Is It Morning Again In Hampton Roads?

IS IT MORNING AGAIN IN HAMPTON ROADS?

In 1984, President Ronald Reagan, seeking re-election to a second term against his opponent, former Vice President Walter Mondale, ran a political commercial that started with the optimistic phrase, "It's morning again in America." The spot ended with a simple question: "Why would we ever want to return to where we were less than four short years ago?"

Fast forward to 2018 in Hampton Roads. Perhaps it's time to be more optimistic about our regional economy. After a lost decade of stagnant economic growth and watching rival metropolitan areas prosper, is it, in fact, morning again in Hampton Roads?

The causes of our region's underwhelming economic performance are well known: the debilitating effects of the Great Recession, tepid increases in defense spending due to sequestration, and the out-migration of talent as a result of anemic private job creation. Impacting each of these was limited regional collaboration. We did not present a unified regional front to those in Washington, D.C., Richmond and elsewhere who might have made a difference. All too often, to quote Pogo, "We have met the enemy and he is us."

Perhaps, however, we are beginning to turn over the proverbial new leaf. Economic data suggest that Hampton Roads has mostly recovered from the Great Recession, which began in December 2007 and ended in June 2009. Our unemployment rate has fallen to almost 3 percent; more people than ever before are reporting that they are employed; and we finally have exceeded the number of jobs last seen prior to the recession. The federal defense budget has increased substantially, and the U.S. Navy is embarking on a shipbuilding and maintenance plan that will increase the demand for skilled workers in the trades. Housing prices are increasing and there has been a sustained rise in multifamily construction. The Port of Virginia is having another strong year and tourism continues to bolster the regional economy.

Yet, as economists are wont to say, on the other hand… Job creation in Hampton Roads lags that of other metropolitan areas in Virginia and the mid-Atlantic United States. There are gaps between the needs of employers and the skills of the labor force. Wages and earnings have yet to rise significantly, which is good news for employers, but a situation that also leads many to seek their fortunes elsewhere. Several of our cities have lost population due to domestic out-migration over the last decade.

Our region must also contend with an environment that is influenced by external actors. The ongoing global trade disputes have not only increased the price of steel but also lowered demand for some agricultural exports that move through the Port of Virginia. The favorable increases in defense spending may be temporary as federal deficits bloom in Washington, D.C. International migrants, however, are "voting with their feet" and moving to Hampton Roads. The influx of talent not only adds to our economy but also to the vibrant culture of our region.

How can we make sense of these conflicting economic data? Instead of picking one individual thread and proclaiming a conclusion, we argue that the overall tapestry of the economy is what is important. We need to take a step back and let the economic picture come into focus.

As English playwright John Heywood noted in 1546: "Whan the sunne shinth make hay." Let's review the economic data and decide whether it's truly morning again in Hampton Roads.

Growth In Output And Incomes

We estimate the economy of Hampton Roads grew only 0.9 percent (inflation-adjusted) in 2017 (see Table 1). However, our current forecast for 2018 is 2.2 percent. This improved outlook is due to increases in defense spending, the performance of the Port of Virginia, improvements in the housing sector and continued strength in the hotel and tourism industry. For the first time in a decade, Hampton Roads is on the cusp of consecutive years of real economic growth.

While a growth rate of 2.2 percent is quite an improvement over the sluggish rates over the last decade, it remains below our historical average of 2.6 percent for the last 30 years, and Hampton Roads still will grow more slowly than Virginia and the United States. Also, as we have noted in previous reports, the regional gross domestic product (GDP) estimates of the Bureau of Economic Analysis (BEA) should be viewed with caution, especially its most recent estimates. The BEA often makes substantial revisions up and down in its estimates, which in any case contain long lags. Although we are midway through 2018, the advance estimates released in September 2017 are only through 2016.

Consider that the BEA's 2015 advance estimate for GDP growth in Hampton Roads was 3.7 percent. The next release in 2017 reduced that estimate to 2.8 percent. The estimate will likely be revised again this year. Consequently, we should focus less on one specific year and take a longer view of metropolitan area growth. The longer-term picture, however, is not so enticing.

Graph 1 provides some perspective. From 2001 to 2009, economic growth in Hampton Roads outpaced that of the country, a sustained increase in economic activity that coincided with rapid increases in defense spending. The Great Recession and subsequent stagnation of defense spending led to a now familiar tale from 2009 to 2015: lackluster economic growth, anemic job creation and out-migration of residents to other locations in the U.S.

Real GDP growth in Hampton Roads ranked 312th among 382 metropolitan areas from 2011 to 2016. The proverbial light at the end of the tunnel is that our regional economy appears to have reversed this trend last year and accelerated into 2018.

TABLE 1

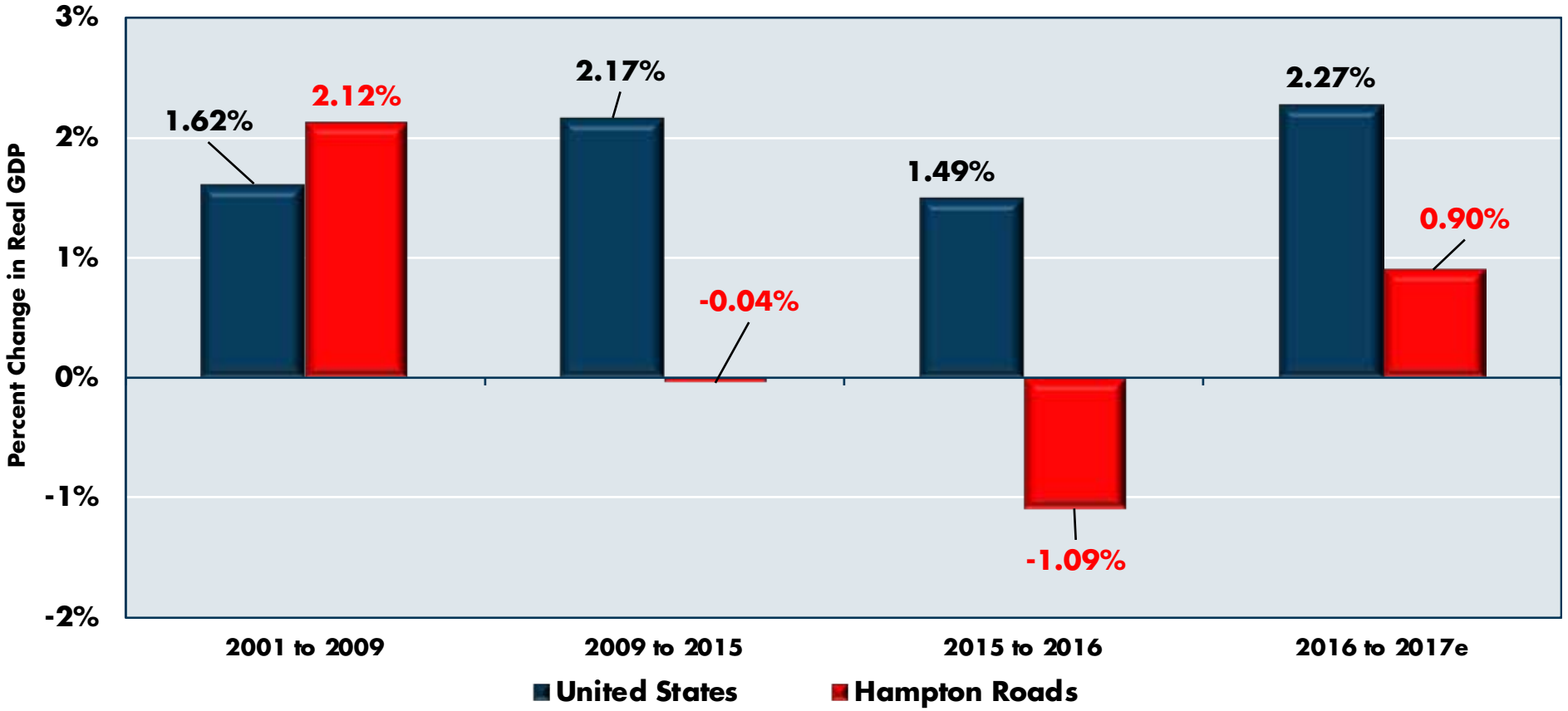
NOMINAL AND REAL (INFLATION-ADJUSTED) GROSS DOMESTIC PRODUCT: HAMPTON ROADS, 2006-2018 (THOUSANDS OF DOLLARS)

Year	Nominal GDP	Real GDP (Base Year = 2009)	Real GDP Growth Rate
2006	$77,004	$82,210	+5.3%
2007	$81,041	$83,585	+1.7%
2008	$81,146	$82,623	-1.2%
2009	$82,471	$82,471	-0.2%
2010	$82,107	$81,132	-1.6%
2011	$83,353	$81,361	+0.3%
2012	$84,485	$80,740	-0.8%
2013	$85,414	$80,263	-0.6%
2014	$87,084	$79,995	-0.3%
2015	$91,876	$82,260	+2.8%
2016	$92,827	$81,363	-1.1%
2017	$95,519	$82,095	+0.9%
2018	$100,008	$83,901	+2.2%

Sources: Bureau of Economic Analysis and the Dragas Center for Economic Analysis and Policy, Old Dominion University. 2017 is our estimate and 2018 is our forecast.

GRAPH 1

ANNUAL GROWTH RATE IN REAL GDP, HAMPTON ROADS AND THE UNITED STATES



Sources: Bureau of Economic Analysis and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Data on GDP incorporate latest BEA revisions in September 2017. Hampton Roads GDP for 2017 is our estimate.

Emerging From The Great Recession

Our regional economy does not exist in a vacuum and the Great Recession was an illustration of how national economic conditions can influence economic activity in Hampton Roads. The tale of the recession for the United States is familiar by now: job losses, home foreclosures, and stagnation of wages and salaries. Added to the woes of our region was the impact of stagnation in defense spending. The latest jobs and employment data, however, tell us that our regional economy has finally emerged from the recession's shadow.[1]

Graph 2 illustrates that it took almost 76 months for the U.S. and the Commonwealth to recover the jobs lost during the recession. What was a recovery from the worst economic crisis since the Great Depression has turned into the second-longest economic expansion in U.S. history. With over 90 straight months of job growth, the country might be able to exceed the longest economic expansion of 120 months (March 1991 to March 2001), if there is not an unexpected economic shock or expansion of ongoing trade disputes.

Hampton Roads finally appears to be putting the Great Recession in the rearview mirror. By mid-2018, we had about 0.3 percent more jobs than at the prerecessionary peak of July 2007. As shown in Graph 3, by 2010, Hampton Roads lost more than 38,000 jobs from its previous peak level of employment, in 2007. In 2017, our region had about 4,000 more jobs on an annual basis than in 2007, making 2017 the first year our annual level of employment exceeded the prerecessionary peak.

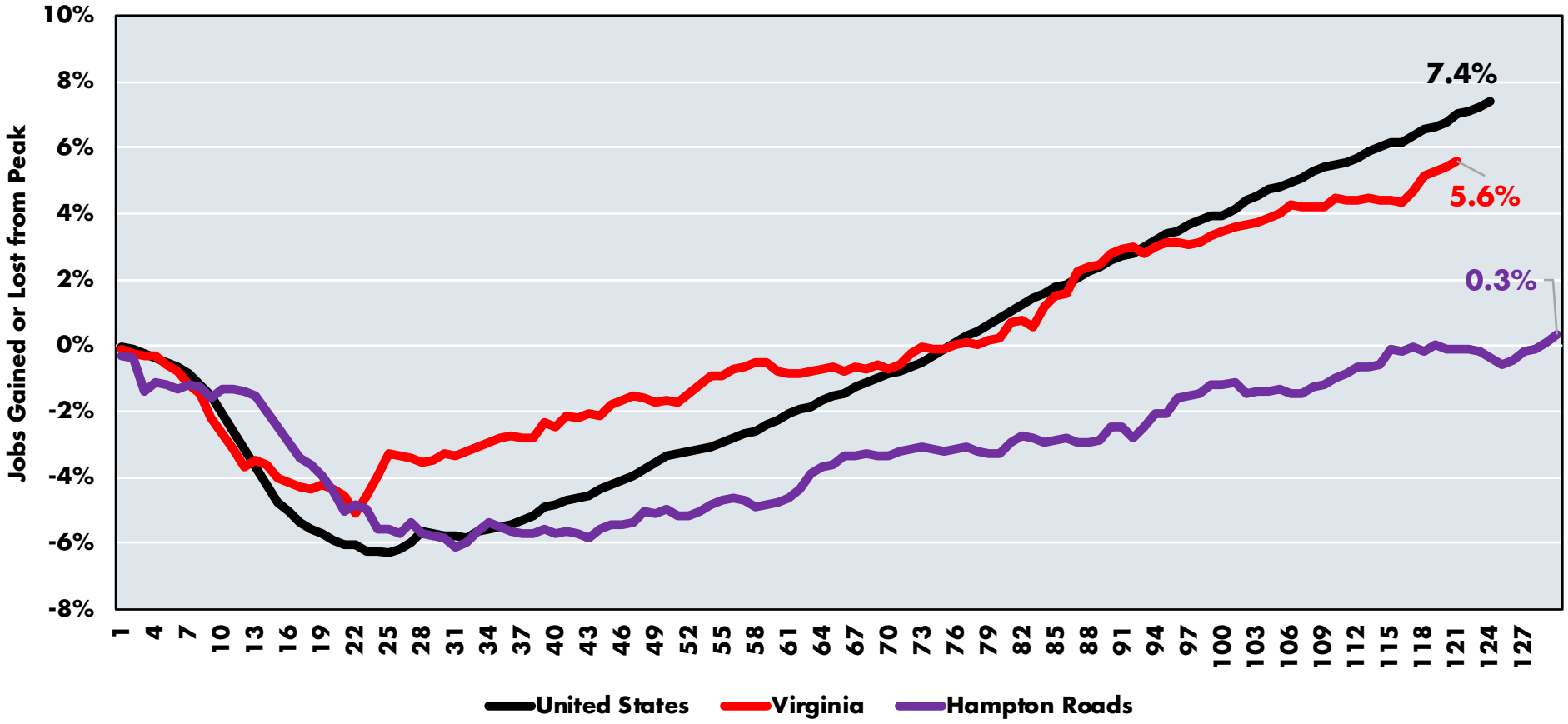
The climb out of the hole of the Great Recession has been slow, but mostly steady. From a low of 737,100 jobs in 2010, our region generated 42,800 new jobs through 2017. The number of health care and social assistance jobs continued to increase in Hampton Roads, followed by jobs in the accommodation and food sector (Graph 4). Additional jobs have been created in the transportation and warehousing sector, professional, scientific and technical services, and the management of companies. The largest losses have occurred in the construction, manufacturing, retail and wholesale trade, information, and real estate and rental sectors.

We do not want, however, to be accused of being Pollyannaish on the subject of job recovery in our region. Compared to our neighbors, we have fared poorly in generating jobs. While Virginia added almost 212,000 new jobs by May 2018 compared to the prerecession peak, only a few of these jobs have been in Hampton Roads. Most have been in Northern Virginia (149,400) and Richmond (54,800). North Carolina's performance is driven by large gains in Charlotte (175,500) and Raleigh (105,800). Even the Durham-Chapel Hill area generated 31,600 new jobs, while Hampton Roads only managed to create about 2,600 new jobs through May 2018.

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

GRAPH 2

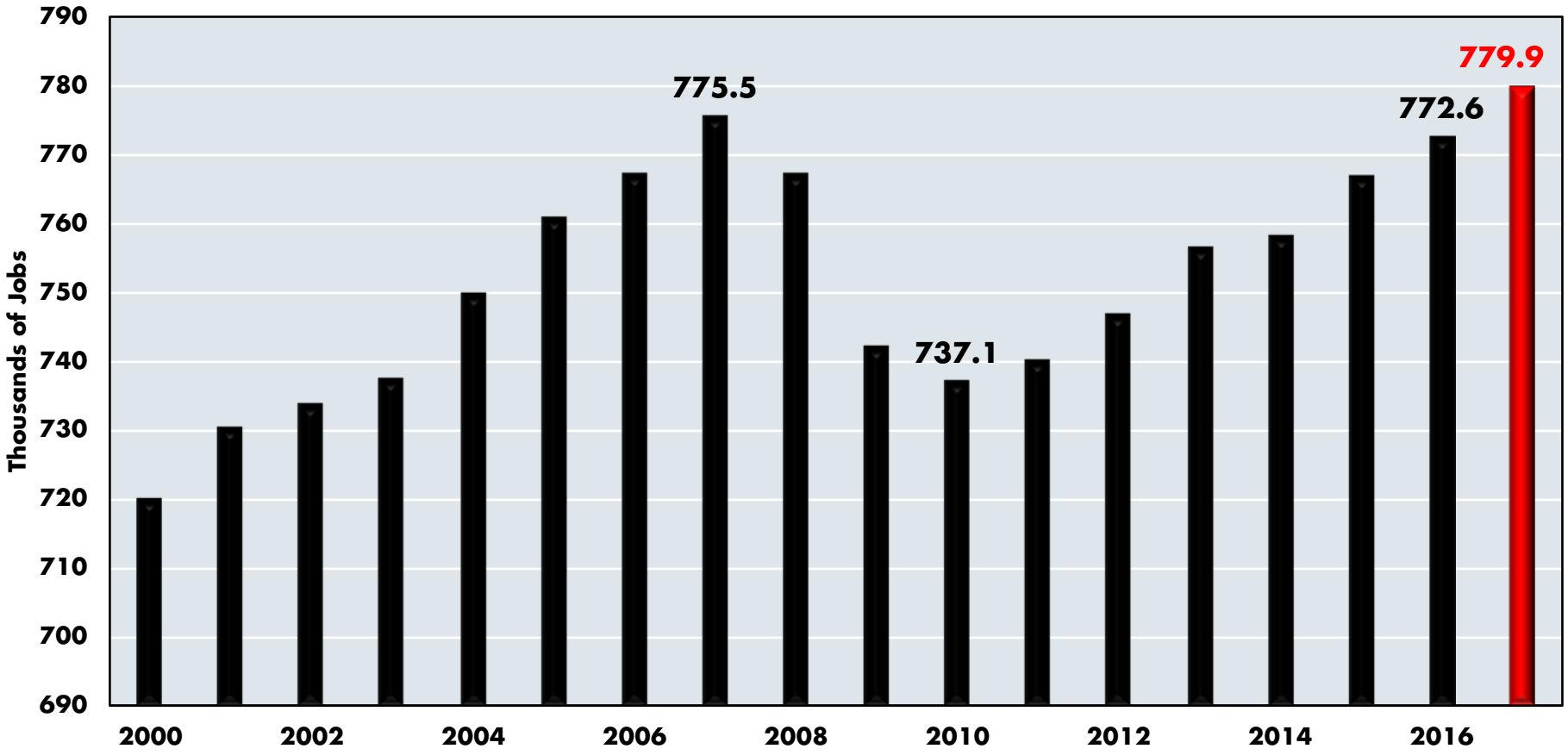
RECOVERY FROM THE GREAT RECESSION: MEASURED IN TOTAL JOBS RESTORED, 2008-2018*



Sources: Bureau of Labor Statistics and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Peak prerecession dates are January 2008 (United States), April 2008 (Virginia) and July 2007 (Hampton Roads). Data for U.S. through May 2018, Virginia and Hampton Roads through May 2018. U.S. data preliminary for April and May 2018. Virginia and Hampton Roads data are preliminary for May 2018. Seasonally adjusted data.

