

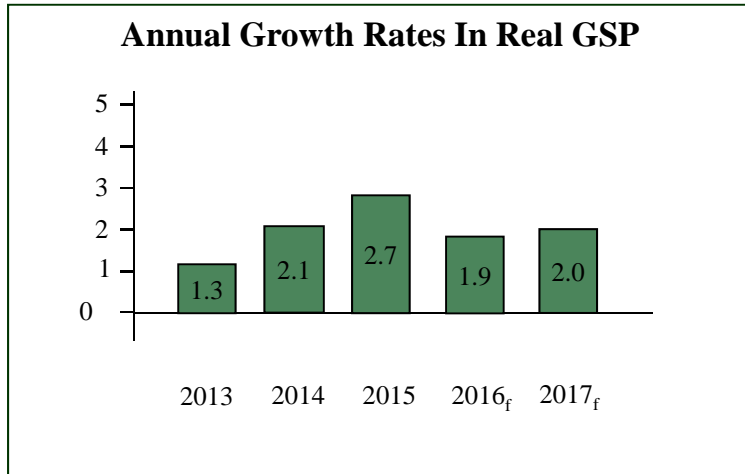
Barings/UNC Charlotte Economic Forecast December 7th, 2016



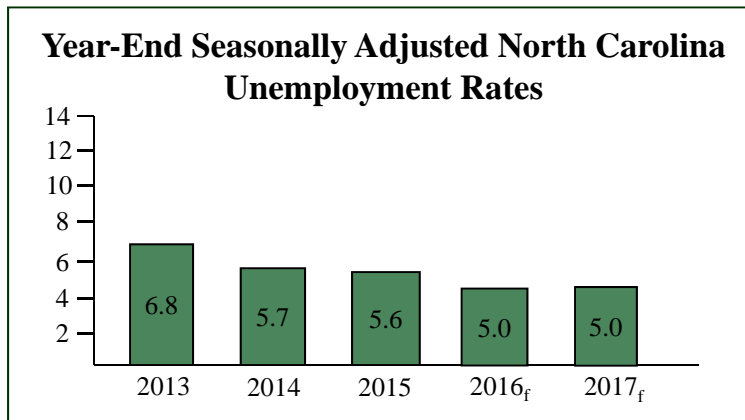
BARINGS

The data used in this report comes from the websites for the U.S. Department of Commerce's Bureau of Economic Analysis (www.bea.gov) and the North Carolina Employment Security Commission (www.ncesc.com) as of November 22, 2016. The opinions expressed in this Forecast by Professor Connaughton (the Barings Professor of Financial Economics at the Belk College of Business) and UNC Charlotte do not necessarily represent the views of Barings.

FORECAST HIGHLIGHTS



GSP/Gross State Product is a yardstick that measures the total output of a state's economy for a given year. It is analogous to the U.S. Gross Domestic Product (GDP).



- For 2016, NORTH CAROLINA real GSP is expected to increase by 1.9 percent over the 2015 level.

- Twelve of the state's fifteen economic sectors are forecast to experience output increases during 2016. The sectors with the strongest expected growth are information with a projected real increase of 5.9 percent, business and professional services with a projected real increase of 4.9 percent, retail trade with a projected real increase of 4.1 percent, construction with a projected real increase of 2.7 percent, mining with a projected real increase of 2.6 percent, education and health services with a projected real increase of 2.4 percent, and nondurable good manufacturing with a projected real increase of 2.3 percent.

- For 2016, NORTH CAROLINA establishments are forecast add 83,800 net additional jobs, an increase of 2.0 percent.

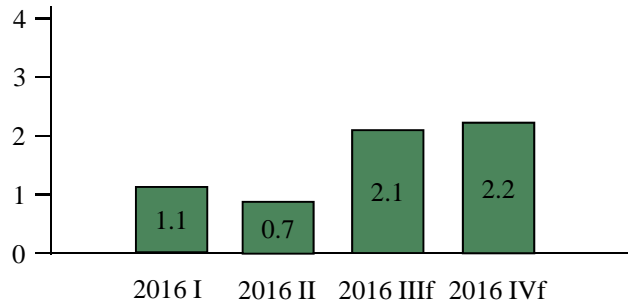
- For 2017, NORTH CAROLINA real GSP is forecast to increase by 2.0 percent over the 2016 level.

