THE NORTH CAROLINA ECONOMIC OUTLOOK, 1st QUARTER 2021

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EIGHT NORTH CAROLINA ECONOMIC HEADLINES FOR 2020 AND 2021

1. **North Carolina's economy grew faster than the nation's in the third quarter of 2020, putting the state on track for a faster path to full recovery.**

2. **Federal financial aid prevented real (inflation-adjusted) personal income per capita in North Carolina from dropping during the height of the Covid-19 recession.**

3. **Most major economic sectors returned to 98% or more of their pre-pandemic production by the end of the third quarter of 2020. The exception was lodging/food services, which was only at 77% of its pre-pandemic production.**

4. **Likewise, most major economic sectors returned to 90% or above of their pre-pandemic employment by November. The exception, again, was lodging/food services, at 79% of pre-pandemic employment.**

5. **Jacksonville, Burlington, Winston-Salem, Charlotte, and Durham-Chapel Hill reached 93% or more of their pre-pandemic employment by November. In contrast, Asheville, Goldsboro, Hickory, Rocky-Mount, and Wilmington reached only 92% or less of their pre-pandemic employment by November.**

6. **North Carolina is forecasted to return to its pre-pandemic level of aggregate production by the end of 2021.**

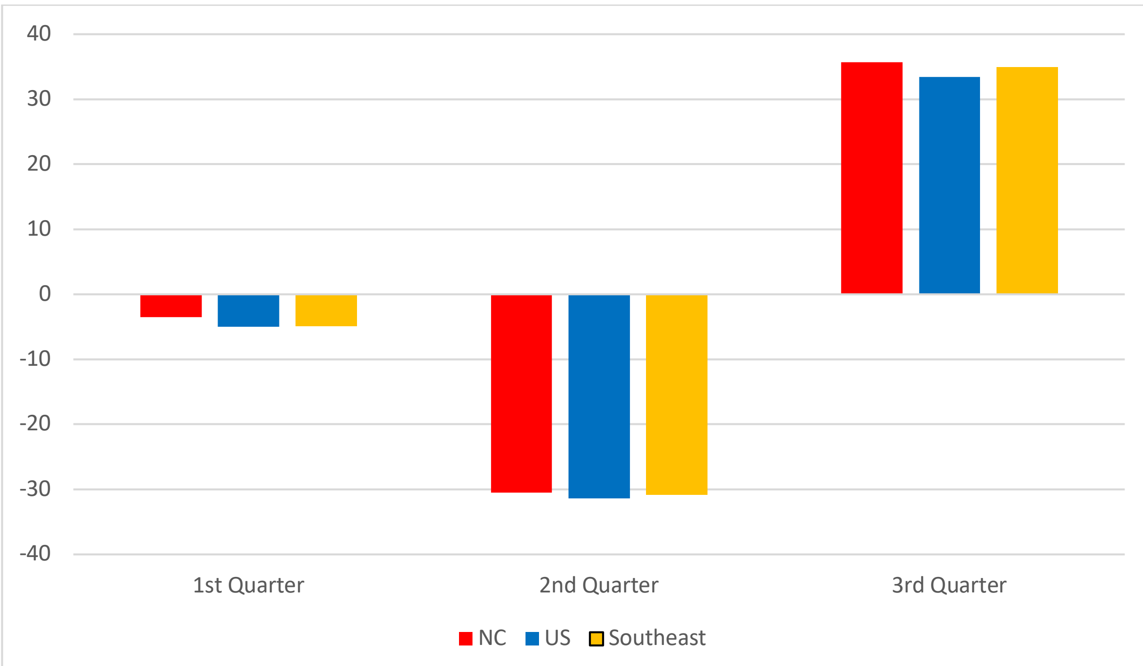
7. **Although the North Carolina unemployment rate is expected to trend lower in the next three years, the jobless rate at the end of 2023 will still be 1.5 percentage points higher than before the pandemic.**

8. **Rebuilding domestic supply chains, accelerating technological unemployment, expanding remote working, expanding tele-medicine and tele-education, and residential shifts away from urban cores will be trends in future years.**

Recession and Recovery

2020 will be remembered as one of the most unusual – and challenging- years in our nation's history. The recession, prompted by shutdowns and stay-at-home orders designed to contain the virus, resulted in record drops in the economy. Fortunately, the reductions were short-lived, and by the end of 2020 the economy had already recovered much of what it had lost earlier in the year. With multiple vaccines being developed and deployed, there is increasing optimism economic production will make a full recovery by the end of 2021. However – and this point needs to be emphasized – the post-pandemic economy will be different than the pre-pandemic economy in several important ways.