GRAPH 3

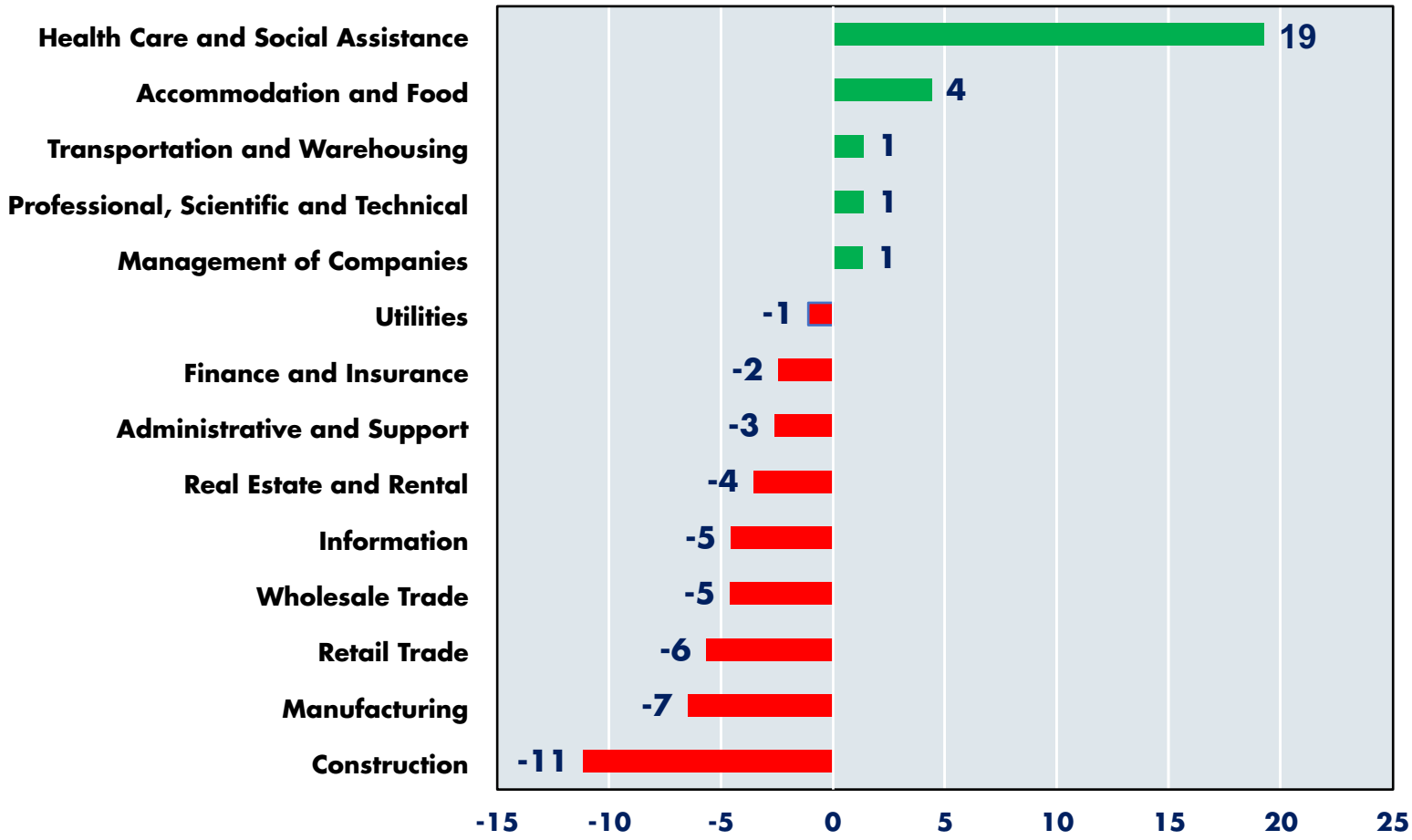
AVERAGE CIVILIAN NONFARM EMPLOYMENT (JOBS): HAMPTON ROADS, 2000–2017



Sources: U.S. Department of Labor CES data and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Annual averages based on non-seasonally adjusted data.

GRAPH 4

CHANGE IN PRIVATE-SECTOR EMPLOYMENT: SELECTED INDUSTRIES IN HAMPTON ROADS, 2007 Q1 TO 2017 Q1 (THOUSANDS)



Sources: Virginia Employment Commission: Covered Employment and Wages by Private Ownership and the Dragas Center for Economic Analysis and Policy, Old Dominion University

Slow Growth In Jobs, Faster Growth In Individual Employment

One curiosity is the slow increase in the number of jobs and the more rapid increase in the number of people reporting that they are employed. Why are there marked differences between the employment and jobs data? The different survey instruments account for some of the discrepancies. Employment data come from a monthly survey of households and are more sensitive to recent changes, as people tend to disclose immediately whether they are employed or not. Employment data also capture whether people are self-employed or engaged in short-term employment, such as driving for Uber, working through Thumbtack or pursuing other ventures in the emerging "gig" economy.

On the other hand, the jobs data come from a monthly survey of employers. If a person holds jobs with multiple employers, each employer will report the individual is working for them. The jobs data can thus significantly outpace the employment data if people are working multiple jobs.[2] Both measures provide valuable information.

Let's first delve into the employment data.

The number of people reporting that they were in the labor force in 2017 was comfortably above the prerecession peak in 2008 (Graph 5). On an annual basis, there were approximately 21,700 more people working or looking for work in 2017 than in 2008. The gains in employment were almost the same as the increases in the labor force, with 21,000 more people reporting that they were employed in 2017 than in 2008 (Graph 6).

The increases in the labor force and number of employed are reflected in the decline in the unemployment rate (Graph 7). In January 2007, the unemployment rate in Hampton Roads was 3.1 percent, well below the nation's 4.6 percent unemployment rate. At the trough of the recession, the unemployment rate here topped 8 percent. By mid-2018, our unemployment rate had fallen below 3.5 percent.

In Graph 8, we compare the recovery in jobs and employment in Hampton Roads to the prerecession peak. In the first 16 months of the recession, employment in Hampton Roads fell by 43,000 (from 797,000 to 754,000). Recovery ensued, but transpired in fits and starts. Finally, fully 98 months after our previous peak, individual employment in Hampton Roads eclipsed the level seen prior to the recession.

The recovery in jobs has been much slower, with the number of jobs only exceeding the prerecession peak in mid-2018, or almost 130 months past the prerecession peak in jobs. There is some evidence to suggest that Hampton Roads has added a higher percentage of nontraditional establishments (or "gig" economy jobs) than the U.S. or Virginia and this may account for the behavior of the jobs and employment data. We may also be seeing the conversion of some part-time to full-time jobs.

How can we reconcile the relatively poor job creation in Hampton Roads with declines in the unemployment rate? One explanation is contained in the labor force participation rate, which measures the percentage of the population that is either actively employed or seeking employment. The long-term decline of participation rates, coupled with the shock of the Great Recession, is a signal that many people either have dropped out of the labor force, or never entered it in the first place. Thus, puny job creation can be accompanied by declining unemployment rates because increasing numbers of people have decided not to seek work.

One reason why labor force participation rates have fallen is known as the "discouraged worker effect." It reflects individuals who: (a) have given up seeking work because there are no job openings, or (b) are not qualified to fill the jobs that do exist, or (c) would like to work but can only find part-time jobs, or (d) have qualified for disability and thus have exited the labor force. It also reflects individuals who have qualified for disability and thus have exited the labor force. Data on labor force participation for those 16 to 64, the prime working ages, show that participation has declined this decade in Virginia and

2 This occurs because the jobs data would count each of the jobs separately, while the employment data would only count the same individual once.

the major cities in Hampton Roads (Graph 9). "Nonparticipation" here refers to people who are neither employed nor looking for a job.

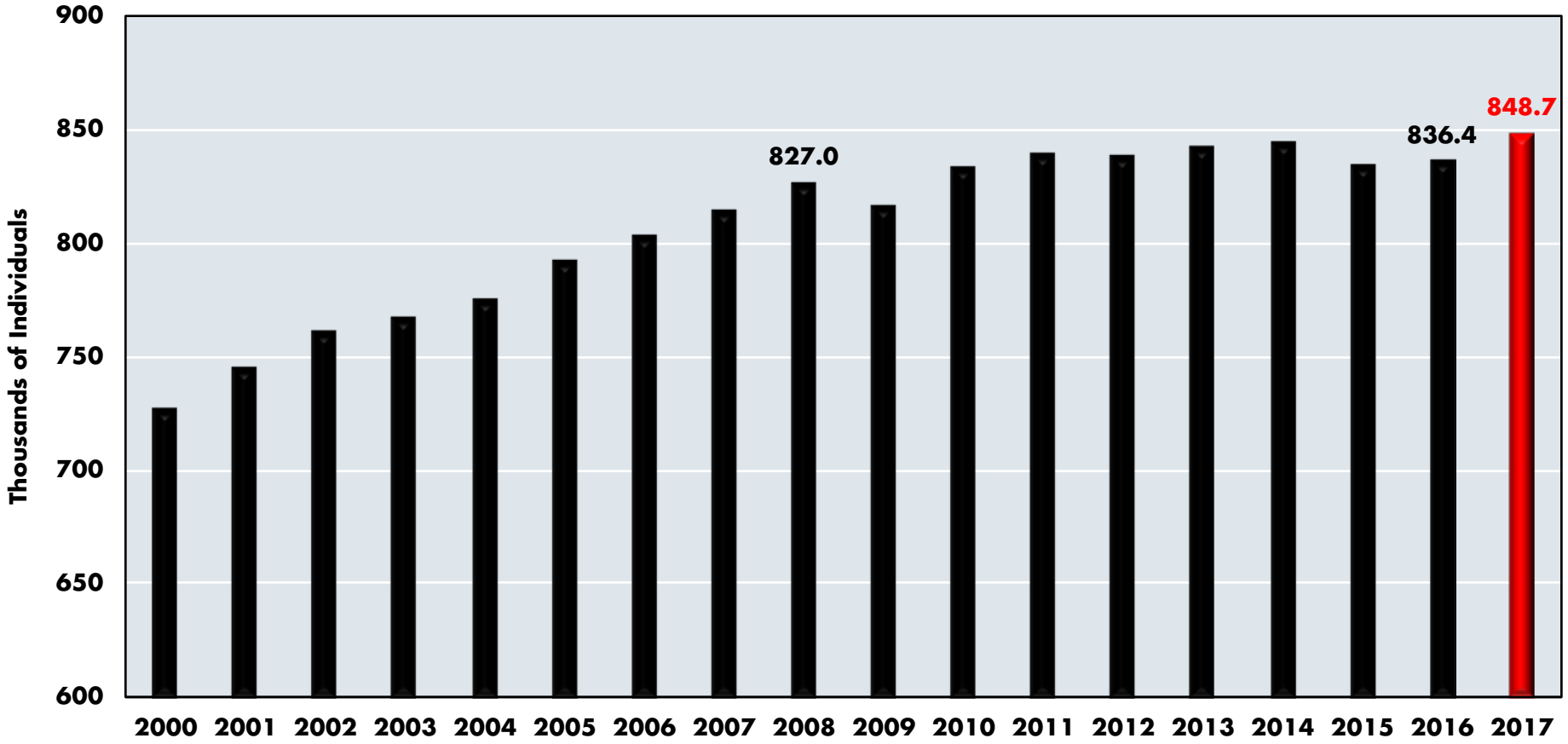
In Chesapeake, for example, between 2010 and 2016, labor force participation dipped from 70.3 percent to 66.3 percent, which translates to more than 5,700 people in that city.

Moving these discouraged individuals back into the labor force is vital to continuing the economic expansion. Society must, as we have noted in previous reports, devote resources to support people of working age who are not in the labor force. Whether these resources are in the form of a social safety net, public safety and health services or familial expenditures, we as a society bear major costs when a significant portion of our working-age population chooses not to work or is unable to do so. While there is recent evidence at the national level that some discouraged workers have been pulled back into the labor force by increasing wages and job opportunities, there remains a large segment of the working-age population that is outside the workforce. **The challenge is to create the incentives and programs to help these people transition back to gainful employment.**

Our point is simple: One cannot simply rely on one data series to draw conclusions about the labor market in Hampton Roads. The overall story is indeed positive, as both the number of people employed and the total number of jobs are improving and are expected to continue improving through 2018. Our regional economy's labor market recovery has been slow, fitful and frustrating at times, but it finally appears to be moving forward.

GRAPH 5

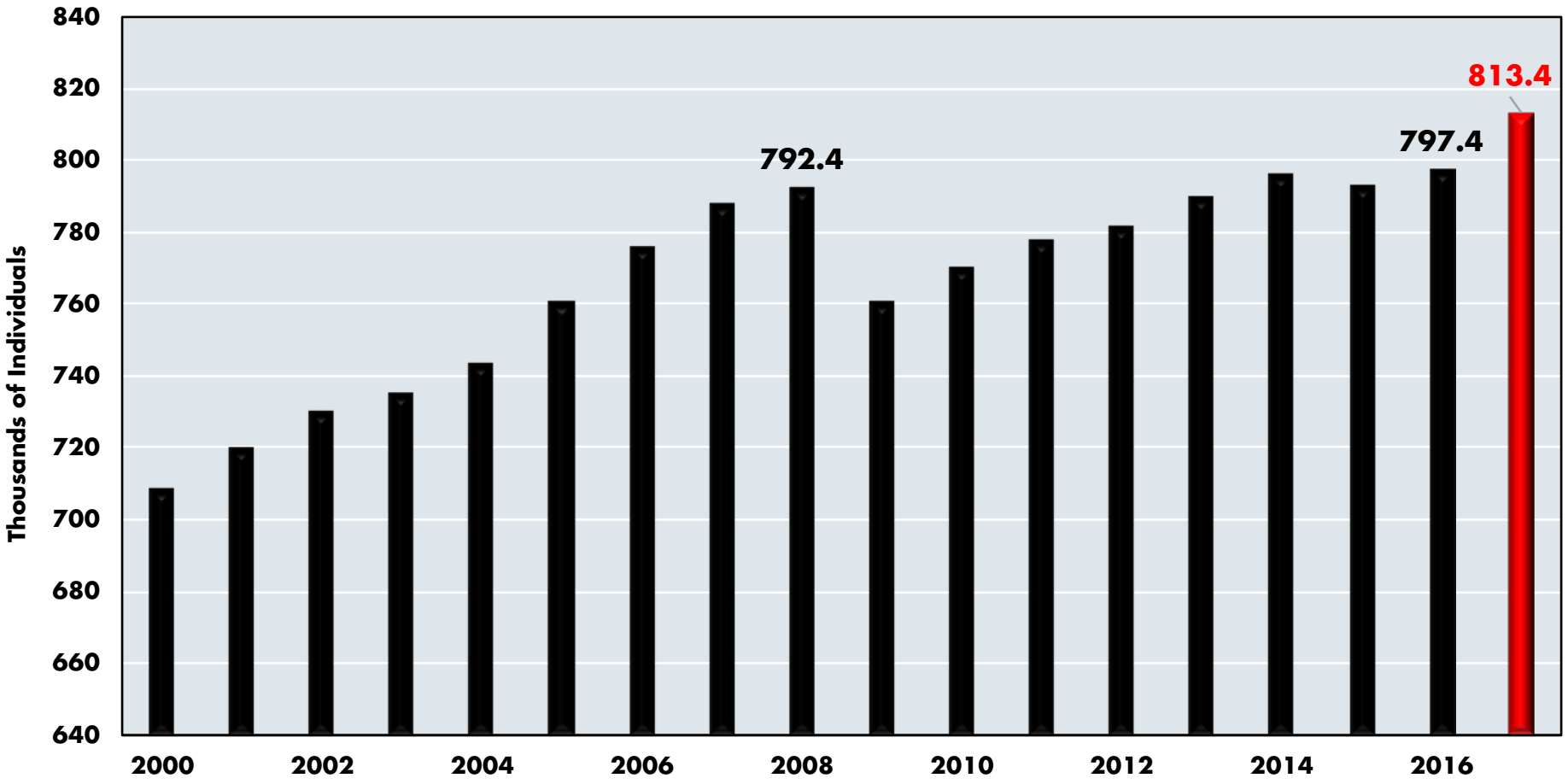
AVERAGE ANNUAL CIVILIAN LABOR FORCE: HAMPTON ROADS, 2000-2017



Sources: U.S. Department of Labor LAUS data and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Annual averages based on non-seasonally adjusted data. Data revised on April 20, 2018.

GRAPH 6

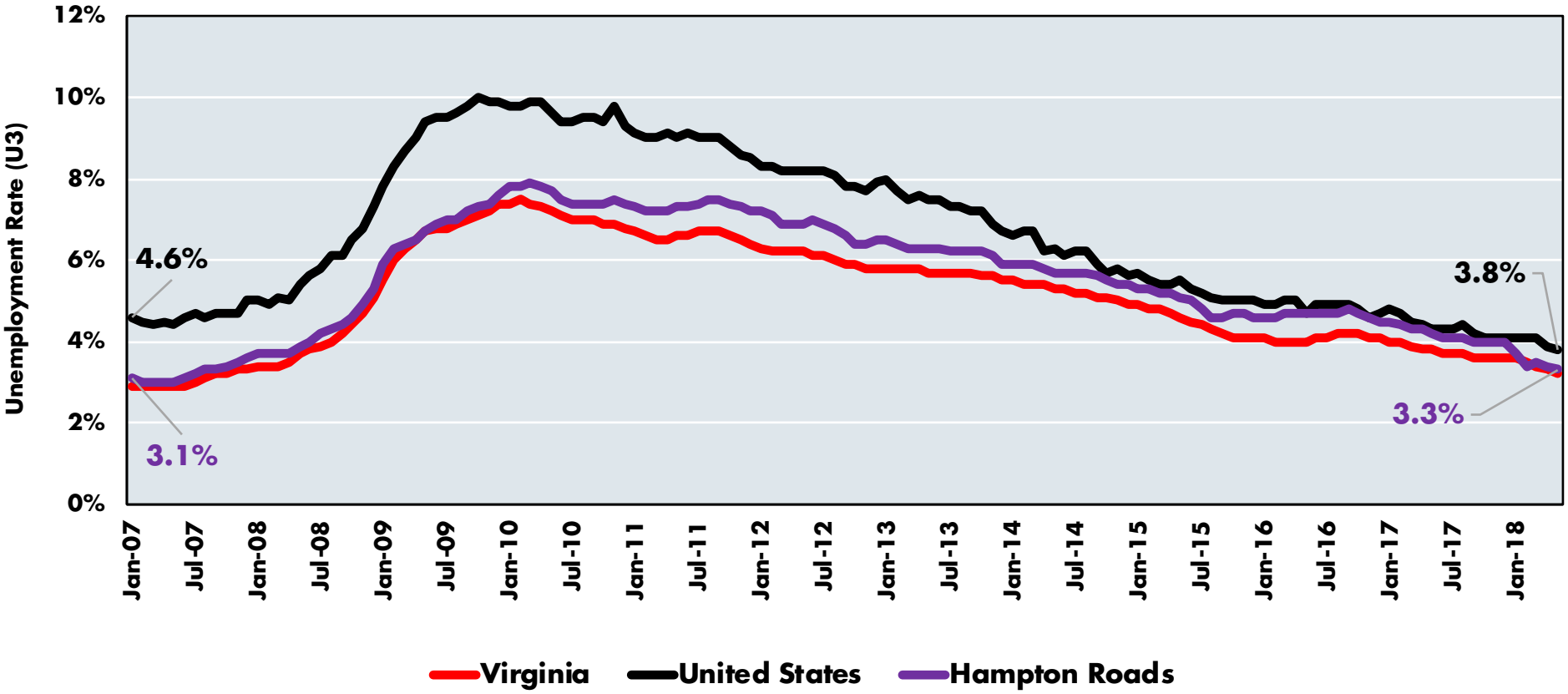
AVERAGE ANNUAL EMPLOYMENT: HAMPTON ROADS, 2000-2017



Sources: U.S. Department of Labor LAUS data and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Annual averages based on non-seasonally adjusted data. Data revised on April 20, 2018.

