

Barings/UNC Charlotte Economic Forecast September 7, 2017



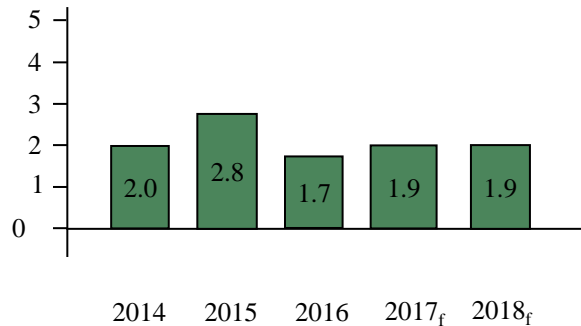
BARINGS

The word "BARINGS" is written in a large, blue, serif font. A horizontal line, colored blue and green, is positioned below the text.

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 August 23, 2017. 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.

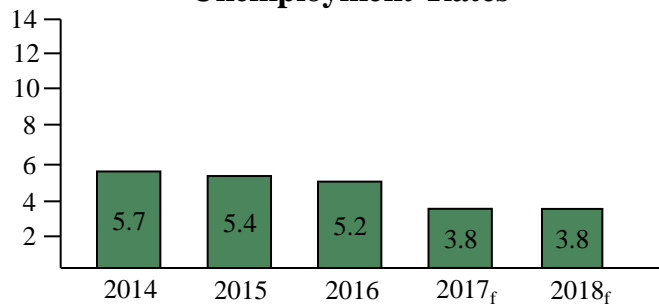
FORECAST HIGHLIGHTS

Annual Growth Rates In Real GSP



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).

Year-End Seasonally Adjusted North Carolina Unemployment Rates



- For 2017, NORTH CAROLINA real GSP is expected to increase by 1.9 percent over the 2016 level.

- Thirteen of the state's fifteen economic sectors are forecast to experience output increases during 2017. The sectors with the strongest expected growth are wholesale trade with a projected real increase of 4.1 percent; construction with a projected real increase of 3.8 percent; business and professional services with a projected real increase of 3.6 percent; mining with a projected real increase of 3.5 percent; other services with a projected real increase of 2.8 percent; and durable goods manufacturing with a projected real increase of 2.4 percent.

- For 2017, NORTH CAROLINA establishments added 60,500 net additional jobs, an increase of 1.4 percent.

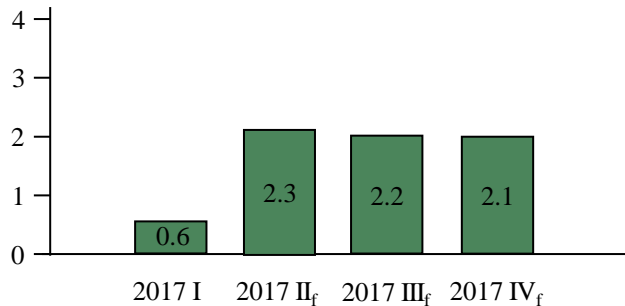
- For 2018, NORTH CAROLINA real GSP is forecast to increase by 1.9 percent over the 2017 level.

- Fourteen of the state's fifteen economic sectors are forecast to experience output increases during 2018. The sectors with the strongest expected growth are business and professional services with a projected real increase of 4.1 percent; durable goods manufacturing with a projected real increase of 2.8 percent; wholesale trade with a projected real increase of 2.4 percent; other services with a projected real increase of 2.4 percent; and transportation, warehousing; utilities (TWU) with a projected real increase of 2.3 percent.

- For 2018, NORTH CAROLINA establishments are forecast to add 82,700 net additional jobs, an increase of 1.9 percent.

- By December of 2017, the NORTH CAROLINA unemployment rate is expected to be around 4.0 percent.