- Fourteen of the state's fifteen economic sectors are forecast to experience output increases during 2017. The sectors with the strongest expected growth are mining with a projected real increase of 8.2 percent, business and professional services with a projected real increase of 4.7 percent, information with a projected real increase of 3.6 percent, retail trade with a projected real increase of 3.0 percent, and wholesale trade with a projected real increase of 2.7 percent.

- For 2017, NORTH CAROLINA establishments are forecast to add 89,200 net additional jobs, an increase of 2.1 percent.

- By December of 2017, the North Carolina unemployment rate is expected to be around 5.0 percent.

Quarterly Growth Rates in Real GSP



2016 Highlights

	2016 *	Percent Change
Current Dollars		
Total Gross Product	515,808.6	3.3
Constant (2009 Dollars)		
Total Gross Product	451,903.1	1.9
Agricultural	4,664.0	-5.1
Mining	382.4	2.6
Construction	15,104.6	2.7
Manufacturing	88,957.5	1.7
Durable Goods	39,231.3	1.0
Nondurable Goods	49,726.2	2.3
TWU	15,762.0	-1.9
Wholesale Trade	26,068.0	1.5
Retail Trade	25,563.6	4.1
Information	17,604.0	5.9
FIRE	84,739.0	1.6
B & P	55,390.9	4.9
E & H	36,016.6	2.4
H & L	15,111.1	1.7
Services	8,851.5	1.8
Government	57,688.1	-0.5

* millions of dollars

2016 GSP

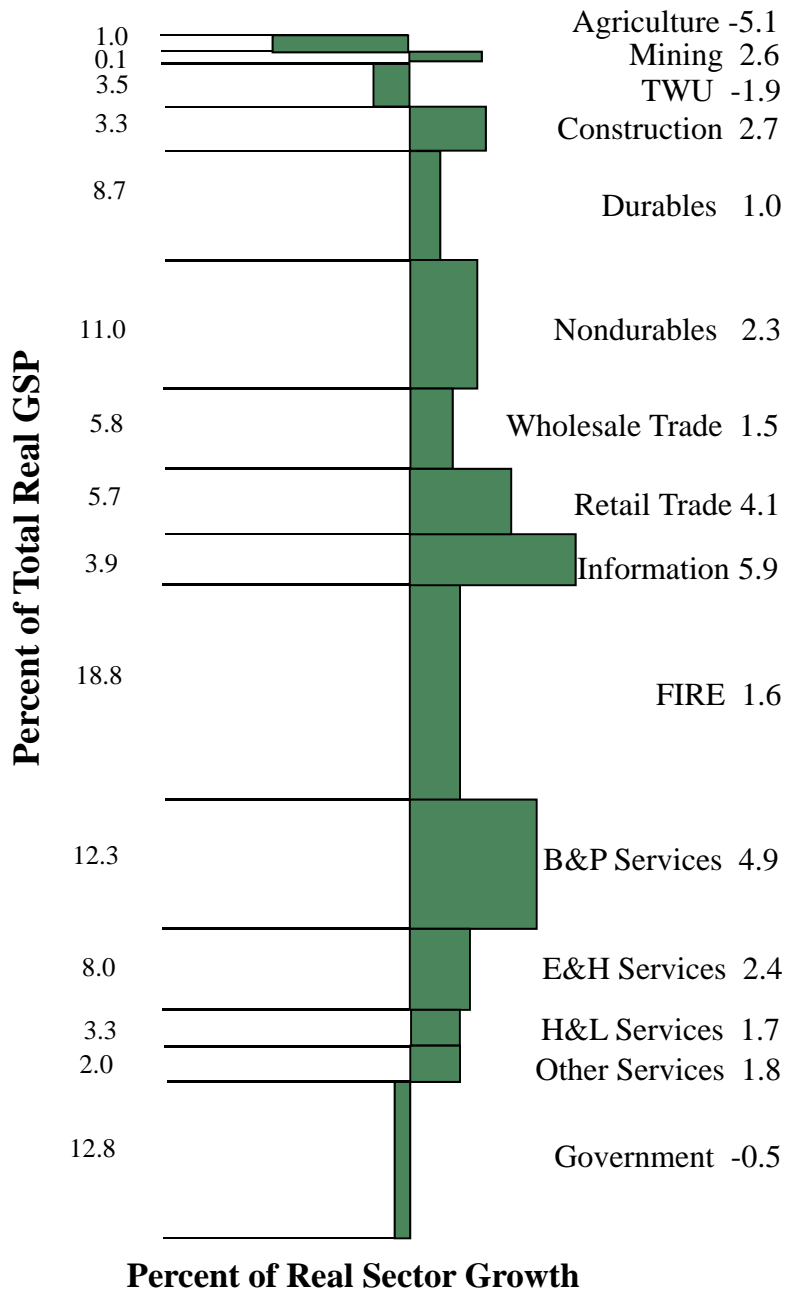
Gross State Product (GSP) is forecast to reach a level of \$515,808.6 million in 2016. Real (inflation-adjusted) GSP is forecast to increase by 1.9 percent over the 2015 level. This growth in 2016 follows a 2.7 percent real GSP growth rate in North Carolina during 2015 and a 2.1 percent growth in 2014. These three years together represent the strongest growth period experienced by the North Carolina economy since the recovery began in late 2009.

