

Barings/UNC Charlotte

Economic Forecast

March 13, 2018



UNC CHARLOTTE

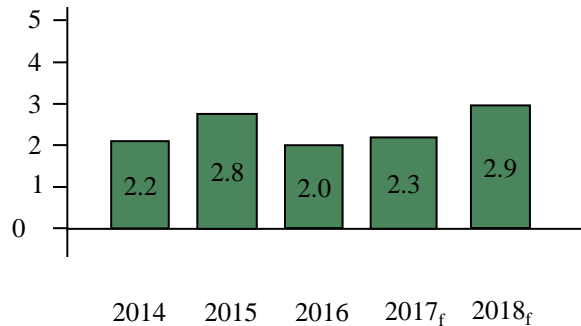
BELK COLLEGE *of* BUSINESS

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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 February 14, 2018. 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.

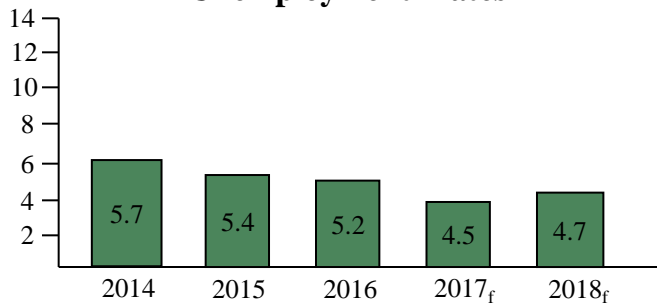
FORECAST HIGHLIGHTS

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 2.3 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 18.7 percent; agriculture with a projected real increase of 13.0 percent; wholesale trade with a projected real increase of 5.3 percent; transportation, warehousing; utilities (TWU) with a projected real increase of 5.2 percent; and hospitality and leisure services with a projected real increase of 4.2 percent.

- For 2017, NORTH CAROLINA establishments added 77,000 net additional jobs, an increase of 1.7 percent.

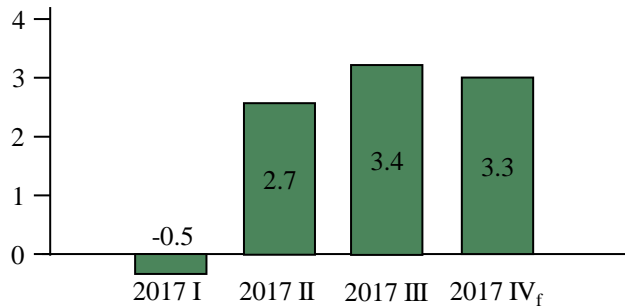
- For 2018, NORTH CAROLINA real GSP is forecast to increase by 2.9 percent over the 2017 level.

- Fourteen of the state's fifteen economic sectors are forecast to experience output increases during 2018. The sectors with the strongest expected growth are mining with a projected real increase of 30.7 percent; transportation, warehousing, utilities (TWU) with a projected real increase of 5.3 percent; other services with a projected real increase of 5.2 percent; hospitality and leisure services with a projected real increase of 4.6 percent; and finance, insurance, and real estate (FIRE) with a projected real increase of 4.0 percent.

- For 2018, NORTH CAROLINA establishments are forecast to add 127,300 net additional jobs, an increase of 2.9 percent.

- By December of 2018, 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	543,168.3	4.1
Constant (2009 Dollars)		
Total Gross Product	463,690.3	2.3
Agricultural	5,473.9	13
Mining	575.0	18.7
Construction	16,560.6	2.4
Manufacturing	87,411.7	-0.8
Durable Goods	38,093.6	0.2
Nondurable Goods	49,318.1	-1.5
TWU	18,164.1	5.2
Wholesale Trade	28,204.0	5.3
Retail Trade	26,461.4	3.3
Information	18,187.0	0.6
FIRE	83,815.4	2.4
B & P	56,736.4	4.0
E & H	35,955.2	2.2
H & L	16,415.9	4.2
Services	8,963.8	2.6
Government	60,765.92	1.1