GRAPH 7

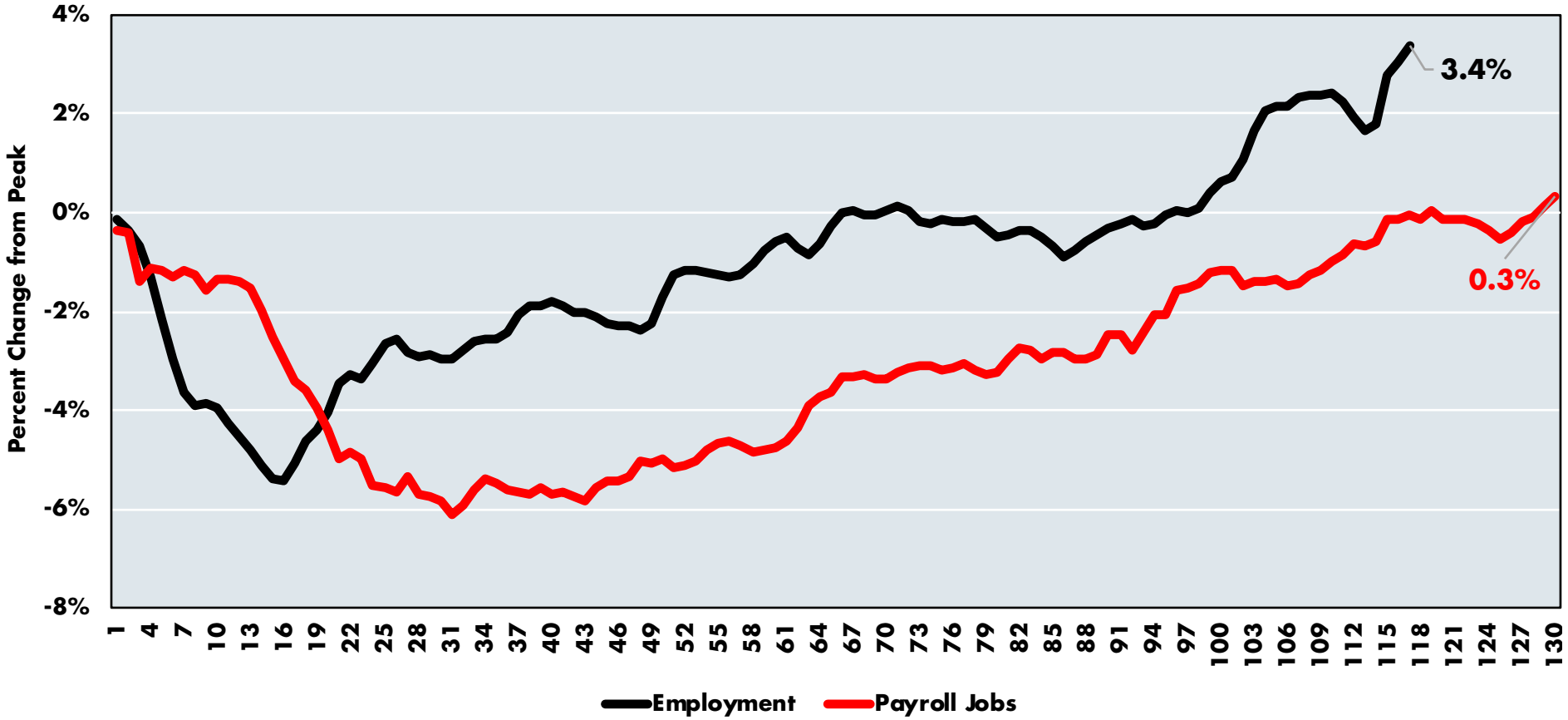
UNEMPLOYMENT RATE (U3): UNITED STATES, VIRGINIA AND HAMPTON ROADS, 2007–2018



Sources: Bureau of Labor Statistics and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Seasonally adjusted unemployment rates. Virginia, Hampton Roads and U.S. data through May 2018. Next update: U.S.: July 6, 2018; Virginia: July 20, 2018; Hampton Roads: Aug. 1, 2018.

GRAPH 8

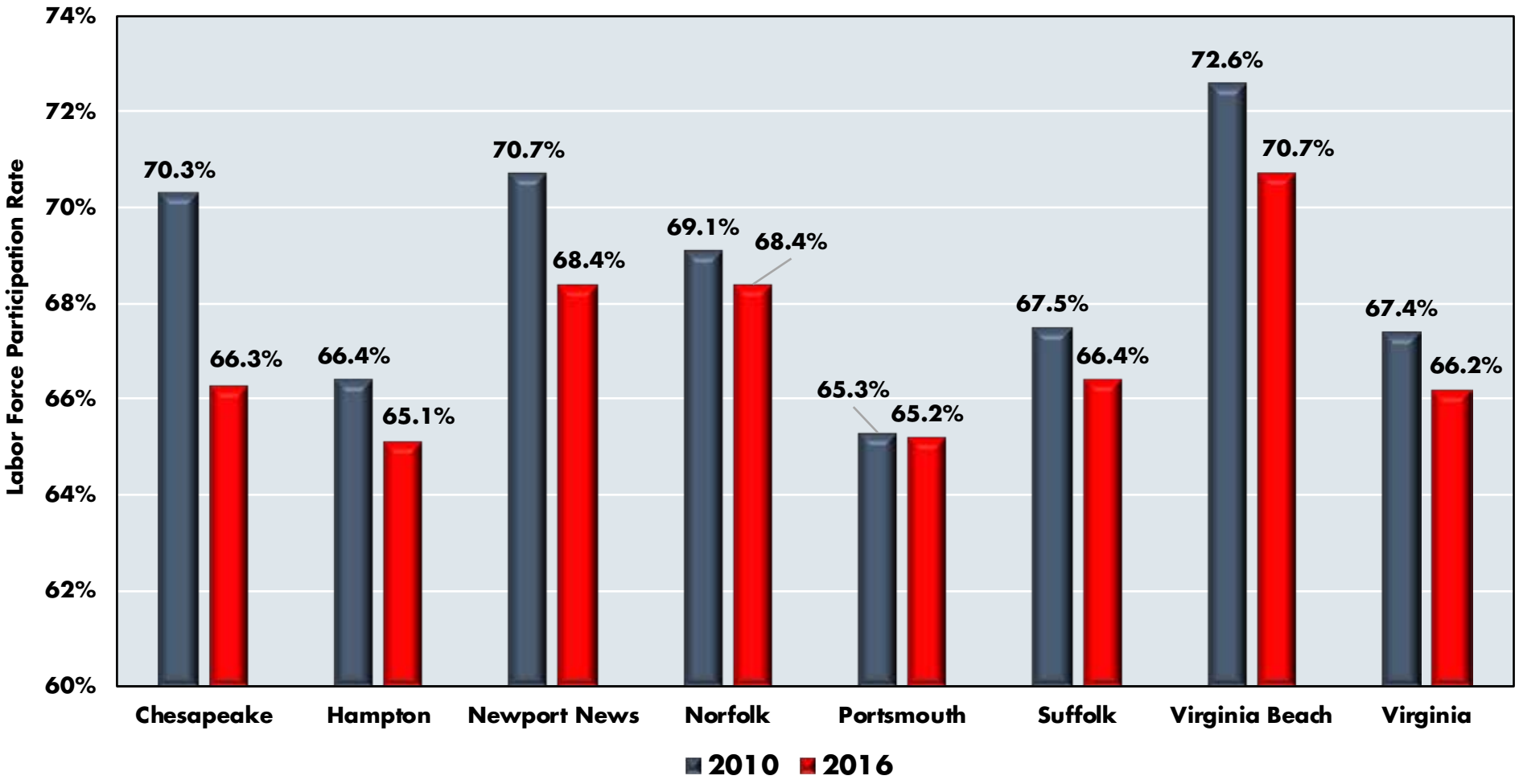
RECOVERY FROM THE GREAT RECESSION: MEASURED IN JOBS AND EMPLOYMENT RESTORED IN HAMPTON ROADS, 2007-2018*



Sources: Bureau of Labor Statistics and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Peak prerecession dates are July 2007 for payroll jobs and July 2008 for employment. Data are through May 2018. Hampton Roads data are preliminary for May 2018. Seasonally adjusted data.

GRAPH 9

LABOR FORCE PARTICIPATION RATES: AGES 16-64 FOR THE LARGEST CITIES IN HAMPTON ROADS, 2010 AND 2016



Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates

Defense Spending In Hampton Roads

Defense spending in Hampton Roads has been compared metaphorically to a huge economic gorilla, impossible to ignore. Defense spending is the fuel for our economic engine, and the bedrock upon which the regional economy is built. Hampton Roads is home to more than 80,000 military personnel as well as a significant portion of the nation's shipbuilding and ship maintenance industrial base. Our recent economic woes can be attributed, in part, to the stagnation of defense spending.

Between 2000 and 2012, Department of Defense (DOD) spending almost doubled in Hampton Roads, rising at an annual rate of 5.8 percent (Graph 10). These rapid increases in defense spending dissipated with the onset of sequestration in 2013. From 2013 to 2016, defense spending in our region remained around $19 billion. **In 2017, direct defense spending approached $20 billion and we forecast that it will be $21.5 billion in 2018, subject to how much of the increased spending is for multiyear procurement contracts (ships, for example) and how much is for operations and maintenance.**

How important is defense spending in Hampton Roads? Graph 11 shows that it accounted for 46.1 percent of overall economic activity in 2011 and declined in importance through 2017. The recent boost in defense spending, however, will likely increase the share of defense spending in 2018 and into 2019. Our economic fortunes remain closely linked to those of the DOD.

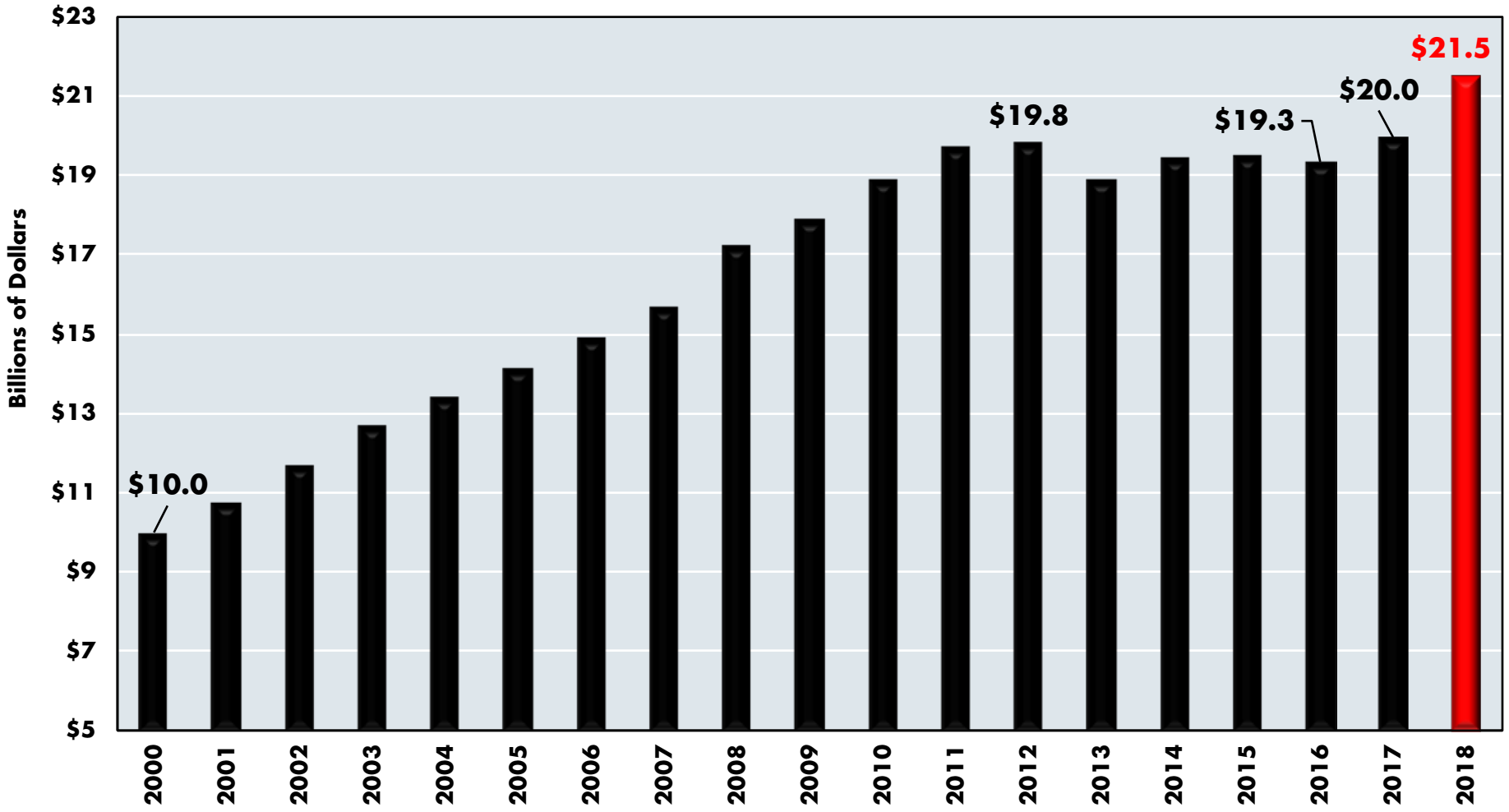
Defense spending in Hampton Roads is not just for ships and airplanes, but also people. While ships and aircraft are impressive, much of the impact of the defense sector in our region results from the activities of the people who are stationed here or work for the federal government. Expenditures on the people who build and maintain ships and aircraft and payments to military and civilian personnel provide thrust for our regional economic engine.

Graph 12 illustrates the changing levels and composition of military and federal civilian employment in Hampton Roads from 2001 to 2016. The number of military personnel peaked in 2003 at 113,369 and fell to 84,089 in 2016, a decline of 25.8 percent.[3] This decline was partially offset by an increase in the number of federal civilian personnel. In 2003, 46,414 federal civilians worked in Hampton Roads; by 2016, the number was 57,619, a rise of 24.1 percent.

3 The BEA defines the military group to include full-time personnel of the armed services plus the number of military reserve unit members that meet regularly for training. The number of military reserve members includes members of the Reserves and the National Guard.

GRAPH 10

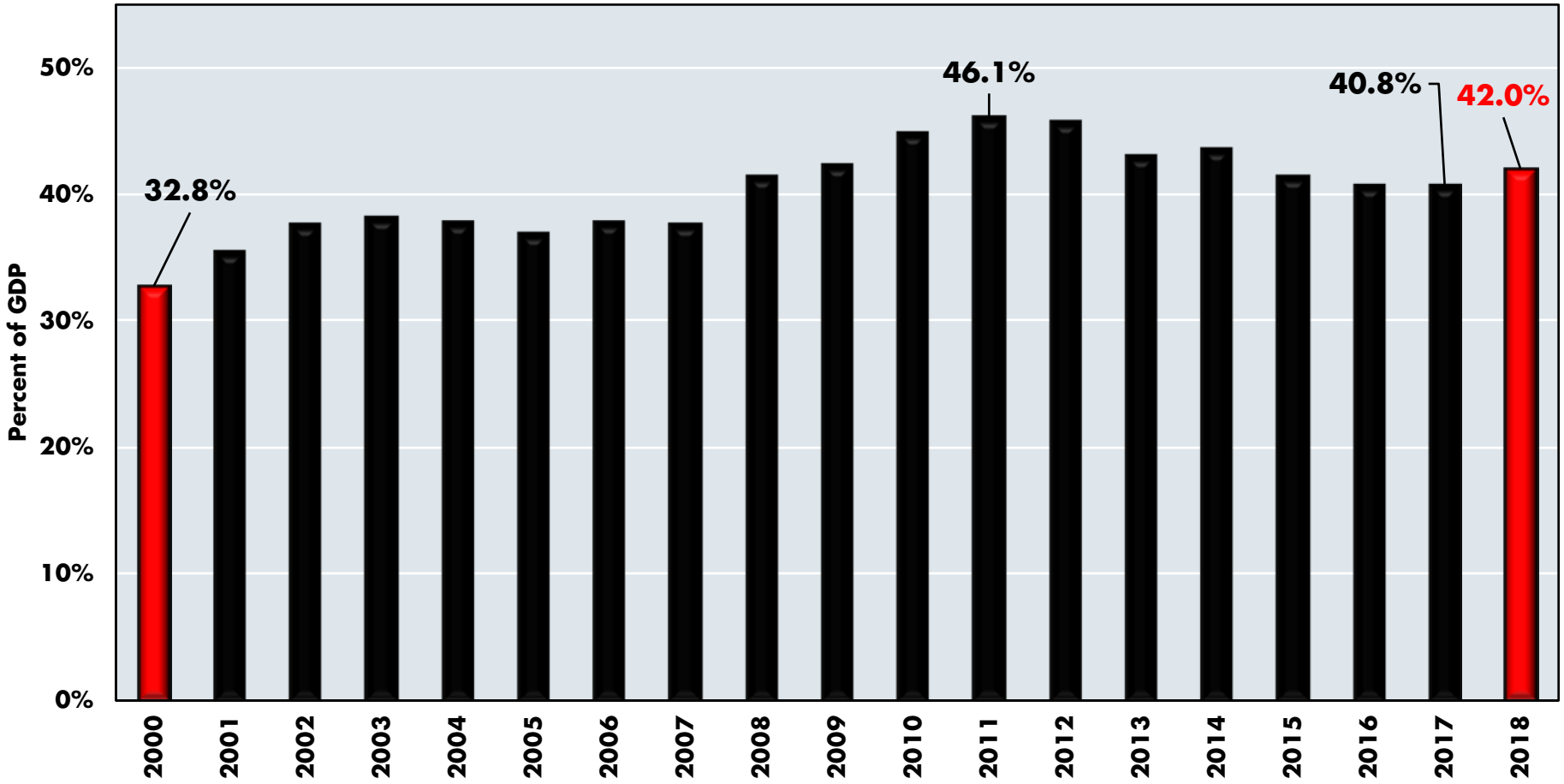
ESTIMATED DIRECT DEPARTMENT OF DEFENSE SPENDING IN HAMPTON ROADS, 2000-2018



Sources: U.S. 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 2017 are estimates, while 2018 is our forecast.