For 2016, first quarter GSP increased by an annualized real rate of 1.1 percent. During the second quarter, GSP increased by an annualized real rate of 0.7 percent. In the third quarter, GSP is expected to record an annualized real growth rate of 2.1 percent. In the fourth quarter of 2016, GSP is expected to grow by an annualized real rate of 2.2 percent.

During the first half of 2016, the North Carolina economy seems to be experiencing slower growth than during the previous eighteen months. What has been happening in North Carolina during the first half on 2016 is not dissimilar to what has happened in the U.S. It seems that after 7 years of economic expansion things are beginning to slow. The U.S. economy has been expanding for 89 months, which represents the fourth longest economic expansion on record out of the 33 expansions that have been tracked by the NBER since 1854.

Going forward during 2016 we seem to be experiencing some mixed signals. On one hand the FED is starting to indicate another round of interest rate increases. This would of course have a slowing effect on an already sluggish economy. Countering this is the November Consumer Confidence Index at 107.1, the highest level since the Great Recession began. This along with the general bump associated with the election should see an increase in consumer spending over the next several months, providing an offset to increased interest rates.

2016 Total Real GSP Growth 1.9%



2016 GSP SECTOR ANALYSIS

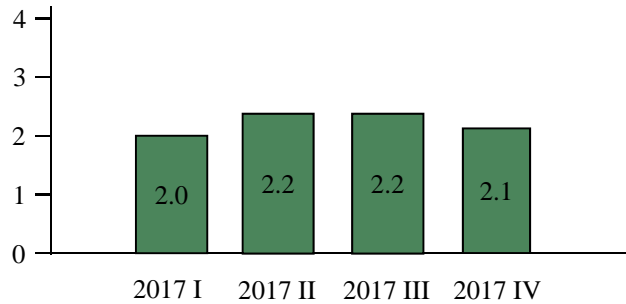
The chart to the left presents the contributions of each major economic sector to North Carolina's Gross State Product (GSP). The real (inflation-adjusted) growth rate for 2016 is expected to increase by 1.9 percent. Real growth rates for each sector (displayed in black type) are plotted on the horizontal axis. Percentages of GSP contributed by each sector (displayed in green type) are plotted on the vertical axis. The resulting rectangles show the weighted importance of each sector's growth during 2016. All of the sector information presented in the table to the left is based on the new North American Industry Classification System (NAICS) definitions.

Twelve of the state's fifteen economic sectors are forecast to experience output increases during 2016. The sectors with the strongest expected growth are information with a projected real increase of 5.9 percent, business and professional services with a projected real increase of 4.9 percent, retail trade with a projected real increase of 4.1 percent, construction with a projected real increase of 2.7 percent, mining with a projected real increase of 2.6 percent, education and health services with a projected real increase of 2.4 percent, and nondurable good manufacturing with a projected real increase of 2.3 percent.

Five other sectors are expected to grow, but at levels below the overall projected 1.9 percent GSP real growth rate. These sectors are, other services with a projected real increase of 1.8 percent; hospitality and leisure services with a projected real increase of 1.7 percent; finance, insurance, and real estate (FIRE) with a projected real increase of 1.6 percent; wholesale trade with a projected real increase of 1.5 percent, and durable goods manufacturing with a projected real increase of 1.0 percent.

Three sectors, transportation, warehousing, and utilities (TWU); agriculture; and government are expected to experience declines in 2016.

