

Economics Group

Special Commentary

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Virginia Economy Remains Strong

- Virginia’s economy has benefitted in recent years from increased federal government spending as well as improvements in its business climate. CNBC named Virginia the top state for doing business in 2019, a point driven home by Amazon’s selection of Northern Virginia for its HQ2 in November 2018.
- Amazon’s decision validated Virginia’s key strengths: a highly skilled workforce, a large base of tech talent, proximity to Washington, D.C. and a robust higher education system that promises to maintain the pipeline of talent.
- Virginia’s reliance on government, both directly and indirectly through the hundreds of firms that derive a large portion of their business from government contracts, exposes it to policy uncertainty that can swing with election outcomes.
- On the positive side, Virginia’s large government and defense sectors provide a healthy dose of countercyclical stability—the economy tends to fall much less sharply during downturns—while its private sector is strengthening.
- Northern Virginia is home to a critical mass of highly trained and well-educated workers—the D.C. area ranked third in CBRE’s measure of tech talent, trailing just San Francisco and New York City—even before Amazon arrived.
- Richmond’s ties to Northern Virginia are strengthening, helping Virginia’s capital city attract a wide range new business development. Growth along the coast has been more modest but rising defense spending is finally providing a boost to the Norfolk area. Charlottesville and Harrisonburg are also hot spots.
- The state’s rural areas, which lagged for much of this cycle, have outperformed more recently and are increasingly attracting industrial projects due their lower costs and proximity to major markets. This has broadened Virginia’s economic recovery. Demographics, however, remain a formidable hurdle for many rural areas.

Figure 1

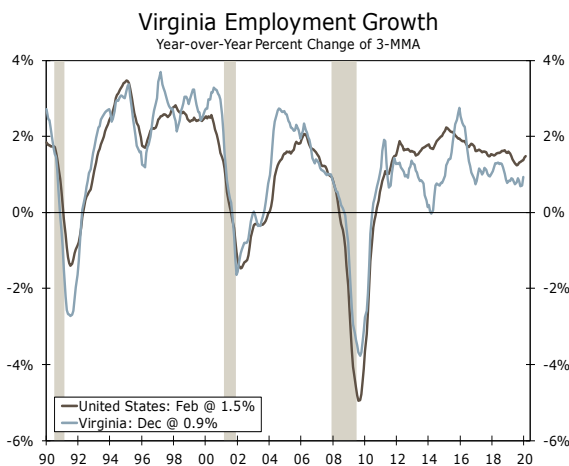
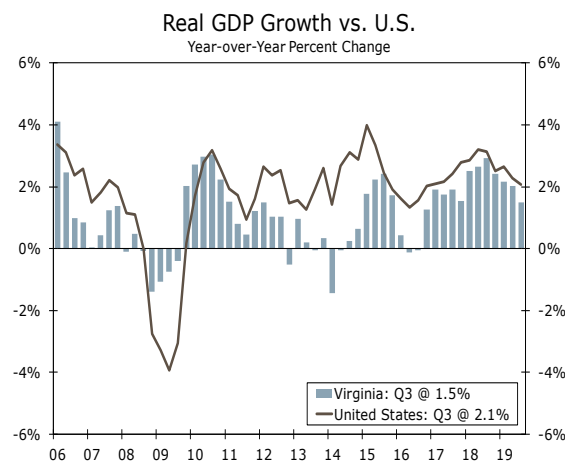


Figure 2



Source: U.S. Department of Labor, U.S. Department of Commerce and Wells Fargo Securities

Together we’ll go far



Northern Virginia Shines on the National Stage

Virginia’s economy has benefitted from increased government spending, following several years of severe fiscal restraint. While overall growth was weighed down by sequestration, the private sector remained incredibly competitive, a point driven home by Amazon’s selection of Northern Virginia for its HQ2 in November 2018 and CNBC naming Virginia as the top state for business in 2019. Virginia’s reliance on government—both directly and indirectly through the hundreds of firms that derive a large portion of their business from government contracts—exposes it to political swings, which have become sharper in recent decades. On the positive side, Virginia’s large government and defense sectors provide a healthy dose of countercyclical stability—the economy tends to fall much less sharply during downturns—while the state’s faster-growing private sector continues to diversify. Virginia’s rural areas, which lagged throughout much of this cycle, have attracted a wide assortment of new industry in recent years, further broadening the state’s economy.