GRAPH 11

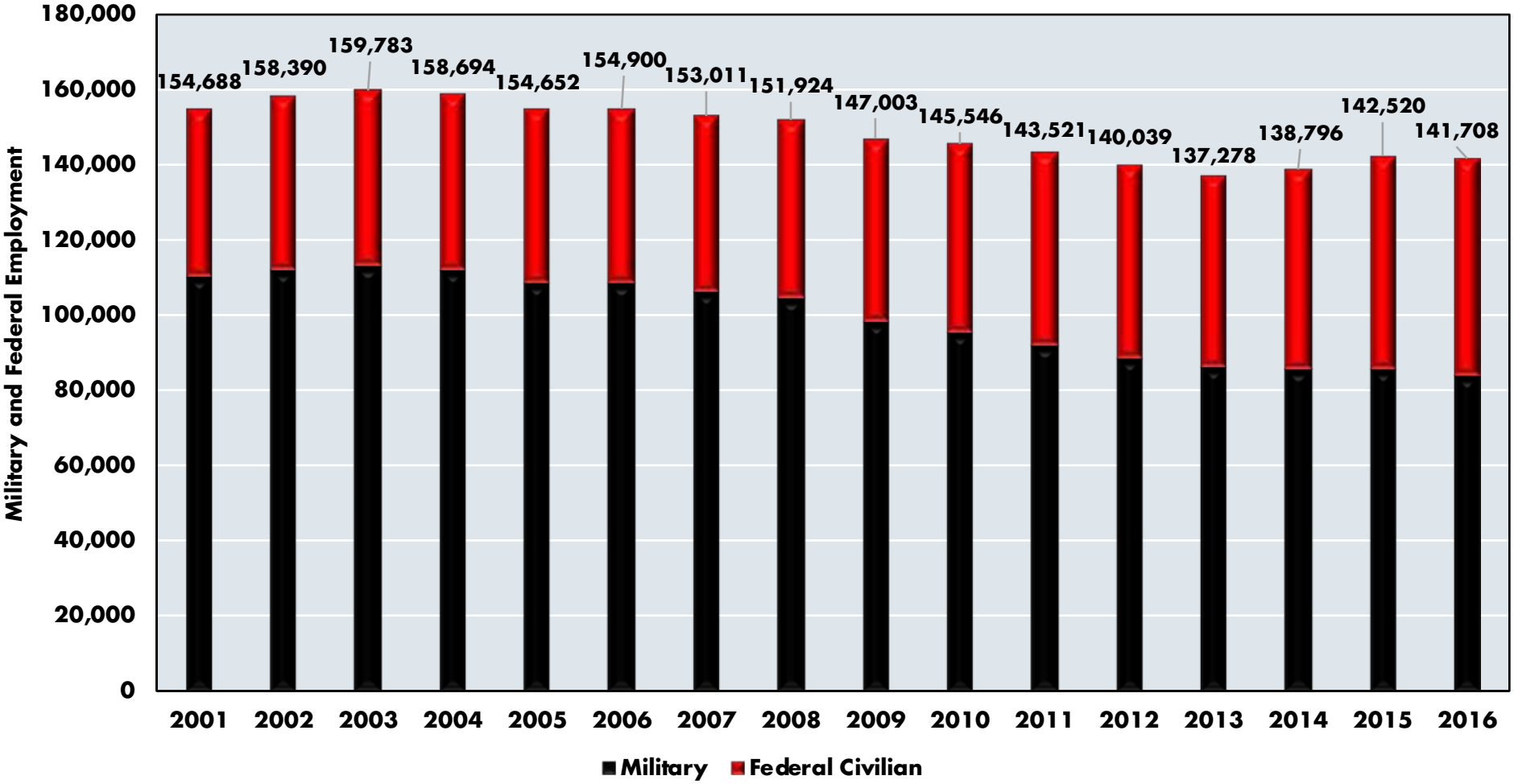
PERCENTAGE OF GROSS DOMESTIC PRODUCT ATTRIBUTABLE TO DOD SPENDING: HAMPTON ROADS, 2000-2018



Sources: U.S. Department of Defense, U.S. Department of Commerce and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Data for 2016 and 2017 are estimates and data for 2018 are forecasts.

GRAPH 12

MILITARY AND FEDERAL CIVILIAN EMPLOYMENT IN HAMPTON ROADS, 2001-2016



Sources: Bureau of Economic Analysis, Total Full-Time and Part-Time Employment by NAICS Industry, and the Dragas Center for Economic Analysis and Policy, Old Dominion University

Part of our economic doldrums after the Great Recession can be attributed to the decline in military personnel. The gap between private-sector compensation and the compensation of military and federal civilian employees has only grown over time.[4]

In 2001, military compensation was 1.6 times higher than private-sector compensation. Relatively stagnant wages in the private sector over the last decade and repeated boosts to military pay have increased military compensation relative to the private sector. By 2016, the average compensation of a military service member was 2.2 times that of the average compensation of someone working in the private sector (Graph 13).

While federal civilian compensation has not grown as quickly as military compensation, it is higher today than in previous years. In 2001, federal civilian compensation was 2.2 times higher than private-sector compensation. By 2016, the average compensation of a federal civilian employee was 2.6 times greater than the average private-sector compensation.

Table 2 illustrates this gap for 2015 and 2016. Average military compensation for 2016 was $92,189, while average federal civilian compensation was $109,624. State and local employee compensation in 2016 was lower, at $64,164. Each of these sectors saw positive compensation growth from 2015 to 2016. Private-sector compensation, which was $41,751 in 2016, declined by 1 percent from 2015. **One way to think about this is that for each military service member lost, the private sector must generate 2.2 jobs to make up for the lost military compensation.**

TABLE 2

ESTIMATED AVERAGE COMPENSATION BY SELECTED INDUSTRY: HAMPTON ROADS, 2015-2016

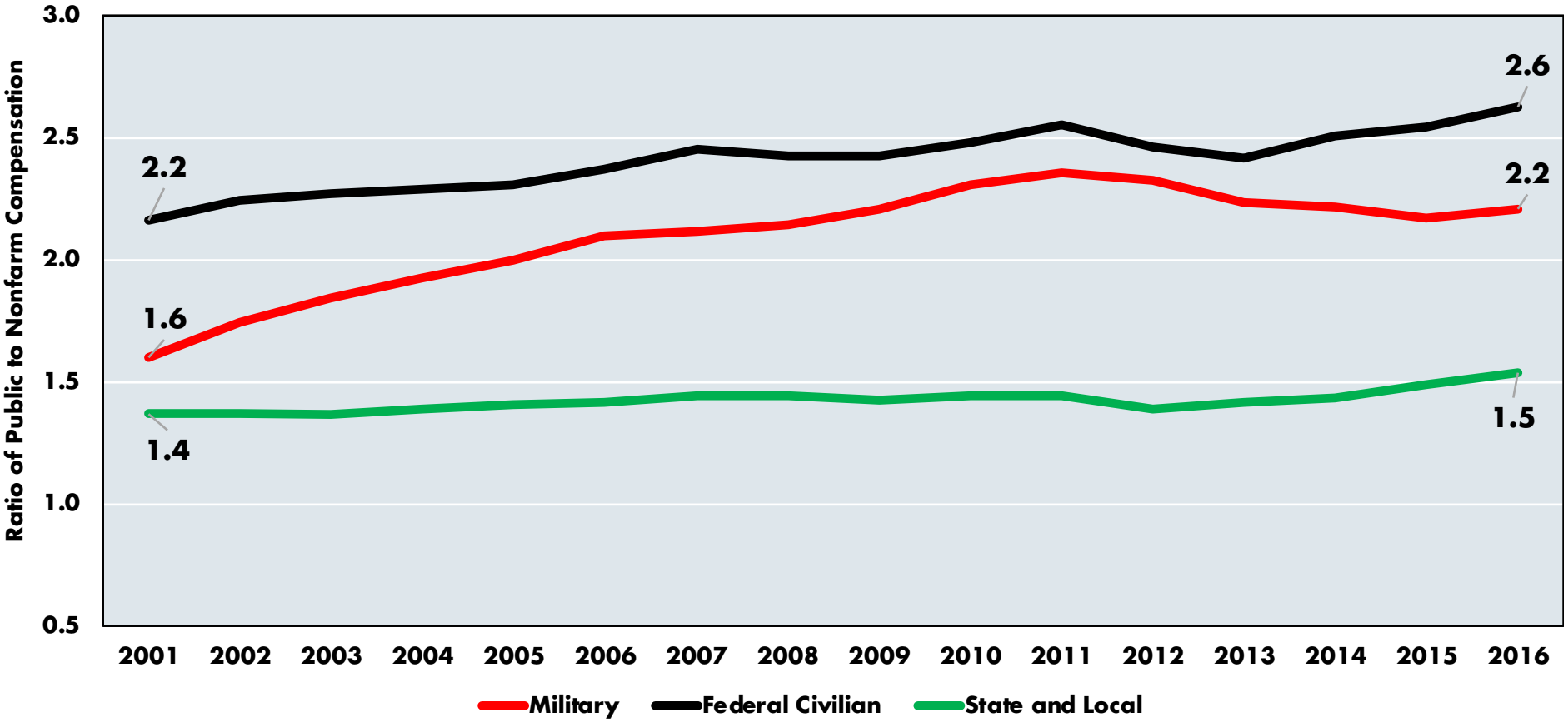
Industry	2015	2016	2015-2016 Percentage Change
Military	**$91,561**	**$92,189**	**+0.7%**
Federal Civilian	**$107,322**	**$109,624**	**+2.2%**
State and Local Government	**$62,602**	**$64,164**	**+2.5%**
Private Nonfarm	**$42,189**	**$41,751**	**-1.0%**

Sources: Bureau of Economic Analysis, Compensation of Employees by NAICS Industry, and the Dragas Center for Economic Analysis and Policy, Old Dominion University

4 Compensation is equal to salaries and wages plus the value of fringe benefits.

GRAPH 13

RATIO OF PUBLIC-SECTOR COMPENSATION TO NONFARM PRIVATE COMPENSATION: HAMPTON ROADS, 2001-2016



Sources: Bureau of Economic Analysis, Compensation of Employees and Total Full-Time and Part-Time Employment by NAICS Industry, and the Dragas Center for Economic Analysis and Policy, Old Dominion University

Defense Spending: Good News For Two Years

To understand how we ended up where we are, we must first understand where we started. In the fiscal year 2011 presidential budget, the five-year budget estimate was for base DOD spending to eclipse $600 billion by FY 2016 (Graph 14).[5] The passage of the Budget Control Act (BCA) of 2011 dashed these expectations. The BCA spending caps not only led to the sequestration of funding in FY 2013, but also limited spending growth in subsequent years. Even though Congress modified the caps on occasion, the modifications only provided temporary relief. The estimated DOD BCA cap of $525 billion for FY 2018 meant that over $400 billion in expected spending did not materialize from FY 2013 to FY 2017. At the same time, the continuing high operational tempo of the armed forces placed increasing pressure on personnel and equipment.

Early in 2018, it seemed that there might be a modest increase in the spending caps. The 2018 Continuing Resolution set annualized spending above the BCA caps, but well below President Trump's FY 2018 budget request. Congress, as it has done on previous occasions, deferred discussions of the debt ceiling and increased the BCA caps with another budget agreement, the Bipartisan Budget Agreement of 2018 (BBA 2018). BBA 2018 raised the spending caps by $296 billion over two years, with the national defense caps rising by $165 billion and the nondefense caps by $131 billion. The national defense spending caps increased by $80 billion in FY 18 and $85 billion in FY 19, not a trivial sum.

Approximately 4 percent of national defense spending occurs in Hampton Roads, though this average fluctuates depending on whether the spending is appropriated on an annual basis (operations and personnel) or multiyear basis (shipbuilding and complex ship maintenance). A reasonable assumption is that about $3 billion of the increase in national defense spending in FY 2018 will occur **over time** in Hampton Roads. A good portion of spending will be on shipbuilding, in line with the Navy's FY 2019 shipbuilding plan. Increased spending on ship maintenance is also likely as Navy leadership is developing a multiyear ship maintenance plan to complement the shipbuilding effort.

5 The "base budget," or "base spending," does not include Overseas Contingency Operations funding.

Furthermore, Congress is expected to allow the Navy to proceed with a two-carrier buy, expand DDG 51 (Arleigh Burke class destroyer) construction and fund the continued development of the Columbia class submarine in the FY 2019 appropriations bill.

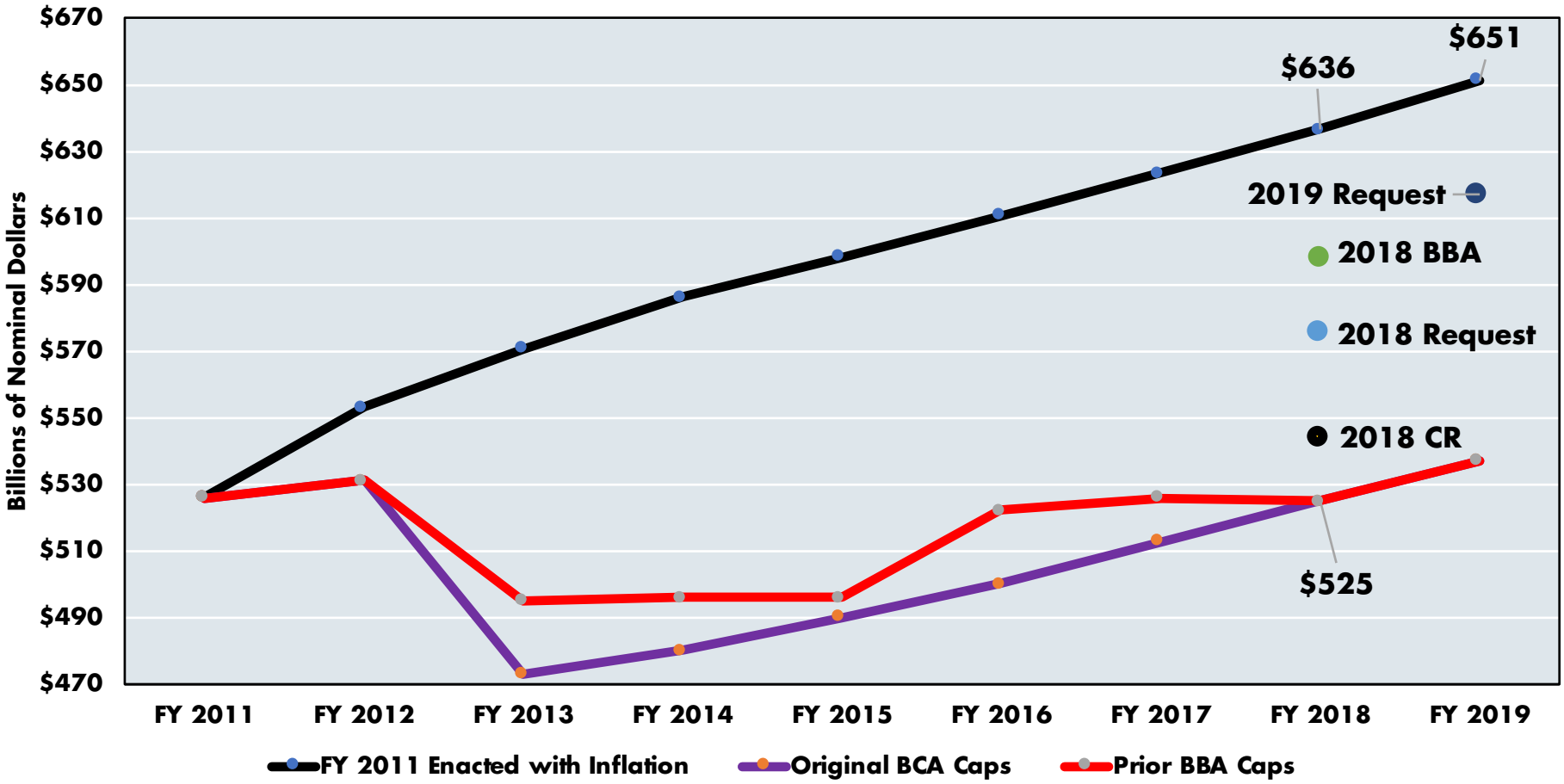
It also appears that Congress will complete work on a defense appropriations bill prior to the start of the new fiscal year. This would be significant progress, as many previous years have started under a Continuing Resolution. Not only would passage of a defense appropriations bill reduce uncertainty, it also would smooth DOD expenditures over the fiscal year and bring greater benefits to our region.

If we take a slightly longer view, then it seems likely that rapid increases in defense expenditures will moderate in the 2020s (Graph 15). The DOD base budget is projected to increase to $681 billion in FY 2020 and then grow roughly at the rate of inflation through FY 2023. This good news, however, must be tempered with the realization that, in the last year, policy actions have expanded the projected federal deficit by $2 trillion to $3 trillion through 2028. BBA 2018 added $300 billion in unfunded spending, while emergency response appropriations added about another $100 billion. The Tax Cuts and Jobs Act of 2017 added between $1.5 trillion and $2.5 trillion to the 10-year deficit and could add even more if certain tax-expensing provisions are made permanent. The annual federal operating deficit may eclipse $1 trillion by FY 2019 and, unless there are significant changes in law, will exceed $1 trillion annually in the 2020s (Graph 16).

As the deficit and debt grow, interest costs on the federal debt increase accordingly. In FY 2018, interest expenditures on the debt are forecast to be $316 billion, climbing to $992 billion in FY 2028 (Graph 17). Without concrete action by Congress and the president to address this fiscal imbalance, the federal government will spend more servicing our national debt than supporting national security by 2025. The optimism for the next two years is due in large measure to the lack of fiscal restraint by lawmakers in Washington.

GRAPH 14

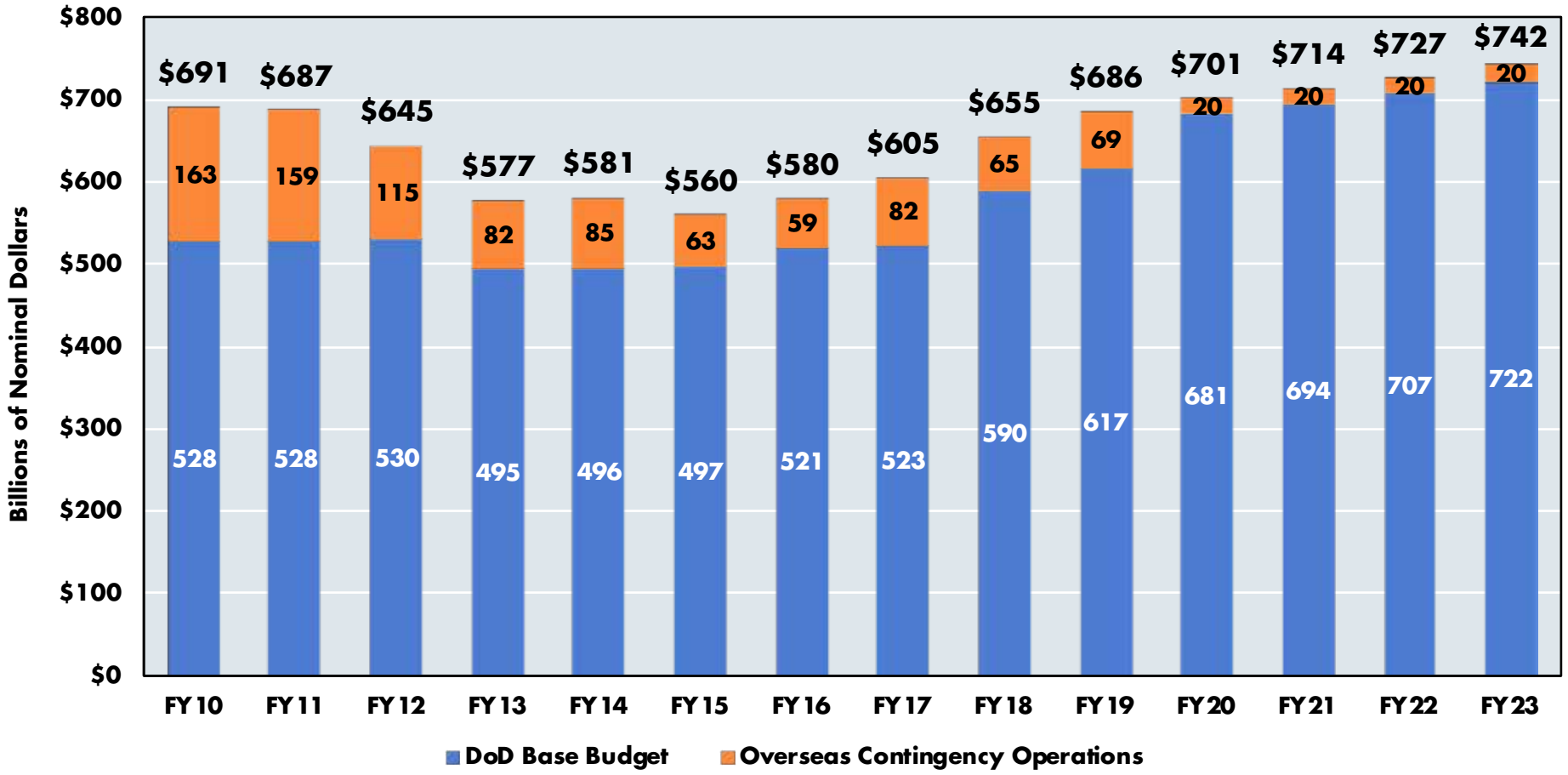
DEPARTMENT OF DEFENSE BASE BUDGET, FY 2011 – FY 2019



Sources: BCA2011, Budget Requests for FY 18 and FY 19, CBO Sequestration Update Report, Various Years, and the Dragas Center for Economic Analysis and Policy, Old Dominion University. FY 2011 Actual and FY 2012 Proposed Budget and FYDP. FY 18 and FY 19 are inflated from the FY 12 FYDP estimate of FY 17.