* millions of dollars

2017 GSP

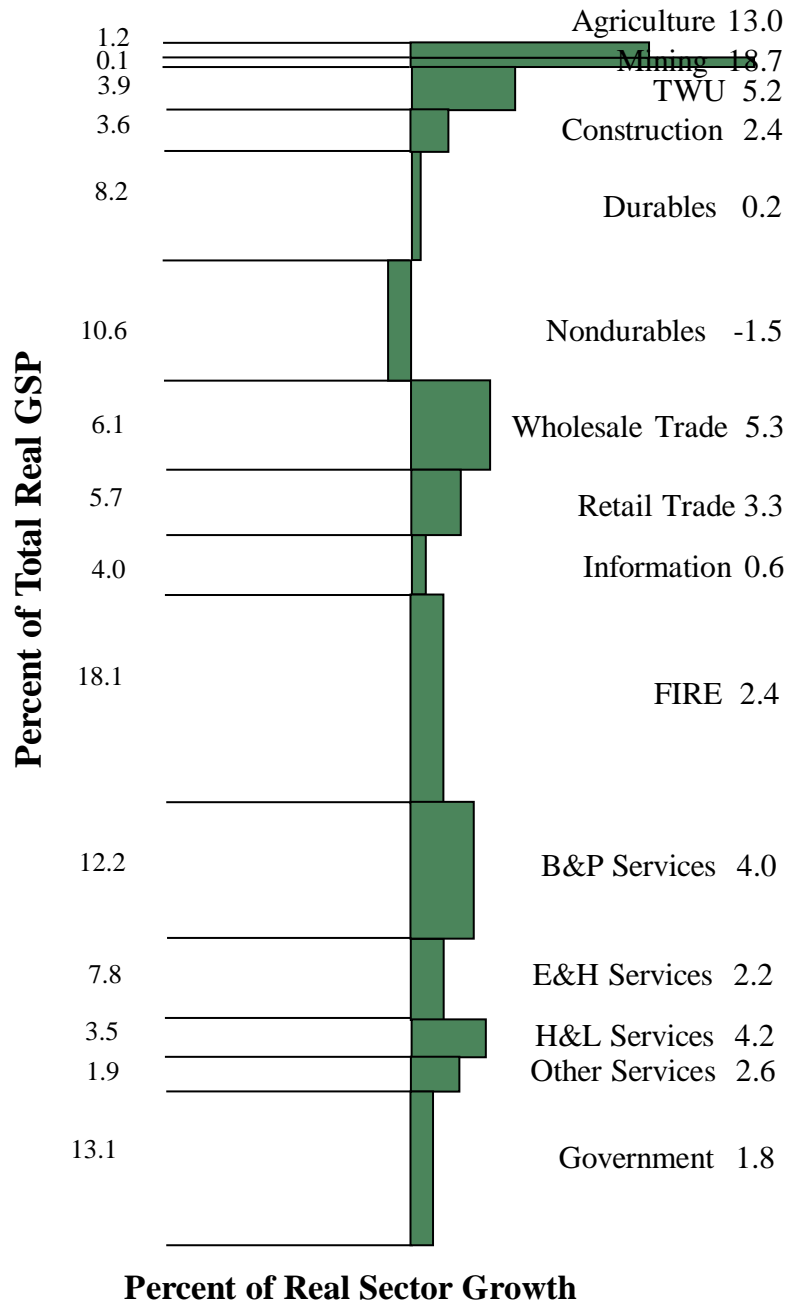
Gross State Product (GSP) is expected to reach a level of \$543,168.3 million in 2017. Real (inflation-adjusted) GSP is expected to increase by 2.3 percent over the 2016 level. This growth in 2017 follows a 2.0 percent real GSP growth rate in North Carolina during 2016 and a 2.8 percent growth in 2015. 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 GSP shows that for the first quarter of 2017, North Carolina GSP decreased by an annualized real rate of 0.5 percent. During the second quarter, GSP is increased by an annualized real rate of 2.7 percent. In the third quarter, GSP recorded an annualized real growth rate of 3.4 percent. In the fourth quarter of 2017, GSP is expected to grow by an annualized real rate of 3.3 percent.