Amazon’s decision validated Virginia’s primary strengths—a highly skilled workforce, a large base of tech talent, proximity to Washington, D.C. and a robust higher education system. In December, Arlington County gave final approval for the construction of Amazon’s twin 22-story towers, which will be the centerpiece of its \$2.5 billion new headquarters, which promises to bring 25,000 high-paying jobs over the next decade to the newly branded ‘National Landing’ area next to Reagan National Airport and across the Potomac River from Washington, D.C. Final approval came 13 months after Amazon’s initial announcement, and ten months after the company decided to pull out of its other planned HQ2 site in New York City, following vocal local opposition.

Northern Virginia has been much more receptive, with both the Arlington Chamber of Commerce and the Northern Virginia Economic Development Alliance voicing strong support, and estimating it will eventually support 47,000 direct and indirect jobs. Business group enthusiasm is perhaps not surprising, but what likely ensured success was the coordination with the local and state governments, which have launched a wave of initiatives to both accommodate and capitalize on the expected growth, as well as Amazon’s commitments to affordable housing funds, daycare provision, local park space and a bevy of other goodwill measures. Moreover, Amazon has long had a significant presence in the D.C. area, which is a critical hub of internet infrastructure.

Amazon’s decision validated Virginia’s primary strengths.

Figure 3

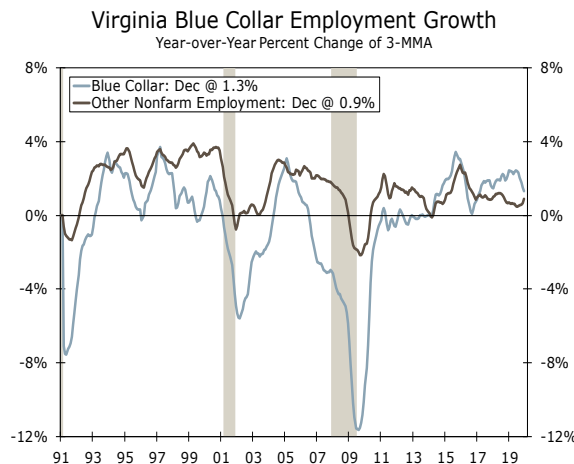
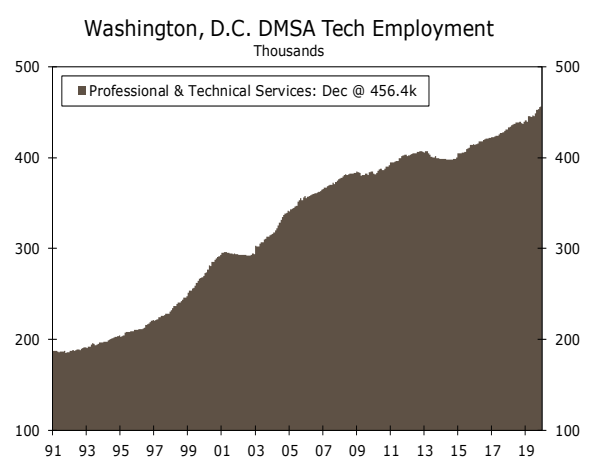


Figure 4



Source: U.S. Department of Labor and Wells Fargo Securities

The centerpiece of Virginia’s proposal was education and infrastructure investment. The state promised \$375 million to help fund George Mason University’s expanding Arlington campus and Virginia Tech’s nearby new \$1 billion Innovation Campus, with the goal of producing 30,000 additional tech graduates over the next two decades. A year later, the state has appropriated \$168 million to Virginia Tech and just \$7.5 million to George Mason, which requested \$250 million and \$125 million, respectively. The state has also promised to invest more in K-12 tech education, with many public high schools and even elementary schools now offering coding classes.

