. military sites were resettled in just three states: Texas (10,494), California (8,301), and Virginia (5,171). Alexandria, Fairfax, and Manassas are among the top 20 U.S. cities where Afghans have resettled.¹³

Refugees enrich their host communities in many ways, cultural and economic, although how long they actually stay in a community affects their local impact. The U.S. Immigration Policy Center policy brief stresses that the initial costs of resettlement are overwhelmingly borne by federal (not state or local) authorities, but it is also true that refugees' purchasing power and contributions to state and local taxes rise significantly over time. CCC and other local agencies do not systematically track their clients after they have become self-sufficient, so it is difficult to determine how many remain in Hampton Roads in the long term. Anecdotal evidence suggests that members of some national groups, such as Iraqis, have tended to move on to other parts of the country with larger émigré populations.

¹² Jesse McKinley, "A Surprising Salve for New York's Beleaguered Cities: Refugees," *The New York Times* (20 February 2017), at <https://www.nytimes.com/2017/02/20/nyregion/a-surprising-salve-for-new-yorks-beleaguered-cities-refugees.html>

¹³ Camilo Montoya-Galvez, "Here's where Afghan evacuees have resettled in the U.S.," *CBS News* (24 February 2022), at <https://www.cbsnews.com/news/afghan-evacuees-resettled-us-texas-california-virginia/>

How welcoming are we?

In a year when millions of people all over the world were uprooted from their homes, residents of Hampton Roads have welcomed the displaced in many different ways. Numerous individuals, institutions, and community groups are working alongside Commonwealth Catholic Charities to support refugees.

Hampton Roads Refugee Relief (HR3) is a small nonprofit organization, founded in 2017, which coordinates volunteers and connects local refugees with helpful resources, especially after their first three to six months in our region. HR3 has collaborated with Sentara to offer health screenings and vaccination clinics, and with the Immigration Clinic at the College of William & Mary Law School to provide legal support for Afghan evacuees who are seeking permanent residency.

For the past several years, a Refugee Health initiative at EVMS has trained medical students to identify and address the unique health needs of refugees, simultaneously bringing screenings, health fairs, and other medical services to the newcomers in our region. The initiative is part of the EVMS Global Health division, which the school may now be phasing out in order to focus more closely on other kinds of health inequity in our region, according to its director, Dr. Alexandra Leader. The initiative's services will certainly be missed within the resettled refugee community.

Old Dominion University has become the first campus in Virginia, and the first public institution in the country, to affiliate with Every Campus a Refuge, a program that encourages all universities to host one refugee family. In March 2022, ODU welcomed its first guests, a family of six from Syria, and has provided a rich array of supportive services to assist them on their road to self-sufficiency. After several months, the family will transition to independent housing, thereby making room on campus for new guests to take their place.

Working through faith-based organizations Church World Service and Samaritan's Purse, several area churches have independently sponsored Afghan families. Church World Service's Afghan Placement and Assistance (APA) Community Partner program allows community groups to resettle Afghan evacuees independent of the local agencies that have traditionally

coordinated this work — an innovative response to the urgent demand for services at a time when the resettlement agencies are still working to rebuild their earlier capacity.

Given the breadth of all these activities, it is striking that the number of refugees formally resettled in Hampton Roads is comparatively low. The Virginia Department of Social Services counts 843 clients served by the CCC office in Newport News between 2016 and 2021. With the exception of Roanoke (which served 736 clients), this is less than any other large metropolitan area in the state. Unsurprisingly, the three resettlement agencies in Northern Virginia together welcomed the most clients (7,353). Per capita, however, Hampton Roads truly lags, with an approximate population of just 48 recently resettled refugees per 100,000 residents (Graph 3). Northern Virginia and Richmond can each claim around 150, while the greater Harrisonburg area is home to as many as 723 recently resettled refugees per 100,000 residents.

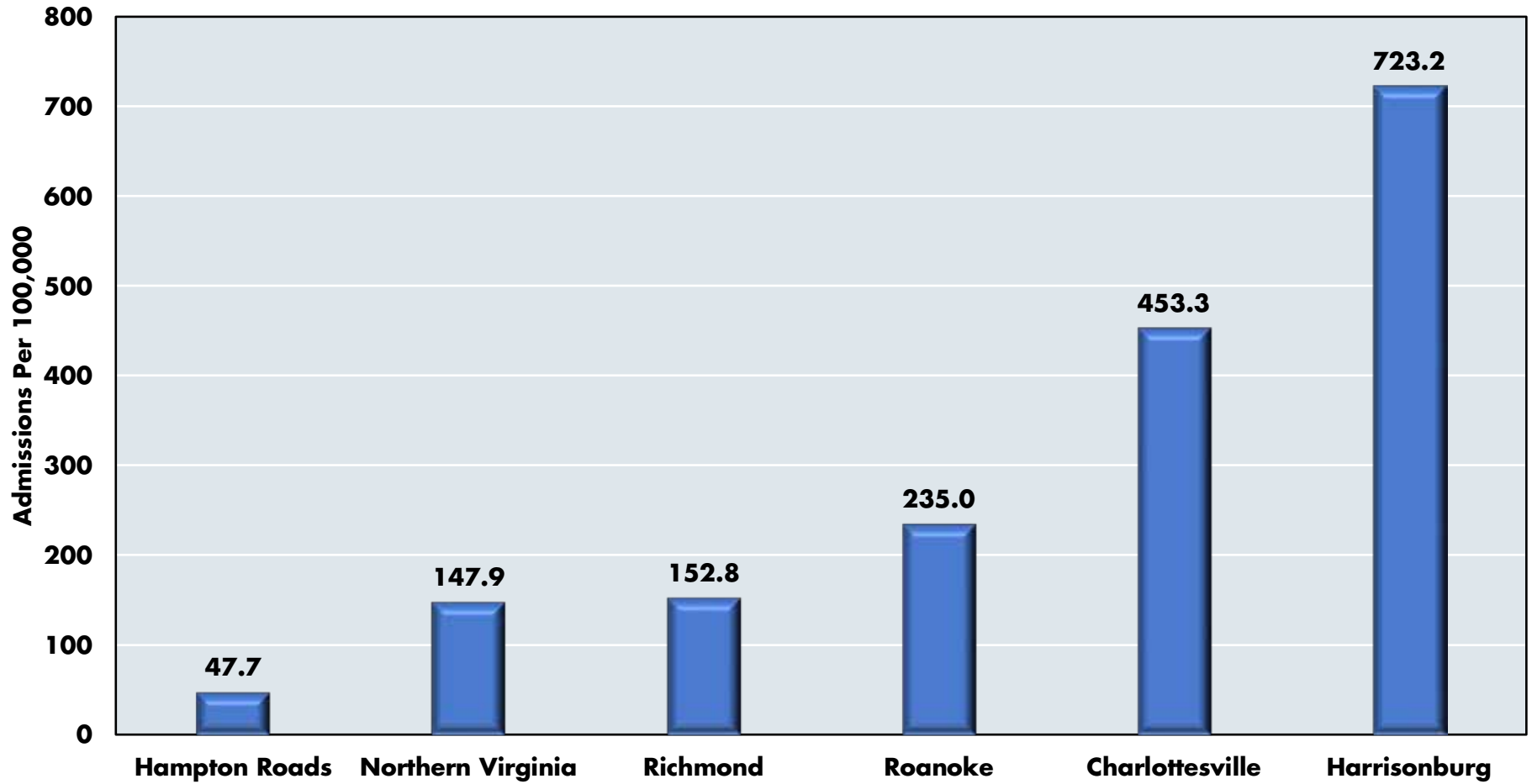


What might explain this discrepancy between Hampton Roads and Virginia's other metro areas? Although representatives in the Department of Social Services' Office of New Americans did not respond to our interview requests, we can nevertheless offer some general observations about resettlement offices in Virginia and elsewhere around the country. The location of these offices depends upon a wide range of factors, beginning with longstanding tradition and the available resources of regional organizations, such as Commonwealth Catholic Charities, that have an existing relationship with one of the nine national voluntary agencies. New offices are more likely to be established where housing is less expensive, jobs are plentiful, and where public authorities and local community members have signaled their receptiveness to resettlement.¹⁴ Despite its high cost of living, Northern Virginia is a perennial magnet for refugees, who, ideally, can be resettled near other family members. For this reason, the Ethiopian Community Development Council initiated its national resettlement program in Arlington in 1991. The Church World Service program in Harrisonburg has long been supported by the area's strong Mennonite community; refugees and other immigrants have found employment in the area's poultry and farming industries.

¹⁴ Michael D. Shear and Jim Tankersley, "For Afghan refugees, a choice between community and opportunity," *The New York Times* (24 November 2021), at <https://www.nytimes.com/2021/11/24/us/afghan-refugees.html>

GRAPH 3

**CUMULATIVE REFUGEE ADMISSIONS PER 100,000 RESIDENTS
SELECTED METROPOLITAN AREAS IN VIRGINIA, FY 2016 – FY 2021**



Sources: Virginia Department of Social Services, United States Census Bureau, and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Cumulative refugee data for FY 2016 – FY 2021 divided by 2019 population data.



Final Thoughts

In Hampton Roads, we see much untapped potential for supporting the work of resettlement. A recent opinion piece by Krish O'Mara Vignarajah, president and CEO of Lutheran Immigrant and Refugee Service, and Joe Gebbia, co-founder and chairman of Airbnb, points to numerous ways that businesses might partner with local agencies to meet the needs of refugees, "including job training and placement, child care support, transportation, health care and mental health services, financial literacy and so much more."¹⁵ Of course, such partnerships do not flourish on their own, but must be actively pursued and cultivated by resettlement authorities. Greater community engagement on behalf of Hampton Roads' refugees seems both apt and realizable, given the comparatively modest number who resettle here and the substantial resources of our region. These notably include our large population of active service members, veterans, and contractors, some of whom may have once worked alongside, or have been helped by, the most recent evacuees.

Watching images of those fleeing their homes in Afghanistan, Syria, or Ukraine might invite a sense of helplessness. The problem is too big, too complex, and, often, too far away. Yet, there are opportunities for us in Hampton Roads to be more inviting, more involved, and more compassionate for those in need.