Figure 1. Annualized Change in Real Gross Domestic Product by Quarter, 2020 (%).[1]



Source: U.S. Bureau of Economic Analysis.

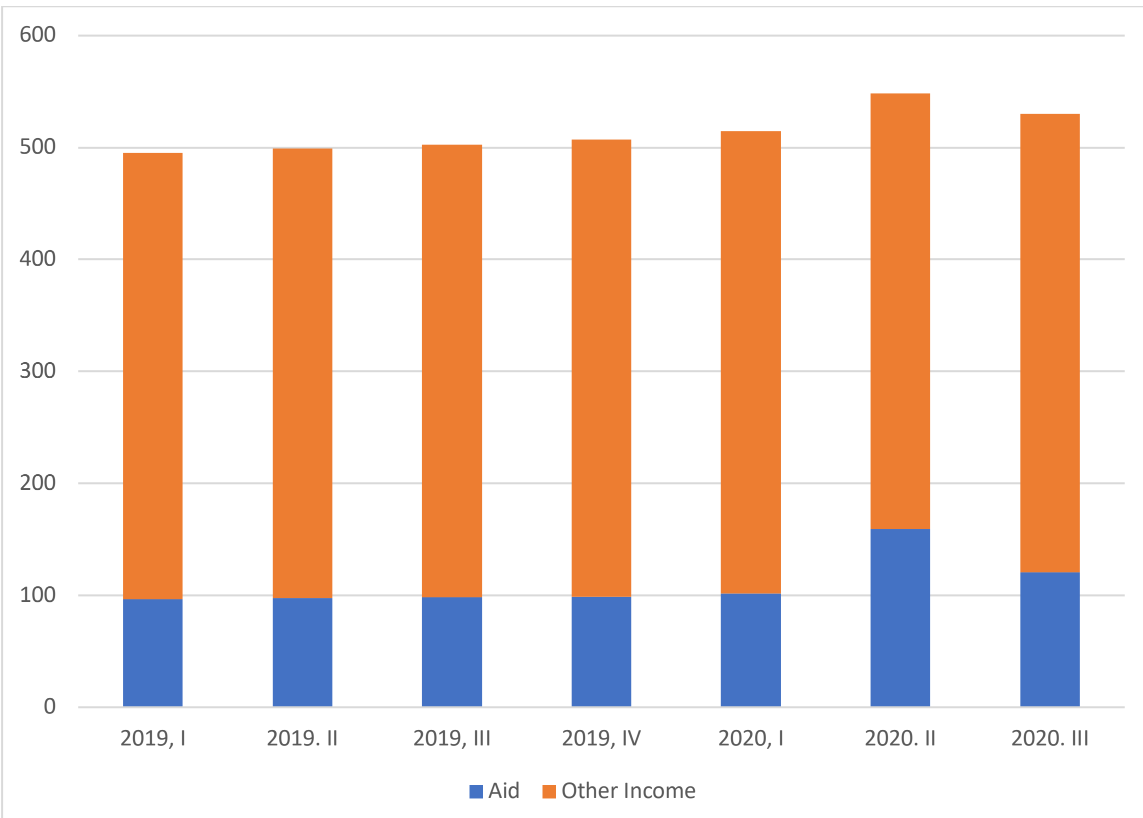
Figure 1 shows the change in aggregate economic production – technically known as real Gross Domestic Product (real GDP) – for North Carolina, the U.S. and the Southeast region.[2] The Covid-19 recession began in the first quarter with modest declines in real GDP, but then followed massive drops in the second quarter as the shutdown and stay-at-home orders took effect. However, an equally robust recovery occurred in the third quarter as economic restrictions were loosened and significant federal financial aid was pumped into the economy. By the end of the third quarter, real GDP had recovered to over 95% of its pre-pandemic level.

