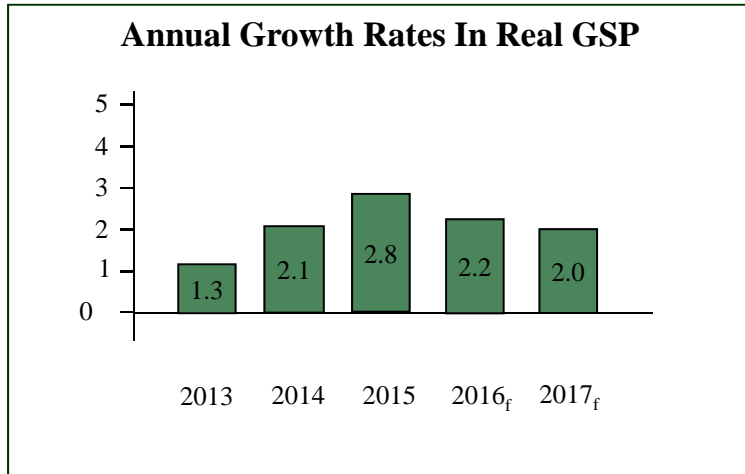


# Babson Capital/UNC Charlotte Economic Forecast September 7th, 2016

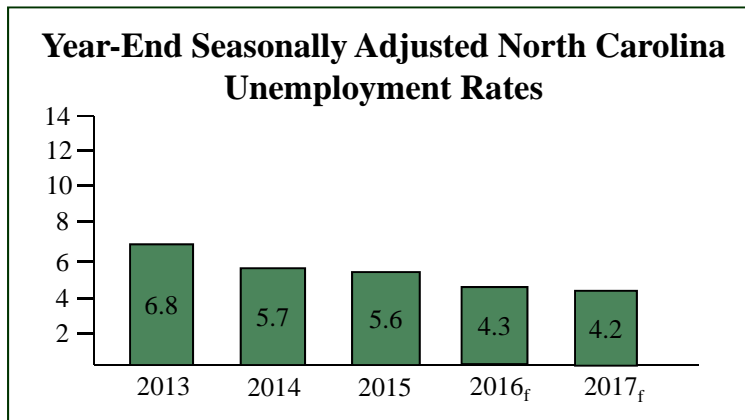


The data used in this report comes from the websites for the U.S. Department of Commerce's Bureau of Economic Analysis ([www.bea.gov](http://www.bea.gov)) and the North Carolina Employment Security Commission ([www.ncesc.com](http://www.ncesc.com)) as of August 22nd, 2016. The opinions expressed in this Forecast by Professor Connaughton (the Babson Capital Professor of Economics at the Belk College of Business) and UNC Charlotte do not necessarily represent the views of Babson Capital Management LLC or its affiliates.

## 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 2.2 percent over the 2015 level.

- Eleven of the state's fifteen economic sectors are forecast to experience output increases during 2016. The sectors with the strongest expected growth are construction with a projected real increase of 8.2 percent, information with a projected real increase of 6.0 percent, business and professional services with a projected real increase of 5.8 percent, hospitality and leisure services with a projected real increase of 3.9 percent, retail trade with a projected real increase of 3.6 percent, and education and health services with a projected real increase of 3.3 percent.

- For 2016, NORTH CAROLINA establishments are forecast add 105,600 net additional jobs, an increase of 2.7 percent.

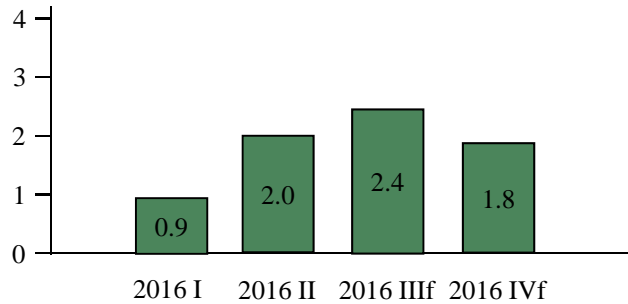
- For 2016, NORTH CAROLINA real GSP is forecast to increase by 2.2 percent over the 2015 level.