Money is always needed. The amount of work involved in resettlement and integration of new refugees is astounding. We need to recognize that a new refugee may need more help than can be offered by official networks. Direct contributions not only increase the capacity for assistance over the long haul, but also build resilience in the face of economic or policy shocks. Through a wish list on the CCC website, anyone can purchase essential furnishings such as bed frames, linens, kitchen supplies, and even laptop computers, which will go directly to newly resettled refugees. If you are an employer in Hampton Roads, consider hiring a member of a refugee family.

¹⁵ Krish O'Mara Vignarajah and Joe Gebbia, "How business leaders can help meet the needs of Afghan refugees," USA Today (9 December 2021), at <https://www.usatoday.com/story/opinion/2021/12/09/afghan-refugees-need-help-airbnb/8690933002/>

Time is also a resource. In fact, it is immensely valuable. Case managers at busy resettlement agencies are generally not able to provide a personal introduction to supermarkets or public transportation networks, to offer extended practice in English conversation, or to provide tech support with mobile phones and internet connectivity — although these tasks (and many others like them) are an important part of helping newly resettled refugees thrive. This is where volunteers can play a critical role. A growing number of churches and community groups are going a step further, sponsoring Afghan evacuees directly through the U.S. State Department's Sponsor Circle program or a similar program coordinated by Church World Service. The newer Uniting for Ukraine program, managed by the Department of Homeland Security, is based on a similar model of private sponsorship. A recent New Yorker article notes that "one of the most critical factors in the successful integration of immigrants is their ability to find a community, and [groups such as the] Sponsor Circles help to create local bonds."¹⁶ If you are looking to foster this kind of community within Hampton Roads, contact a local or national agency, and seek out opportunities to extend the welcome to those fleeing persecution abroad.

Investing in refugees can yield substantial returns. The academic literature and popular press are replete with examples of how immigrant communities have above-average rates of entrepreneurship. As we have often discussed in these reports, Hampton Roads needs an influx of individuals who are willing to work and invest in their own and others' human capital. By offering the proverbial "hand up" today, we may help invigorate the economy of the region even as we build caring communities.

The world is an uncertain place. We are facing global social and economic shocks, and the bow wave of refugees fleeing climate change is only beginning. The challenge is before us. How will we respond?

¹⁶ Eliza Griswold, "The Ordinary Americans Resettling Migrants Fleeing War," The New Yorker (25 April 2022), at <https://www.newyorker.com/news/us-journal/the-ordinary-americans-resettling-migrants-fleeing-war>

Perhaps I Won't Go To Law School After All: Lawyers in Hampton Roads



PERHAPS I WON'T GO TO LAW SCHOOL AFTER ALL: LAWYERS IN HAMPTON ROADS

"Money is not beside the point. ... Money is the point."
Jimmy McGill in *Better Call Saul*.

Can you name a prestigious profession within Hampton Roads whose primary members' real incomes declined more than 25% between 2005 and 2021? The answer — perhaps to the surprise of many — is the legal profession. Yes, we are talking about lawyers. We have grown accustomed to seeing prosperous lawyers jousting on television shows such as *L.A. Law*, *The Practice*, *Your Honor*, *Damages*, *Boston Legal*, and *The Good Wife*. These lawyers dress well, drive expensive cars, and usually dine at classy restaurants. Nevertheless, for more than a few lawyers in Hampton Roads, their financial reality may be better approximated by lawyer Jimmy McGill in the television series *Better Call Saul*, in which one episode saw him evicted from his makeshift office at the back of a strip mall nail salon. One would not confuse Jimmy with Perry Mason. But then one should not confuse the typical lawyer in Hampton Roads with the high-priced counselors portrayed in *L.A. Law* either.

Reliable data from the Bureau of Labor Statistics (BLS) tell us that the Jimmy McGill depiction of lawyers, at least in terms of their financial status, is more common than many may believe. In fact, the financial position of the typical lawyer practicing in Hampton Roads has deteriorated over time. This decline has not only been confined to Hampton Roads, but the same general phenomenon has also characterized the financial positions of lawyers both in Virginia and throughout the United States. Alas, the financial maladies experienced by Hampton Roads lawyers have been more acute. This holds true even though Hampton Roads is not as "lawyer-intensive" as either the Commonwealth of Virginia as a whole or the entirety of the United States. The ratios of lawyers to either all employed workers or to the entire population are lower in our region than one usually finds elsewhere.

The revelation that Hampton Roads is not especially lawyer-intensive, but lawyers' incomes nonetheless are suffering substantially in the region, is a tip-off that the financial distress experienced by many lawyers in Hampton Roads is not exclusively a supply-side phenomenon. The demand for lawyers also counts. For example, the very slow growth of the region's economy has diminished the region's demand for legal services. The lesson is that the declining economic fortunes of lawyers in Hampton Roads are not due simply to law schools pumping out too many graduates.

Declining Real Incomes For Lawyers: The Evidence

HAMPTON ROADS

We begin by comparing the after-inflation (real) incomes earned by lawyers to those earned by the median worker in our region and then do the same for paralegals, the non-lawyer personnel who provide a variety of legal services. As Graph 1 reveals, the median (50th percentile) income of attorneys in Hampton Roads,¹ adjusted for price inflation (constant July 2021 prices), declined significantly between 2005 and 2021. The incomes earned by lawyers, paralegals, and all workers are indexed in Graph 1 so that each of their values is equal to 100 in the year 2005. Thus, the 103.6 index number for all workers in 2021 informs us that the median worker's real income increased by 3.6% between 2005 and 2021. This stands in stark contrast to the 28.8% decline in the median lawyer's real income.

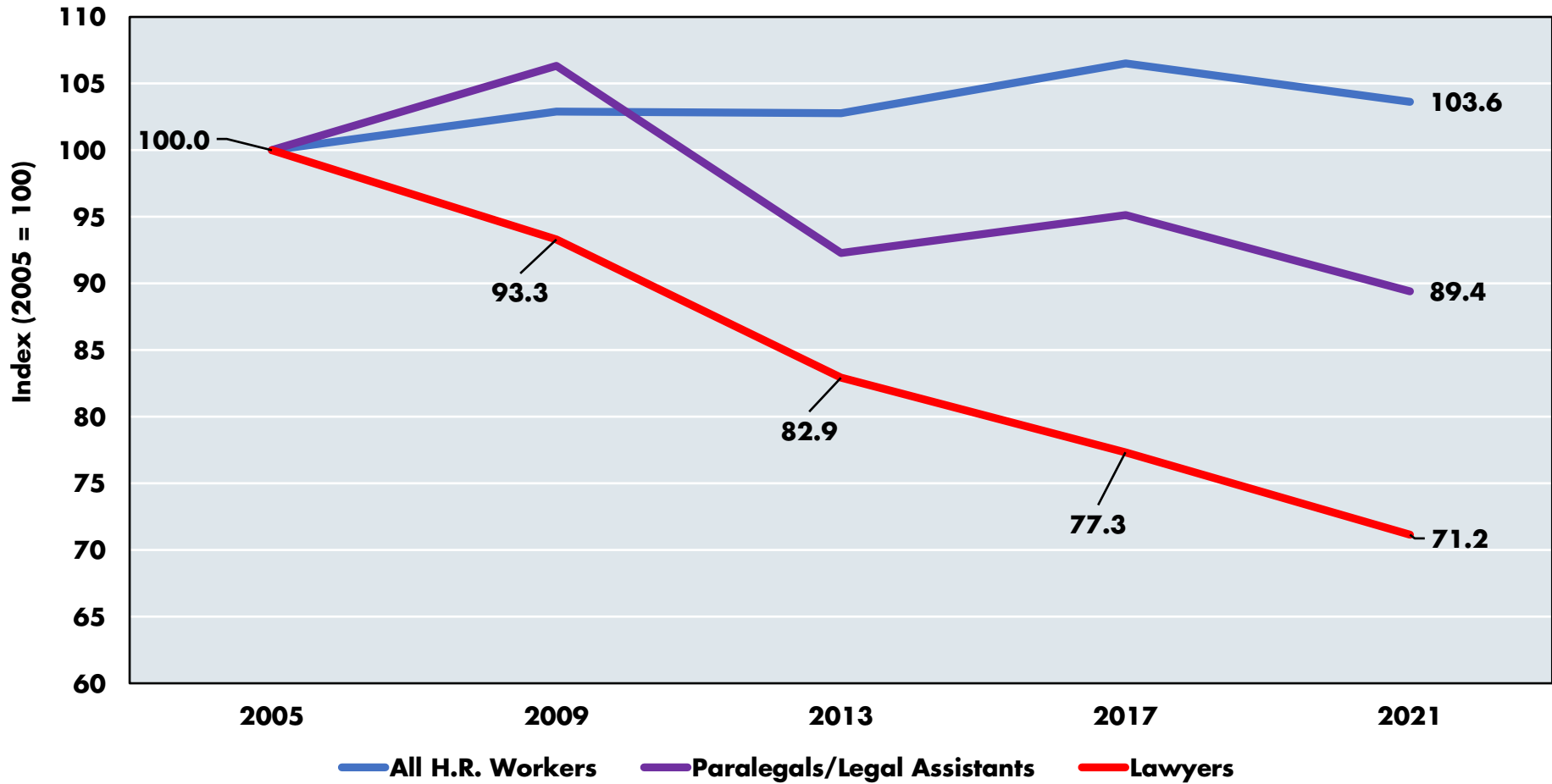
Table 1 summarizes the data presented in Graph 1. In relative terms, in 2021, the median lawyer in our region earned only 71.2% of the income she earned in 2005. The economic salary rewards accruing to paralegals also declined, but by a much smaller amount. Meanwhile, the real income of the median worker (all occupations) in the region rose by 3.6%. Hence, the typical worker in the region fared far better than either lawyers or legal assistants.

¹ Hampton Roads here is shorthand for the U.S. Bureau of the Census metropolitan region labeled "Virginia Beach-Norfolk-Newport News VA-NC," and stretches from the collar counties of North Carolina north to James City County and west to Franklin. There are more than 1.8 million residents.