Infrastructure and education are key tenets of Northern Virginia’s plan.

These graduates and the growing mass of young, educated talent coming to the region to work for Amazon will surely spill over and enhance the region’s other tech and professional services industries. In fact, Washington, D.C. ranked third in CBRE’s measure of tech talent, behind only San Francisco and New York City, even before any Amazon engineers or programmers arrived. Northern Virginia is home to a growing array of private headquarters which have diversified its economy away from government, including: Capital One (whose 31-story Tysons Corner tower which opened in 2018 is the tallest in the D.C. region), Freddie Mac, Strategic Investment Group, Accenture, Booz Allen Hamilton, CACI, General Dynamics, Northrup Grumman, Appian, Applied Predictive Technologies, VeriSign, Gannet Company, Politico, Hilton and Interstate Van Lines.

Growth in the private sector has helped to fill the holes left behind by a shrinking government sector—in fact, one reason Amazon chose Crystal City was the large stock of commercial real estate left vacant after federal agencies consolidated or moved away. Many of these private firms derive the bulk of their business from government contracts, suggesting government dependency is perhaps an inevitable feature of an economy so close to the nation’s capital. Northern Virginia’s share of the Virginia economy has steadily risen over the past three decades, reflecting both a push of government agencies into outlying areas and the explosive growth of federal government contractors. Northern Virginia accounts for 36% of nonfarm employment and 35% of its population, up from 30% and 28% in 1990, respectively.

Northern Virginia’s share of the economy has risen.

In terms of infrastructure, the state committed up to \$195 million in transportation funding, with more contingent on the number of jobs Amazon creates, while Arlington County promised \$360 million in infrastructure investment, which should ease congestion around Reagan National Airport. Perhaps the most significant regional infrastructure initiative at the moment, however, is Phase 2 of the Metro Silver Line Dulles Corridor Project. The \$2.8 billion project will link Washington, D.C. and suburban Maryland to Dulles International Airport and fast-growing Loudon County. Phase 1, which was completed in 2014, extends to Reston, while Phase 2 will extend to Herndon, Dulles, Loudoun and Ashburn. The completion date is unknown, with developers suggesting 2021. Virginia policymakers have also begun to explore extension of the Blue Line into Prince William County, to ease congestion along the I-95 corridor.

Figure 5

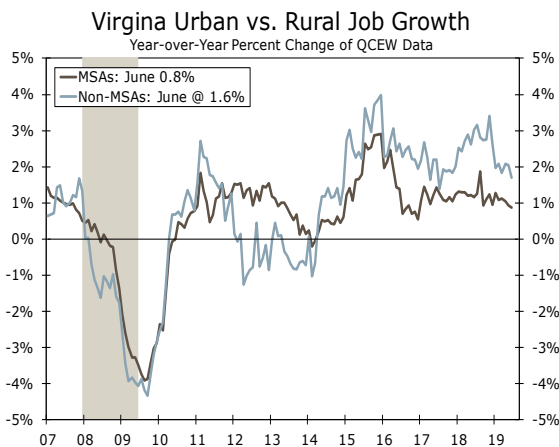
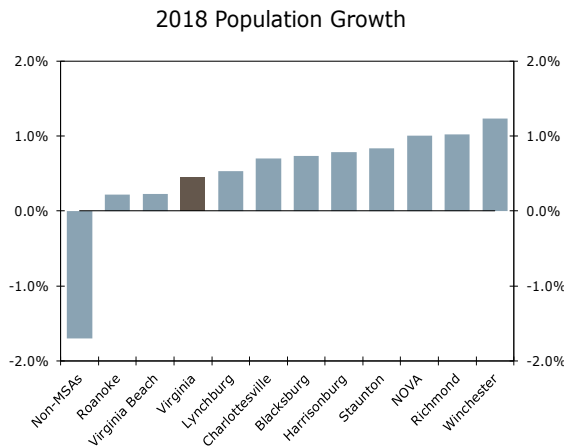