GRAPH 15

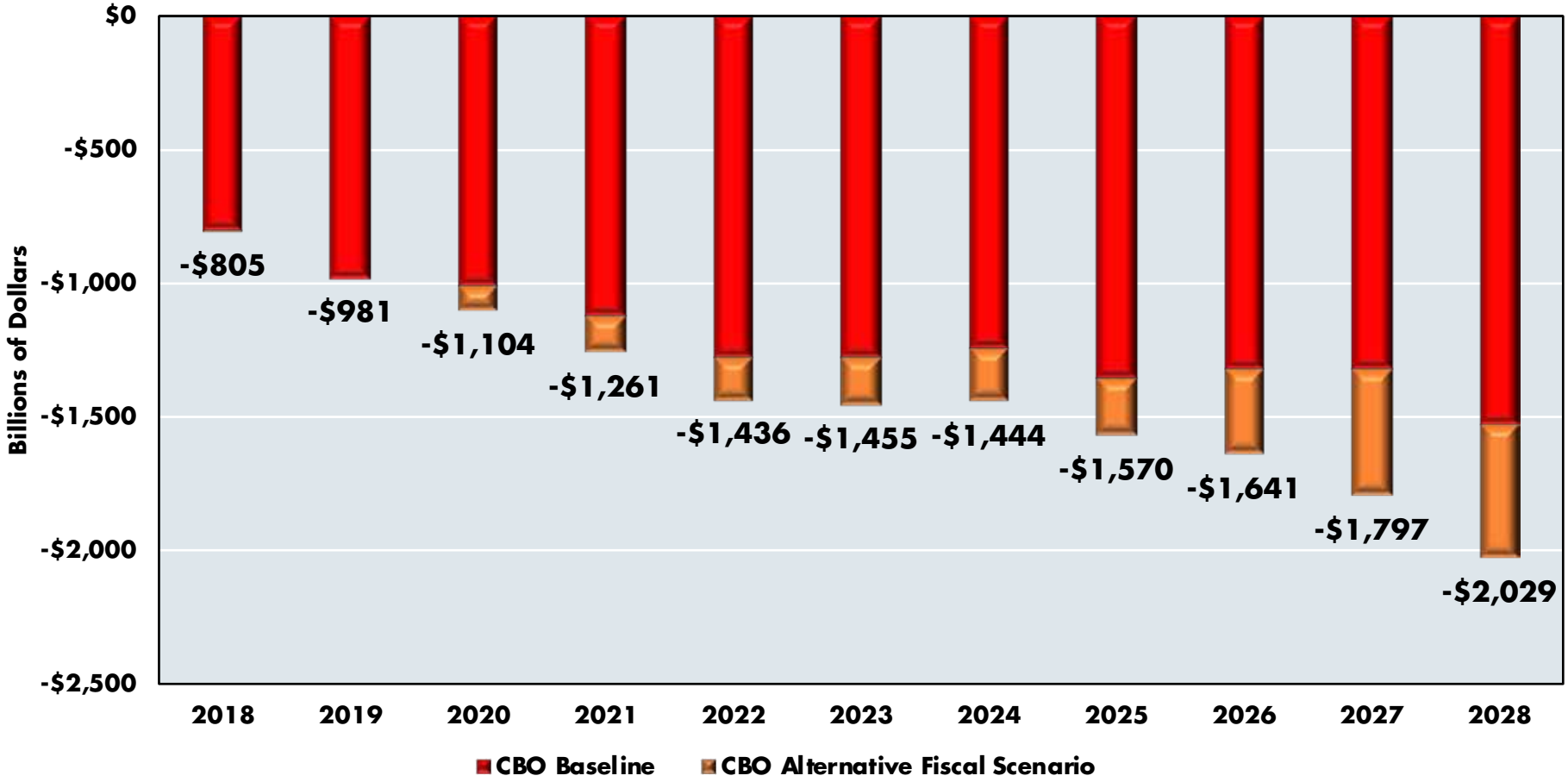
DEPARTMENT OF DEFENSE DISCRETIONARY BUDGET AUTHORITY, FY 2010 – FY 2023



Sources: U.S. Department of Defense and the Dragas Center for Economic Analysis and Policy, Old Dominion University. FY 2019 Budget Materials. FY 18 base budget includes $5 billion in missile defense authority. Nominal dollars.

GRAPH 16

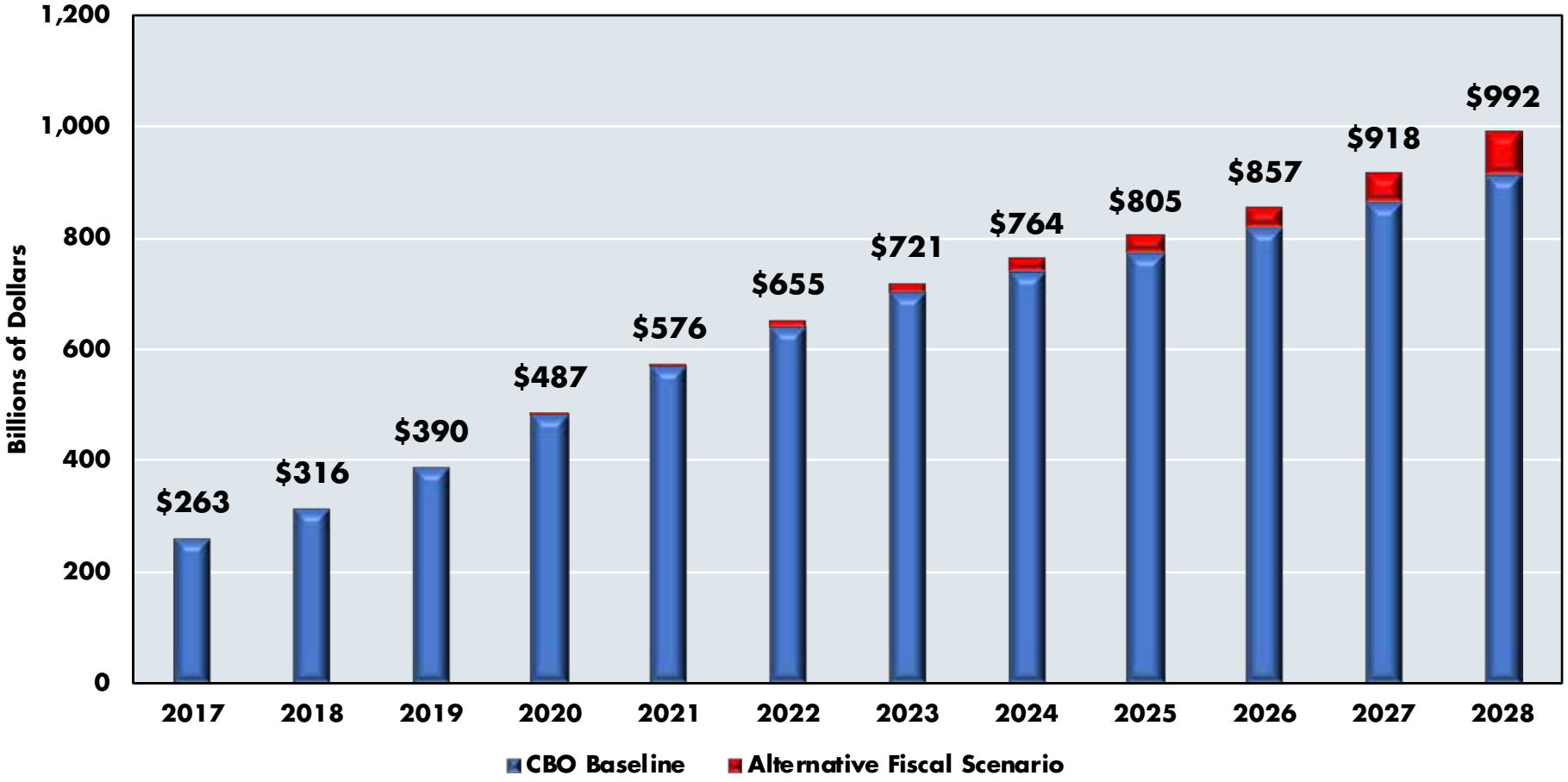
CONGRESSIONAL BUDGET OFFICE: PROJECTED FEDERAL DEFICIT, FY 2018 – FY 2028



Sources: Congressional Budget Office (2018), Budget and Economic Output: 2018 to 2028 and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Federal deficits in nominal dollars. The Alternative Fiscal Scenario assumes that many of the provisions of the Tax Cuts and Jobs Act of 2017 would be made permanent and many of the Affordable Care Act taxes are repealed, among others.

GRAPH 17

PROJECTED NET INTEREST: UNITED STATES, FY 2017 – FY 2028



Sources: Congressional Budget Office (2018), Budget and Economic Output: 2018 to 2028 and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Interest expenditures in nominal dollars. The Alternative Fiscal Scenario assumes that many of the provisions of the Tax Cuts and Jobs Act of 2017 would be made permanent and many of the Affordable Care Act taxes are repealed, among others.

The Port

The Port of Virginia is another key component in the region's economy. Through wise investments and management, the Port has experienced gratifying growth in cargo traffic. Depending on who is doing the counting, the direct and indirect impact of the Port may account for up to 10 percent of regional economic activity.

While the Great Recession resulted in an immediate decline in cargo tonnage, from 17.8 million tons in 2008 to 14.9 million tons in 2009, cargo levels started to grow again in 2010 (Graph 18). By 2013, cargo tonnage had risen to 18.8 million tons and continued to rise to 22 million tons at the end of 2017. A similar pattern emerges with 20-foot equivalent container units (TEUs). After peaking at 2.13 million TEUs in 2007, volume declined to 1.75 million TEUs by 2009 (Graph 19). By 2013, TEU traffic exceeded the prerecession peak and 2.84 million TEUs were shipped through the Port in 2017. From 2016 to 2017, general cargo tonnage and TEUs grew 5.3 percent and 7 percent, respectively. While the Port is approaching capacity, continuing investments should accommodate the projected increases in cargo traffic in the coming years.

Competition among ports on the East Coast remains strong (Graph 20). New York-New Jersey accounted for 34.5 percent of loaded TEUs in 2017. Savannah, which has taken some market share from New York-New Jersey, had 23.3 percent of loaded TEUs, while the Port of Virginia had 16.4 percent of loaded TEUs in 2017. Charleston accounted for 12.6 percent of the loaded TEU traffic. Competition among the ports will continue. The New York-New Jersey Port Authority, for example, recently completed a multibillion-dollar project to lift the Bayonne Bridge 215 feet to accommodate larger cargo ships.[6]

The inclusion of $350 million in the 2019 Virginia budget to start the process of dredging the shipping lanes to a depth of 55 feet was accompanied by another important initiative, the widening of the channel up to 1,400 feet. These efforts are necessary, as the Coast Guard currently must shut down the shipping lanes when ultra-wide cargo ships arrive and depart the Port. Savannah and Charleston are also exploring dredging to accommodate larger cargo ships.

Global trends in shipping continue to accelerate and will affect the Port of Virginia in the future. The average size of container ships continues to increase, and the average number of TEUs handled per container vessel call rose from 1,514 in 2016 to 1,798 in 2017 (Graph 21). **Since 2011, the average number of TEUs handled per container vessel call has increased by 55 percent. Wise investments in capacity and transport infrastructure are necessary to support the continued growth of the Port and our regional economy.**

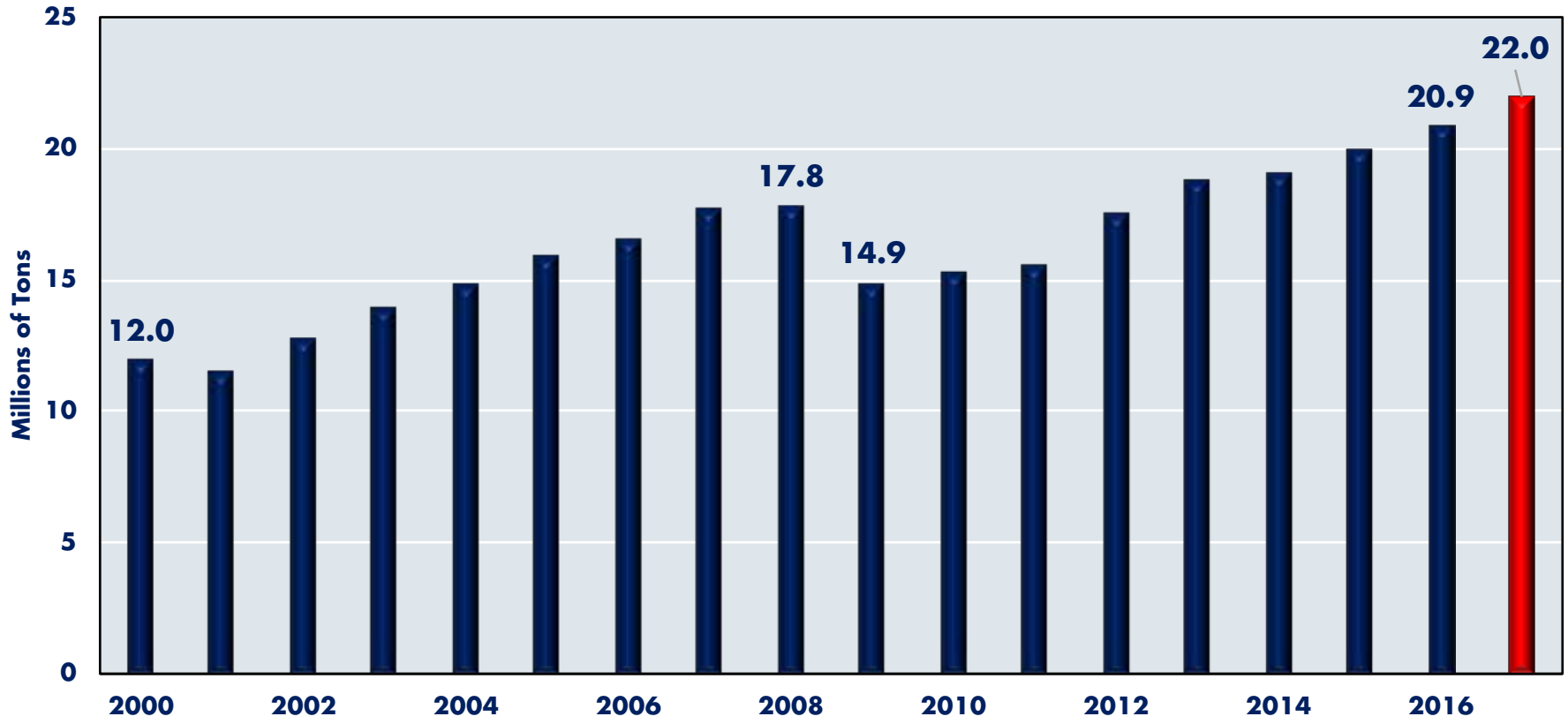
An emerging uncertainty is whether international trade tensions will negatively affect the Port. If the imposition of tariffs is a short-term negotiating strategy to force parties to the table, then it is likely that the trade tensions will not cause long-term harm to the operations of the Port. On the other hand, if the current momentum of tariffs and counter-tariffs continues, then a global trade war is possible. For the Port of Virginia, China is the No. 1 country of origin and destination. A prolonged trade conflict would reduce exports to China and other countries, though there may be some displacement. For example, soybean exports from the U.S. that were previously bound for China could be bought by a third country and re-exported to China to avoid the tariff regime. The longer and deeper a trade dispute, the higher the likelihood it would negatively impact the operations of the Port and the regional economy.

It is one thing for the United States to use its economic heft to renegotiate trade deals and tariffs with a single country, such as Canada, Mexico or China, or even a collection of countries, such as the European Union. It is quite another thing to take on all these countries at once. Even Voltaire's notoriously optimistic Dr. Pangloss would find it difficult to find sunshine amongst these international economic clouds.