GRAPH 1

THE RELATIVE DECLINE IN THE MEDIAN INCOMES OF LAWYERS:
HAMPTON ROADS, 2005-2021



Source: U.S. Bureau of Labor Statistics, "Occupational Employment and Wages," various years, www.bls.gov

TABLE 1

**MEDIAN INCOMES, MEDIAN REAL INCOMES, AND CHANGES OVER TIME:
HAMPTON ROADS, 2005-2021**

	Incomes 2005	Incomes 2009	Incomes 2013	Incomes 2017	Incomes 2021
All Hampton Roads Workers	\$27,880	\$31,610	\$34,240	\$37,220	\$40,350
Paralegals/Legal Assistants	\$36,400	\$42,640	\$40,140	\$43,410	\$45,450
Lawyers	\$101,830	\$104,670	\$100,900	\$98,700	\$101,180
	Real Incomes 2005	Real Incomes 2009	Real Incomes 2013	Real Incomes 2017	Real Incomes 2021
All Hampton Roads Workers	\$38,934	\$40,069	\$40,016	\$41,471	\$40,350
Paralegals/Legal Assistants	\$50,833	\$54,050	\$46,912	\$48,367	\$45,450
Lawyers	\$142,206	\$132,680	\$117,922	\$109,972	\$101,180
	Indexed Real Incomes 2005	Indexed Real Incomes 2009	Indexed Real Incomes 2013	Indexed Real Incomes 2017	Indexed Real Incomes 2021
All Hampton Roads Workers	100.0	102.9	102.8	106.5	103.6
Paralegals/Legal Assistants	100.0	106.3	92.3	95.2	89.4
Lawyers	100.0	93.3	82.9	77.3	71.2

Source: U.S. Bureau of Labor Statistics, "Occupational Employment and Wages," various years, www.bls.gov

VIRGINIA AND THE UNITED STATES

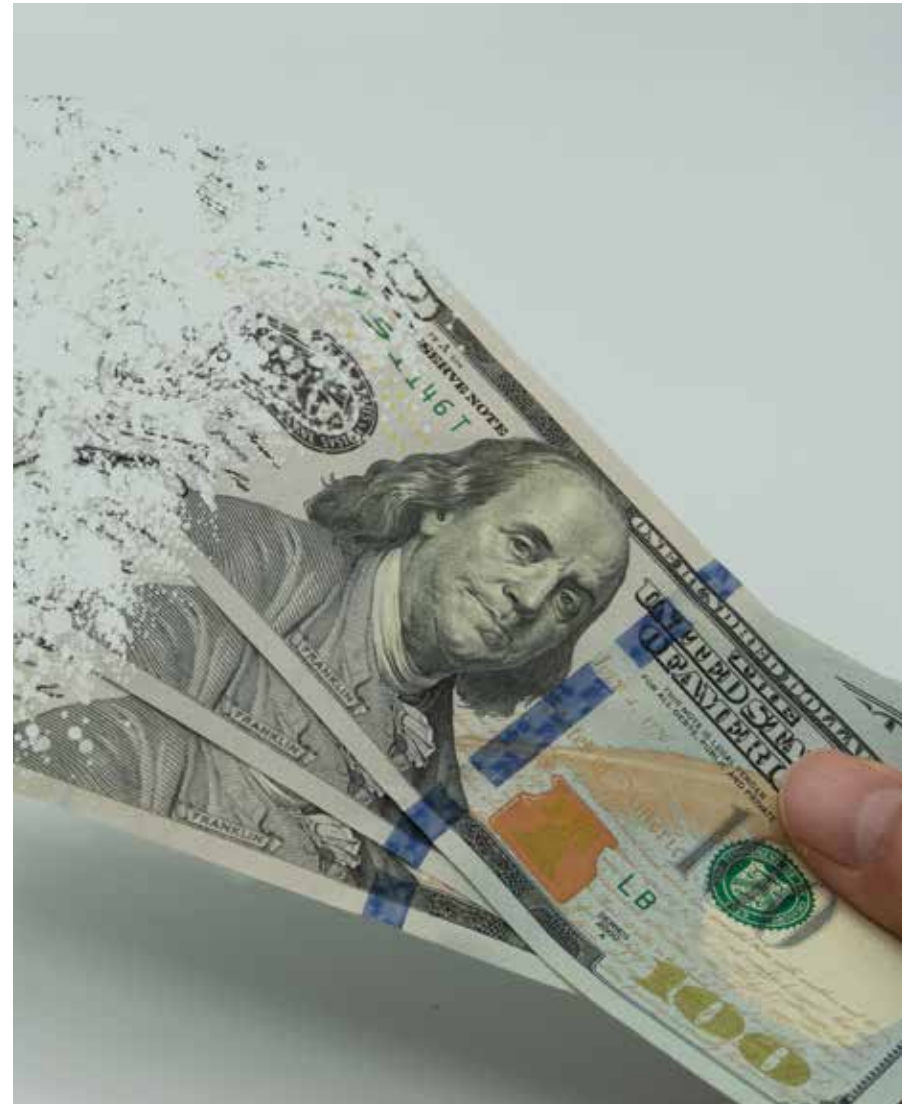
What was happening to lawyers' incomes in Virginia during the 2005-2021 period? Graph 2 tells us that the incomes of lawyers were declining in the Commonwealth as well between 2005 and 2021, but also that they did not decline as drastically as in Hampton Roads.

How do these changes compare to what was going on at the same time in the United States as a whole? Graph 3 takes a different view of the situation by comparing the growth (or decline) in the incomes of workers in a variety of occupations over a slightly longer time period, 2001-2021. One can see that over the 20 years depicted, the real income of the median worker in the United States rose 10.2%, while the real income of the median lawyer nationally fell 6.0%.

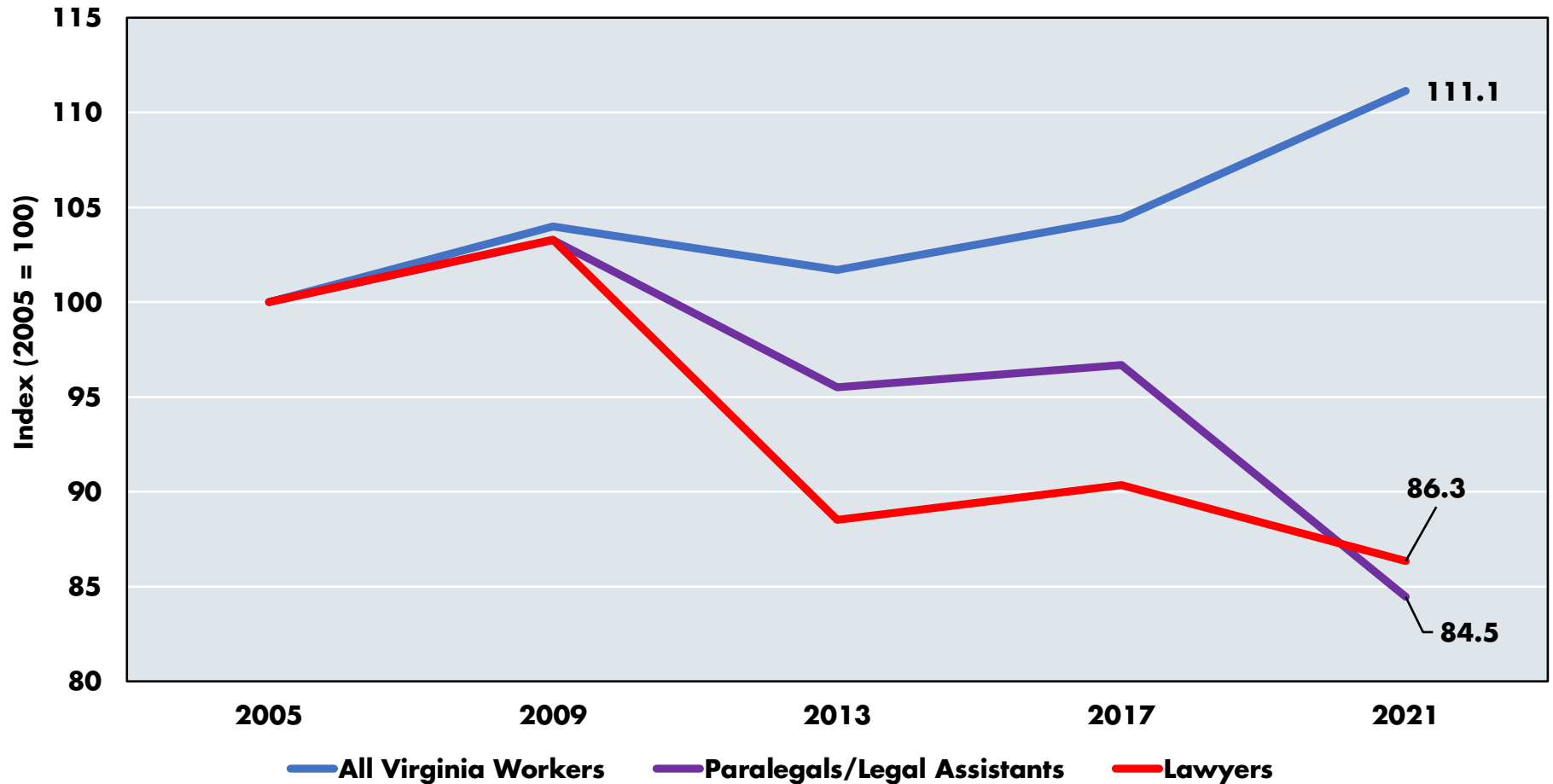
Let's now shift gears and compare the circumstances of lawyers to several specific occupations. The job categories depicted in Graph 3 were chosen deliberately. Each represents a reasonable alternate career option that might have been chosen by an individual who instead opted to become a lawyer. Rather than going to law school, for example, an individual might have pursued a career as an accountant or pharmacist. The statistical moral to this story is that if a representative individual had exercised one of these other choices, then quite likely her real income would have grown much faster than if she had opted for law school and become a lawyer.

In sum, it is fair to observe that the relative decline in the economic fortunes of lawyers constitutes both a Virginia and a national phenomenon, but that this deterioration has been substantially more severe in Hampton Roads. Further, the median salaries of workers in many other occupations exceeded those of lawyers.

We will talk about the circumstances of paralegals and legal assistants in a moment. Suffice it to note that the median real incomes of paralegal and legal assistant personnel declined less than those of lawyers inside Hampton Roads and in the entire United States but fell slightly more in Virginia.