Quarterly Growth Rates in Real GDP



2017 Highlights

	2017 *	Percent Change
Current Dollars		
Total Gross Product	536,963.3	3.7
Constant (2009 Dollars)		
Total Gross Product	460,238.9	1.9
Agricultural	4,136.2	-9.5
Mining	440.1	3.5
Construction	17,184.0	3.8
Manufacturing	86,486.5	0.9
Durable Goods	39,201.0	2.4
Nondurable Goods	47,285.5	-0.3
TWU	17,594.2	2.3
Wholesale Trade	27,564.0	4.1
Retail Trade	25,792.9	1.5
Information	18,159.2	2.2
FIRE	84,078.7	2.3
B & P	57,672.4	3.6
E & H	36,195.7	1.2
H & L	15,744.9	1.4
Services	9,131.9	2.8
Government	60,058.3	1.1

* millions of dollars

2017 GSP

Gross State Product (GSP) is expected to reach a level of \$536,963.3 million in 2017. Real (inflation-adjusted) GSP is expected to increase by 1.9 percent over the 2016 level. This growth in 2017 follows a 1.7 percent real GSP growth rate in North Carolina during 2016 and a 2.8 percent growth in 2015. These three years together represent the strongest growth period experienced by the North Carolina economy since the recovery began in late 2009.

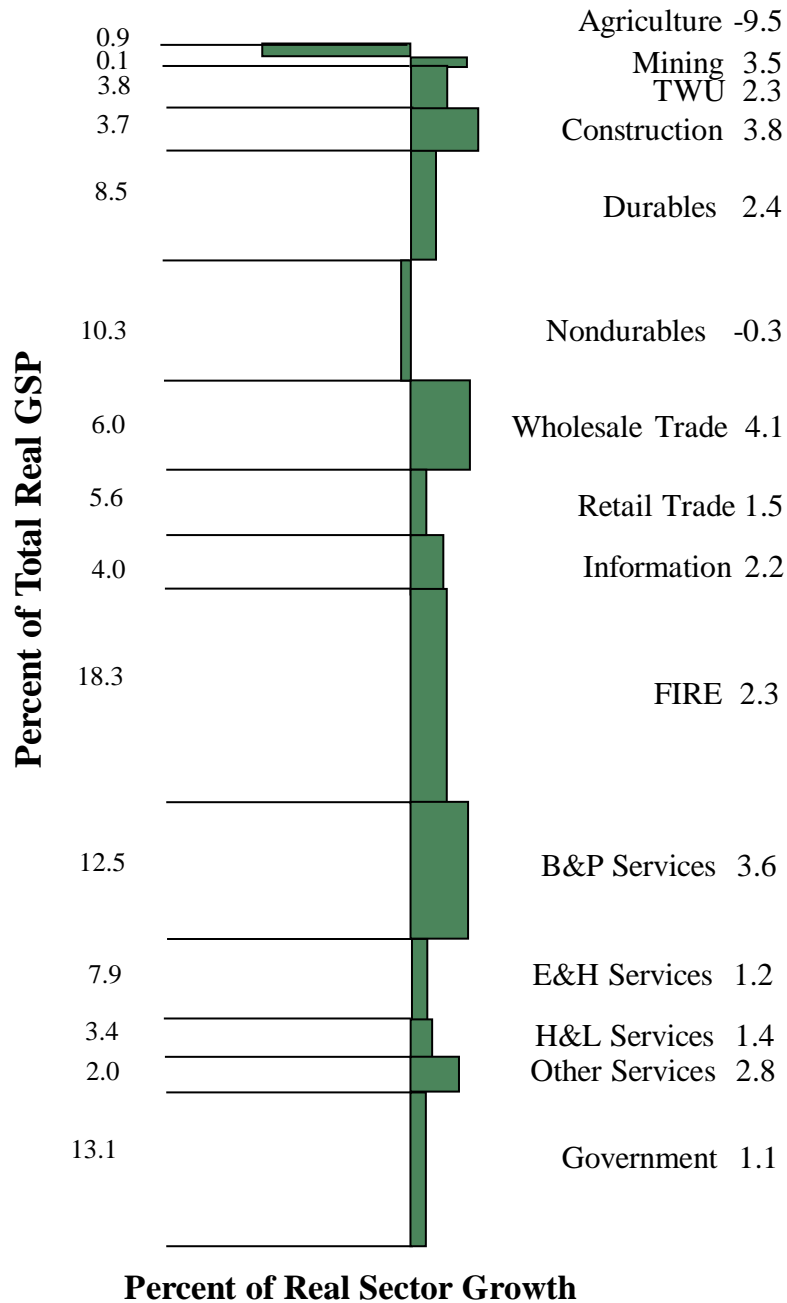
The recently released Bureau of Economic Analysis quarterly state GDP shows that for the first quarter of 2017, North Carolina GSP increased by an annualized real rate of 0.6 percent. During the second quarter, GSP is expected to increase by an annualized real rate of 2.3 percent. In the third quarter, GSP is expected to record an annualized real growth rate of 2.2 percent. In the fourth quarter of 2017, GSP is expected to grow by an annualized real rate of 2.1 percent.