Quarterly Growth Rates in Forecasted Real GSP



2017 Highlights

	2017 *	Percent Change
Current Dollars		
Total Gross Product	536,165.7	4.0
Constant (2009 Dollars)		
Total Gross Product	461,099.2	2.0
Agricultural	4,330.2	-7.2
Mining	414.0	8.2
Construction	15,486.1	2.5
Manufacturing	90,523.6	1.8
Durable Goods	39,847.2	1.6
Nondurable Goods	50,676.5	1.9
TWU	15,930.0	1.1
Wholesale Trade	26,757.8	2.7
Retail Trade	26,331.7	3.0
Information	18,241.5	3.6
FIRE	86,035.2	1.5
B & P	57,994.5	4.7
E & H	36,766.8	2.1
H & L	15,434.8	2.1
Services	9,055.5	2.3
Government	57,797.6	0.2

* millions of dollars

2017 GSP

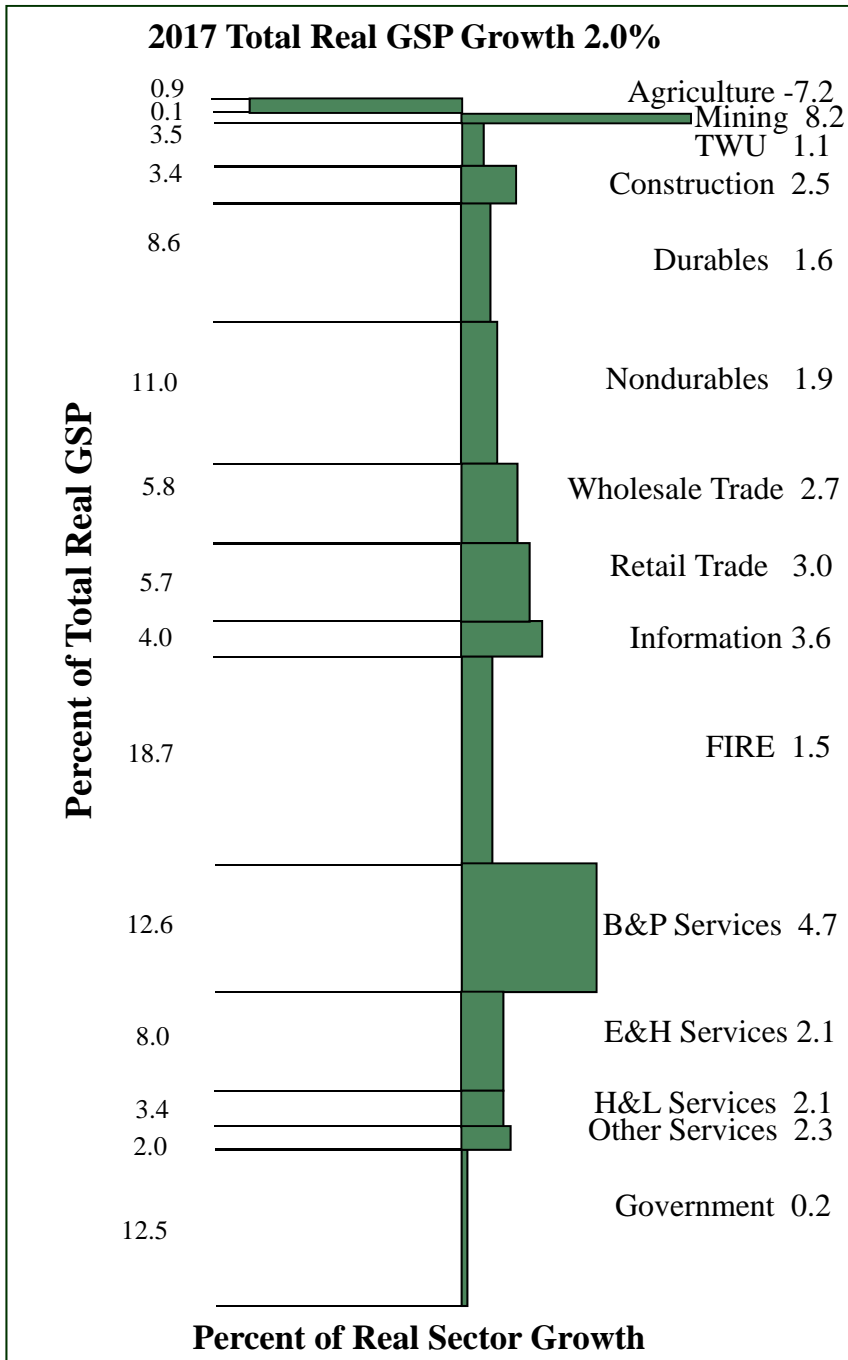
Gross State Product (GSP) is expected to reach a level of \$536,165.7 million in 2017. Real (inflation-adjusted) GSP is expected to increase by 2.0 percent over the 2016 level. This growth in 2017 would follow last years projected 1.9 percent real growth in North Carolina GSP.