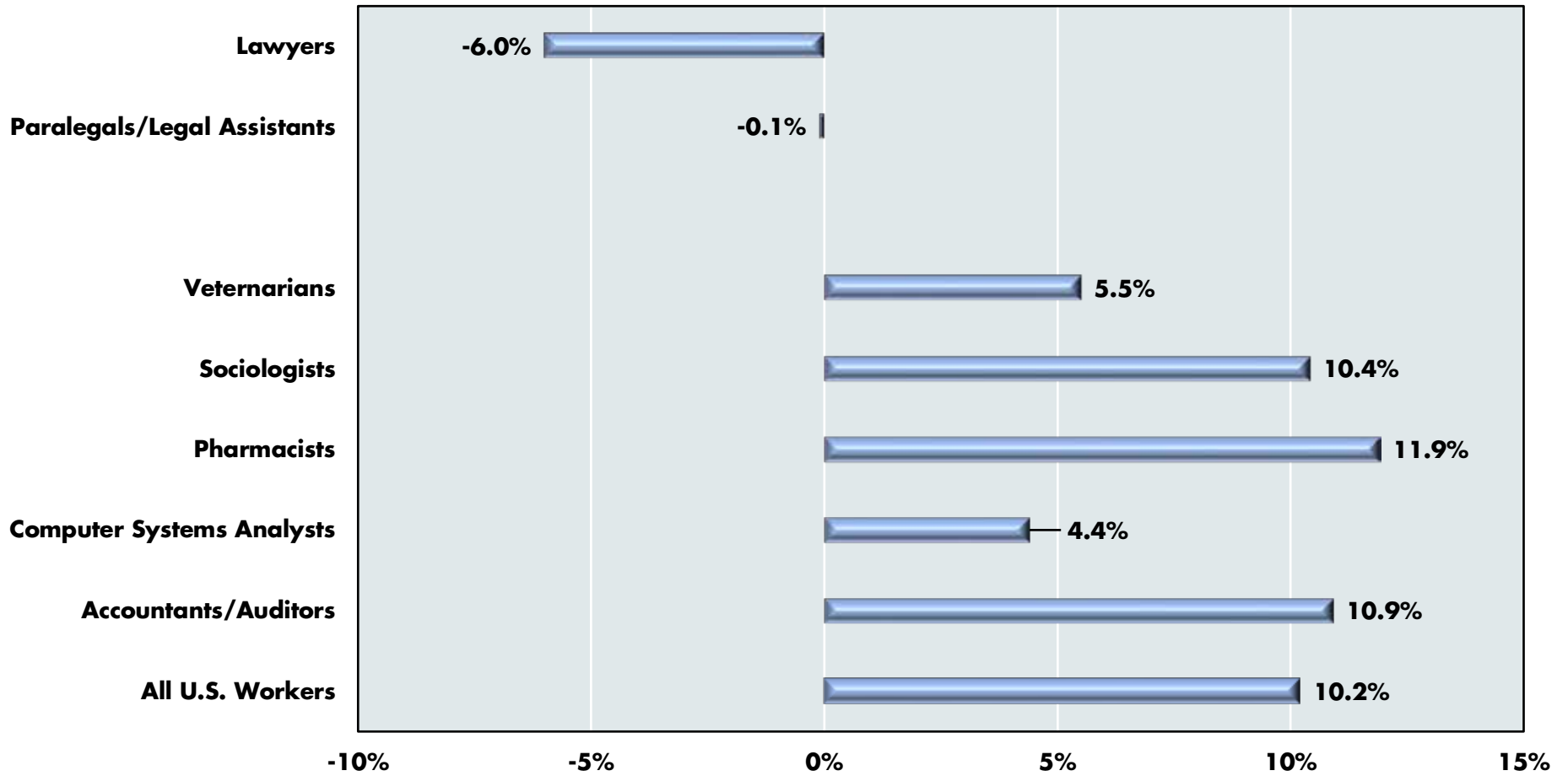
GRAPH 2
RELATIVE DECLINE IN MEDIAN LEGAL INCOMES:
VIRGINIA, 2005-2021



Source: U.S. Bureau of Labor Statistics, "Occupational Employment and Wages," various years, www.bls.gov

GRAPH 3

**CHANGES IN THE MEDIAN WORKER'S REAL INCOME, 2001-2021
SELECT OCCUPATIONS, UNITED STATES**



Source: U.S. Bureau of Labor Statistics, "Occupational Employment and Wages," various years, www.bls.gov

“Too Many Lawyers:” Supply-Side Explanations Of The Economic Plight Of Lawyers

We easily could cite 100 articles that have appeared in recent years alleging that law schools in the United States are simply producing too many lawyers. Representative is Feast’s November 2018 “Forget Law School: The US Job Market is Oversaturated with Lawyers.”²

Are there too many people attempting to practice law? The employment information contained in Graphs 4 and 5 will help us address this question. In Graph 4, we see that between 2005 and 2021, the number of lawyers per 1,000 people increased noticeably in Hampton Roads, Virginia, and the United States. True, Hampton Roads continues to be less lawyer-intensive than either Virginia or the United States, but over this 16-year period the number of lawyers per 1,000 people in Hampton Roads increased from 1.12 to 1.41, or approximately 25.9 %. This is a recipe for declining real incomes and that is the median lawyer’s reality in Hampton Roads.

Graph 5 reveals that an analogous supply-side story can be told, though accentuated, concerning the hiring of paralegals and legal assistants. Between 2005 and 2021, the number of paralegals per 1,000 people increased from 0.68 to 1.1, or 61.8 %. Employers have increased their hiring of paralegals, and some firms appear to be employing them instead of lawyers.

An alternate way to look at the employment situation in legal services is to investigate how many lawyers and paralegals exist per 1,000 workers of all types. Tables 2 and 3 provide the number of lawyers and paralegal workers per 1,000 workers of all occupations in Hampton Roads, Virginia, and the United States, from 2005 to 2021. Across the board, there were more lawyers and paralegals per 1,000 employees in 2021 than in 2005, and the

² Frankie Feast, “Forget Law School: The US Job Market is Oversaturated with Lawyers,” The Career Cookbook (November 23, 2018), www.thecareercookbook.com/too-many-lawyers.

increases ranged from 19.0% (for lawyers in the United States) up to 64.2% for paralegals in Virginia.

TABLE 2
LAWYERS PER 1,000 WORKERS
HAMPTON ROADS, VIRGINIA, AND THE UNITED STATES,
2005 - 2021

	2005	2009	2013	2017	2021
United States	4.06	4.26	4.47	4.41	4.83
Virginia	3.41	4.05	4.41	4.31	4.67
Hampton Roads	2.54	2.65	3.08	2.81	3.58

Source: U.S. Bureau of Labor Statistics, “Occupational Employment and Wages,” various years, www.bls.gov for employment.

TABLE 3
PARALEGALS PER 1,000 WORKERS
HAMPTON ROADS, VIRGINIA, AND THE UNITED STATES,
2005 - 2021

	2005	2009	2013	2017	2021
United States	1.67	1.89	2.05	2.04	2.39
Virginia	1.51	1.90	2.44	2.32	2.48
Hampton Roads	1.54	1.75	2.73	2.27	2.80

Source: U.S. Bureau of Labor Statistics, “Occupational Employment and Wages,” various years, www.bls.gov for employment.

Did the generous expansion of individuals practicing law come about because law schools are generating too many graduates? Perhaps, but we must note that law school enrollments nationally are highly variable. However, if one wants to know how many law students there will be next year, the best predictor of that variability and the eventual flow of new lawyers into the system is the number of people taking the Law School Admissions Test (LSAT).

The data presented in Graphs 4 and 5 and Tables 2 and 3 clearly document that employers have been hiring more lawyers and legal assistants, both in absolute and relative terms. This would be good news for lawyers and legal assistants if it were accompanied by rising real incomes for both. Instead, their real incomes (especially those belonging to lawyers) have been declining. This suggests that those who occupy these jobs are competing against each other, and this has been driving down their real incomes. In economic jargon, the demand for lawyers and legal assistants appears to be somewhat elastic. Thus, the appearance of more lawyers and legal assistants in job markets has exerted a significant and larger proportionate downward influence on their real wages.

The number of individuals who will seek to join the ranks of lawyers is not a secret. With few exceptions, everyone who becomes a lawyer must have earned a law degree from a law school accredited by the American Bar Association. This means one must have been admitted to such a law school and in order to gain admission, one must have taken the Law School Admissions Test (LSAT), again, with a few exceptions.

Hence, if one wants to know how many budding new lawyers are likely to appear several years from now, one can estimate this by observing the number of individuals who are sitting for the LSAT.

Graph 6 reports the number of individuals who took the LSAT for the first time between 2001 and 2020. One can see that the number sitting for the examination declined by almost 50,000 test-takers between 2009 and 2013. This was one of the impacts of the Great Recession and underlines that the eventual flow of individuals into the legal profession is dependent on overall economic conditions.