- Eleven 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, information with a projected real increase of 5.5 percent, business and professional services with a projected real increase of 5.2 percent, and construction with a projected real increase of 3.1 percent.

- For 2017, NORTH CAROLINA establishments are forecast to add 88,900 net additional jobs, an increase of 2.0 percent.

- By December of 2017, the North Carolina unemployment rate is expected to be around 4.2 percent.

### Quarterly Growth Rates in Real GSP



### 2016 Highlights

	2016 *	Percent Change
<b>Current Dollars</b>		
Total Gross Product	515,778.9	3.3
<b>Constant (2009 Dollars)</b>		
Total Gross Product	453,259.4	2.2
Agricultural	4,305.2	-11.1
Mining	232.2	-37.0
Construction	16,334.1	8.2
Manufacturing	86,944.2	-0.3
Durable Goods	39,351.3	1.3
Nondurable Goods	47,592.8	-1.5
TWU	16,030.3	-0.5
Wholesale Trade	25,933.7	1.0
Retail Trade	25,448.3	3.6
Information	17,595.6	6.0
FIRE	85,650.9	2.6
B & P	55,898.3	5.8
E & H	36,360.1	3.3
H & L	15,457.4	3.9
Services	8,915.9	2.4
Government	58,153.3	0.2

\* millions of dollars

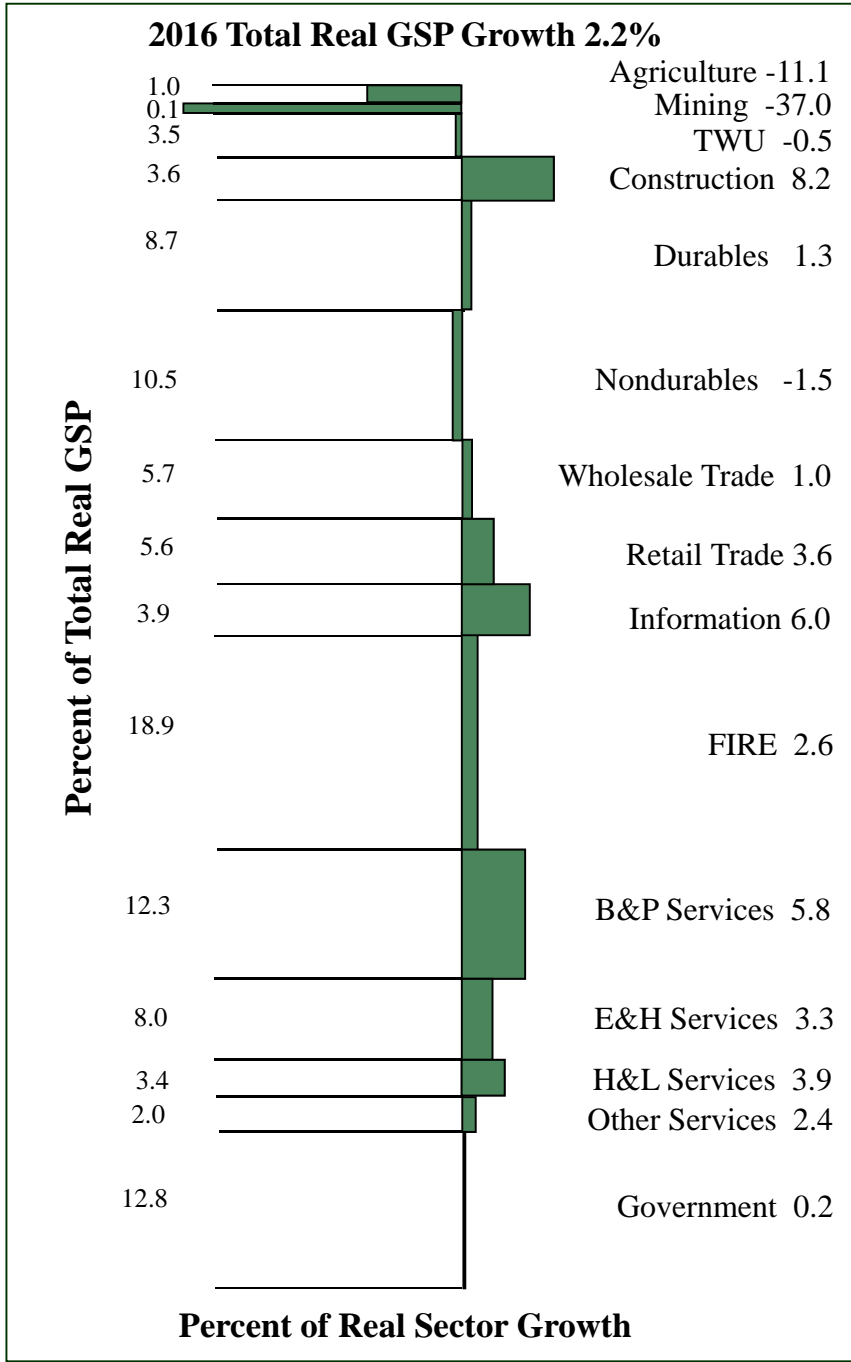
## 2016 GSP

Gross State Product (GSP) is forecast to reach a level of \$515,778.9 million in 2016. Real (inflation-adjusted) GSP is forecast to increase by 2.2 percent over the 2015 level. This growth in 2016 follows a 2.8 percent real GSP growth rate in North Carolina during 2015. These two 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 0.9 percent. During the second quarter, GSP increased by an annualized real rate of 2.0 percent. In the third quarter, GSP is expected to record an annualized real growth rate of 2.4 percent. In the fourth quarter of 2016, GSP is expected to slow to an annualized real rate of 1.8 percent.