During the first quarter of 2017, the North Carolina economy experienced a slight decline in GSP compared to a modest 1.2 percent first quarter growth experienced by U.S. GDP. The state's economy rebounded during the second quarter recording a 2.7 percent increase. During the third and fourth quarters of 2017 both the North Carolina and the U.S. economies gained considerable strength and have begun to expand closer to a 3.0 percent rate. The question going forward is, will this stronger growth rate continue into 2018? Both the U.S. and North Carolina economies have struggled during this expansion to consistently achieve the 3.0 percent target GDP growth rate.

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 2.3%



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 2.3 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 18.7 percent; agriculture with a projected real increase of 13.0 percent; wholesale trade with a projected real increase of 5.3 percent; transportation, warehousing; utilities (TWU) with a projected real increase of 5.2 percent; hospitality and leisure services with a projected real increase of 4.2 percent; business and professional services with a projected real increase of 4.0 percent; retail trade with a projected real increase of 3.3 percent; other services with a projected real increase of 2.6 percent; finance, insurance, and real estate (FIRE) with a projected real increase of 2.4 percent; and construction with a projected real increase of 2.4 percent.

Four other sectors are expected to experience growth rates, but at levels at or below the overall 2.3 percent GSP real growth rate. These sectors are educational and health services with a projected real increase of 2.2 percent, government with a projected real increase of 1.8 percent, information with a projected real increase of 0.6 percent, and durable goods manufacturing with a projected real increase of 0.2 percent.

Only nondurable goods manufacturing is expected to experience an output decline in 2017.

2018 GSP

Gross State Product (GSP) is expected to reach a level of \$570,389.5 million in 2018. Real (inflation-adjusted) GSP is expected to increase by 2.9 percent over the 2017 level. This growth in 2018 would follow 2017 2.3 percent real growth in North Carolina GSP.

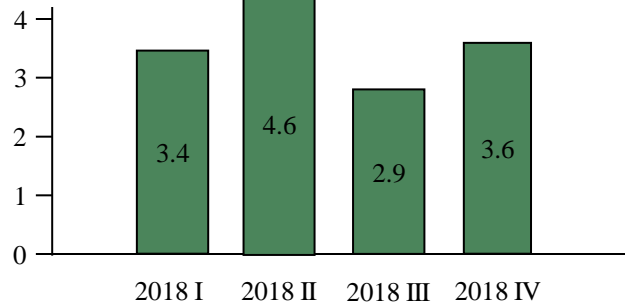
For 2018, first quarter GSP is expected to increase by an annualized real rate of 3.4 percent. During the second quarter, GSP is expected to increase by an annualized real rate of 4.6 percent. In the third quarter, GSP is expected to increase by an annualized real rate of 2.9 percent. In the fourth quarter of 2018, GSP is expected to increase by an annualized real rate of 3.6 percent.

Positive economic growth in 2018 would represent the ninth consecutive year of economic growth for the North Carolina economy and make this expansion the second longest of all time. 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 during the second half of the 20th century. In fact, the last time the North Carolina economy exceeded 3.0 percent GDP growth was in 2006, over ten years ago.

The growth expected during the second half of 2017 and all of 2018 appears to break with the first 7 years of this expansion. The deregulation by the Trump administration seem to have pumped a little life into the economy during the second half of 2017. Going forward in 2018 the biggest driver will be the corporate and individual tax cut legislation passed in December of 2017. The corporate tax reduction will have the most impact on the economy in 2018 as the U.S. tax burden on domestic corporations is now in line with that of our major trading partners.

While most of the focus has been on the individual tax cuts, it is the corporate tax reform (through increasing investment) that will have the most impact on improving the long term growth rate of GDP.