For 2017, first quarter GSP is expected to increase by an annualized real rate of 2.0 percent. During the second quarter, GSP is expected to increase by an annualized real rate of 2.2 percent. In the third quarter, GSP is expected to increase by an annualized real rate of 2.2 percent. In the fourth quarter of 2017, GSP is expected to increase by an annualized real rate of 2.1 percent.

Positive economic growth in 2017 would represent the eighth consecutive year of economic growth for the North Carolina economy. While this is an impressive string of growth, the size of that economic growth has been somewhat lacking. In fact, for most of the 21st Century, both the U.S. and North Carolina economies have been unable to achieve an average 3.0 percent real GDP growth rate that had been fairly consistent since WW II.

There are only two sources of potential GDP growth. First is labor force growth and the second is productivity growth. Over the past five years we have seen both decline substantially. Between 2000 and 2009 the U.S. labor force grew on average by 1.02 percent annually, while productivity grew on average by 2.65 percent annually. This would allow for an average annual potential GDP to grow at 3.67 percent. Since 2010 the average annual U.S. labor force growth rate has been only 0.22 percent and the average annual productivity growth has only been 0.65 percent. This significant reduction in both average annual growth rates would equate to annual potential GDP growth of less than 1.0 percent.

Taken together the startling recent change in these two factors suggest a challenge for long-term inflation-adjusted GDP growth above a 2.0 percent level.



2017 GSP SECTOR ANALYSIS

The chart to the left presents the projected contributions of each major economic sector to North Carolina's Gross State Product (GSP). The real (inflation-adjusted) growth rate for 2017 is forecast to increase by 2.0 percent. Projected real growth rates for each sector (displayed in black type) are plotted on the horizontal axis. Projected percentages of GSP contributed by each sector (displayed in green type) are plotted on the vertical axis. The resulting rectangles show the expected weighted importance of each sector's growth during 2017. All of the sector information presented in the table to the left is based on the new North American Industry Classification System (NAICS) definitions.

Fourteen of the state's fifteen economic sectors are forecast to experience output increases during 2017. The sectors with the strongest expected growth are mining with a projected real increase of 8.2 percent, business and professional services with a projected real increase of 4.7 percent, information with a projected real increase of 3.6 percent, retail trade with a projected real increase of 3.0 percent, wholesale trade with a projected real increase of 2.7 percent, construction with a projected real increase of 2.5 percent, other services with a projected real increase of 2.3 percent, educational and health services with a projected real increase of 2.1 percent, and hospitality and leisure services with a projected real increase of 2.1 percent.