So far in 2016 the North Carolina economy seems to be experiencing slower growth than during the last eighteen months. What was happening in North Carolina during the first half on 2016 is not dissimilar to what 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 85 months, which represents the fourth longest economic expansion on record out of the 33 expansions that have occurred 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 most recent Consumer Confidence Index, which has increased over the past few months, the August index now stands at 101.1. This is only the third month during this expansion that the index rose above 100. This is an indication that consumers are in a buying frame of mind and we should see an increase in consumer spending over the next several months, which should provide an offset to increased interest rates.



## 2016 GSP SECTOR ANALYSIS

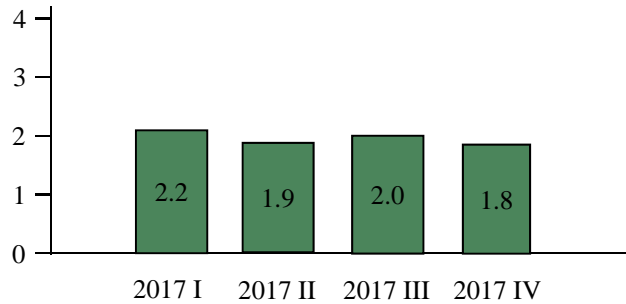
The chart to the left presents the contributions of each major economic sector to North Carolina's Gross State Product (GSP). The real (inflation-adjusted) growth rate for 2016 is expected to increase by 2.2 percent. Real growth rates for each sector (displayed in black type) are plotted on the horizontal 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.

Eleven of the state's fifteen economic sectors are forecast to experience output increases during 2016. The sectors with the strongest expected growth are construction with a projected real increase of 8.2 percent, information with a projected real increase of 6.0 percent, business and professional services with a projected real increase of 5.8 percent, hospitality and leisure services with a projected real increase of 3.9 percent, retail trade with a projected real increase of 3.6 percent, education and health services with a projected real increase of 3.3 percent, finance, insurance, and real estate (FIRE) with a projected real increase of 2.6 percent, and other services with a projected real increase of 2.4 percent.