[1] "Annualized" change projects the actual quarterly change continues for a full year. It is the common method of reporting quarterly changes. But the actual quarterly change will be much less than the annualized change.
[2] Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, West Virginia, and Virginia.

As Figure 1 shows, North Carolina's pattern of recession and recovery is very close to the changes experienced in both the nation and Southeast. However, it is worth noting that North Carolina experienced slightly smaller declines in both the first and second quarters and a marginally larger rebound in the third quarter. As a result, at the end of the third quarter North Carolina had recovered to 97.7% of its pre-pandemic economy, compared to 97.3% for the Southeast and 96.4% for the U.S.

A big part of the economy's strong recovery in the third quarter was the massive federal financial assistance provided through several national stimulus plans. Using personal income to track these impacts, Figure 2 shows government transfer payments to personal income increased 57% in 2020 II from 2020 I, and rose 64% from 2019 II. Even with the substantial fall in aggregate production in 2020 II, personal income continued to rise.

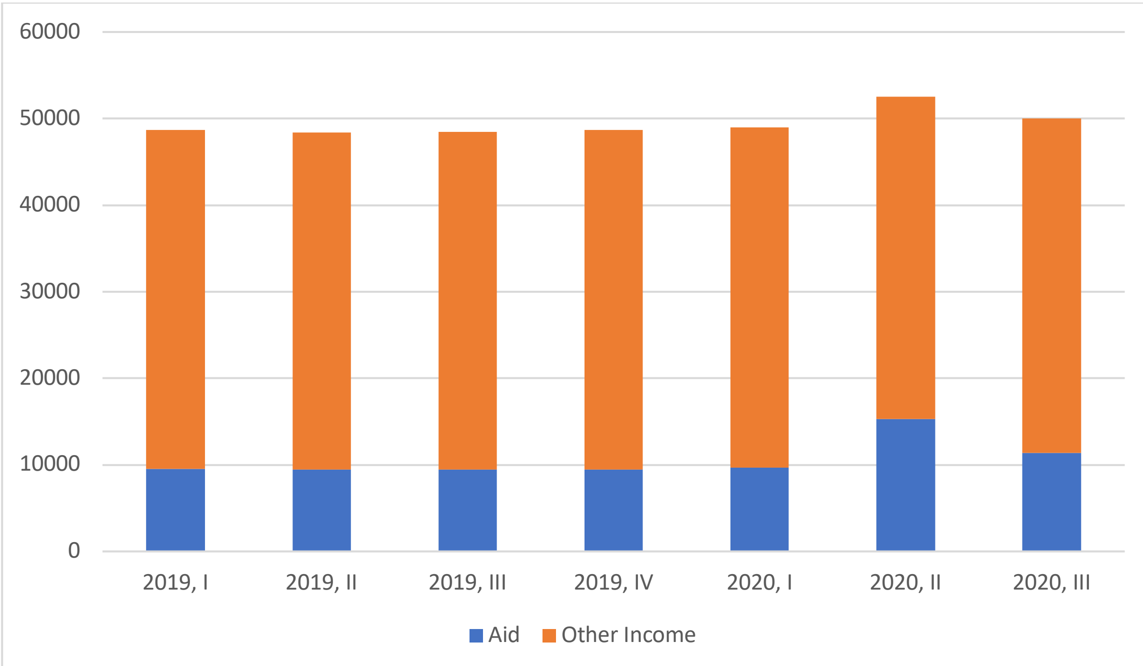
Figure 2. Total North Carolina Personal Income from Government Aid and Other Income (billions of nominal $ at annualized rates).



Source: U.S. Bureau of Economic Analysis.

Table 3 measures the impact of federal financial help to North Carolina during the Covid-19 recession in a slightly different way by adjusting the dollar values for inflation and presenting them on a per capita basis to account for population changes.

Figure 3. North Carolina Personal Income from Government Aid and Other Income, per Capita (in annualized 2020 III purchasing power $).



Source: U.S Bureau of Economic Analysis and U.S. Bureau of Labor Statistics.