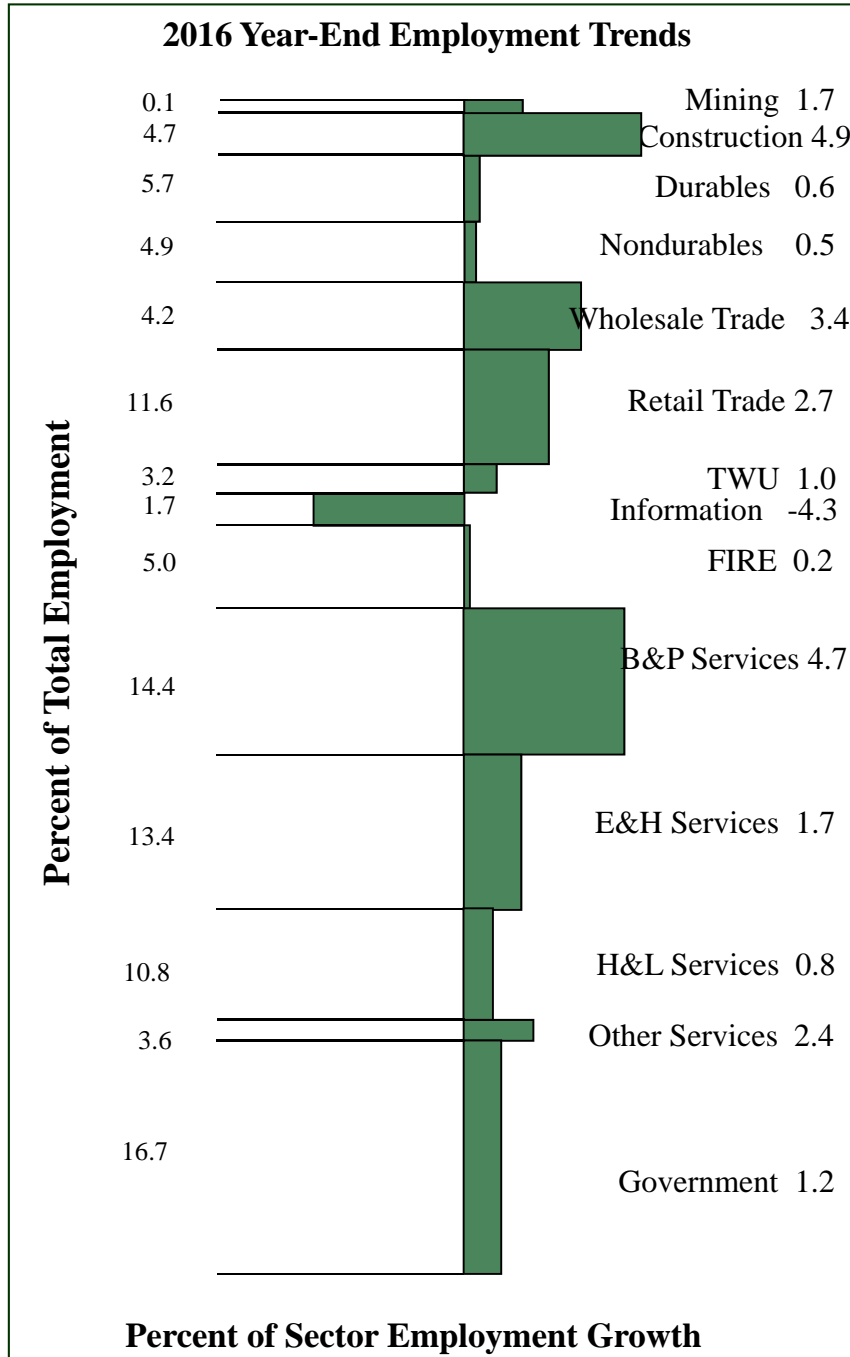
Five other sectors are expected to experience growth rates, but at levels below the overall 2.0 percent GSP real growth rate. These sectors are nondurable goods manufacturing with a projected real increase of 1.9 percent; durable goods manufacturing with a projected real increase of 1.6 percent; finance, insurance, and real estate (FIRE) with a projected real increase of 1.5 percent; warehousing, and utilities (TWU) with a projected real increase of 1.1 percent; and government with a projected real increase of 0.2 percent.

Only the agriculture sector is expected to experience a decline in 2017.

2016 EMPLOYMENT SECTOR ANALYSIS

The sector employment analysis presented on this page is based on the new North American Industrial Classification System (NAICS). Seasonally adjusted nonagricultural employment in North Carolina is forecast to reach 4,358,800 persons in December 2016, an increase of 2.0 percent over the employment level in December 2015. The state is expected to gain 83,800 net jobs during the year.

Thirteen of the state's fourteen nonagricultural sectors of the economy are expected to experience employment increases during 2016. The sectors with the strongest employment increases in 2016 are construction at 4.9 percent, business and professional services at 4.7 percent, and wholesale trade at 3.4 percent.