Three other sectors are expected to grow, but at levels below the overall projected 2.2 percent GSP real growth rate. These sectors are, durable goods manufacturing with a projected real increase of 1.3 percent, wholesale trade with a projected real increase of 1.0 percent, and government with a projected real increase of 0.2 percent.

Four sectors, transportation, warehousing, and utilities (TWU); nondurable goods manufacturing; agriculture; and mining are expected to experience declines in 2016.

### Quarterly Growth Rates in Forecasted Real GSP



### 2017 Highlights

	2017 *	Percent Change
<b>Current Dollars</b>		
Total Gross Product	530,369.4	2.8
<b>Constant (2009 Dollars)</b>		
Total Gross Product	462,456.8	2.0
Agricultural	4,259.8	-1.1
Mining	251.1	8.2
Construction	16,843.0	3.1
Manufacturing	88,733.2	2.1
Durable Goods	40,376.9	2.6
Nondurable Goods	48,356.3	1.6
TWU	15,991.0	-0.3
Wholesale Trade	26,272.6	1.3
Retail Trade	25,801.0	1.4
Information	18,566.1	5.5
FIRE	87,244.5	1.9
B & P	58,804.7	5.2
E & H	36,991.1	1.7
H & L	15,663.1	1.3
Services	8,884.0	-0.4
Government	58,151.7	0.0

\* millions of dollars

## 2017 GSP

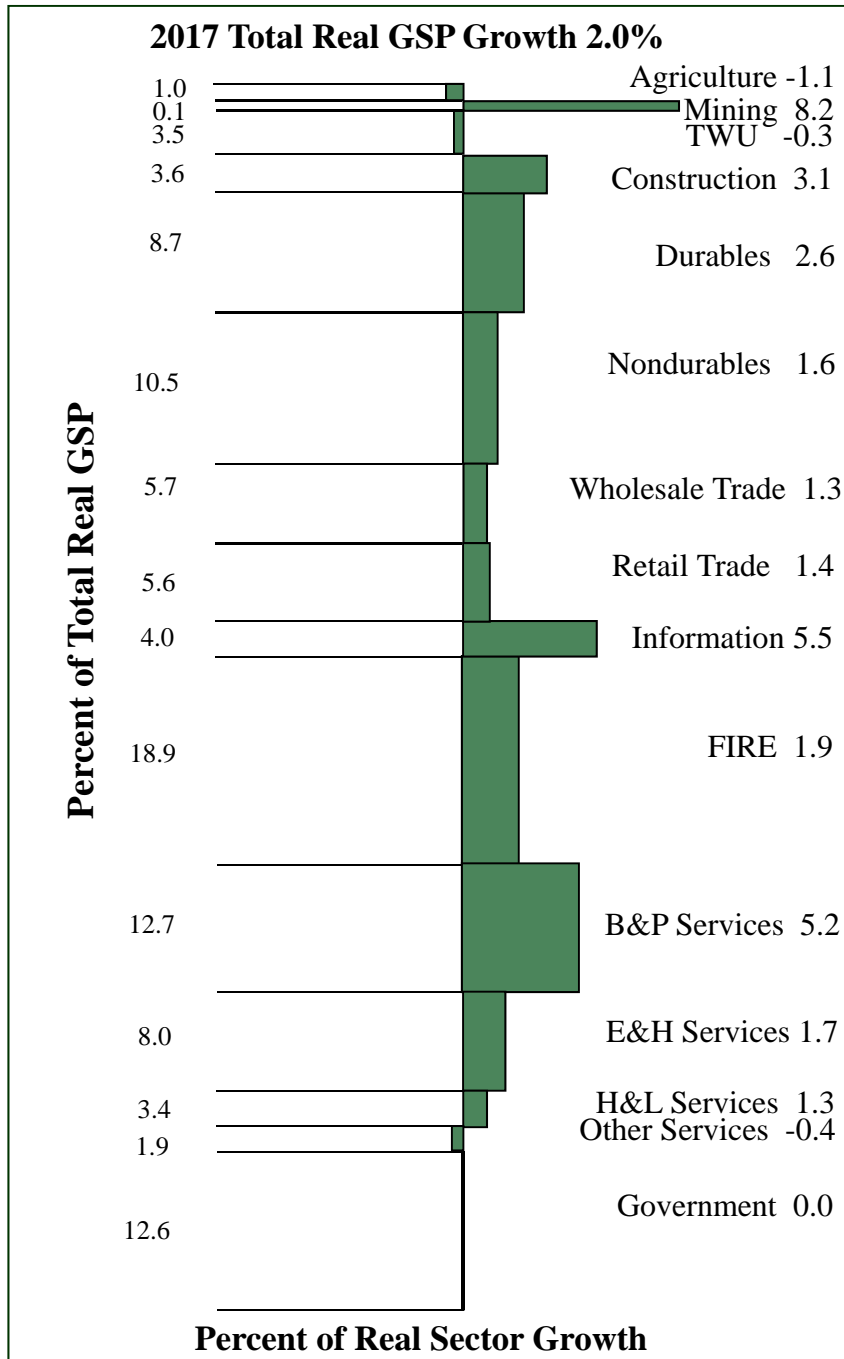
Gross State Product (GSP) is expected to reach a level of \$530,369.4 million in 2017. Real (inflation-adjusted) GSP is expected to increase by 2.0 percent over the 2016 level. This growth in 2017 would follow last years projected 2.2 percent real growth in North Carolina GSP.