Quarterly Growth Rates in Forecasted Real GSP

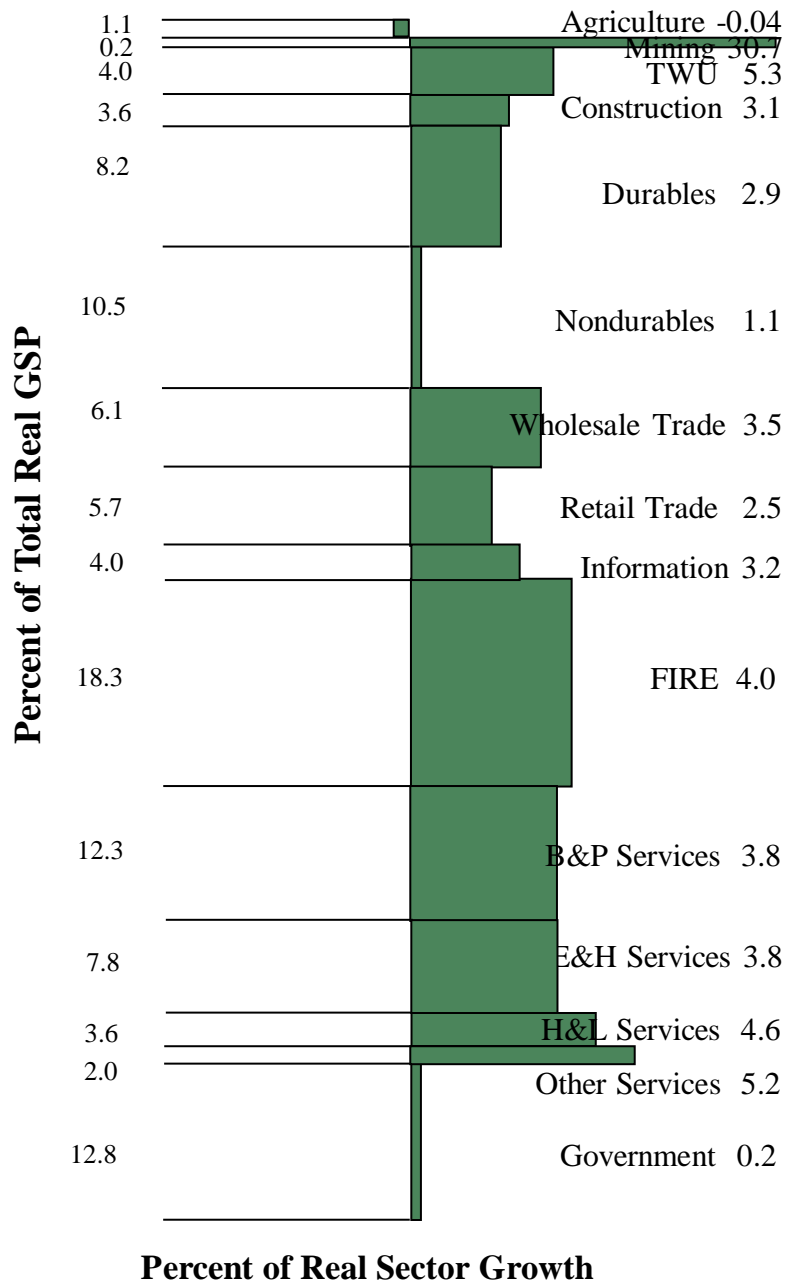


2018 Highlights

	2018 *	Percent Change
Current Dollars		
Total Gross Product	570,389.5	5.0
Constant (2009 Dollars)		
Total Gross Product	477,332.4	2.9
Agricultural	5,282.8	-0.04
Mining	751.3	30.7
Construction	17,080.4	3.1
Manufacturing	88,292.0	1.0
Durable Goods	39,208.7	3.0
Nondurable Goods	49,880.4	1.1
TWU	19,124.6	5.3
Wholesale Trade	29,185.0	3.5
Retail Trade	27,126.9	2.5
Information	18,745.7	3.2
FIRE	87,169.1	4.0
B & P	58,915.9	3.8
E & H	37,335.9	3.8
H & L	17,166.3	4.6
Services	9,427.0	5.2
Government	60,892.3	0.2