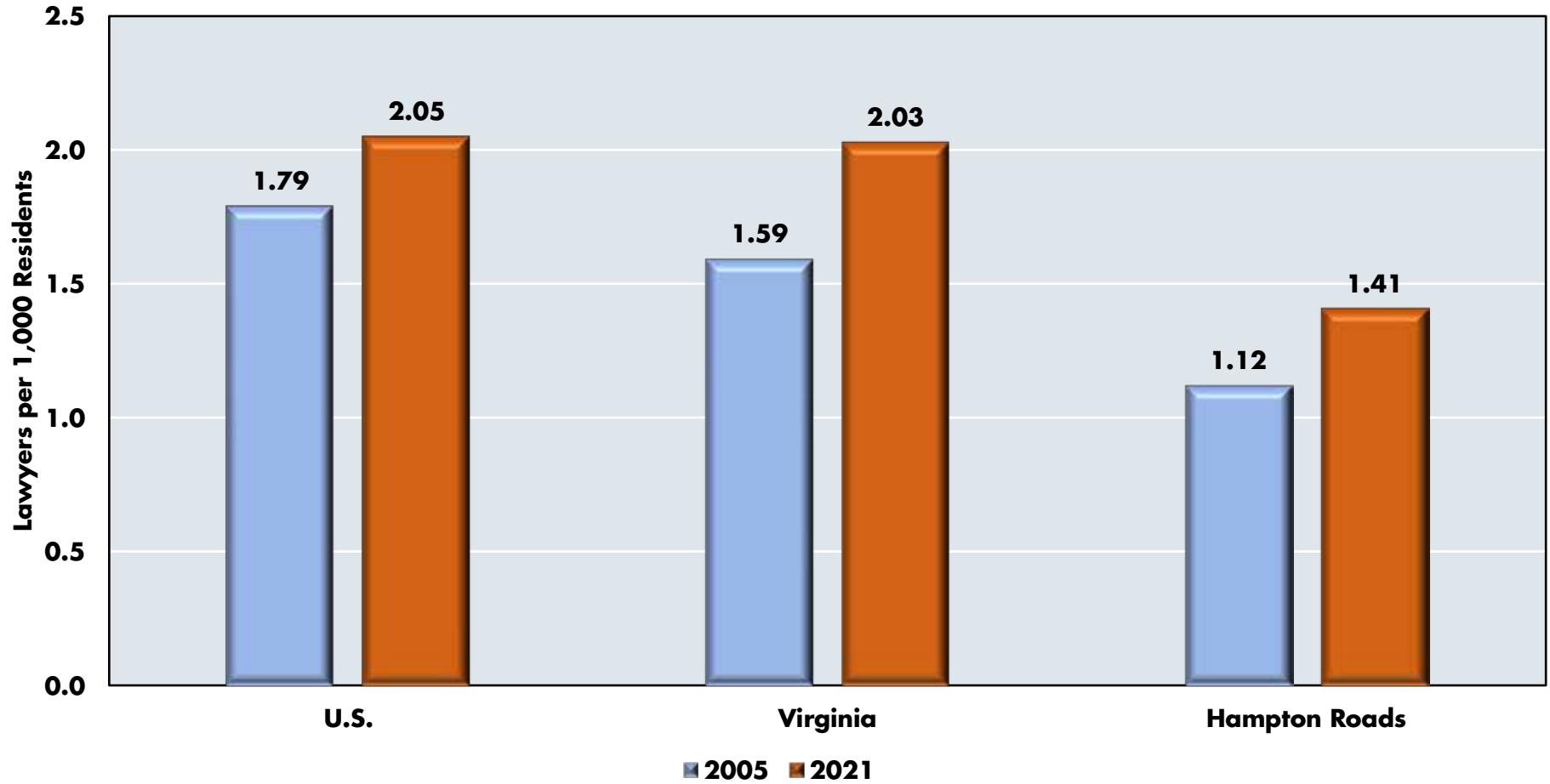
But particularly intriguing in Graph 6 are the differences that emerge when we pay attention to the test-takers' self-reported genders. Women have begun to surpass men in terms of the numbers taking the LSAT and now represent a majority of actual law students; they will likely dominate law firms and the profession in coming years.

Graph 7 may supply an important reason why the differences in LSAT-taking behavior exist between the genders. The overall number of LSAT takers is substantially related to the real incomes earned by lawyers. A dip in the real income of lawyers in a given year has a 0.83 simple correlation with the number of test-takers in the same year. When law firms appear to be suffering, this sends signals to individuals who might be considering a career as a lawyer, and fewer of them take the exam.

However, men appear to be more sensitive to these signals than women. The simple correlation between lawyers' incomes and test-taking (same year) is 0.90 for men but only 0.70 for women. The correlations for both men and women rise slightly when the current year's income is paired with *next year's* number of LSAT takers. This is not surprising; it may take time for prospective LSAT takers to learn about labor market conditions. Of course, by the time current test-takers graduate from law school, labor market conditions for lawyers could be very different. There is no evidence, however, that this reality has a visible effect on career decision-making.³ Current labor market conditions, however, do.

³ Koch, J.V., Blake-Gonzalez, B. Why has the median real income of lawyers been declining?. J Econ Finan (2022). <https://doi.org/10.1007/s12197-022-09588-6>.

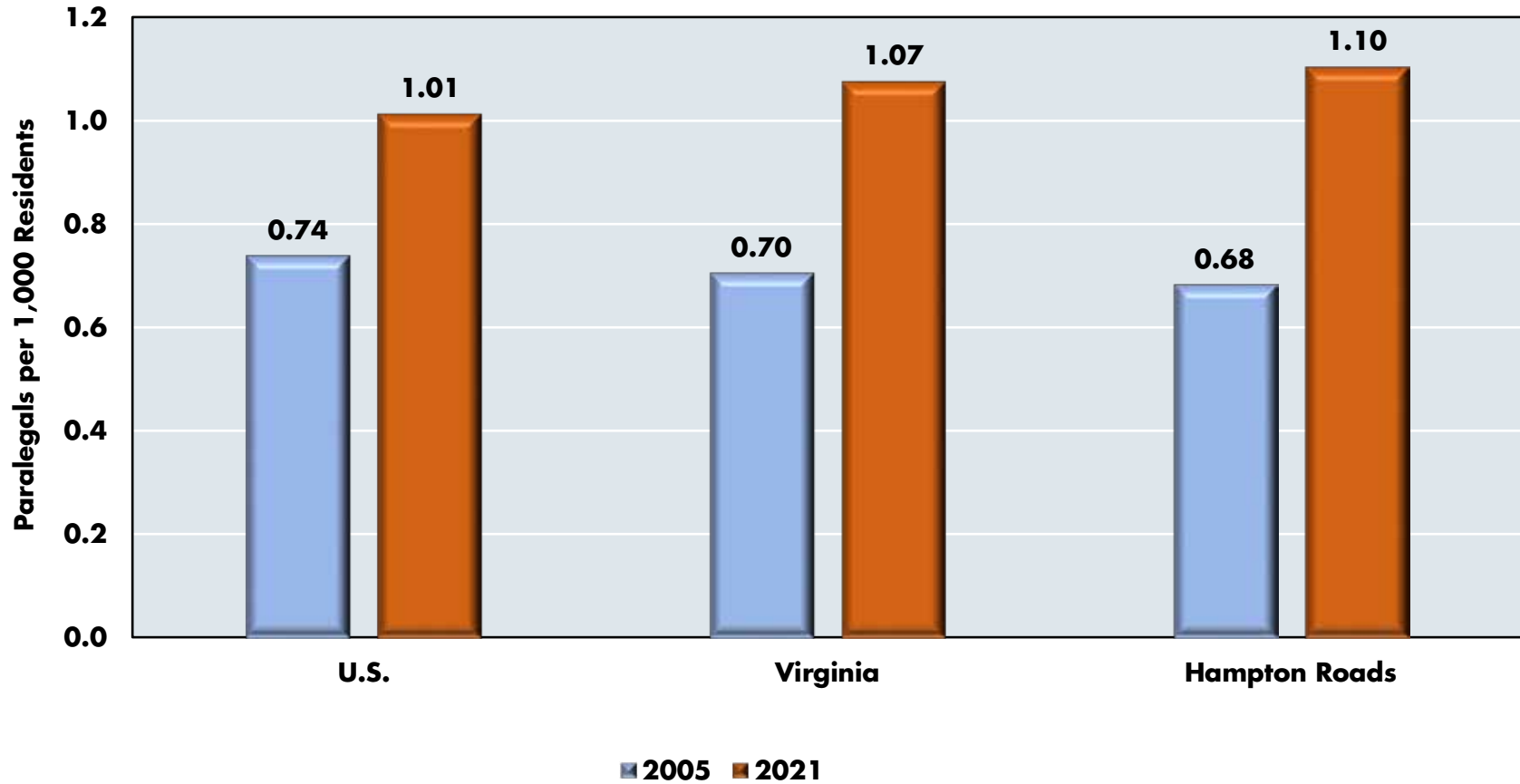
GRAPH 4
NUMBER OF LAWYERS PER 1,000 PEOPLE
HAMPTON ROADS, VIRGINIA, AND THE UNITED STATES, 2005 AND 2021



Sources: U.S. Bureau of Labor Statistics, "Occupational Employment and Wages," various years. Monthly national population estimates from the Bureau of Economic Analysis, state and metropolitan area resident population estimates from the U.S. Census Bureau.

GRAPH 5

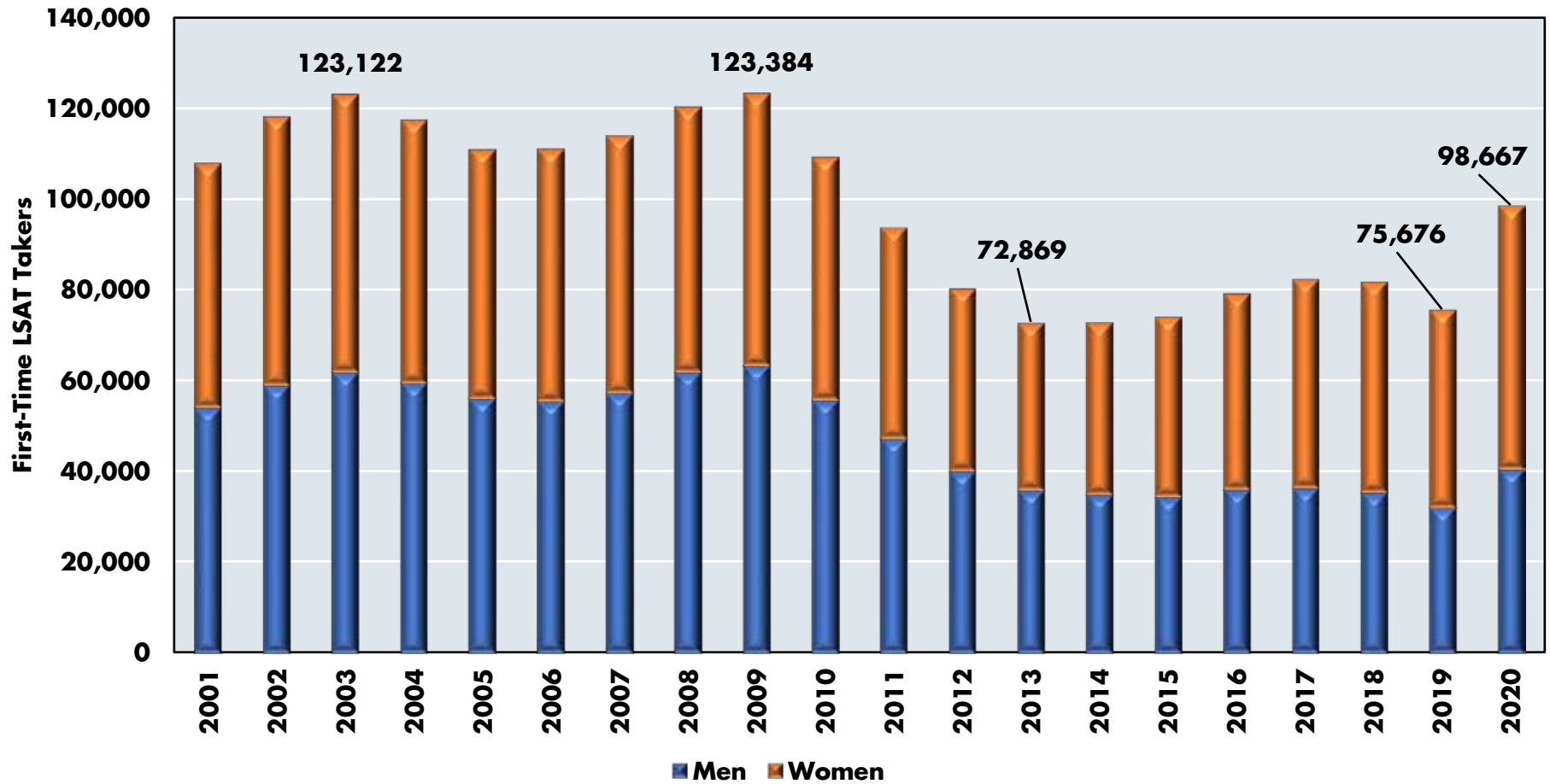
**NUMBER OF PARALEGALS PER 1,000 PEOPLE:
HAMPTON ROADS, VIRGINIA, AND THE UNITED STATES, 2005 AND 2021**