For 2017, first quarter GSP is expected to increase by an annualized real rate of 2.2 percent. During the second quarter, GSP is expected to increase by an annualized real rate of 1.9 percent. In the third quarter, GSP is expected to increase by an annualized real rate of 2.0 percent. In the fourth quarter of 2017, GSP is expected to increase by an annualized real rate of 1.8 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 21<sup>st</sup> 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. The 2.5 percent real growth rate experienced over the 2014-2015 period was stronger than the recent past, but the slower growth expected in 2016 could signal a return to the slow growth pattern.

There are several long-term trends now emerging, that require us to recalibrate our sense of what level of long-term real GDP growth we can expect. First, is the aging of the labor force. Baby boomers are reaching retirement age and as they retire, they reduce their level of purchases, thus reducing overall consumption and lowering economic growth. Second, when baby boomers retire, there is a reduction in the absolute size of the labor force as the age cohorts entering the labor force are smaller. This reduces potential GDP and lowers economic growth. Finally, labor productivity has averaged only 1.3 percent growth per year since 2007. This is down considerably compared to the 2000 to 2007 average of 2.6 percent. Together these factors suggest a challenge for long-term inflation-adjusted GDP growth above a 2.5 to 3.0 percent range.

## 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.

Eleven 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, information with a projected real increase of 5.5 percent, business and professional services with a projected real increase of 5.2 percent, construction with a projected real increase of 3.1 percent, and durable goods manufacturing with a projected real increase of 2.6 percent.