Figure 6



Source: U.S. Department of Commerce, U.S. Department of Labor and Wells Fargo Securities

While Amazon’s HQ2 will be adjacent to Reagan Airport, a chunk of its Amazon Web Services data centers are located near Dulles, in an area known as “Data Center Alley.” Indeed, an estimated 70% of global internet traffic flows through this wooded, suburban area, which got its start in the 1990s due to relatively affordable land and utilities, as well as the presence of AOL and MCI WorldCom. Development accelerated in 2014, as local governments targeted data centers as a tool of economic development. It took off further as data usage and creation surged with the proliferation of cloud computing applications and as Facebook, Google and other tech giants raced to expand their

Much of the internet flows through Northern Virginia.

capacity. The demand for cloud computing infrastructure shows no signs of slowing down and the proliferation of data centers should remain a major asset for Virginia.

Rural Areas Have Outperformed

Despite the publicized success of Northern Virginia, the state’s rural areas have posted stronger job growth than the urban areas for the past five years. This reflects some catch-up from earlier underperformance as well as a growing desire of firms to seek out lower operating costs and a greater ease of doing business. Using QCEW data, through June of last year, the counties in Virginia that are not part of any Metropolitan Statistical Area (MSA) saw employment rise 1.6% year-over-year, compared to just 1.2% across the state’s 10 MSAs. This outperformance has persisted since around 2014 (Figure 5), and contradicts narratives of the growing dominance of large metro areas. Still, many of these economies are agriculture- or manufacturing-focused, both of which have come under pressure from the trade war and slowing global growth. Rising labor costs may also become a larger concern, with labor markets across the state very tight. Virginia’s unemployment rate is just 2.7%, and skilled labor is increasingly hard to find.

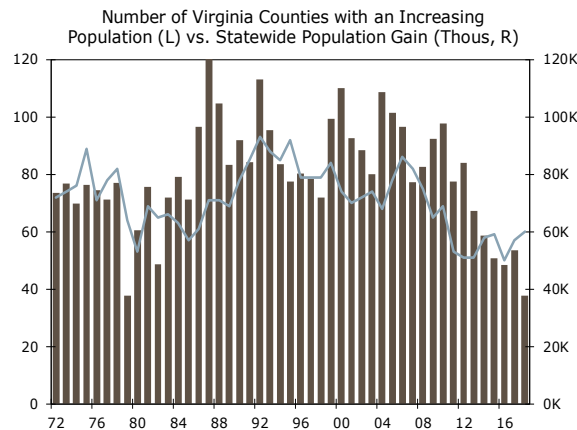
Wytheville, located near the intersection of I-81 and I-77, is a notable bright spot in Virginia’s rural landscape. The Virginia Crossroads region, which includes Wytheville, Marion, Bland and Galax, has long been home to a cluster of manufacturers including General Dynamics, ABB, Sonic Automotive and Pepsi Bottling Company. General Dynamics produces radomes, which are coverings for radar, navigation and satellite systems mounted to aircraft, in Marion, while ABB produces power transformers in Bland. In addition, PepsiCo has their largest East Coast Gatorade plant in Wytheville. The facility employs 200 workers and has also attracted an Amcor PET Packaging plant that supports another 200 jobs. The six-county Virginia Crossroads area currently boasts a jobless rate of just 3.6%.