* millions of dollars

2018 Total Real GSP Growth 2.9%



2018 GSP SECTOR ANALYSIS

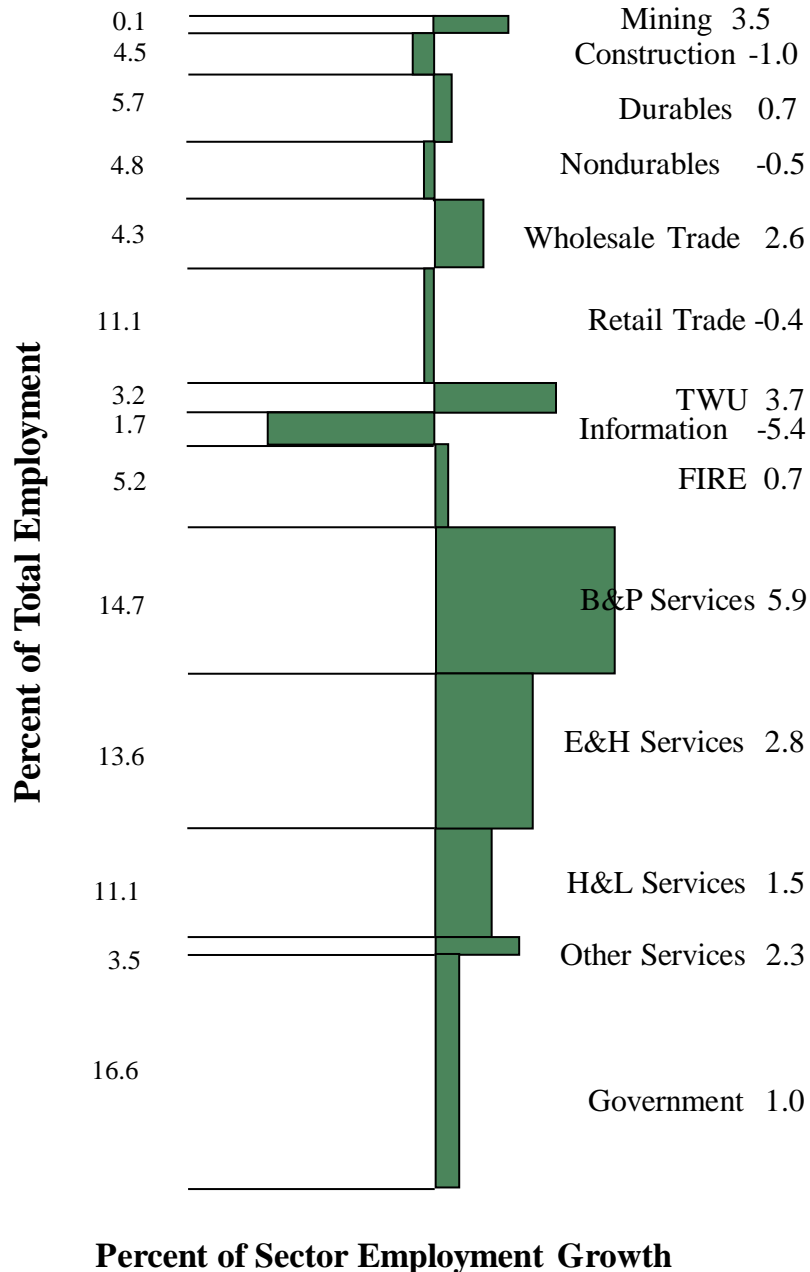
The chart to the left presents the projected contributions of each major economic sector to North Carolina's Gross State Product (GSP). The real (inflation-adjusted) growth rate for 2018 is forecast to increase by 2.9 percent. Projected real growth rates for each sector (displayed in black type) are 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 mining with a projected real increase of 30.7 percent; transportation, warehousing, and utilities (TWU) with a projected real increase of 5.3 percent; other services with a projected real increase of 5.2 percent; hospitality and leisure services with a projected real increase of 4.6 percent; finance, insurance, and real estate (FIRE) with a projected real increase of 4.0 percent; educational and health services with a projected real increase of 3.8 percent; business and professional services with a projected real increase of 3.8 percent; wholesale trade with a projected real increase of 3.5 percent; information with a projected real increase of 3.2 percent; construction with a projected real increase of 3.1 percent; and durable goods manufacturing with a projected real increase of 2.9 percent.

Three other sectors are expected to experience growth rates, but at levels at or below the overall 2.9 percent GSP real growth rate. These sectors are retail trade with a projected real increase of 2.5 percent; nondurable goods manufacturing with a projected real increase of 1.1 percent, and government with a projected real increase of 0.2 percent.

Only agriculture 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 reached 4,457,700 persons in December 2017, an increase of 1.7 percent over the employment level in December 2016. The state added 75,000 net jobs during the year.