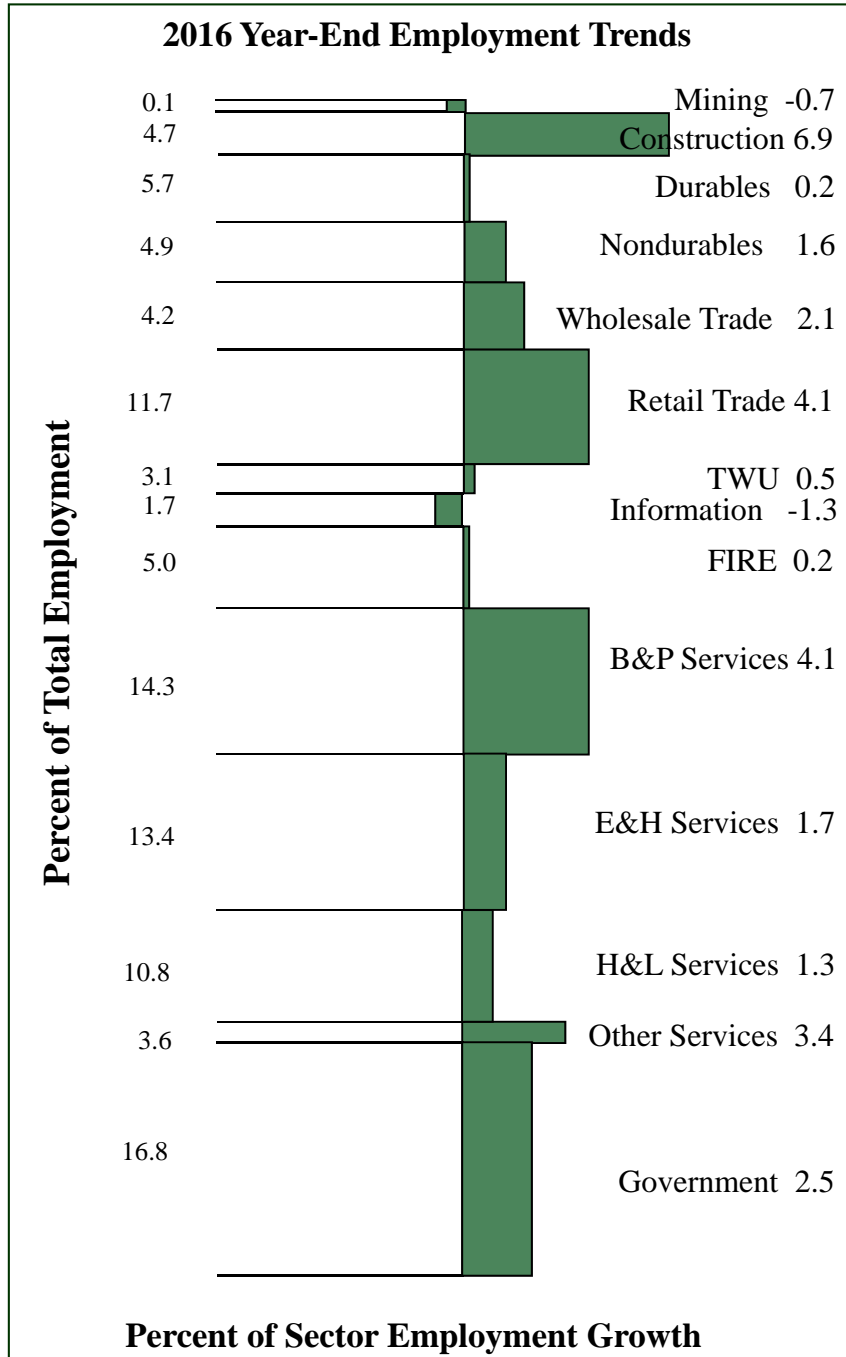
Six other sectors are expected to experience growth rates, but at levels below the overall 2.0 percent GSP real growth rate. These sectors are finance, insurance, and real estate (FIRE) with a projected real increase of 1.9 percent; educational and health services with a projected real increase of 1.7 percent; nondurable goods manufacturing with a projected real increase of 1.6 percent; retail trade with a projected real increase of 1.4 percent; wholesale trade with a projected real increase of 1.3 percent; and hospitality and leisure with a projected real increase of 1.3 percent.

Government is expected to be flat, while agriculture, transportation, warehousing, and utilities (TWU), and other services are expected to experience declines 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 4,380,600 persons in December 2016, an increase of 2.5 percent over the employment level in December 2015. The state is expected to gain 105,800 net jobs during the year.

Twelve 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 6.9 percent, retail trade at 4.1 percent, and business and professional services at 4.1 percent.