The impact of the federal aid is shown to be even more important in Figure 3. Until 2020 II, the share of per capita income in inflation-adjusted dollars was approximately 20% aid, 80% other (mainly earnings). In 2020 II the split shifted to 30% aid, 70% other. The aid was crucial because income from sources other than aid fell 5% between 2020 I and 2020 II. Aid continued in 2020 III, but at a much-reduced level (23%) from 2020 II. However, the support was not needed as much because income from other sources rebounded to pre-pandemic levels.

Sector Impacts

The Covid-19 recession did not impact all economic sectors equally. The second, third, and fourth columns of Table 1 show the quarterly changes in real GDP for key sectors of the North Carolina economy during 2020. The last column of Table 1gives real GDP in the sector during the third quarter of 2020 as a percentage of real GDP in the same sector during the fourth quarter of 2019, the quarter prior to the Covid-19 recession.

The second column of Table 1 – giving annualized changes in the first quarter of 2020 – indicates five of the eight sectors suffered a decline in real GDP as the recession began to take hold in the last month (March) of the quarter. In particular, the lodging and food service sector had an annualized decline of 27%. This is because the sector contains numerous firms relying on in-person contact, and many of these firms were ordered to close in March.

Table 1. Annualized Change in Real Gross Domestic Product for Economic Sectors in North Carolina by Quarter, 2020.

Sector	1st Quarter	2nd Quarter	3rd Quarter	3rd Quarter Real GDP as % of 4th Quarter 2019 Real GDP
Agriculture	88.7%	-93.9%	742.6%	99.2%
Construction	1.1%	-23.1%	23.1%	98.8%
Manufacturing	-5.3%	-34.8%	55.5%	98.9%
Retail Trade	-7.7%	-29.0%	45.6%	99.0%
Information	-11.3%	-7.7%	14.9%	98.3%
Finance	-16.5%	15.2%	14.9%	102.8%
Professional Services	6.5%	-25.3%	21.0%	98.9%
Lodging & Food Services	-27.1%	-91.7%	486.7%	77.3%

Source: U.S. Bureau of Economic Analysis.

As with the aggregate economy, the second quarter (column 3) was the worst for all sectors, with one exception. Seven of the eight sectors had a decline in real GDP, but the size of the decline varied. Agriculture and lodging/food services were the hardest hit. Although farms and food processors remained open, the closures of restaurants – which handle half of food consumption – created disruptions in farming and food processing. It took time for farm and food sales to be redirected from restaurants to grocery stores and supermarket, and during that time farm and food sales dropped. Lodging/food services also had a large decline as the closure orders remained in place for much of the quarter.

In contrast, output in the tech sector (information) dropped only 7.7% in the second quarter, as much of the activity in the sector could continue by using remote working and virtual technology. Although experiencing declines, construction and professional services were modestly hit compared to many other sectors. The exception to the declines in the second quarter was finance, which recovered most of its losses from the first quarter.

Strong rebounds occurred in the third quarter (column 4). Leading the way were three-digit annualized gains in agriculture and lodging/food services. Agriculture benefited from the strengthening of supply chains to supermarkets, the partial re-opening of restaurants, and large increases in exports, particularly to China. Restaurants could now serve some customers on-site and make deliveries. Manufacturing and retail trade also had noticeable gains.

The last column of Table 1 shows most sectors were close to their pre-pandemic levels of real GDP by the end of the third quarter. Six of the eight sectors were over 98% of their pre-pandemic real GDP, and finance was at almost 103%. The sector still struggling is lodging and food services, with real GDP in the third quarter at only 77% of its pre-pandemic output.

Labor Market Impacts

The changes in the labor market mirror the changes in both the aggregate and sectoral economies. After enduring a jump in the statewide unemployment rate from 3.6% in February to almost 13% in June, the jobless rate fell to 6.2% in November. North Carolina's jobless rate also stayed below the national rate during all months of the pandemic.

However, there is strong reason to believe the "real" unemployment rate is higher than the reported rate. To be counted officially as unemployed, someone wanting a job has to be *actively* looking for work, by, for example, contacting potential employees, visiting places of employment, or taking part in job interviews. Even during good times there are always jobless individuals who want to work but are not actively looking for work. Adding these persons to the unemployment total increases the rate by about 1 percentage point.