6 https://www.joc.com/port-news/us-ports/port-new-york-and-new-jersey/ny-nj-handles-mega-ships-post-bayonne-bridge-lift-stride_20180618.html

GRAPH 18

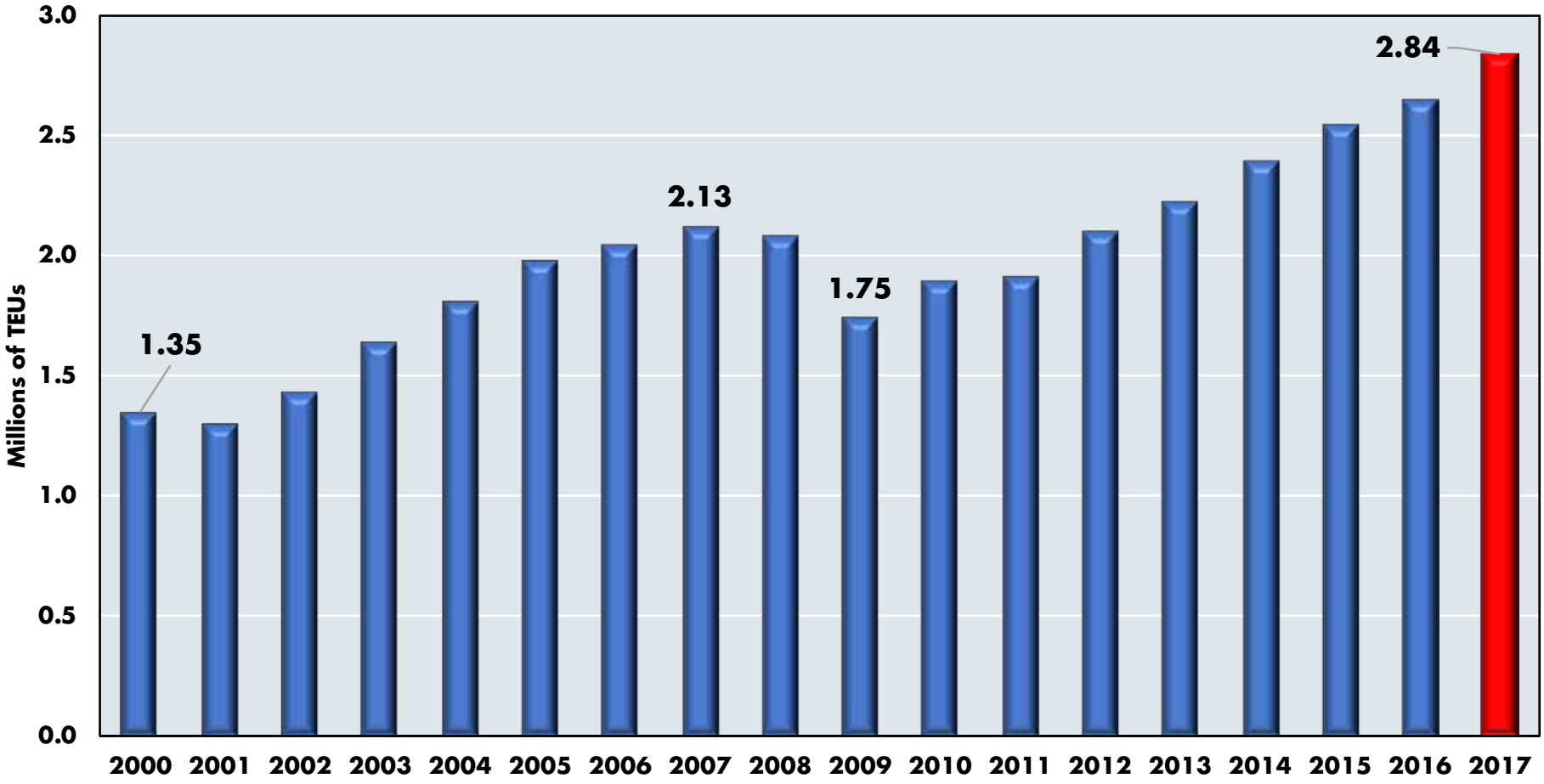
GENERAL CARGO TONNAGE: PORT OF VIRGINIA, 2000-2017



Sources: Virginia Port Authority and the Dragas Center for Economic Analysis and Policy, Old Dominion University

GRAPH 19

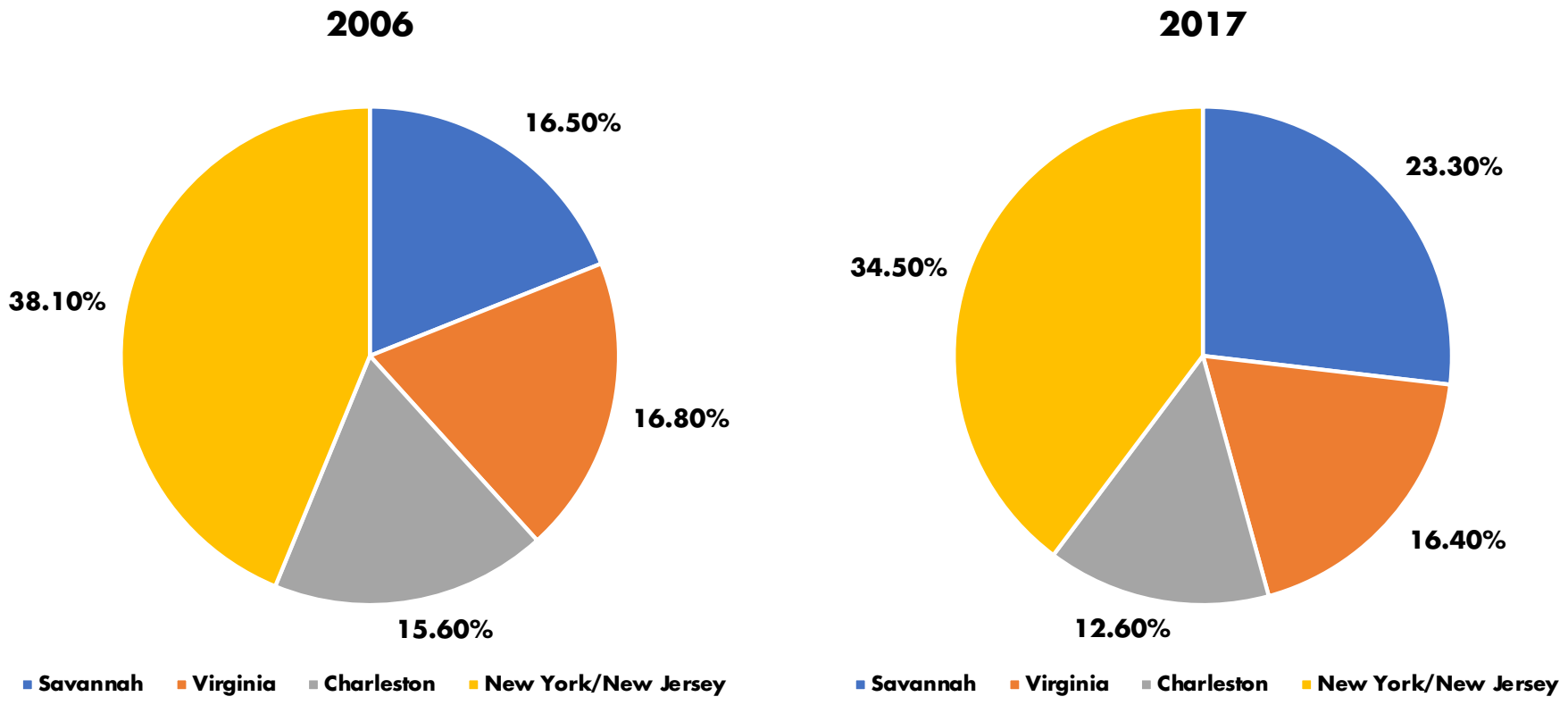
TWENTY-FOOT EQUIVALENT CONTAINER UNITS (TEUS): PORT OF VIRGINIA, 2000-2017



Sources: Virginia Port Authority and the Dragas Center for Economic Analysis and Policy, Old Dominion University

GRAPH 20

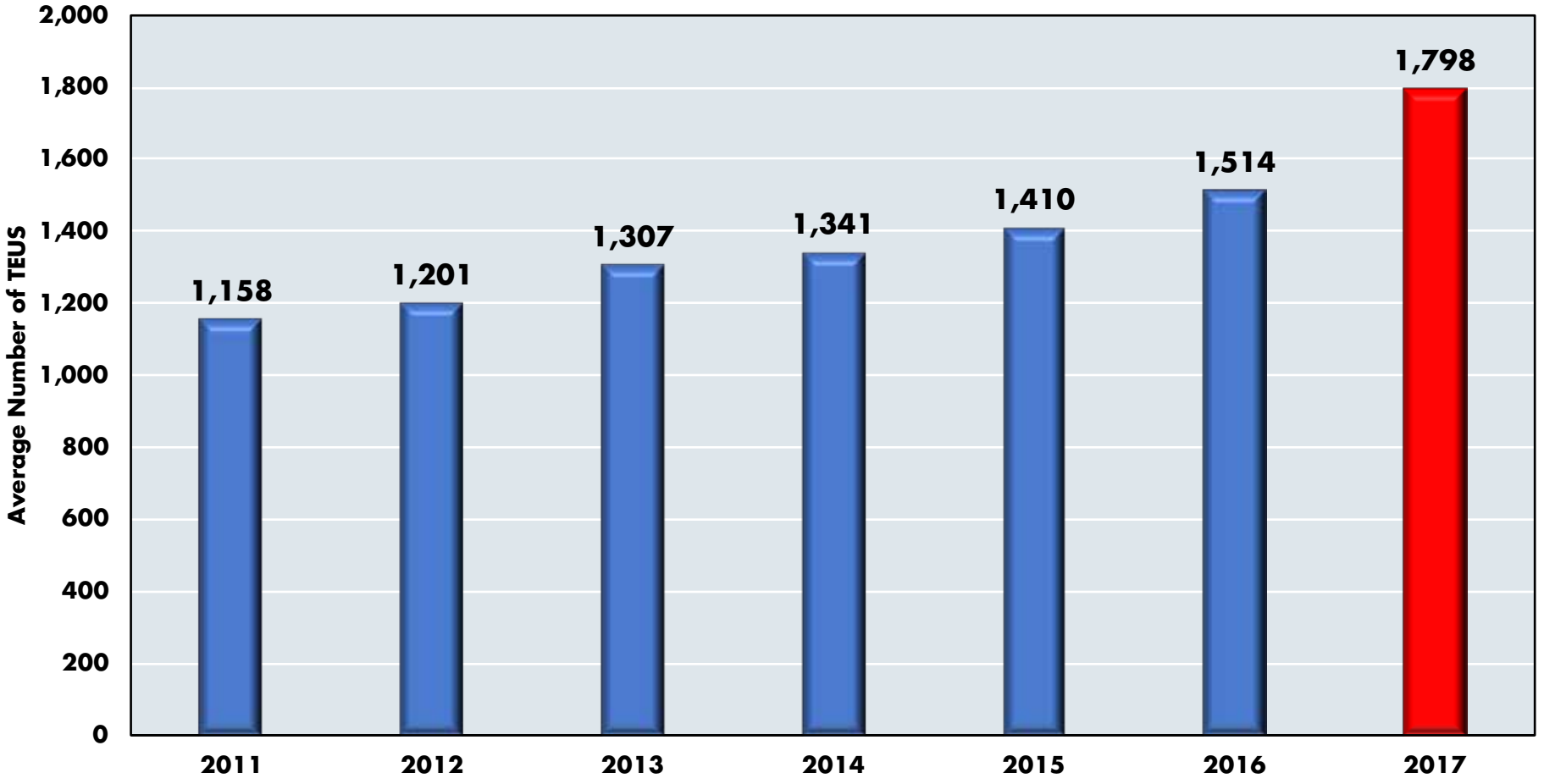
SHARES OF TOTAL LOADED TEU CONTAINERS FOR SELECTED PORTS ON THE EAST COAST, 2006 AND 2017



Sources: American Association of Port Authorities and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Market shares exclude TEUs for Philadelphia, Miami, Palm Beach and Port Everglades.

GRAPH 21

AVERAGE TEUS PER CONTAINER VESSEL CALL: PORT OF VIRGINIA, 2011-2017



Sources: Virginia Port Authority and the Dragas Center for Economic Analysis and Policy, Old Dominion University

Continued Recovery In Single-Family Housing

The single-family residential housing market in Hampton Roads continues to recover from the twin impacts of the Great Recession and the stagnation of defense spending. Sales, median prices, inventories and time on market have all trended in the right direction for sellers, though at a slower pace than observed in many other metropolitan markets. We expect the market to continue to improve through 2018 in concert with increased defense spending and other positive developments in our regional economy.

From 2002 to 2007, the median sales price of existing residential homes increased by 91 percent, but then declined 19 percent from 2007 to 2011 (Table 3). **Since the trough of the housing market in 2011, median sales prices have increased by almost 22 percent, but remained 2 percent below the previous peak of $223,000.** With the improving economy in 2018, it is likely that the median sales price of existing residential housing will finally exceed the historical peak.

Another sign of the improving health of the residential housing market is the increase in the number of homes sold and the decline in the average days on market (Graph 22). Almost 9,000 more existing homes were sold in 2017 compared to the bottom of the market in 2010. The average number of days on market also declined from a high of 102 in 2011 to 71 in 2017. While the number of sales is approaching the historical high, we remain far away from the historical low of 27 days on market in 2004.

TABLE 3

MEDIAN SALES PRICE OF EXISTING RESIDENTIAL HOMES: HAMPTON ROADS, 2002-2017

Year	Median Price	Percent Change Year to Year
2002	$116,900	7.3%
2003	$130,000	11.2%
2004	$156,500	20.4%
2005	$192,000	22.7%
2006	$214,900	11.9%
2007	$223,000	3.8%
2008	$219,000	-1.8%
2009	$207,000	-5.5%
2010	$203,900	-1.5%
2011	$180,000	-11.7%
2012	$185,000	+2.8%
2013	$190,000	+2.7%
2014	$193,205	+1.7%
2015	$203,000	+5.1%
2016	$210,000	+3.4%
2017	$219,000	+4.3%

91% Increase from 2002-07

19% Decrease from 2007-11

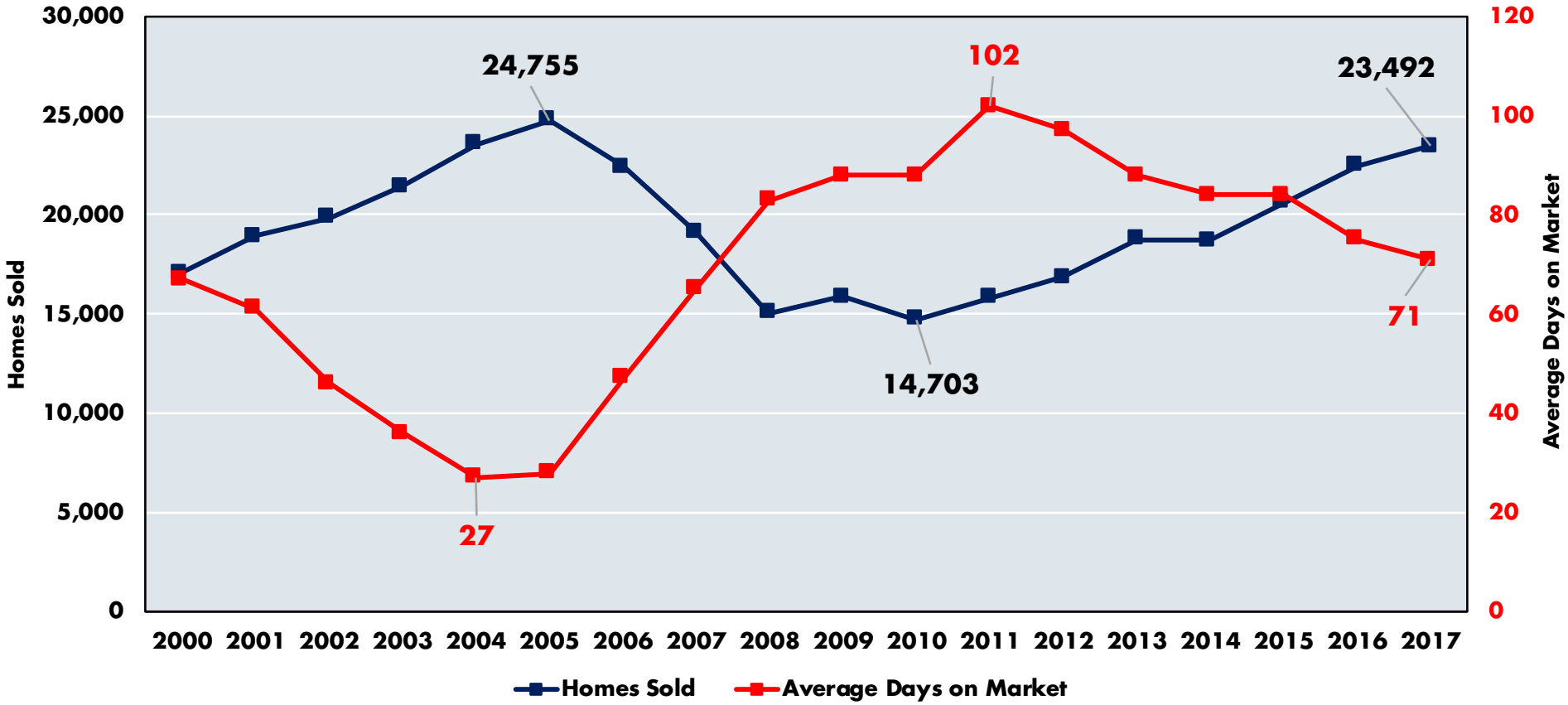
Sources: Real Estate Information Network and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Information deemed reliable but not guaranteed. Figures reported here represent only those properties that are listed through REIN by REIN members.

Evidence of the improving real estate market for sellers also appears in the inventory of homes on the market (Graph 23). The number of homes on the market peaked in 2010 at 13,070 and declined to 8,222 in 2017. The number of homes on the market now matches that seen in the late 1990s, though it remains far away from the low of 2,616 homes in 2004. We are unlikely to return to the heyday of the housing market of the early 2000s even if economic activity were to pick up pace significantly. Housing credit, while easier to obtain than in 2010, remains distant from the days of NINJA (no income – no job – no asset) loans.

The combination of a smaller inventory of existing homes on the market and a steadily increasing volume of sales has led to a decrease in the months of supply of all available existing homes for sale in Hampton Roads (Graph 24). Historically, our region has had about 5.6 months of homes on the market relative to average monthly sales rates. In 2017, the available supply of homes dipped below the historical average, and this trend has continued in 2018. As of May 2018, it would take approximately 4.1 months to clear the existing supply of homes. As the supply becomes more constrained, we should expect median sales prices to increase.

GRAPH 22

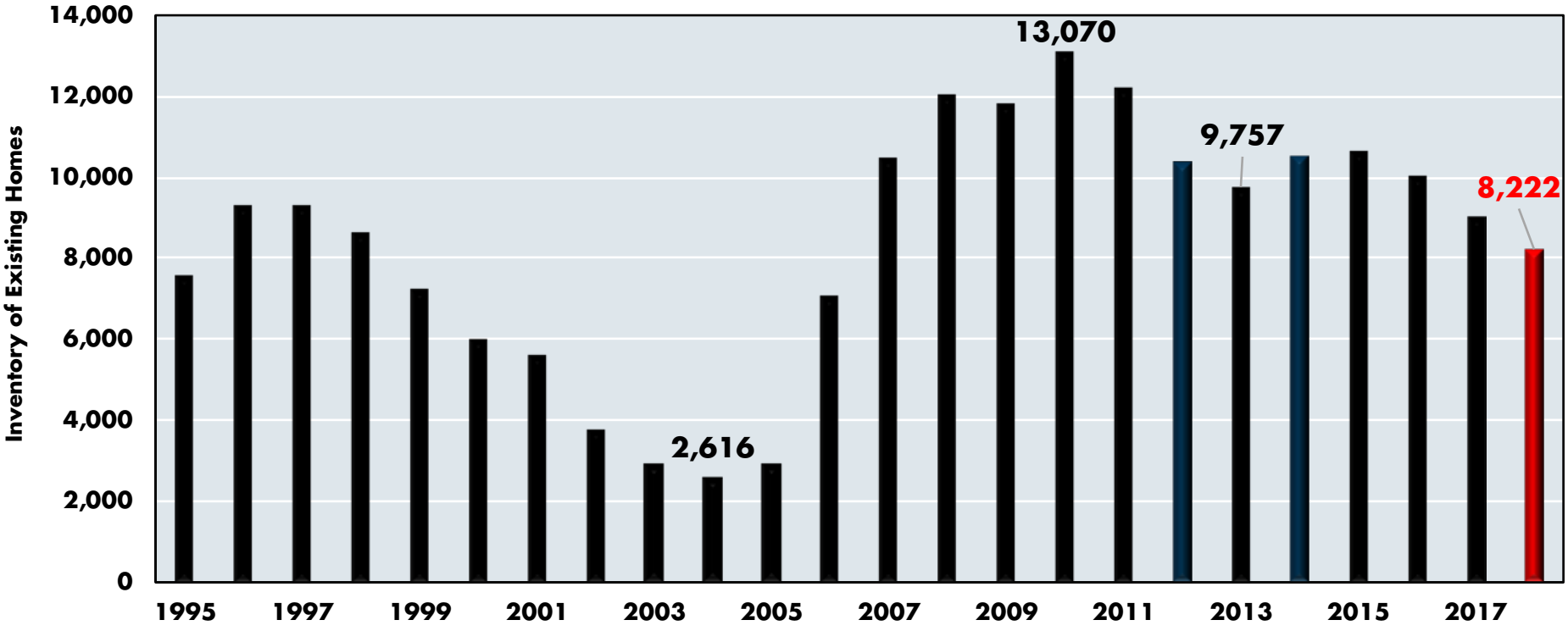
EXISTING RESIDENTIAL HOMES SOLD AND AVERAGE DAYS ON THE MARKET: HAMPTON ROADS, 2000-2017



Sources: Real Estate Information Network and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Information deemed reliable but not guaranteed. Days on Market is calculated from the date listed to the date under contract for existing homes sold.