During the first quarter of 2017, the North Carolina economy seemed to be experiencing very slow growth, which was consistent with the 1.2 percent first quarter growth experienced by the U.S. GDP. The expectation is that growth should pick up in the second quarter which again would be consistent with the U.S. GDP experience.

During the third and fourth quarters of 2017 both North Carolina and the U.S. economy should continue to expand at around a 2.0 percent rate. This would be consistent with the expected long term growth forecast by the Congressional Budget Office (CBO). The CBO January 2017 Economic Outlook forecast the average GDP growth between 2017 and 2027 to be at 1.8 percent per year.

The forecast for GDP growth in 2017 would represent the eighth year of economic expansion since 2009 making this expansion the third longest of the 33 expansions recorded since 1854.

2017 Total Real GSP Growth 1.9%



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 1.9 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.

Thirteen of the state's fifteen economic sectors are forecast to experience output increases during 2017. The sectors with the strongest expected growth are wholesale trade with a projected real increase of 4.1 percent; construction with a projected real increase of 3.8 percent; business and professional services with a projected real increase of 3.6 percent; mining with a projected real increase of 3.5 percent; other services with a projected real increase of 2.8 percent; durable goods manufacturing with a projected real increase of 2.4 percent; transportation, warehousing; utilities (TWU) with a projected real increase of 2.3 percent; finance, insurance, and real estate (FIRE) with a projected real increase of 2.3 percent; and information with a projected real increase of 2.2 percent.

Four other sectors are expected to experience growth rates, but at levels at or below the overall 1.9 percent GSP real growth rate. These sectors are retail trade with a projected real increase of 1.5 percent, hospitality and leisure services with a projected real increase of 1.4 percent, educational and health services with a projected real increase of 1.2 percent, and government with a projected real increase of 1.1 percent.

Only nondurable goods manufacturing and agriculture are expected to experience an output decline in 2017.

2018 GSP

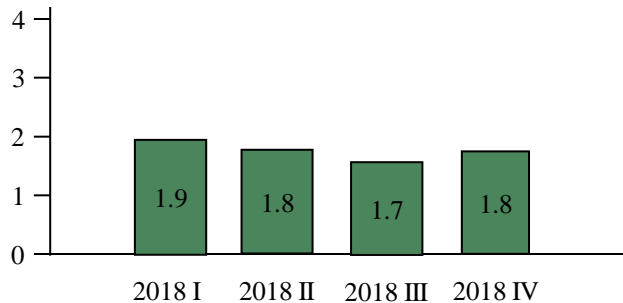
Gross State Product (GSP) is expected to reach a level of \$557,773.3 million in 2018. Real (inflation-adjusted) GSP is expected to increase by 1.9 percent over the 2017 level. This growth in 2018 would follow last year's 1.9 percent real growth in North Carolina GSP.

For 2018, first quarter GSP is expected to increase by an annualized real rate of 1.9 percent. During the second quarter, GSP is expected to increase by an annualized real rate of 1.8 percent. In the third quarter, GSP is expected to increase by an annualized real rate of 1.7 percent. In the fourth quarter of 2018, GSP is expected to increase by an annualized real rate of 1.8 percent.

Positive economic growth in 2018 would represent the ninth 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. In fact, the last time the North Carolina economy exceeded 3.0 percent GDP growth was in 2006, over ten years ago.

There are only two sources of potential GDP growth. The 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. 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. As a result the Congressional Budget Office in their January 2017 ten year GDP forecast estimated only an annual average GDP growth of 1.8 percent over the 2017-2027 period. Labor force growth is expected to account for 0.5 percent annual GDP growth during the period and labor productivity is expected to account for 1.3 percent annual GDP growth between 2017 and 2027.