2016 Employment Highlights

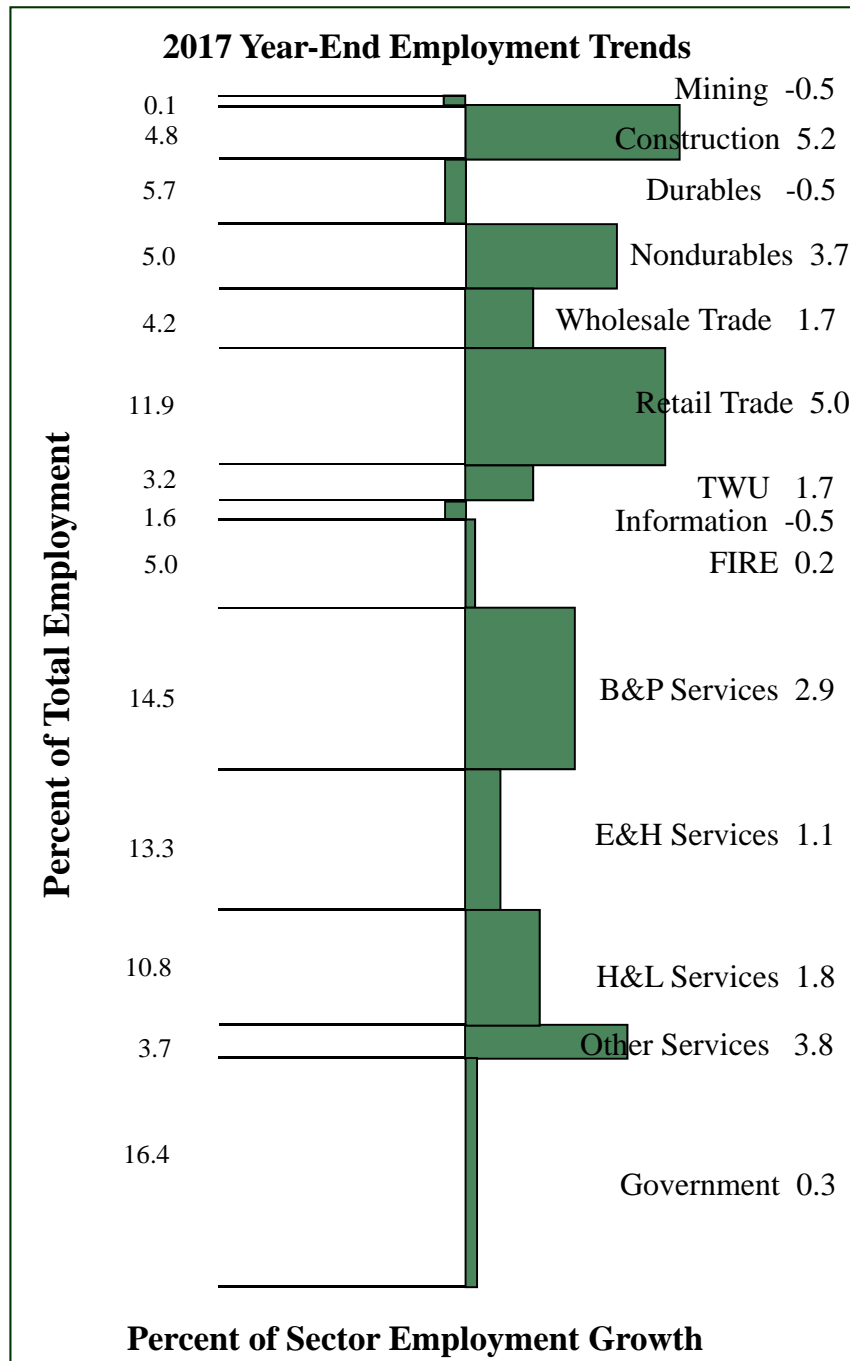
	Year-End*	Percent Change
Total Establishment		
Employment	4,358.8	2.0
Mining	5.6	1.7
Construction	203.3	4.9
Manufacturing	461.2	0.6
Durable Goods	248.9	0.6
Nondurable Goods	212.3	0.5
Wholesale Trade	184.8	3.4
Retail Trade	503.9	2.7
TWU	138.2	1.0
Information	73.2	-4.3
FIRE	219.8	0.2
B&P Services	628.9	4.7
E&H Services	585.1	1.7
H&L Services	470.1	0.8
Other Services	157.7	2.4
Government	727.1	1.2

*thousands of persons

2017 EMPLOYMENT SECTOR ANALYSIS

The sector employment analysis presented on this page is based on the new North American Industrial Classification System (NAICS). Seasonally adjusted nonagricultural employment in North Carolina is expected to reach 4,448,000 persons in December 2017, an increase of 2.0 percent over the employment level in December 2016. The state is expected to gain 89,200 net jobs during the year.

Eleven of the state's fourteen nonagricultural sectors of the economy are expected to experience employment increases during 2017. The sectors with the strongest employment increases in 2017 are construction at 5.2 percent, retail trade at 5.0 percent, and other services at 3.8 percent.