Yet there are reasons to think the number of people who want a job but aren't actively looking for a job increased during the pandemic. One indication of this situation is the reduction in the state's "labor force participation rate" (LFPR), which is the percentage of individuals of working age who have jobs or are looking for a job. The LFPR has varied between 2 and 4 percentage points less than its level prior to the pandemic. Reasons for the reduction in the LFPR during the pandemic include fear of looking for work due to the virus, illness due to the virus, or the need to stay home to care for an ill relative or children not in school. Analysts say the reduction in the LFPR may be enough to push the "real unemployment rate" 1 to 2 percentage points higher than the reported rate.[3]

Even with this caveat, there has been considerable improvement in the state's labor market since the depths of the Covid-19 recession in the Spring. After experiencing a 13.4% drop in employment between February and April, jobs in the state came back, and in November were

Table 2. North Carolina November Employment as a Percentage of February Employment.

Sector	
Total Economy	94.8%
Construction	97.5%
Manufacturing	92.8%
Retail Trade	98.4%
Information	91.5%
Finance	100.5%
Professional Services	100.0%
Lodging & Food Services	78.8%

Source: U.S. Bureau of Labor Statistics; employment in agriculture is not available

[3] Joseph Brusuelas, "Chart of the Day: What's the Real Unemployment Rate?" *The Real Economy Blog*, October 22, 2020.

only 5.2% off their February peak (Table 2). There was even better improvement in sectors such as construction – where November employment was 97.5% of February's total (2.5% under February's number) - and retail trade – where November employment was 98.4% of February's total (1.6% under February's number). Two sectors, finance and professional services, had fully recovered their jobs by November. Again, as with production, the lagging sector was lodging and food services, where November jobs were 21.2% under the February level.

Regional Impacts

Unfortunately, real Gross Domestic Values for local areas are not yet available for 2020. Instead, this section will rely on employment to measure economic changes in local regions in North Carolina during the pandemic. Table 3 shows how employment in metropolitan regions of the state has recovered from the Covid-19 recession.

Table 3. November Employment as a Percentage of February Employment.

Region	
North Carolina	94.8%
Asheville	90.5%
Burlington	95.8%
Charlotte	94.0%
Durham-Chapel Hill	93.9%
Fayetteville	92.7%
Goldsboro	91.0%
Greensboro-High Point	92.3%
Greenville	92.6%
Hickory	91.3%
Jacksonville	97.5%
New Bern	92.5%
Raleigh	93.5%
Rocky Mount	91.6%
Wilmington	92.2%
Winston-Salem	94.0%

Source: U.S. Bureau of Labor Statistics.