Quarterly Growth Rates in Forecasted Real GSP

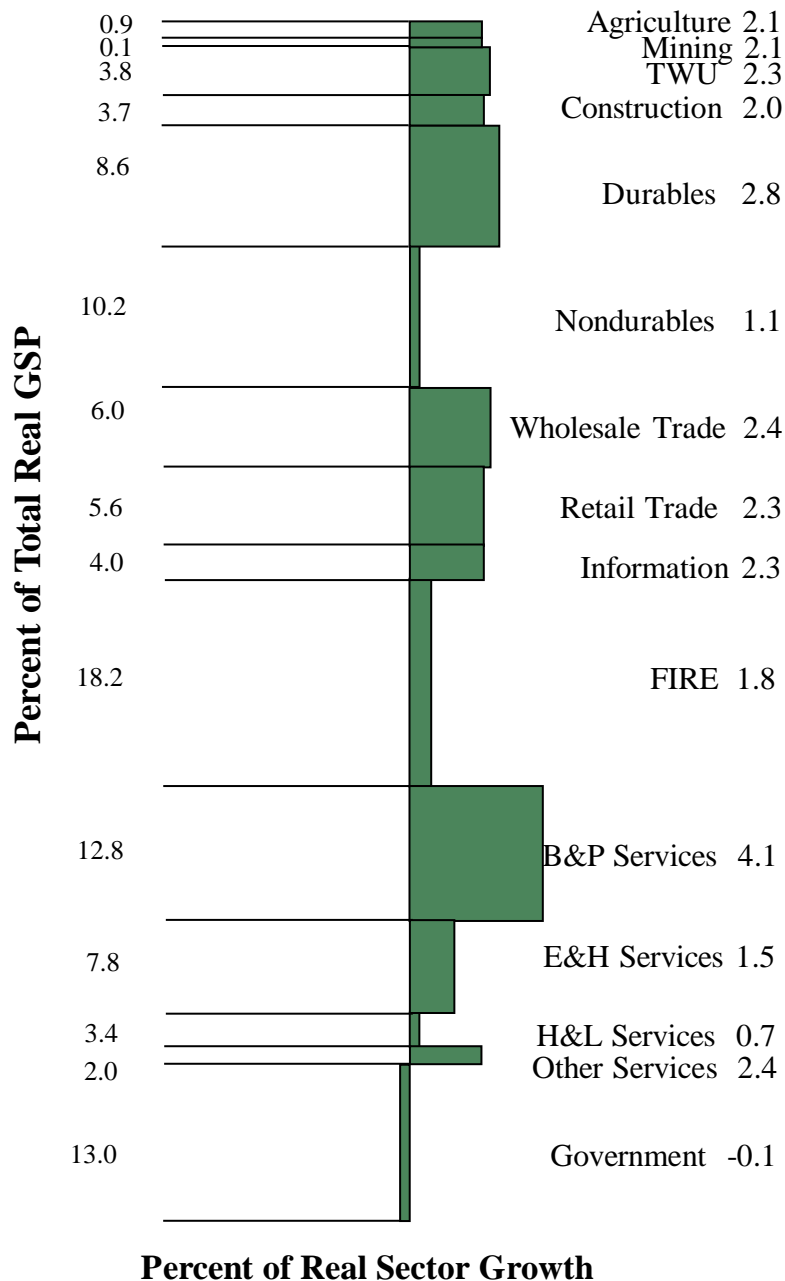


2018 Highlights

	2018 *	Percent Change
Current Dollars		
Total Gross Product	557,773.3	3.9
Constant (2009 Dollars)		
Total Gross Product	469,161.7	1.9
Agricultural	4,224.6	2.1
Mining	449.4	2.1
Construction	17,535.3	2.0
Manufacturing	88,096.3	1.9
Durable Goods	40,297.5	2.8
Nondurable Goods	47,789.8	1.1
TWU	18,000.6	2.3
Wholesale Trade	28,231.9	2.4
Retail Trade	26,397.5	2.3
Information	18,583.8	2.3
FIRE	85,614.9	1.8
B & P	60,038.9	4.1
E & H	36,738.1	1.5
H & L	15,854.3	0.7
Services	9,347.7	2.4
Government	60,057.4	-0.1