Population growth has been sluggish across Virginia this past decade, likely reflecting the persistent drag on the federal budget wrought by sequestration. Rural areas in particular are losing population. In 2018, all of Virginia MSAs saw their population increase, while the non-MSA counties saw their population fall nearly 2% (Figure 6). This makes it more difficult to fill skilled occupation job openings. Despite the overall population still rising, the number of counties posting population gains has dwindled (Figure 7), as residents are clustering in a relative handful of rapidly growing areas. Of the state’s 104 counties, only 60 saw population gains in 2018.

Rural areas have done well...

...despite a contracting population.

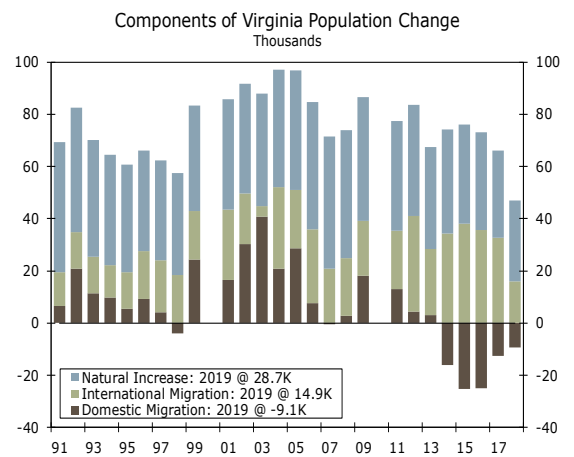
Figure 7



Source: U.S. Department of Commerce and Wells Fargo Securities

Virginia’s other large metro areas have had varying degrees of success. Hampton Roads, the second largest MSA in the state, has had trouble attracting and retaining firms in rapidly-growing industries. Government is the largest sector—nearly 20% of all workers—but payrolls in that sector are down nearly 2% year-over-year. Professional & business services and trade & transportation employment is also declining. Defense is tremendously important to the region, which is home to one of the largest combined military installations in the world. Norfolk is a major hub for the Navy’s

Figure 8



shipbuilding, and Newport News Shipbuilding is one of the region’s largest employers, with over 20,000 workers building ships, aircraft carriers and submarines. The Norfolk Naval Shipyard employs another 14,000, most of which are involved in repairing and maintaining ships and submarines. The Naval yard recently embarked on a \$200 million upgrade to one of its dry docks.

The Port of Virginia is another major source of jobs, with a recent study by the Port estimating it supports more than 500,000 across the state. Direct employment is a tiny fraction of that, but the Port has driven extensive warehouse and distribution center development and fueled growth in the transportation sector. The Port has benefited from a secular shift in traffic to East Coast ports, following the expansion of the Panama Canal in 2016. It is the third busiest East Coast port, following New York/New Jersey and Savannah, and has seen a steady rise in volume, which will no doubt come under pressure from coronavirus-related trade disruptions. Overall Hampton Roads payrolls are up just 0.8% year-over-year, while the unemployment rate remains low at 2.9%. Employment did not exceed its pre-recession peak until January 2018.

Hampton Roads was slow to recover.

Richmond, the state capital and third largest MSA, has fared fairly well this expansion, with payrolls up around 13% since 2010 (compared to just 10.7% for the state as a whole), and the leisure & hospitality and education & health sectors the strongest over the past year. Richmond also lays claim to a burgeoning tech sector, which is aiding its diversification away from government, transportation and tobacco. While the downtown area has performed well this expansion—thanks in large part to the growth of Virginia Commonwealth University (VCU) and its expansive health system—Henrico County, which surrounds downtown to the northeast and northwest, has caught a lot of momentum more recently. Henrico County has landed expansions from direct marketing firm Moore (240 jobs), advanced manufacturer ePac Flexible Packaging (35 jobs) and Pharmaceutical Product Development (200 jobs). Overall nonfarm employment has risen 1.6% over the past year, while the unemployment rate has fallen to just 2.6%.