Sources: U.S. Bureau of Labor Statistics, "Occupational Employment and Wages," various years. Monthly national population estimates from the Bureau of Economic Analysis, state and metropolitan area resident population estimates from the U.S. Census Bureau. Note: Paralegals includes legal assistants.

GRAPH 6

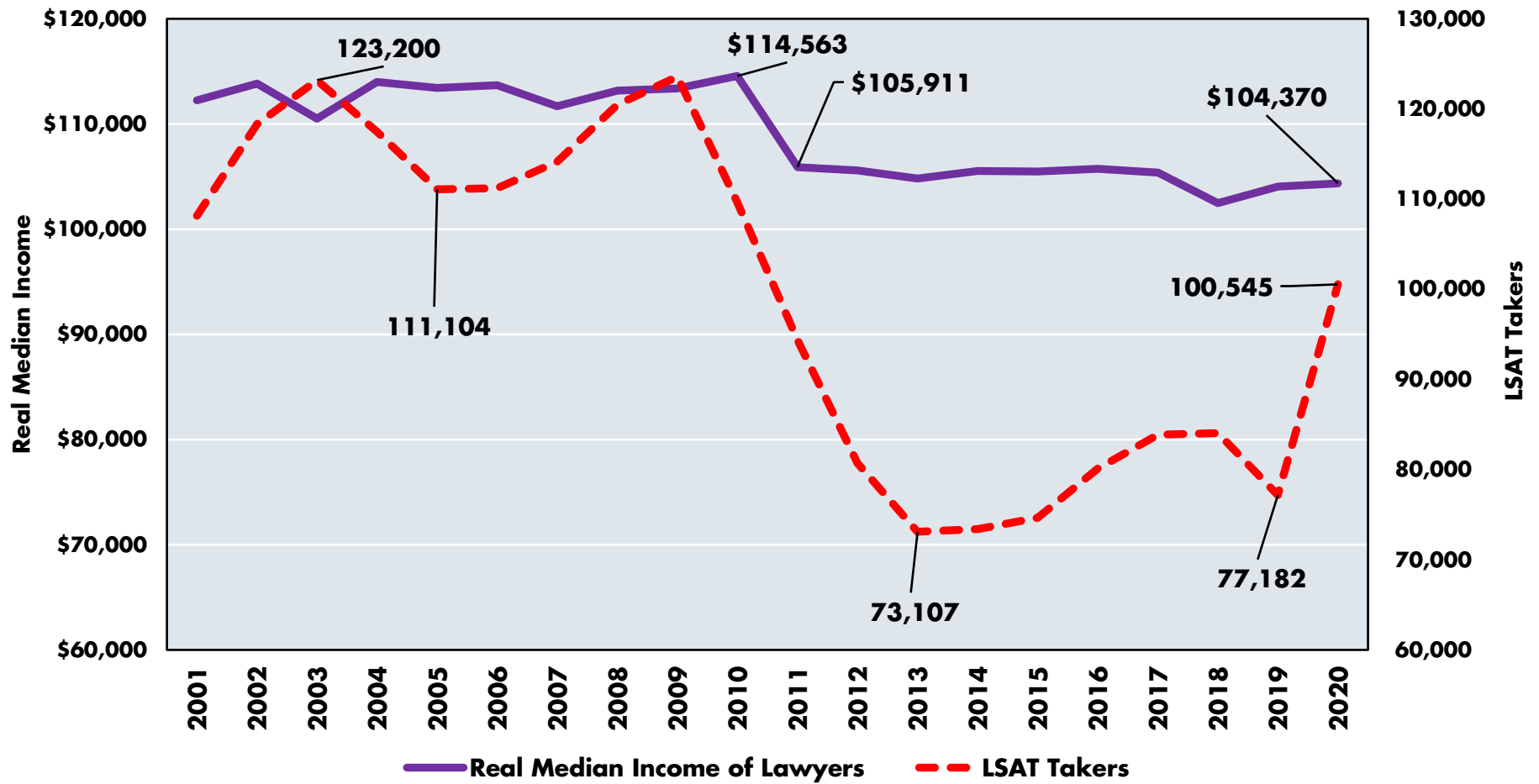
NUMBER OF FIRST-TIME LSAT TAKERS BY GENDER
UNITED STATES, 2001-2020



Source: Law School Admission Council, 2001-2020, <https://www.lsac.org/>. Data may not sum to state level totals.

GRAPH 7

THE NUMBER OF LSAT TAKERS AND THE REAL MEDIAN INCOME OF LAWYERS:
UNITED STATES, 2001-2020



Sources: U.S. Bureau of Labor Statistics, "Occupational Employment and Wages," various years, www.bls.gov for employment, and Law School Admission Council, 2001-2020, <https://www.lsac.org/>, includes test-takers whose gender was unknown.

“We Don’t Need Them:” Demand-Side Explanations Of The Economic Plight Of Lawyers

“Not to worry” might be a reasonable response of lawyers and legal assistants to the increasing flow of individuals into these occupations if, at the same time, the demand for their services was growing rapidly. But that does not appear to have been the case from 2005 to 2021.

Yes, we acknowledge that some observers believe the demand for legal services (and for lawyers) has been expanding robustly. An April 28, 2022, article in Virginia Business magazine argued that, “In law firms across Virginia, power is now definitely on the side of individual attorneys, who can command larger salaries and other perks so long as they’re willing to cope with heavier workloads.” Further, the article asserted that the “demand for legal services has soared.”⁴

The evidence we have already presented suggests that the previous statements substantially misrepresent the overall market for lawyers, both in Hampton Roads and in Virginia. Well-trained, highly competent, ambitious lawyers who are willing to put in long hours on the job likely always will be in demand, and these elite individuals will earn high salaries. But less gifted individuals, not-so-well trained lawyers, graduates from less prestigious law schools, and those unwilling to put in long hours are not going to be in high demand, and consequently, will not earn high salaries.

Indeed, if there is a lesson to be learned from the past two decades, it is that the bar has risen in terms of what is required for a lawyer to earn a high salary or one that is growing rapidly. In fact, large proportions of lawyers today are not in high demand, and the real income data we have presented here clearly indicate the consequences. Let’s examine why this is so.

⁴ M.J. McAteer, “Attorneys in Power Positions Amid Talent Shortage,” Virginia Business (April 28, 2022), www.virginiabusiness.com

FUNGIBLE INPUTS AND “BLUE-COLLAR LAW”

Many practicing attorneys are hired by insurance companies and corporations to fulfill specific tasks such as defending those parties in personal injury or wrongful death cases. These employers seldom need a specific attorney; what they desire is one who can complete a specific task, such as defending them against a claim, and is willing to complete that task at a low cost. In situations such as these, the parties hiring lawyers often view lawyers as fungible, easily substitutable inputs.

Insurance companies and corporations often have well-developed compensation schedules that pay specific hourly rates (say, \$150 per hour) for a specific type of case (say, personal injury) in a specific locality (say, Virginia Beach). These pay schedules are accompanied by detailed forms that require lawyers to indicate how much they have spent on specific lawyerly tasks down to one-tenths of an hour.

The bottom line is that this is legal work that is formula-driven. To many lawyers, this is a take-it-or-leave-it situation, and they must compete to attract enough case activity if they wish to continue to hang out their shingle.

One local attorney told us that a substantial proportion of legal work in Hampton Roads is “blue-collar law” because it deals with everyday events such as divorces, custody arguments, traffic violations, theft, debt, child support, and insurance claims of all kinds. Arguably, Hampton Roads’ large military presence and the comparative absence of large corporate headquarters contribute to this particular dynamic.

Also, comparatively few employers in Hampton Roads are “public” in the sense that their stock is traded on a national exchange. Instead, they are locally owned. Their legal bills, therefore, are not absorbed by semi-anonymous stockholders but instead must be paid directly by the owners. This increases the price sensitivity of these parties and contributes to more modest earnings by lawyers.

ARBITRATION, MEDIATION, AND DISPUTE RESOLUTION IN LIEU OF TRIALS

An increasing proportion of legal clients may sue defendants, but do not wish to pay for their case to go to trial because of the time and expense that would entail. These clients prefer to threaten action, but ultimately prefer arbitration, mediation, and dispute resolution, activities that may not involve the lawyer they have hired. Consider employer/worker disputes. One recent study found that more than 50% of all workers now are subject to mandatory arbitration that often precludes a wide variety of legal actions.⁵ This is up from 2% in 1992 and exercises downward pressure on lawyers' incomes.

The drift toward arbitration, mediation, and dispute resolution and away from legal suits has income consequences for attorneys. Fewer cases may reach them to begin with and then even fewer will proceed to trial. This net effect is to reduce their incomes.