GRAPH 23

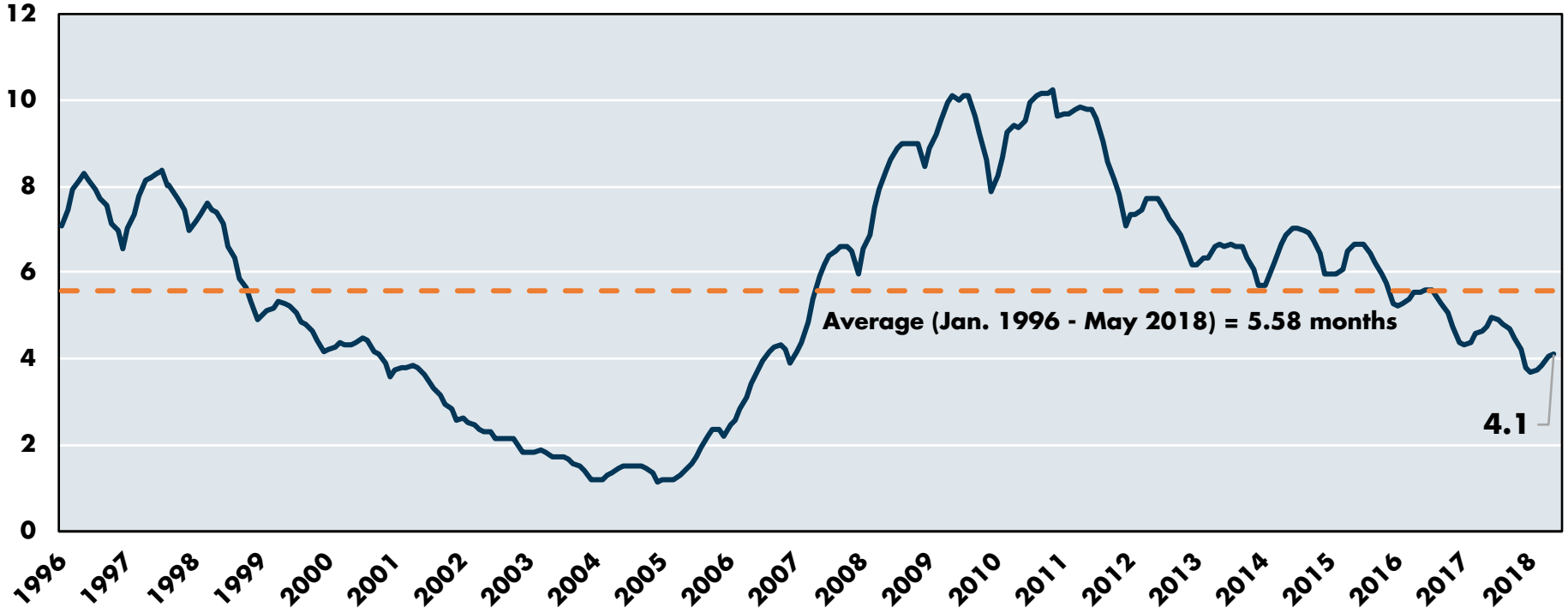
ESTIMATED INVENTORY OF EXISTING RESIDENTIAL HOMES AS MEASURED BY ACTIVE LISTINGS ON MAY 31 OF EACH YEAR: HAMPTON ROADS, 1995–2018



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

GRAPH 24

ESTIMATED MONTHS OF SUPPLY OF ALL EXISTING HOMES IN HAMPTON ROADS: BASED ON AVERAGE SALES IN THE LAST 12 MONTHS, JANUARY 1996 – MAY 2018



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

Housing: Distressed Homes Continue To Decline

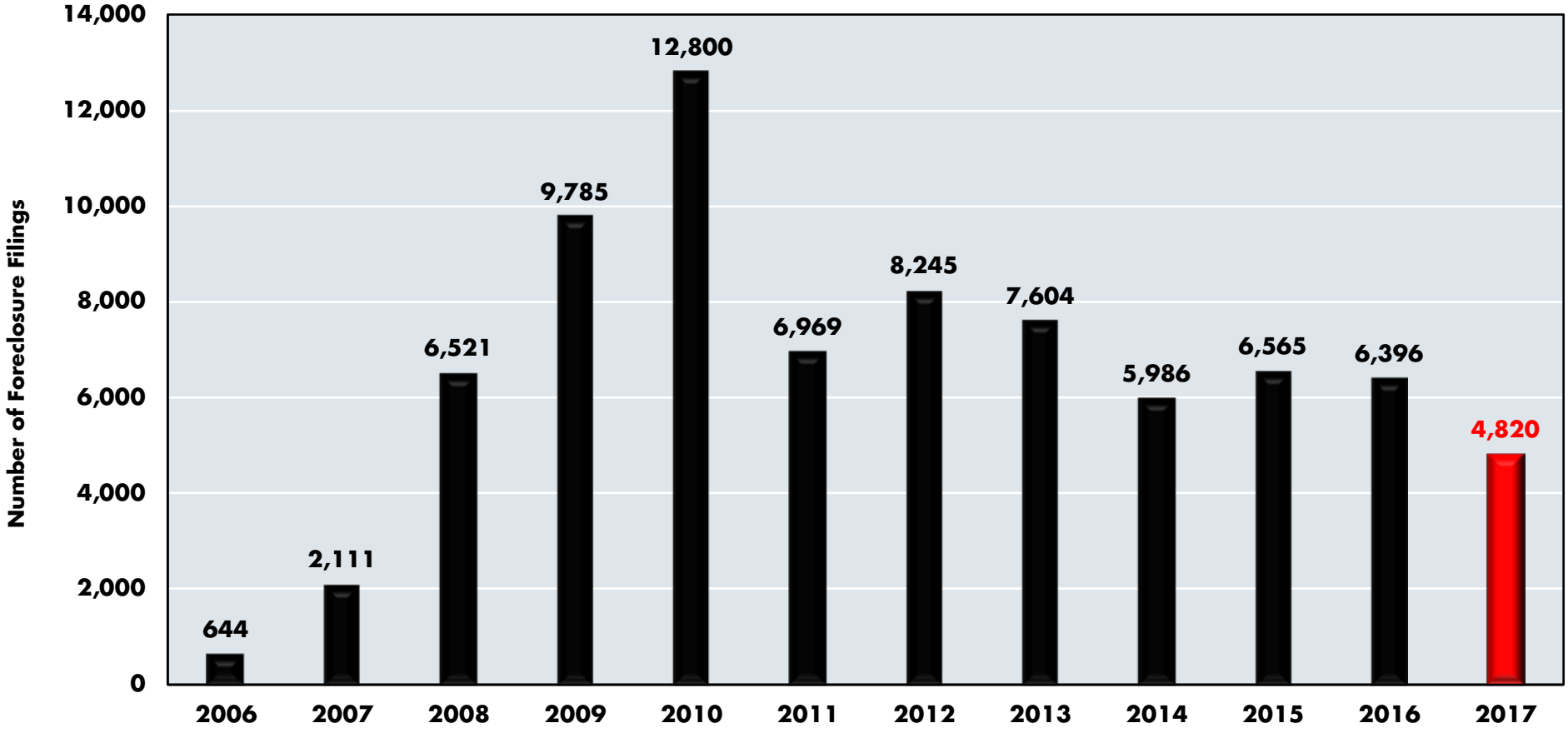
A welcome development and a sign of an improving Hampton Roads economy is the continued decline in residential foreclosure filings (Graph 25). The impact of the Great Recession was evident with the rapid climb of foreclosure filings, from 644 in 2006 to 12,800 by 2010. However, in 2017, foreclosure filings were only 38 percent of their peak 2010 level and declined by almost 1,600 filings between 2016 and 2017. Even so, foreclosure filings in 2017 remained more than twice as high as in 2007, suggesting that some homeowners continue to experience economic difficulties.

A distressed residential real estate property is one that is sold in a short sale, or which is a bank-owned property. In June 2008, the number of distressed listings in Hampton Roads was 606, rising over 500 percent to a peak of 3,224 in November 2010. Since then, we have observed a steady decline in listings of distressed properties, to 872 in May 2018 (Graph 26). The decline in listings is an indicator of the improving health of the single-family residential real estate market in Hampton Roads.

Distressed properties sell at substantial discounts and depress growth in residential sales prices. As shown in Table 4, in 2017, the average short-sale home sold for only 65 percent of the median sales price of a nondistressed property. A bank-owned (REO) property sold for only 50.1 percent. As distressed properties clear, discounts will become less common and median prices will rise.

GRAPH 25

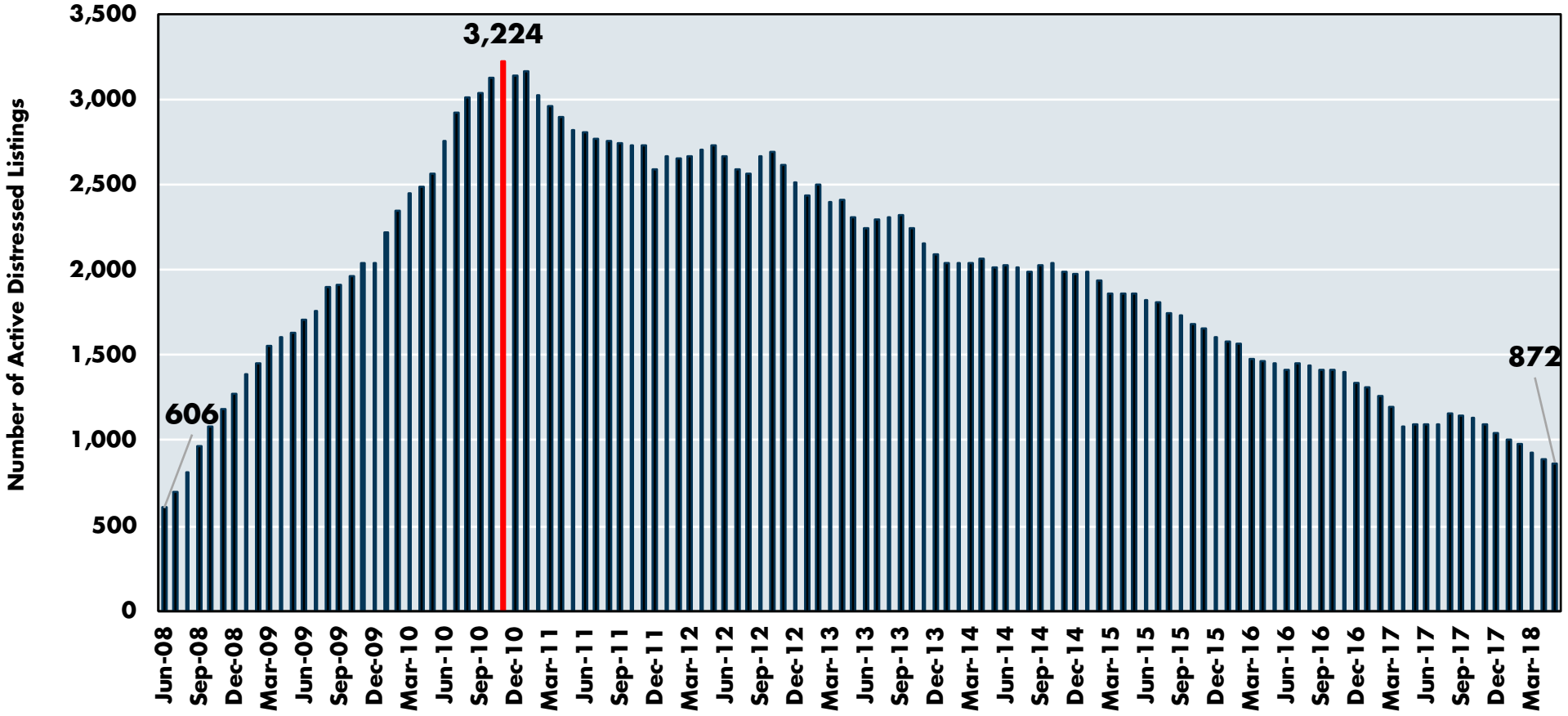
HAMPTON ROADS RESIDENTIAL FORECLOSURE FILINGS, 2006-2017



Sources: Attom Data Solutions, formerly known as RealtyTrac, and the Dragas Center for Economic Analysis and Policy, Old Dominion University

GRAPH 26

NUMBER OF ACTIVE LISTINGS OF DISTRESSED HOMES (REO AND SHORT SALES): HAMPTON ROADS, JUNE 2008 – MAY 2018



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

TABLE 4

AVERAGE PRICE OF EXISTING NONDISTRESSED, SHORT SALE AND REO RESIDENTIAL HOMES SOLD IN HAMPTON ROADS, 2006-2016

Year	Nondistressed Sales	Short Sales	Short Sales Price % Nondistressed Price	REO Sales	REO Price % Nondistressed Sales
2006	$250,254	$241,666	96.6	$120,817	48.3
2007	$261,723	$237,897	90.9	$163,421	62.4
2008	$255,852	$239,110	93.5	$184,462	72.1
2009	$243,902	$239,913	98.4	$164,229	67.3
2010	$251,572	$231,211	91.9	$151,612	60.3
2011	$236,358	$212,967	90.1	$135,304	57.3
2012	$237,215	$187,527	79.1	$134,535	56.7
2013	$245,344	$180,001	73.4	$131,644	53.7
2014	$244,940	$171,745	70.1	$128,242	52.4
2015	$251,941	$174,577	69.3	$130,959	52.0
2016	$254,815	$171,432	67.3	$131,143	51.5
2017	$258,431	$167,926	65.0	$129,501	50.1

Sources: Real Estate Information Network and the Dragas Center for Economic Analysis and Policy, Old Dominion University. Information deemed reliable but not guaranteed. Distressed homes are bank-owned or short-sale homes.

Housing Affordability

A traditional part of the American dream is owning your own home, though some question whether this dream is still attainable during periods of rising housing prices and slow wage growth. Yet, interest rates remain historically low and the residential housing market in Hampton Roads is surprisingly affordable, especially compared to Northern Virginia. Let's look at the numbers.

Table 5 compares the cost of renting a three-bedroom home to the cost of owning a three-bedroom home in Hampton Roads. We include as ownership costs the typical monthly principal, interest and taxes paid for the median-priced three-bedroom and compare this total to the cost of renting the same. The ratio of ownership costs to rental costs is recorded in the last column of Table 5. One can see that the 2017 ratio was 1.26, indicating that renting was approximately 26 percent more expensive than owning. While this ratio is not quite as high as it was in 2013, it still represents a historically favorable circumstance for owning rather than renting.

How does Hampton Roads fare when compared to the United States? Graph 27 examines the median price of a home compared to median income. As housing becomes more expensive, the percentage of income needed to own a home will increase unless incomes grow at the same rate. In 1979, householders with median income in Hampton Roads would have paid 36 percent of their income for housing, but in 2017 they only needed to pay 20.2 percent of their income. As a percentage of income, housing in Hampton Roads is less expensive today than it was 10 or even 20 years ago. Households in Hampton Roads also pay less for housing as a percentage of their incomes relative to the median household in the United States, illustrating that our region is an affordable place to own a home.

TABLE 5

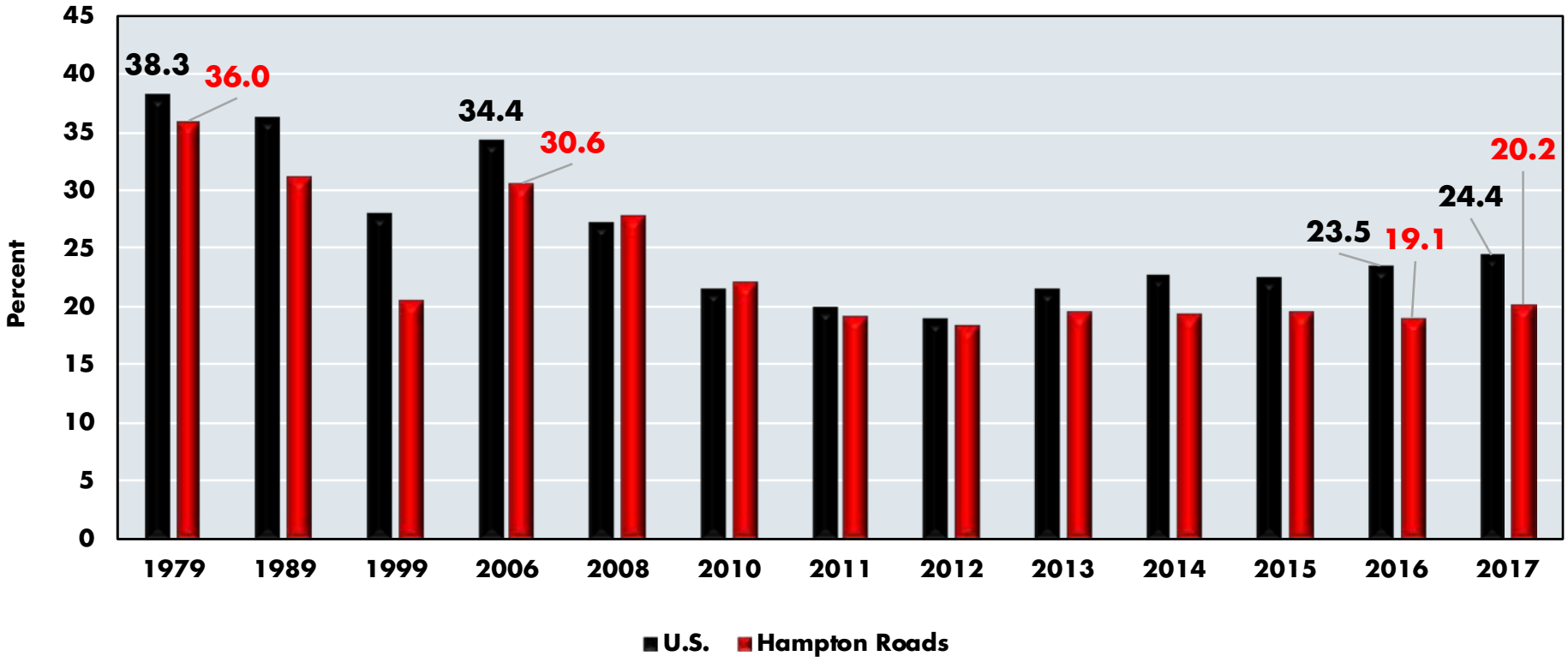
ESTIMATED HOUSE RENTAL AND PRINCIPAL, INTEREST AND TAXES FOR A HOUSE PAYMENT IN HAMPTON ROADS, 2003-2017

Year	Median Monthly Rent for a Three-Bedroom House	PI&T Monthly for a Median-Priced Existing House	Ratio of Monthly Rent to PI&T
2003	1,037	890	1.16
2004	1,044	1,073	0.97
2005	1,087	1,315	0.83
2006	1,118	1,533	0.73
2007	1,164	1,598	0.73
2008	1,247	1,507	0.83
2009	1,236	1,307	0.95
2010	1,277	1,233	1.04
2011	1,319	1,071	1.23
2012	1,454	1,015	1.43
2013	1,570	1,080	1.45
2014	1,562	1,118	1.40
2015	1,530	1,154	1.33
2016	1,601	1,163	1.38
2017	1,577	1,254	1.26

Sources: U.S. Department of Housing and Urban Development and the Dragas Center for Economic Analysis and Policy, Old Dominion University. It is assumed that the real estate tax rate is 1% and the tax reduction received by homeowners would compensate for homeowners' insurance and maintenance expenditures. The prevailing 30-year average mortgage rate is used for each year. For example, the rate used for 2015 is 3.85 percent, for 2016 it is 3.65 percent and for 2017 it is 4.00 percent.