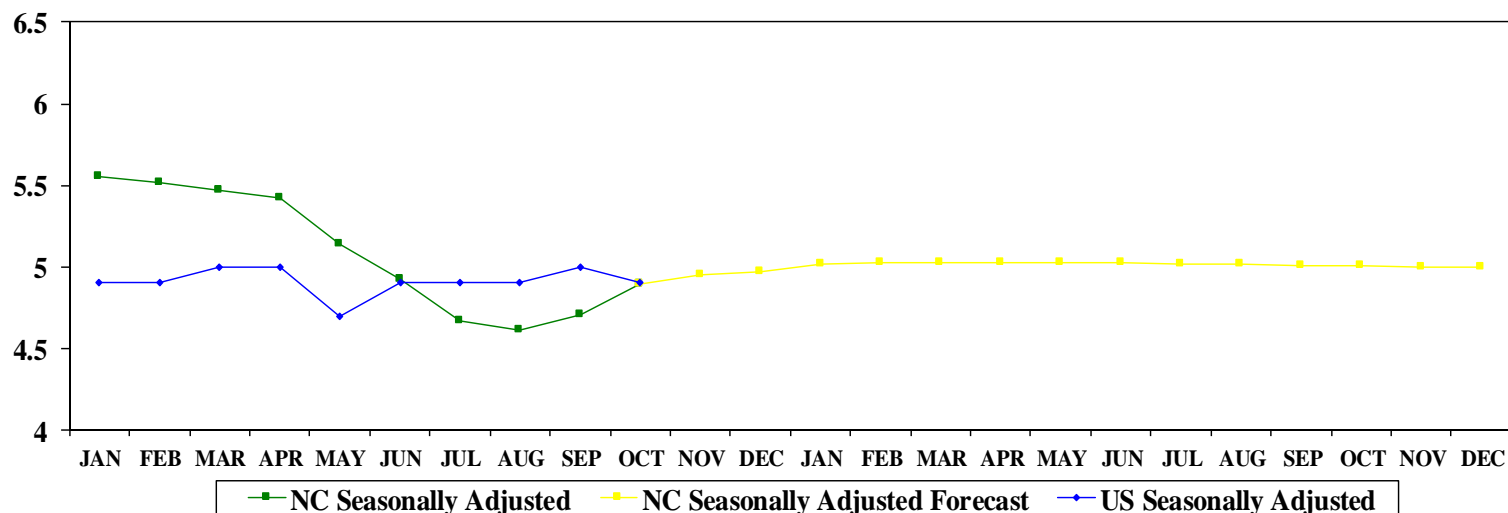


2017 Employment Highlights

	Year-End*	Percent Change
Total Establishment		
Employment	4,448.0	2.0
Mining	5.6	-0.5
Construction	214.0	5.2
Manufacturing	467.7	1.4
Durable Goods	247.7	-0.5
Nondurable Goods	220.1	3.7
Wholesale Trade	188.0	1.7
Retail Trade	529.1	5.0
TWU	140.5	1.7
Information	72.9	-0.5
FIRE	220.2	0.2
B&P Services	646.9	2.9
E&H Services	591.7	1.1
H&L Services	478.7	1.8
Other Services	163.7	3.8
Government	729.1	0.3

*thousands of persons

2016-2017 NORTH CAROLINA UNEMPLOYMENT RATE



FORECAST reports historical seasonally adjusted monthly unemployment rates for North Carolina and the United States and forecasts the seasonally adjusted monthly unemployment rate for North Carolina. The seasonal adjustment accounts for variations in labor market conditions that cause regular fluctuations in the unemployment level each month.

The graph at the top of this page provides a summary of the monthly unemployment rates for 2016 and 2017. The solid green line represents the North Carolina seasonally adjusted historic unemployment rate. The seasonally adjusted unemployment rate for the United States is represented by the solid blue line. The North Carolina seasonally adjusted unemployment rate forecast is represented by the solid yellow line. The seasonally adjusted rates for the United States and North Carolina can be compared directly and provide more reliable estimates than the unadjusted rates.

The United States started the year with an unemployment rate of 4.9 percent, which has remained fairly consistent through October. North Carolina started the year with a 5.6 percent rate of unemployment, which declined dramatically to 4.7 percent in July, and then increased to 4.9 percent in October. By December of 2016 the North Carolina rate is forecast to be 5.0 percent, while the United States rate is expected to remain just below 5.0 percent. By December of 2017 the North Carolina unemployment rate is expected to be around 5.0 percent.