* millions of dollars

2018 Total Real GSP Growth 1.9%



2018 GSP SECTOR ANALYSIS

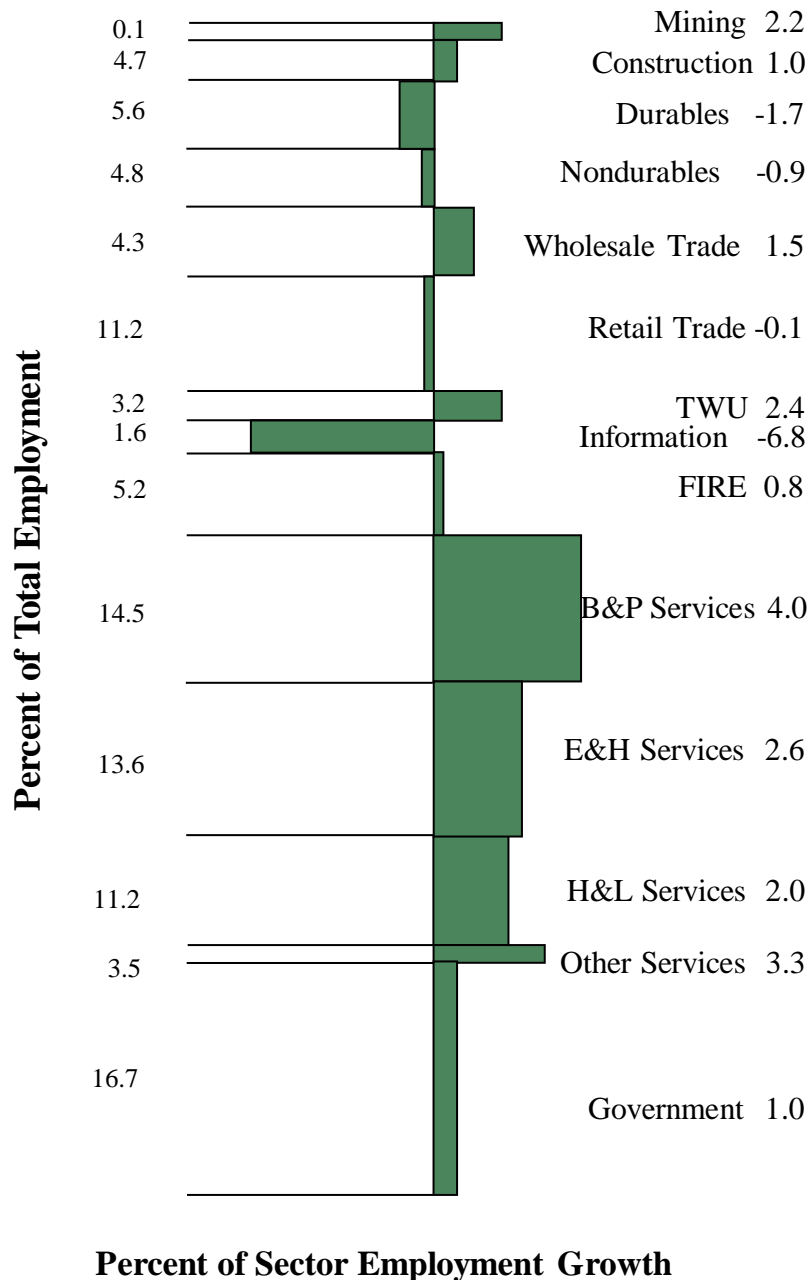
The chart to the left presents the projected contributions of each major economic sector to North Carolina's Gross State Product (GSP). The real (inflation-adjusted) growth rate for 2018 is forecast to increase by 1.9 percent. Projected real growth rates for each sector (displayed in black type) are 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 2018. 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 2018. The sectors with the strongest expected growth are business and professional services with a projected real increase of 4.1 percent; durable goods manufacturing with a projected real increase of 2.8 percent; wholesale trade with a projected real increase of 2.4 percent; other services with a projected real increase of 2.4 percent; transportation, warehousing; utilities (TWU) with a projected real increase of 2.3 percent; information with a projected real increase of 2.3 percent; retail trade with a projected real increase of 2.3 percent; agriculture with a projected real increase of 2.1 percent; mining with a projected real increase of 2.1 percent; and construction with a projected real increase of 2.0 percent.