## 2016 Employment Highlights

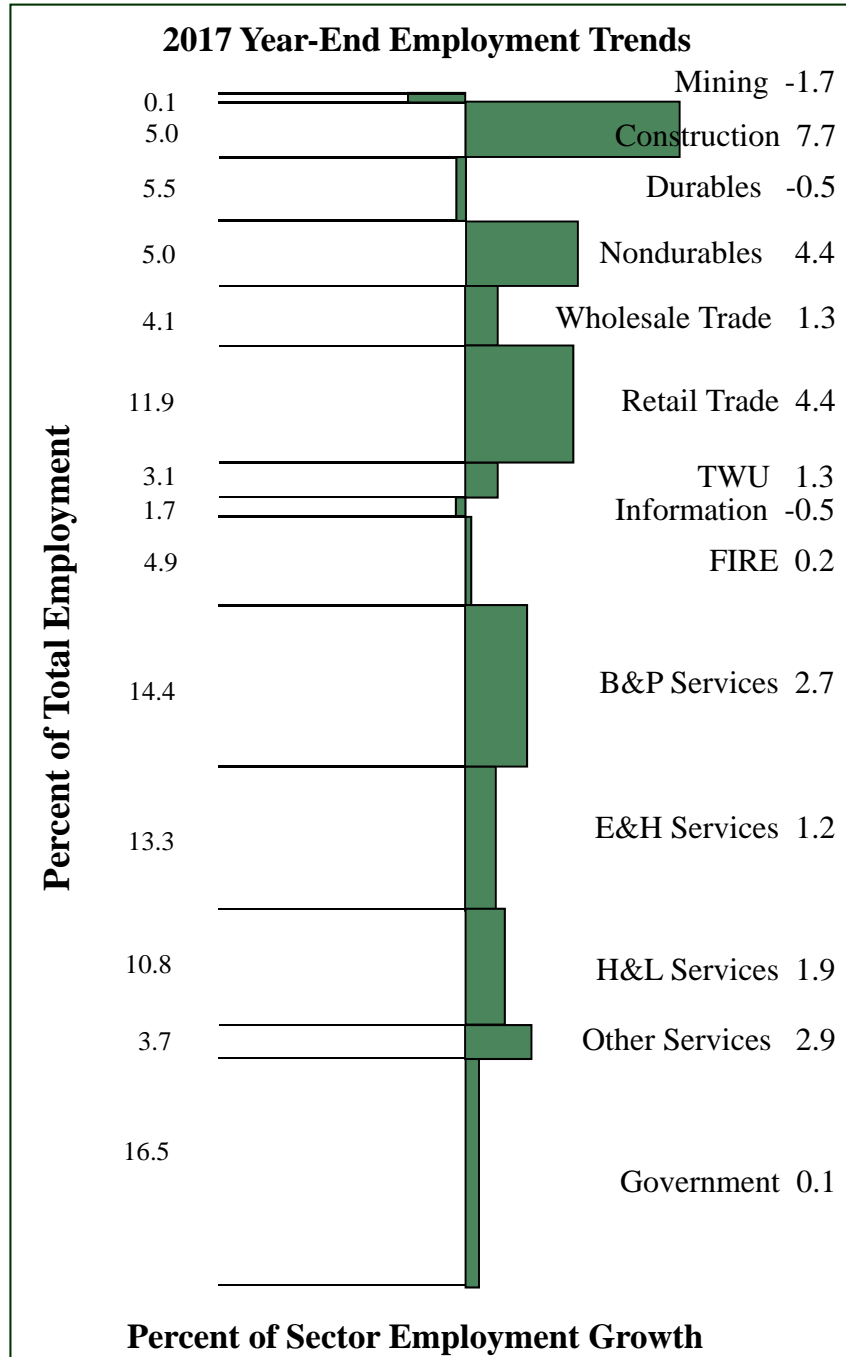
	Year-End*	Percent Change
Total Establishment		
Employment	4,380.6	2.5
Mining	5.5	-0.7
Construction	207.2	6.9
Manufacturing	462.4	0.9
Durable Goods	247.9	0.2
Nondurable Goods	214.5	1.6
Wholesale Trade	182.5	2.1
Retail Trade	510.7	4.1
TWU	137.6	0.5
Information	75.5	-1.3
FIRE	219.8	0.2
B&P Services	625.5	4.1
E&H Services	585.4	1.7
H&L Services	472.4	1.3
Other Services	159.3	3.4
Government	736.7	2.5