SOFTWARE AND THE INTERNET INSTEAD OF LIVE LAWYERS

Historically, lawyers were heavily dependent upon junior lawyers (associates) or themselves to search law libraries for cases, interpretations, precedents, and rulings. Today, however, substantial portions of this work can be accomplished via software and the internet. A prominent example is legal software such as Lexis/Nexis which enables a variety of individuals to conduct basic legal research for cases, dockets, interpretations, and decisions. One need not be a lawyer to have some capability to use the software productively.

Software now exists that in theory enables individuals to do some of their own legal work without reliance upon a lawyer. LegalZoom is one of the largest entrants in this field. For example, if one wants to form an S Corporation or write a will, then LegalZoom provides the software that enables a smart and motivated individual to do so without the services of a lawyer. Seemingly routine legal tasks are the most susceptible to nonprofessionals completing them with software.

⁵ Alexander J.S. Colvin, "The Growing Use of Mandatory Arbitration," Economic Policy Institute (April 6, 2018), www.americanbar.org/groups/litigation/committees/alternative-dispute-resolution/practice/2020/increase-in-workers-subject-to-arbitration-coincides-with-supreme-court-rulings.

One should not exaggerate the capabilities of software to substitute for lawyers. Thus, the point is not that software largely has supplanted lawyers, but instead that it has reduced the demand for certain kinds of legal services and, in particular, appears to have reduced the need for law firms to hire junior staff or pay premium salaries to such individuals. The use of software is an obvious cost-minimizing strategy.

The day may rapidly be approaching when it will be considered legal malpractice for a lawyer not to have used software with artificial intelligence to deal with legal matters and develop responses. This is already true in a host of other applied fields that range from economics and political science to law enforcement and climate change.

THE EMERGENCE OF PARALEGALS AND LEGAL ASSISTANTS

Paralegals are individuals whose general duties are to make the life of regular lawyers easier. They do this by performing research, scheduling work, interviewing clients and experts, writing drafts of letters and reports, etc. Many paralegals (and legal assistants, another term used to describe these individuals) have earned bachelor's degrees, but that is not a requirement to hold such a job or to utilize the title. Many institutions of higher education offer certificates. There is no licensing or certification process that defines either the occupation or its duties.

What is clear is that employers are hiring more paralegals — lots more. As Graph 8 discloses, the number of employed paralegals rose 54.5% in the United States between 2005 and 2021, but 74.3% in Virginia and 76.1% in Hampton Roads. The Hampton Roads percentage is astonishing given that the absolute number of employed individuals in our region fell by 3.2% during the same period.

Legal services employers might have been replacing some lawyers with paralegals because the growth rates in paralegal employees exceeded those of lawyers at every employment level. But one must observe that this cannot have been a very strong trend because the employment of lawyers increased substantially more than the employment of all workers, and this held true at all three employment levels.

Hence, the argument that the demand for lawyers has declined because employers are hiring paralegals instead does not appear to have great explanatory power. Undoubtedly, some of this is occurring, but it has not stopped employers from hiring substantially larger numbers of lawyers as well.

A DECLINE IN LITIGIOUSNESS?

*I'm gonna sue, sue, yes I'm gonna sue
Sue, sue, yeah, that's what I'm gonna do*
Weird Al Yankovic, 2006

Is Weird Al on target? Are people suing each other more often? Do we, as many have charged,⁶ live in an overly litigious society from which lawyers profit? It is not easy to answer these questions. Because of the variety of definitions and different reporting requirements utilized by state and local governments, comparable data on the number of legal suits filed at those levels generally are not available or are considered unreliable. However, the same does not hold true at the federal government level, where United States district courts have long reported extensive annual data concerning their activities. We will rely upon those activity numbers here.

As Graph 9 reveals, federal district courts are not handling as many civil and criminal suits per capita as they did decades ago. Note that both the United States and Virginia have become less litigious — at least by the per capita measure. Thus, in these arenas, Americans and Virginians have indeed become less litigious. The decline in federal district courts activity has carried with it a commensurate decline in the demand for the services of lawyers because there are more lawyers competing for fewer cases. This is another reason, albeit not a major one, why the median real incomes of lawyers have retreated in recent years.

However, at the same time, there has also been a decline in historically income-generating legal activities, including drug-related arrests and divorces. We can see in Graph 10 that the national rate of divorce per 1,000 people has fallen significantly, from 4.2 per 1,000 people to 2.6. One could point out

⁶ For example, Paul Rubin, an Emory University law professor, charged in the New York Times that the “United States already is the most litigious society in the world.” Paul H. Rubin, “More Money Into Bad Suits,” New York Times (November 16, 2010), www.nytimes.com/roomfordebate/2010/11/15/investing-in-someone-elses-lawsuit/more-money-into-bad-suits.

that this has occurred because today there are fewer marriages per capita. Nevertheless, this has put a damper on this type of lawyers’ services.

SLOWER ECONOMIC GROWTH

As economist Charles Tiebout noted a half-century ago, people vote with their feet.⁷ An important way they do this is by changing their physical locations, and the most important reason they change locations is to improve their economic situation. Simply put, when individuals migrate, most often they do so to fill a job.

Thus, strong economies are magnets that attract job seekers, and this induces population growth. This is a good description of what has *not* held true in Hampton Roads for at least a decade. Torpid economic growth has resulted in very low rates of population growth — well below the national average.

Consider the implications. Between 2010 and 2021, the population of Hampton Roads grew at the compound annual rate of 0.63%, while the U.S. population grew a bit faster, 0.80% annually, and Texas grew very rapidly, at a 1.41% rate annually. Suppose that Hampton Roads’ population had grown at the U.S. rate (0.80%) rather than only 0.63%. Then, given the region’s current use of lawyers per person, this would have enabled the region to support an additional 65 lawyers at current real income levels, or alternatively, to raise the real incomes of the existing stable of lawyers by a bit more than 3%.

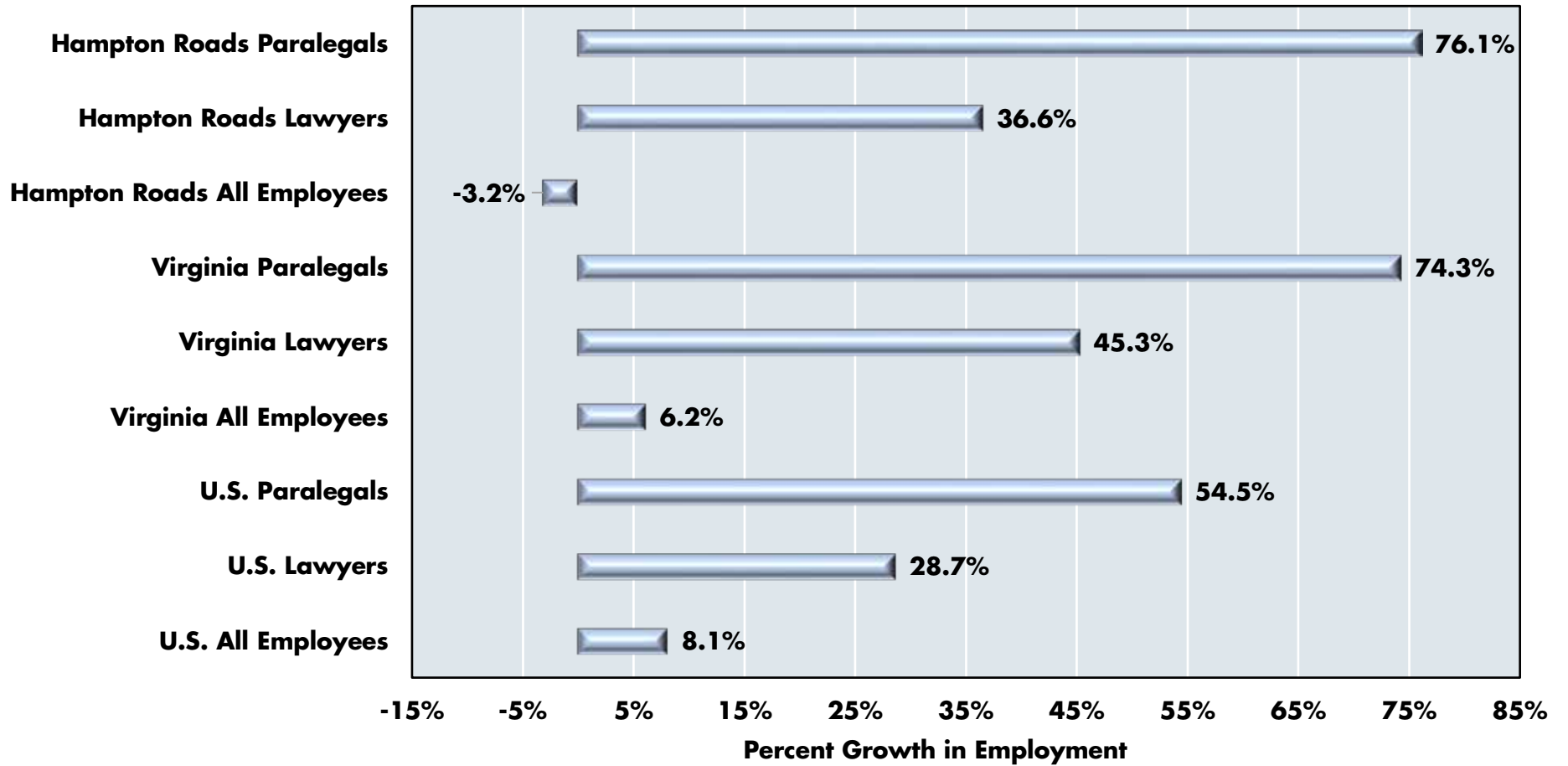
The stakes are larger if Hampton Roads’ population had grown at the Texas rate — the region could then have supported about 330 additional lawyers at current rates of usage or work the existing crew of lawyers harder but pay them almost 15% more.

The lesson is straightforward: Population growth and economic growth make a difference in employment and wages. In the case of lawyers in Hampton Roads, slow rates of economic growth have translated to sluggish rates of population growth and are one reason why the real income of the median lawyer in our region has declined.

⁷ Charles Tiebout, “A Pure Theory of Local Expenditures,” *Journal of Political Economy*, 64(5), 416-24.