Four other sectors are expected to experience growth rates, but at levels at or below the overall 1.9 percent GSP real growth rate. These sectors are finance, insurance, and real estate (FIRE) with a projected real increase of 1.8 percent; educational and health services with a projected real increase of 1.5 percent; nondurable good manufacturing with a projected real increase of 1.1 percent; and hospitality and leisure services with a projected real increase of 0.7 percent.

Only government is expected to experience an output decline in 2018.

2017 Year-End Employment Trends



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 4,443,200 persons in December 2017, an increase of 1.4 percent over the employment level in December 2016. The state is expected to add 60,500 net jobs during the year.

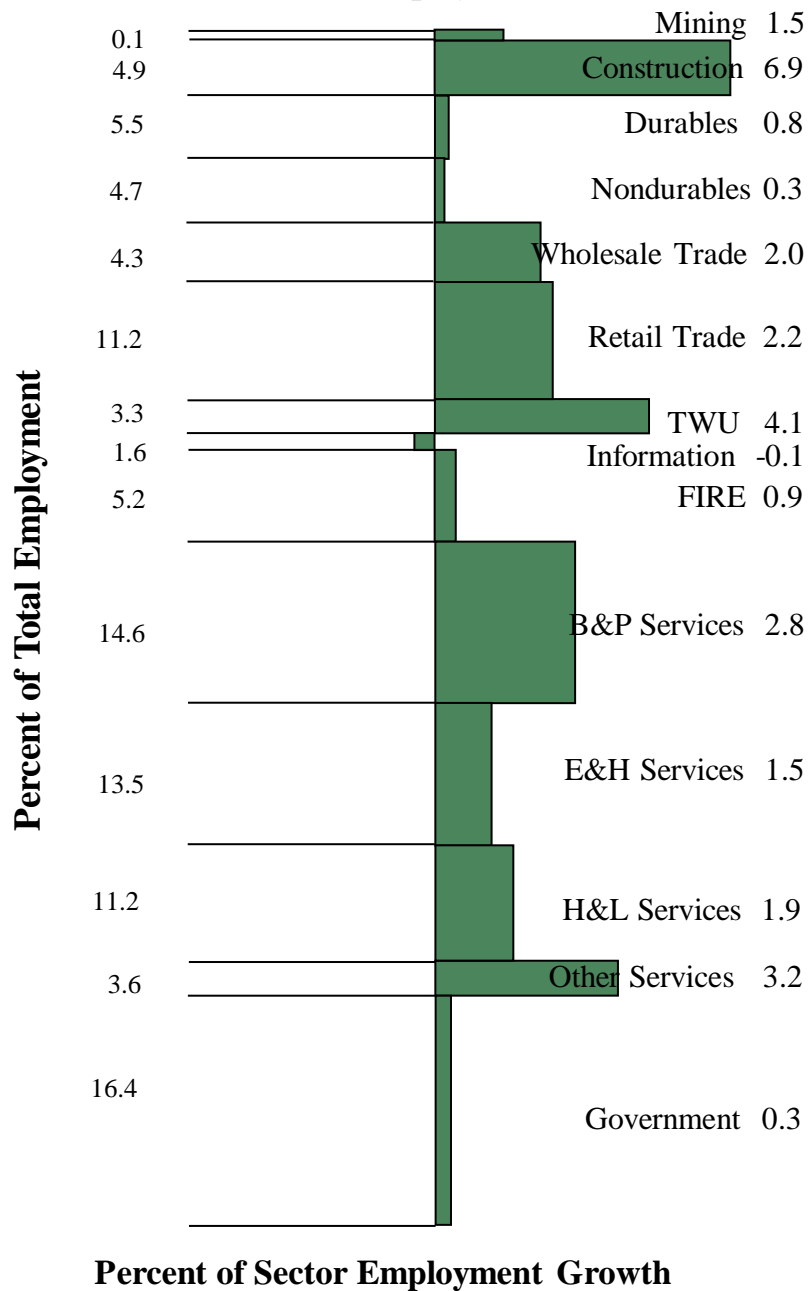
Ten of the state's fourteen nonagricultural sectors of the economy experienced employment increases during 2017. The sectors with the strongest employment increases in 2017 are business and professional services at 4.0 percent, educational and health services at 2.6 percent, and hospitality and leisure services at 2.0 percent.