VCU, with 32,000 students, is part of Virginia’s stellar higher education system, along with George Mason University in Fairfax (35,000 students), Virginia Tech in Blacksburg (31,000), Old Dominion in Norfolk (24,000), the University of Virginia in Charlottesville (24,000), James Madison in Harrisonburg (19,000), Liberty in Lynchburg (15,000 on-campus), Radford (9,000) and William & Mary in Williamsburg (8,000). Higher education is a key competitive advantage for Virginia, providing a steady stream of graduates to employers throughout the state.

Virginia has a lot of great universities.

Virginia in an Election Year

Virginia is exposed to changing political winds, both internal and external. In 2018, Democrats took full control of state government for the first time in over 20 years, by flipping narrow Republican majorities in the Senate and House of Delegates. Democratic Governor Ralph Northam has seized on the leftward shift of many formerly GOP-leaning suburban districts, particularly in Northern Virginia, by attempting to enact some sweeping legislative reform. There are, however, still large

Figure 9

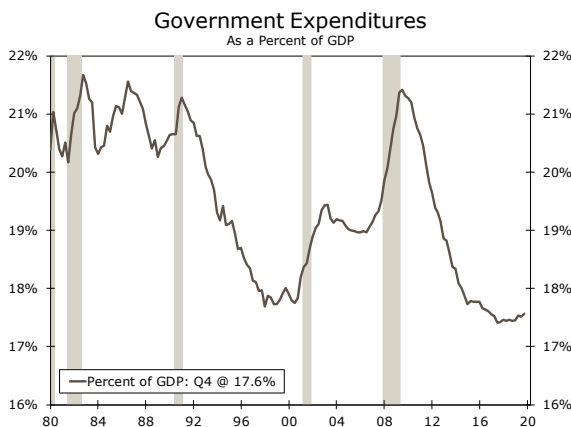
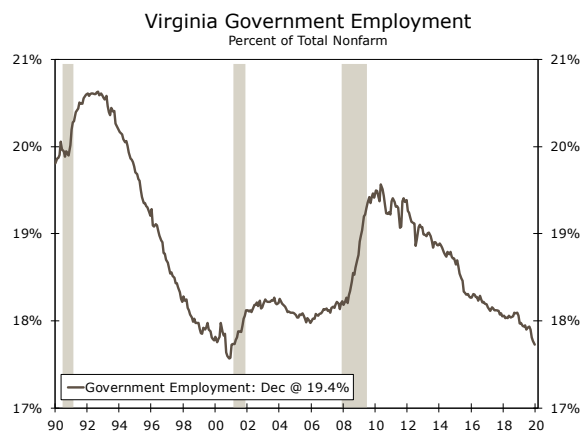


Figure 10



Source: U.S. Department of Commerce, U.S. Department of Labor and Wells Fargo Securities

swathes of Virginia that are fairly conservative, and the new progressive push emanating from Richmond has been met with considerable resistance. Most notable was the major January gun rights rally in Richmond, when thousands turned out to protest vastly more restrictive gun control. The increase in divisiveness in the statehouse and associated policy uncertainty may give some firms pause about expanding, but Virginia's business climate remains extremely favorable overall.

With its heavy reliance on federal spending, Virginia clearly could get a major boost or drag depending on the new federal administration's policies. Bernie Sanders aims to massively expand the scope of the federal government, which would benefit Virginia's economy to a first approximation. But he also seeks to dramatically restructure it, including reducing defense spending, which would hamper Hampton Roads and Northern Virginia. A Biden administration might look similar to the Obama years, although sequestration, which severely impacted the Virginia economy in 2013 and 2014, is perhaps less likely to be repeated. A second Trump term would likely mean further increases in military spending and perhaps another attempted round of fiscal stimulus. It is worth noting, however, that the increase in government spending (Figure 9) has not resulted in significant public employment growth (Figure 10). More fundamentally, however, much of the increase in federal spending has gone to government contractors, whose employees are counted in the private sector.