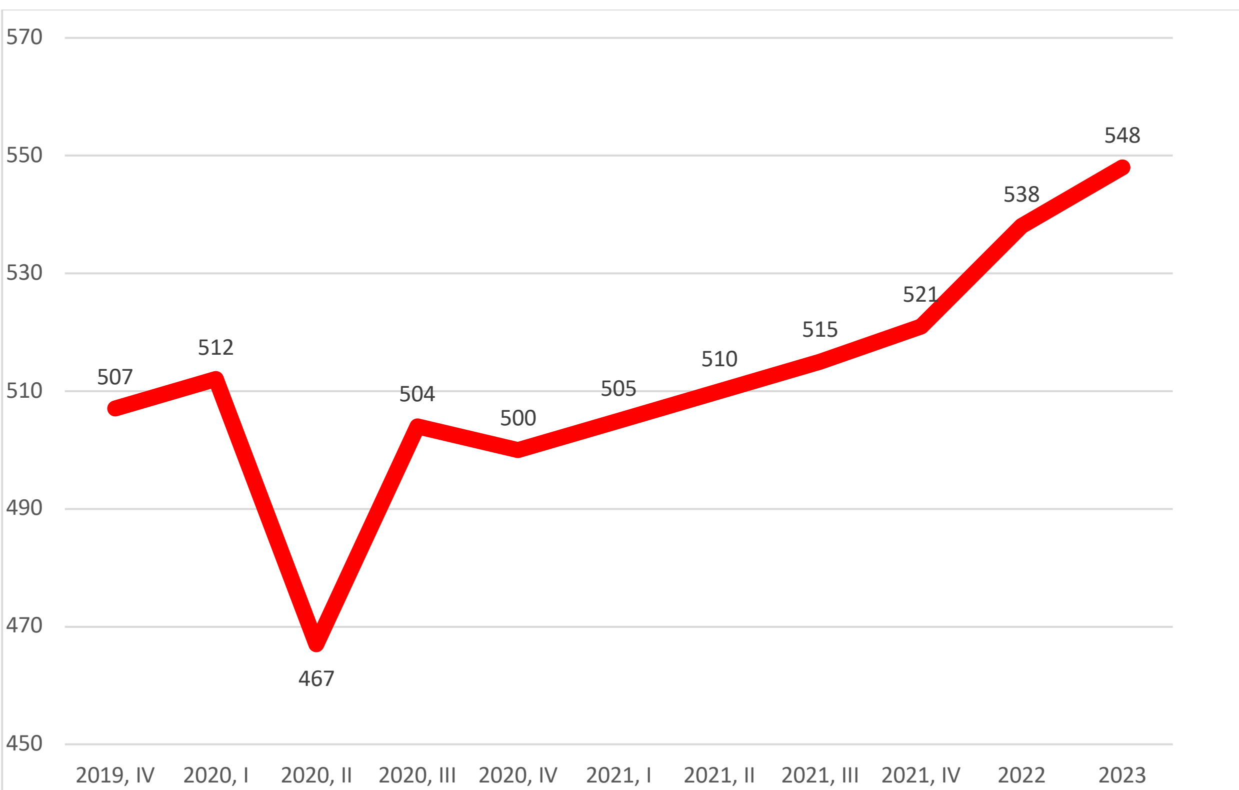
The top five regions with the highest recovery rate in employment are Jacksonville, Burlington, Winston-Salem, Charlotte, and Durham-Chapel Hill. The five regions with the lowest recovery rates are Asheville, Goldsboro, Hickory, Rocky Mount, and Wilmington. Three of the better performing regions are large metropolitan regions (Winston-Salem, Charlotte, and Durham-Chapel-Hill). The poorer performing regions include two tourist destinations hurt by declines in the lodging/food service sector (Asheville, Wilmington) and three smaller metro areas. Still, all regions achieved 90% or above recovery by year's end.

Forecasts

Figures 4 and 5 show forecasts for two key measures of the North Carolina economy: real GDP, and the unemployment rate.

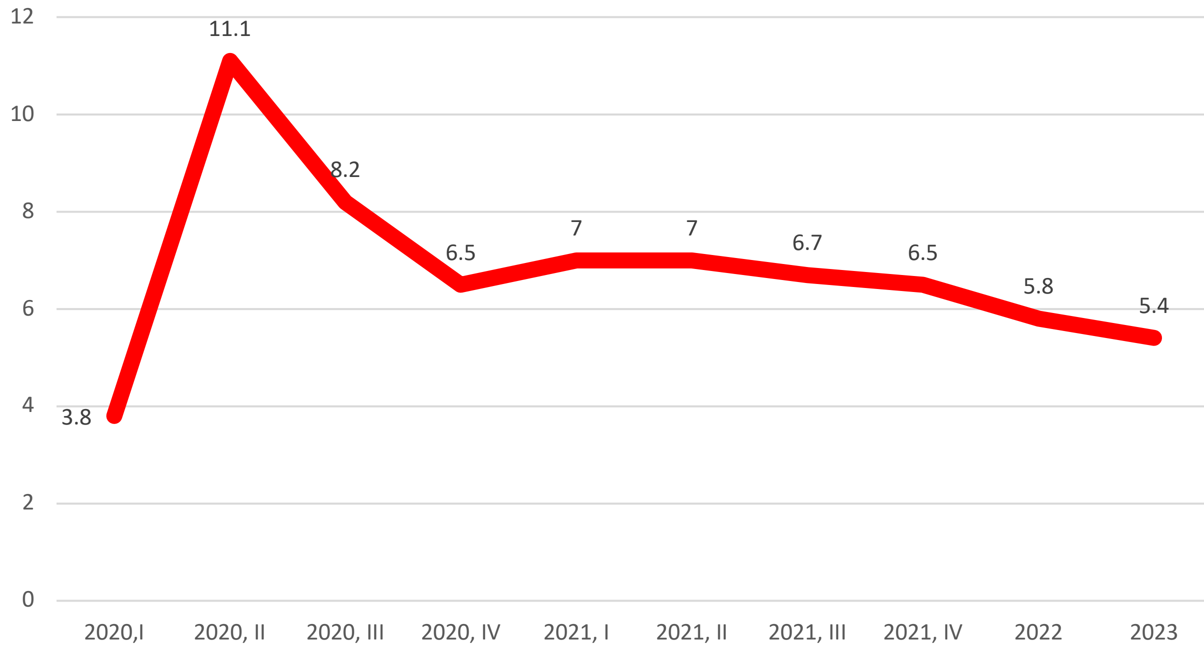
Figure 4 shows the deep drop in real GDP in the second quarter of 2020, followed by the strong rebound in the third quarter. However, the re-emergence of the virus in the winter of 2020 will cause a short setback in the recovery during the fourth quarter of 2020. Growth will resume with widespread vaccinations of the population in early 2021. The pre-pandemic level of real GDP will be attained by the fourth quarter of 2021. Growth will also continue into 2022 and 2023.