2017 Employment Highlights

	Year-End*	Percent Change
Total Establishment		
Employment	4,443.2	1.4
Mining	5.8	2.2
Construction	206.0	1.0
Manufacturing	460.5	-1.4
Durable Goods	248.5	-1.7
Nondurable Goods	212.0	-0.9
Wholesale Trade	188.7	1.5
Retail Trade	495.3	-0.1
TWU	142.6	2.4
Information	73.0	-6.8
FIRE	231.1	0.8
B&P Services	644.0	4.0
E&H Services	604.1	2.6
H&L Services	495.4	2.0
Other Services	156.8	3.3
Government	740.0	1.0

*thousands of persons

2018 Year-End Employment Trends



2018 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 4,525,900 persons in December 2018, an increase of 1.9 percent over the employment level in December 2017. The state is expected to gain 82,700 net jobs during the year.

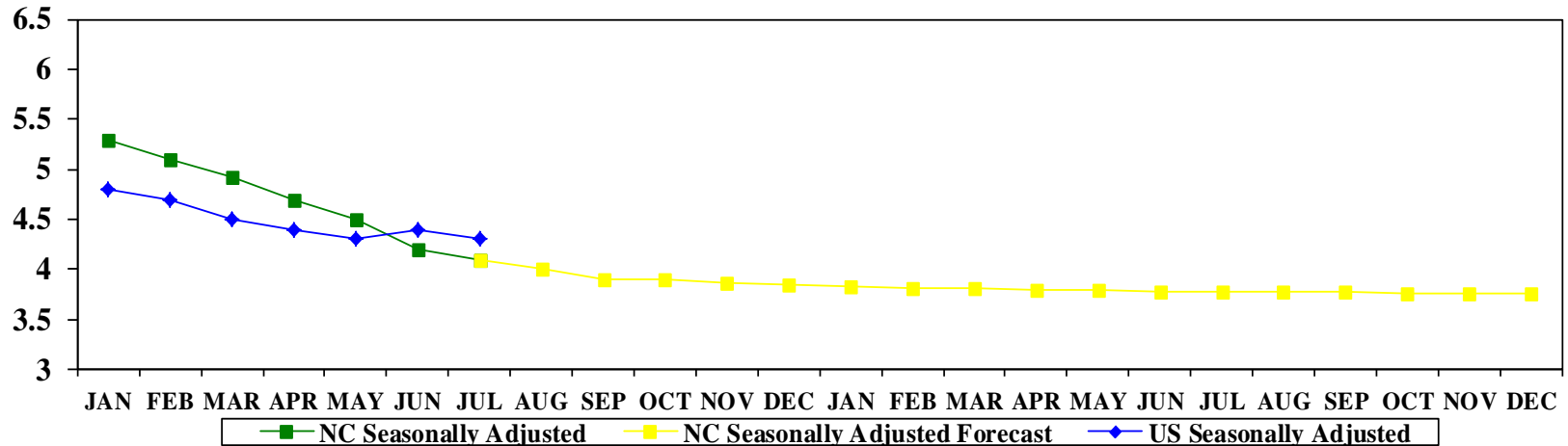
Thirteen of the state's fourteen nonagricultural sectors of the economy are expected to experience employment increases during 2018. The sectors with the strongest expected employment increases in 2018 are construction at 6.9 percent, TWU at 4.1 percent, and other services at 3.2 percent.

2018 Employment Highlights

	Year-End*	Percent Change
Total Establishment		
Employment	4,525.9	1.9
Mining	5.9	1.5
Construction	220.1	6.9
Manufacturing	463.1	0.5
Durable Goods	250.4	0.8
Nondurable Goods	212.7	0.3
Wholesale Trade	192.4	2.0
Retail Trade	506.3	2.2
TWU	148.4	4.1
Information	72.9	-0.1
FIRE	233.2	0.9
B&P Services	662.1	2.8
E&H Services	612.9	1.5
H&L Services	504.8	1.9
Other Services	161.8	3.2
Government	741.8	0.3

*thousands of persons

2017-2018 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 2017 and 2018. 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 2017 with an unemployment rate of 4.8 percent, which has declined to 4.3 percent by July. North Carolina started the year with a 5.3 percent rate of unemployment, which declined to 4.1 percent by July. By December of 2017 the North Carolina unemployment rate is expected to remain around 4.0 percent and by December 2018 the unemployment rate is expected to be around 3.8 percent.