\*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 4,469,500 persons in December 2017, an increase of 2.0 percent over the employment level in December 2016. The state is expected to gain 88,900 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 7.7 percent, nondurable goods manufacturing at 4.4 percent, and retail trade at 4.4 percent.



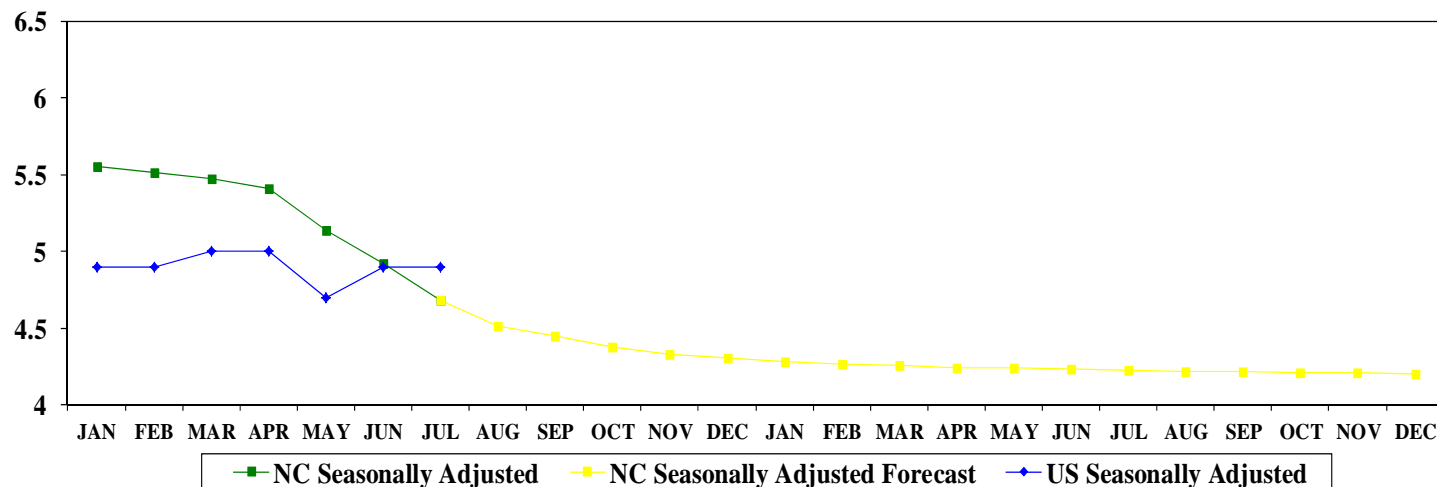
**2017 Employment Highlights**

	Year-End*	Percent Change
Total Establishment		
Employment	4,469.5	2.0
Mining	5.4	-1.7
Construction	223.1	7.7
Manufacturing	470.7	1.8
Durable Goods	246.7	-0.5
Nondurable Goods	224.0	4.4
Wholesale Trade	184.9	1.3
Retail Trade	533.2	4.4
TWU	139.5	1.3
Information	75.2	-0.5
FIRE	220.3	0.2
B&P Services	642.2	2.7
E&H Services	592.3	1.2
H&L Services	481.2	1.9
Other Services	163.9	2.9
Government	737.7	0.1

\*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 July. North Carolina started the year with a 5.6 percent rate of unemployment and has seen that decline dramatically to 4.7 percent by July. By December of 2016 the North Carolina rate is forecast to be 4.3 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 4.2 percent.