GRAPH 27

HOUSING AFFORDABILITY
MONTHLY PAYMENT FOR A MEDIAN-PRICE RESALE HOUSE AS A PERCENT OF MEDIAN HOUSEHOLD MONTHLY INCOME: HAMPTON ROADS AND THE U.S., 1979-2017



Source: The Dragas Center for Economic Analysis and Policy, Old Dominion University. The prevailing 30-year average mortgage rate is used for each year. For example, rate used for 2015 is 3.85 percent, for 2016 it is 3.65 percent and for 2017 it was 4.00 percent.

The Hotel Industry

The hotel industry in Hampton Roads has transformed itself in the aftermath of the Great Recession. From 2004 to 2010, hotel room supply increased by 16.8 percent, peaking in 2010 (Graph 28). Since 2010, the supply of hotel rooms has declined by 7.1 percent, while the number of occupied hotel rooms increased by 10.2 percent. A consequence of decreasing supply and increasing occupancy is that nominal hotel revenue increased by 5.9 percent in 2015, 6.7 percent in 2016 and 4.8 percent in 2017 (Graph 29). After adjusting for the effects of inflation, these increases are somewhat more moderate, but hotel revenue in real terms in 2017 was 0.5 percent above the 2007 level, a historical high. With improving economic conditions, real hotel revenue should continue to increase in 2018 even though the rise of short-term rentals continues to pressure some properties.

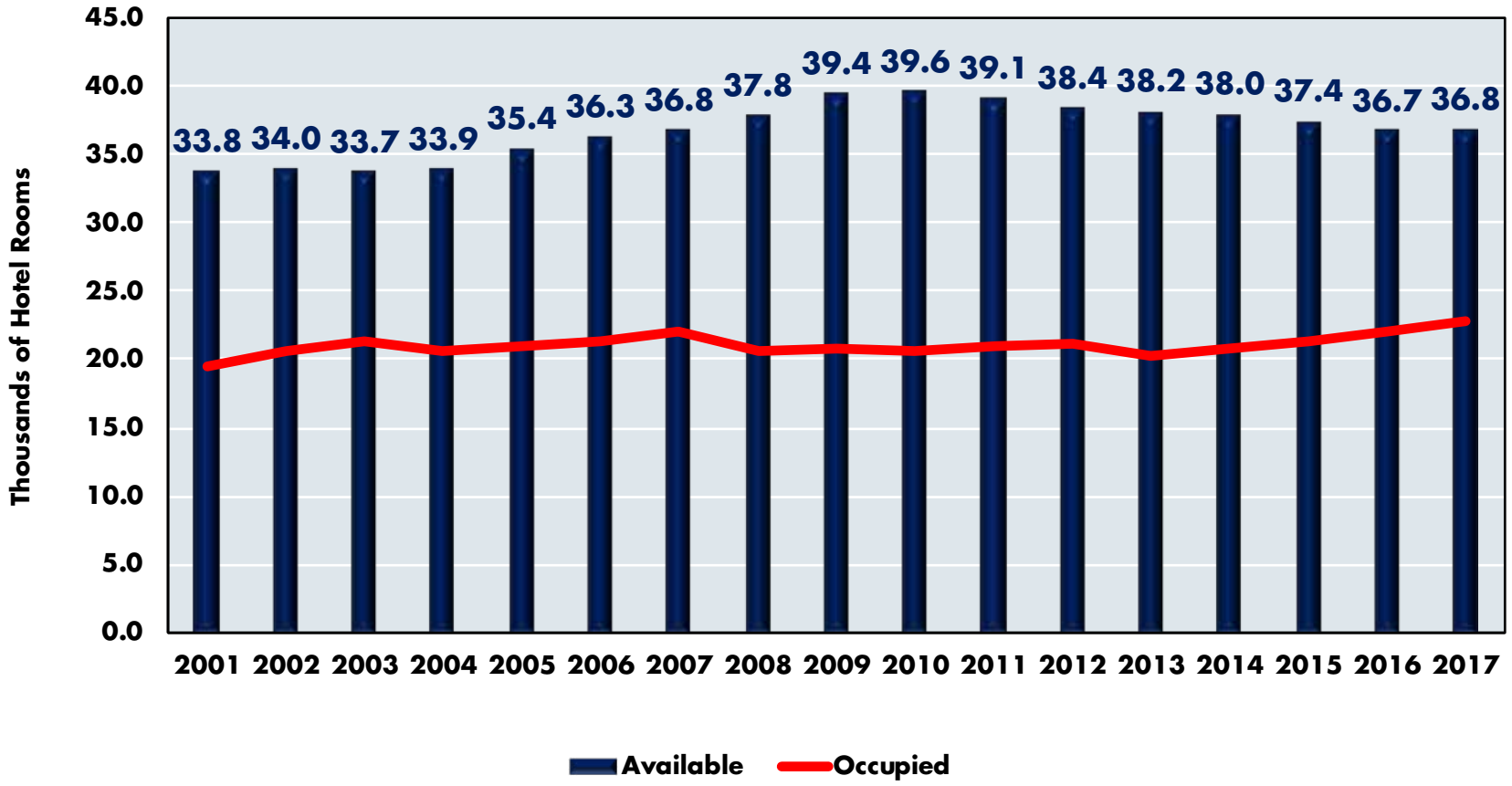
The regional geographic submarkets in Hampton Roads have diverged in terms of their performance in recent years. Let's initially look at the Norfolk-Portsmouth market. Between 2016 and 2017, hotel revenue in this submarket grew by 14.4 percent (Graph 30). The opening of The Main in Norfolk not only raised the competitive bar, but also increased hotel revenues. The other submarkets also saw healthy growth in hotel revenues, with the exception of Williamsburg.

If we measure market share as a percentage of hotel revenues, then Virginia Beach emerges as the clear winner from 2000 to 2017. In 2000, Virginia Beach held a 34 percent market share of total hotel revenues in Hampton Roads (Table 6). By 2017, it had increased its share to 39.6 percent. The Chesapeake-Suffolk submarket also increased its share from 7.5 percent in 2000 to 12.8 percent in 2017. Over this time period, the market share of Newport News-Hampton increased, while that of Norfolk-Portsmouth declined slightly. The market share of Williamsburg, a market that includes the Historic Triangle, declined 11 percentage points between 2000 and 2017.

Hotel revenues reflect a variety of factors. For example, when older hotels are replaced with higher-quality new hotels, this ordinarily results in increased revenues, even though the total number of rooms may not have changed.

GRAPH 28

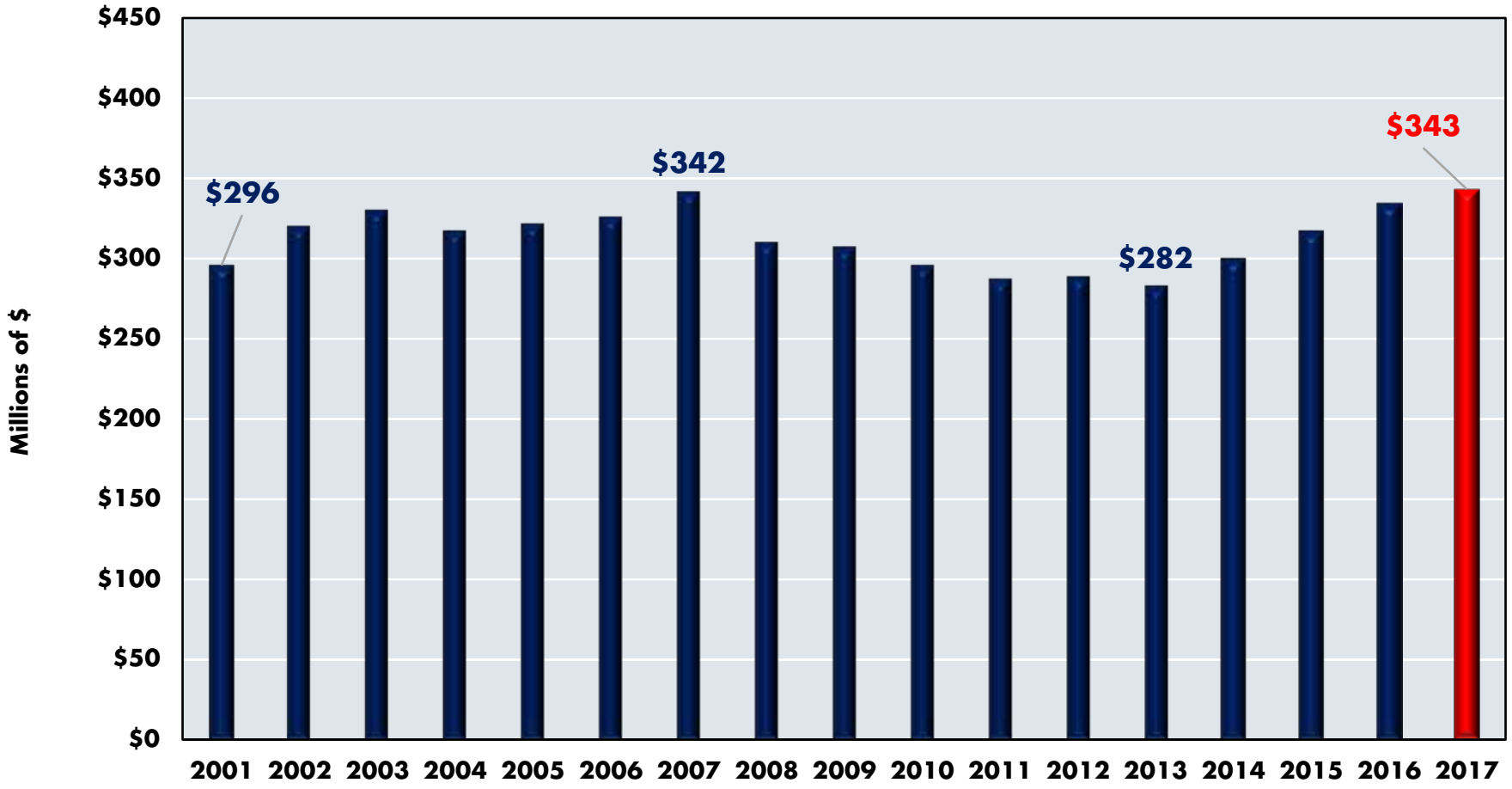
AVAILABLE AND OCCUPIED HOTEL ROOMS: HAMPTON ROADS, 2001-2017



Sources: STR Trend Report, Jan. 22, 2018, and the Dragas Center for Economic Analysis and Policy, Old Dominion University

GRAPH 29

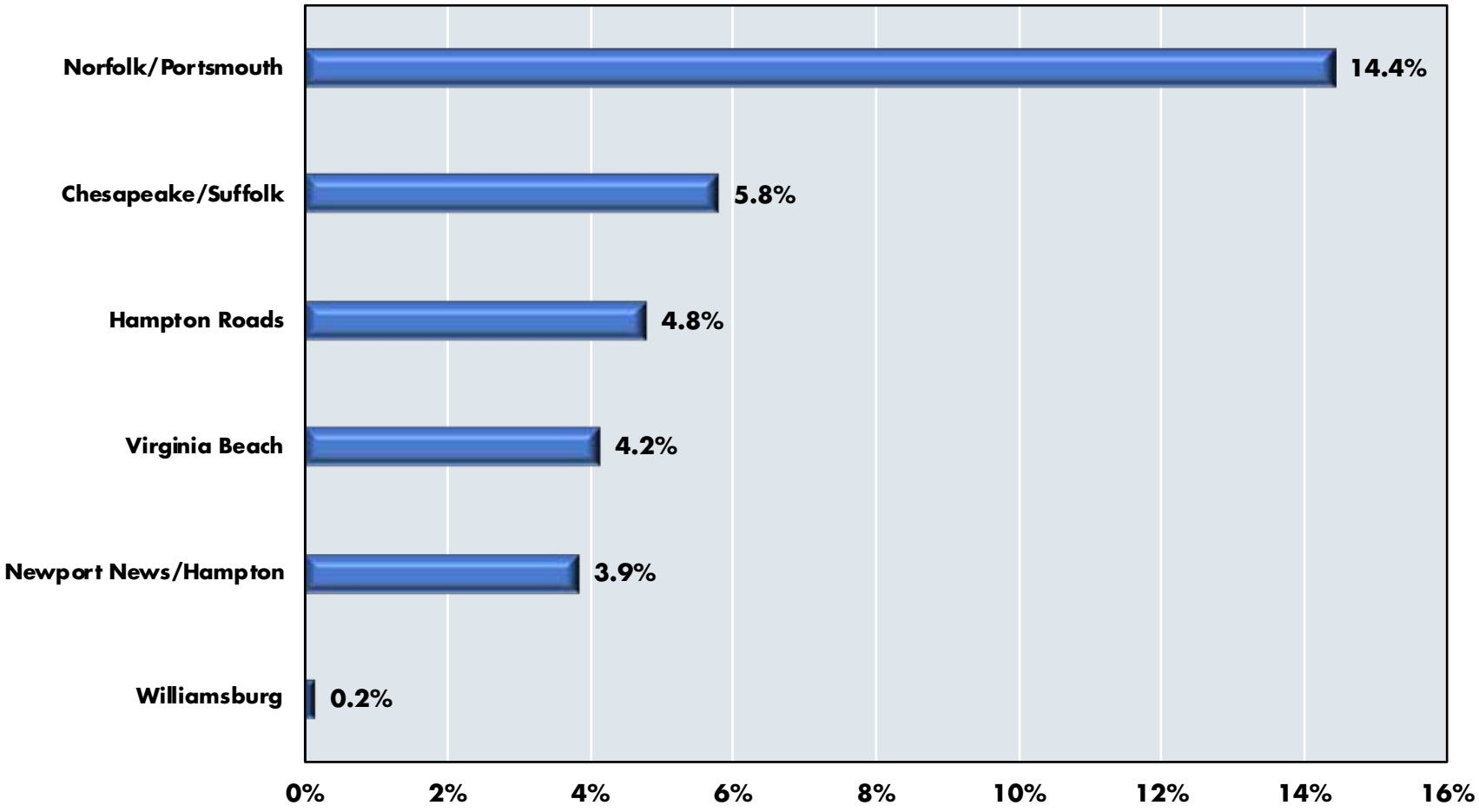
REAL HOTEL REVENUE: HAMPTON ROADS, 2001-2017



Sources: STR Trend Report, Jan. 25, 2017, Jan. 22, 2018, Bureau of Labor Statistics and the Dragas Center for Economic Analysis and Policy, Old Dominion University

GRAPH 30

PERCENTAGE CHANGE IN HOTEL REVENUE: HAMPTON ROADS SUBMARKETS, 2016-2017



Sources: STR Trend Report, Jan. 22, 2018, and the Dragas Center for Economic Analysis and Policy, Old Dominion University

TABLE 6

ESTIMATED MARKET SHARES AS MEASURED BY SHARE OF HOTEL REVENUE: HAMPTON ROADS SUBMARKETS, 2000 AND 2017

	2000	2017
Chesapeake-Suffolk	7.5%	12.8%
Norfolk-Portsmouth	14.7%	13.8%
Newport News-Hampton	13.2%	14.3%
Virginia Beach	34.0%	39.6%
Williamsburg	30.6%	19.6%

Sources: STR Trend Report, Jan. 25, 2017, and Jan. 22, 2018, and the Dragas Center for Economic Analysis and Policy, Old Dominion University

Another measure of the health of the hotel industry is called RevPAR – revenue per available room. RevPAR takes into account both demand and supply influences. If RevPAR is increasing, then hotels are booking more rooms or charging more for occupied rooms, or both. The most useful measure of RevPAR is real RevPAR, which accounts for the effects of inflation. Real RevPAR data can be compared across years.

From 2007 to 2017, real RevPAR in the U.S. increased by 7.9 percent, even while it was declining 4.3 percent in Virginia (Table 7). The news was better for Hampton Roads because real RevPAR increased by 0.4 percent from 2007 to 2017. This signals a recovery of our regional hotel sector from the effects of the Great Recession and federal financial sequestration.

Examining the submarkets in Hampton Roads, Virginia Beach and Williamsburg increased their RevPARs by 7.5 and 4 percent, respectively. Other submarkets saw decreases in RevPAR, especially Chesapeake-Suffolk, where RevPAR decreased 14.8 percent, primarily due to a rapid increase in the supply of hotel rooms.

TABLE 7

REVPAR IN SELECTED MARKETS, 2000 AND 2017

	2007 Nominal RevPAR	2017 Nominal RevPAR	2007-2017 Nominal Growth	2007-2017 Real Growth
United States	$65.54	83.57	+27.5%	+7.9%
Virginia	$61.91	$70.06	+13.2%	-4.3%
Hampton Roads	$52.78	$62.64	+18.7%	+0.4%
Chesapeake-Suffolk	$52.90	$53.28	+0.7%	-14.8%
Norfolk-Portsmouth	$54.05	$59.85	+10.7%	-6.3%
Newport News-Hampton	$41.49	$46.67	+12.5%	-4.9%
Virginia Beach	$64.29	$81.72	+27.1%	+7.5%
Williamsburg	$47.47	$58.34	+22.9%	+4.0%

Sources: STR Trend Report, Jan. 25, 2017, and Jan. 22, 2018, Bureau of Labor Statistics and the Dragas Center for Economic Analysis and Policy, Old Dominion University

Final Thoughts

Each of the pillars of our regional economy is showing signs of improving health. Defense spending is increasing in 2018 and is projected to increase into 2019.

The Port of Virginia continues to shine and is expected to handle a record amount of traffic this year.

The housing sector has continued its moderate recovery from the Great Recession and sequestration, though foreclosures and distressed properties continue to loom over it.

Tourism has grown and each of the hotel submarkets in Hampton Roads saw positive revenue growth in 2017.

Harkening back to Ronald Reagan's campaign commercial, it looks as if a new morning is dawning, as more people are working in Hampton Roads this year than ever before. The challenge now is to sustain and accelerate this growth.

Even with the economic uncertainty resulting from the burgeoning trade conflict between the United States and China (and possibly the European Union, Canada and Mexico), we remain optimistic about prospects for growth for the remainder of 2018 and into 2019. The opportunity exists for Hampton Roads to build upon the lessons learned from the Great Recession and sequestration and to improve collaboration, seek out administrative efficiencies and promote regional development. Yes, our expectations are subject to the usual caveats about economic and political shocks, but it does appear that it is morning again in Hampton Roads.