Figure 4. Forecasted Path of North Carolina's Real GDP (billions of 2012$)



Source: Author's forecasts, and national forecasts from the Federal Reserve applied to North Carolina.

Figure 5. Forecasted Path of North Carolina's Unemployment Rate.



Source: Author's forecasts, and national forecasts from the Federal Reserve applied to North Carolina.

A similar pattern will be followed for the state's jobless rate (Figure 5). There will be a modest increase in unemployment at the end of 2020 and the beginning of 2021 for two reasons. The virus' revival in late 2020 will generate some pullback in spending, even with the new federal stimulus. However, increasing optimism brought about by vaccines will motivate workers who had dropped out of the labor force to come back, resulting in a temporary boost in unemployment. By the second quarter of 2021 declines in the unemployment rate will resume. Unfortunately, with motivations by businesses to be more frugal in hiring, as well as to substitute technology and machinery for humans in performing tasks, the state unemployment rate will still be higher in 2023 than prior to the pandemic in early 2020.

Not the Same Economy

The post-pandemic economy will not be the same as the economy prior to the outbreak of Covid-19. There are two reasons for this new reality. First, the pandemic has accelerated trends already changing the economy. This means the changes anticipated to occur in decades may now happen in years. Second, the pandemic has created new trends.

Here are five ways the new economy will be different than the old.

1. While international trade will certainly not disappear, many domestic firms will reinforce or develop U.S. based supply chains. This should help North Carolina, as

the state continues to have a significant manufacturing base. Preparations for a future pandemic will help the state's pharmaceutical and textile industries.

2. Technological unemployment will accelerate. The pandemic will motivate more businesses to move away from human inputs to technological inputs. Humans are subject to future pandemics; technology and machines aren't. It will be vital for the state to provide and coordinate re-training programs for displaced workers.

3. Remote working is here to stay, and will expand. Remote working grew from under 10% of the workforce to near 40% of the workforce at the height of the pandemic. While it may modestly recede as the pandemic ends, many forecasters see the benefits to both employees and employers from remote working being so large that it could potentially account for half the workforce. Advances in technology will enhance the advantages of remote working and allow it to include a broader range of occupations.

4. Tele-health and tele-education will also remain and expand as permanent parts of the economy. Receiving diagnoses and advice through virtual communication with health care professionals increased during the pandemic. With continued technological improvements, tele-health will improve. The same is the case for tele-education. Improved, individualized programs for students will make tele-education more attractive to school districts, parents, and students.

5. Residential location will shift. More households will choose residences in suburbs, exurbs, and even rural areas in place of dense urban centers where contagious viruses can easily spread. Also, if earners in the household work remotely, then proximity to employers is less important. This will allow more households to locate in areas where real estate is more affordable.