Virginia Outlook

The coronavirus outbreak clouds the outlook for the Virginia and the nation. Fears about the spread of the virus have led to cutbacks in corporate travel, and several trade shows and festivals have been canceled throughout the country. Tourism might also take a hit, although Virginia beaches' peak season comes later in the year, when temperatures will be higher and fears about Covid-19 will hopefully be lower. Visits to Virginia historic sites should be less impacted, although some schools may opt to postpone trips to Washington D.C.

Our previous 2020 forecast for Virginia was fairly cautious. We expected real GDP growth to rise 2.3% in 2020 and nonfarm employment to rise 1.1%. The modest gains reflected the state's sluggish demographics and already tight labor market. Our sense is that our forecast was too cautious then but may be about right now given the threat from the Covid-19 outbreak. Supply disruptions will likely impact port traffic and possibly slow manufacturing activity this spring, while a pullback in business and leisure travel will negatively impact the hospitality sector. The state's economy had a bit more momentum going into the outbreak, however, and that should provide some resilience. We are currently looking for nonfarm employment to rise 1.1% this year and for personal income to climb 4.2%. Real GDP growth should rise 2.0% for the year and the unemployment rate should remain exceptionally low, somewhere between its current level and 3%.

| Virginia Economic Outlook | | | | | | | | |
|---|---------|---------|---------|---------|---------|----------|---------|---------|
| | Actual | | | | | Forecast | | |
| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| Real Gross Domestic Product by State, \$ Millions | 445,869 | 454,953 | 456,676 | 464,793 | 477,006 | 486,283 | 496,000 | 506,925 |
| Annual Rate | -0.2% | 2.0% | 0.4% | 1.8% | 2.6% | 1.9% | 2.0% | 2.2% |
| Nominal Personal Income, \$ Millions | 421,875 | 442,331 | 450,870 | 468,177 | 492,313 | 505,800 | 527,100 | 550,300 |
| Nominal Personal Income, Percent Change | 4.6% | 4.8% | 1.9% | 3.8% | 5.2% | 2.7% | 4.2% | 4.4% |
| Real Median Household Income, \$ | 70,239 | 65,169 | 69,535 | 72,537 | 77,151 | 80,083 | 82,325 | 84,466 |
| Population, Thousands | 8,311 | 8,362 | 8,410 | 8,464 | 8,501 | 8,536 | 8,591 | 8,651 |
| Change in thousands | 59 | 51 | 48 | 53 | 38 | 34 | 55 | 60 |
| Percent Change | 0.7% | 0.6% | 0.6% | 0.6% | 0.4% | 0.4% | 0.6% | 0.7% |
| Nonfarm Employment, Thousands | 3,783 | 3,859 | 3,914 | 3,956 | 4,001 | 4,035 | 4,079 | 4,130 |
| Change in thousands | 21 | 76 | 55 | 41 | 45 | 34 | 44.4 | 50.6 |
| Percent Change | 0.6% | 2.0% | 1.4% | 1.1% | 1.1% | 0.9% | 1.1% | 1.2% |
| Unemployment Rate, Annual Average | 5.2% | 4.5% | 4.1% | 3.7% | 3.0% | 2.8% | 2.8% | 2.8% |
| Total Housing Permits | 28,762 | 30,033 | 31,067 | 33,417 | 31,784 | 33,452 | 34,000 | 34,200 |
| Single-Family Permits | 19,134 | 20,594 | 21,314 | 23,266 | 21,139 | 20,543 | 23,000 | 23,600 |
| Multi-Family Permits | 9,628 | 9,439 | 9,753 | 10,151 | 10,645 | 12,909 | 11,000 | 10,600 |
| FHFA Home Price Index, Percent Change | 2.6% | 2.9% | 2.7% | 3.4% | 4.1% | 4.6% | 4.7% | 4.8% |

Sources: National Association of Realtors, Federal Housing Finance Authority, U.S. Department of Commerce, U.S. Department of Labor, Moody's Analytics & Wells Fargo Securities
Forecast as of: March 10, 2020

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