GRAPH 8

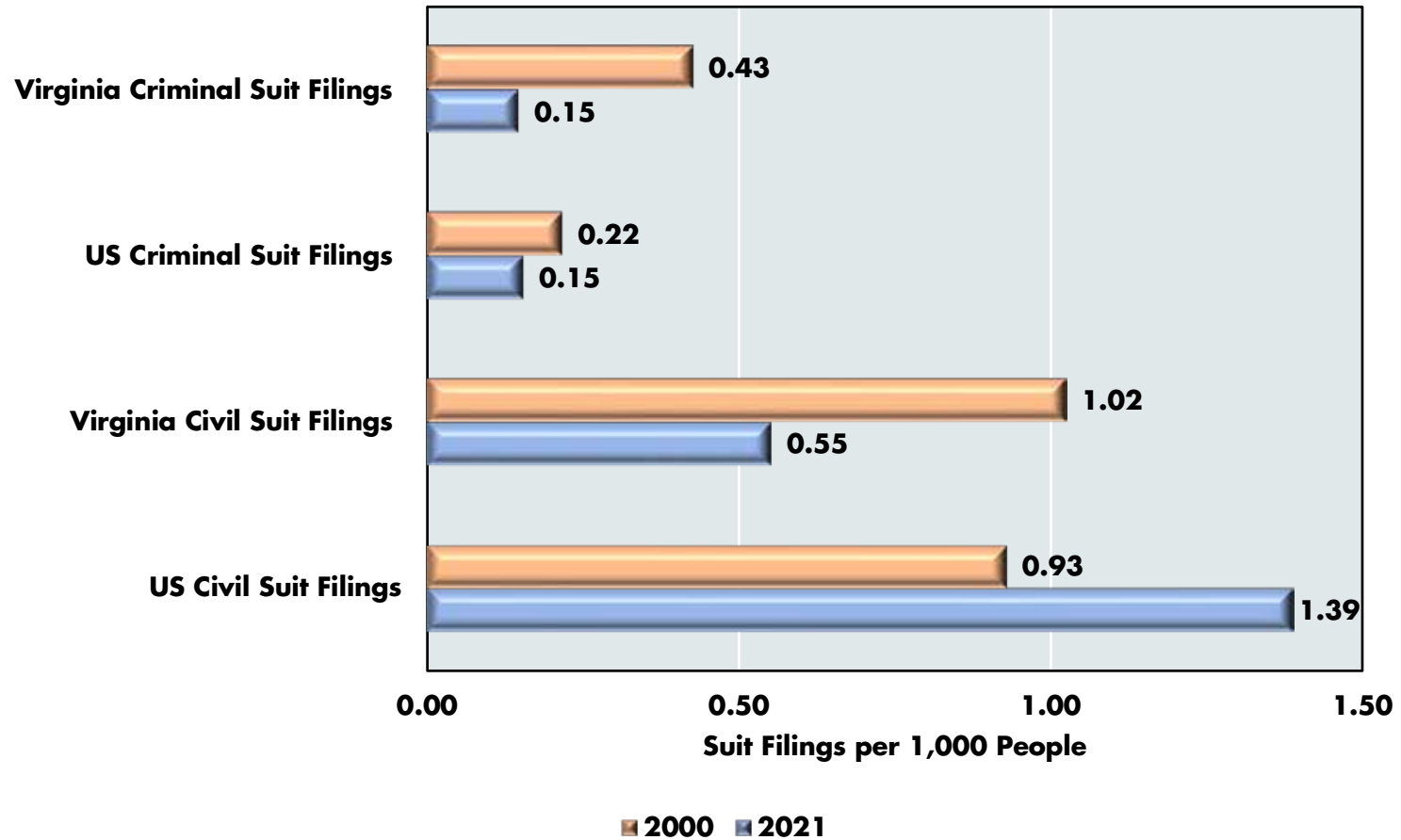
**PERCENT GROWTH IN THE EMPLOYMENT OF PARALEGALS, LAWYERS AND ALL EMPLOYEES:
HAMPTON ROADS, VIRGINIA, AND THE UNITED STATES, 2005-2021**



Source: U.S. Bureau of Labor Statistics, "Occupational Employment and Wages," 2005 and 2021, www.bls.gov, for employment.

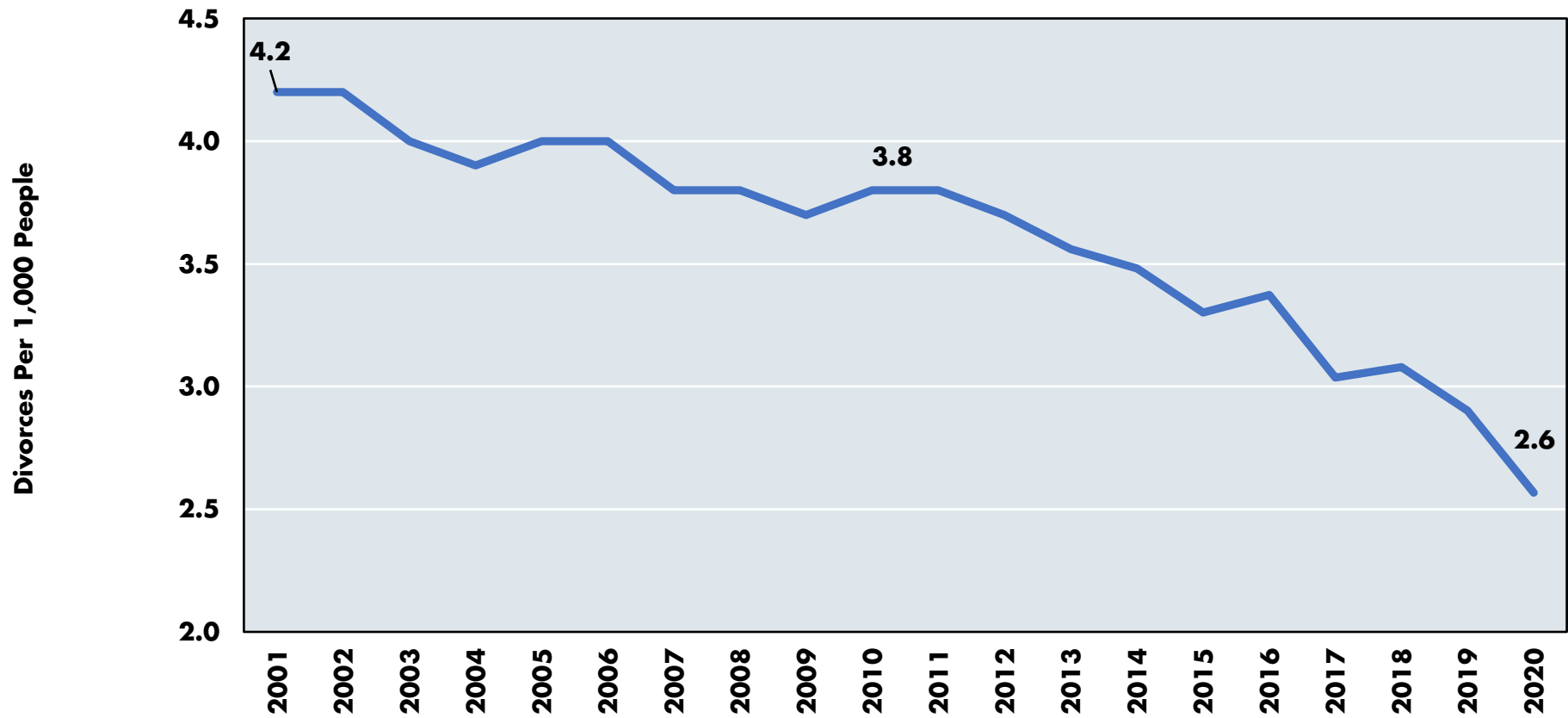
GRAPH 9

**CIVIL AND CRIMINAL SUIT FILINGS IN FEDERAL DISTRICT COURTS:
VIRGINIA AND THE UNITED STATES, 2000 AND 2021**



Source: United States Courts, Federal Judicial Caseload Statistics (various years), <https://www.uscourts.gov/statistics-reports/federal-judicial-caseload-statistics-2001>.

GRAPH 10
DIVORCE RATES
VIRGINIA, 2001-2020



Source: The Centers for Disease Prevention and Control, Divorce rates by State: 1990, 1995, and 1999-2020; www.cdc.gov/nchs/data/dvs/state-divorce-rates-90-95-99-20.pdf.

Summing It Up

This century has not been a good one for lawyers if one's standard of measurement is the median (50th percentile) income earned in their profession. This judgment holds true nationally, in Virginia, and Hampton Roads in particular.

One can easily make the case that an oversupply of lawyers bears major blame for falling real income of the median lawyer. The number of lawyers per person and the number of lawyers per employee both have trended upward nationally, in Virginia, and in Hampton Roads. A ready interpretation is that this expansion of supply has driven down lawyers' wage rates.

While we believe this supply-oriented interpretation of events is supported by the evidence, it is not the only reason why the economic position of the median lawyer has deteriorated. A half-dozen developments have throttled the demand for lawyers, especially including slower economic growth in Hampton Roads and the actual loss of regional jobs, 2005-2021.

Supply and demand interact with each other to produce prices and wages. Whatever the collection of reasons why the economic position of lawyers has deteriorated in Hampton Roads, the typical lawyer clearly is worse off financially than he/she was several decades ago.

In Hampton Roads, Regent University's law school is the most local source of supply of lawyers who choose to stay and practice in the area. In 2020, Regent boasted a favorable 94.1% passage rate for its graduates who took the Virginia bar exam, but 10 months after graduation, only 71.8% of its graduates were employed. This was up from 63.1% in 2017.⁸ Several regional lawyers (none of whom is a Regent graduate) averred to us that the financial circumstances of regional lawyers would improve if Regent did not generate so many law school graduates. We take no position on this matter but note that this is not an isolated point of view.

Are things likely to improve for lawyers in Hampton Roads? This is unlikely unless the region's economy shifts into high gear and grows much more rapidly. We detect few signs of this.



⁸ Public Legal, Regent University, 2020, www.cdc.gov/nchs/data/dvs/state-divorce-rates-90-95-99-20.pdf.

Cover: Defense.gov

Inside Front Cover: Hampton Roads Planning District Commission

Page 27: Shara Weber

Page 34: Navy.mil

Page 90: Clancy and Theys