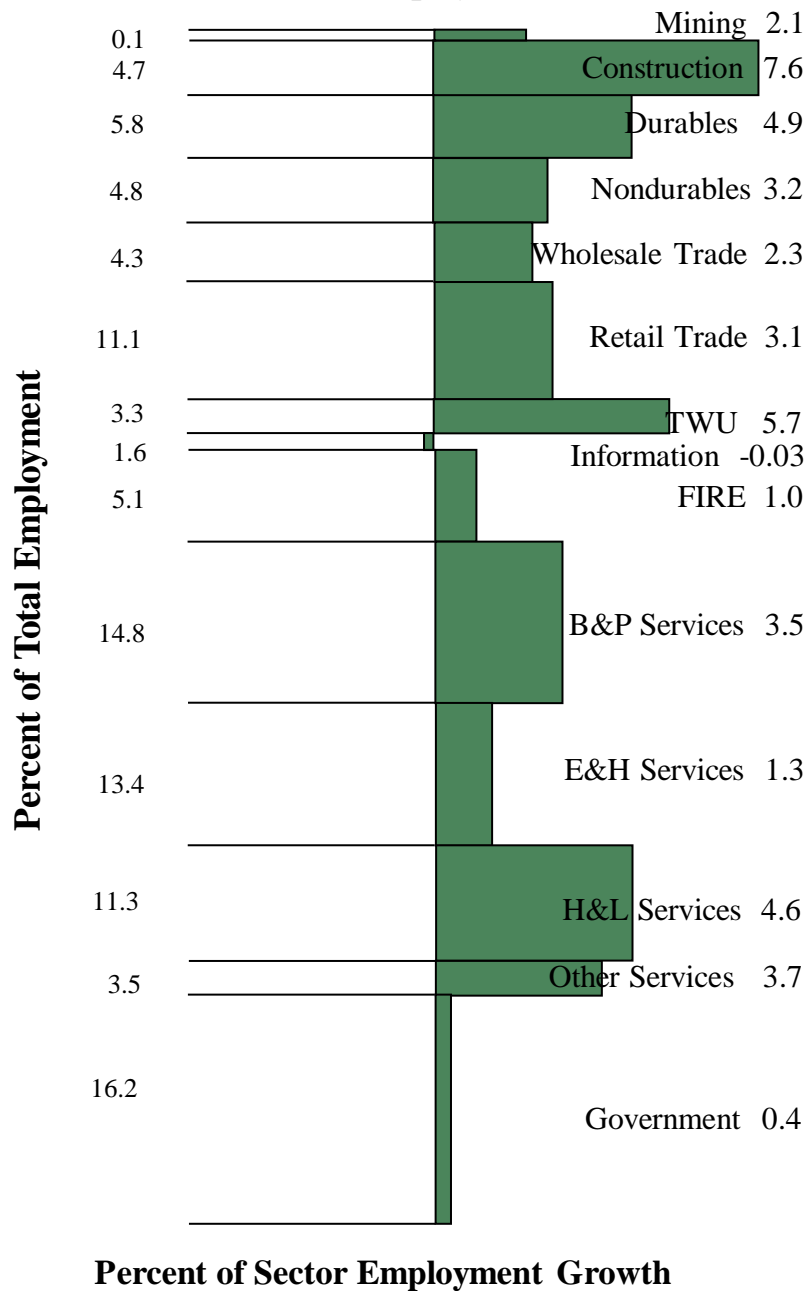
Ten of the state's fourteen nonagricultural sectors of the economy experienced employment increases during 2017. The sectors with the strongest employment increases in 2017 were business and professional services at 5.9 percent, TWU at 3.7 percent, and educational and health services at 2.8 percent.

2017 Employment Highlights

	Year-End*	Percent Change
Total Establishment		
Employment	4,457.7	1.7
Mining	5.9	3.5
Construction	201.9	-1.0
Manufacturing	467.5	0.2
Durable Goods	254.5	0.7
Nondurable Goods	213.0	-0.5
Wholesale Trade	190.7	2.6
Retail Trade	493.8	-0.4
TWU	144.5	3.7
Information	74.1	-5.4
FIRE	230.9	0.7
B&P Services	655.2	5.9
E&H Services	605.4	2.8
H&L Services	492.8	1.5
Other Services	155.3	2.3
Government	739.7	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 4,585,000 persons in December 2018, an increase of 2.9 percent over the employment level in December 2017. The state is expected to gain 127,300 net jobs during the year.

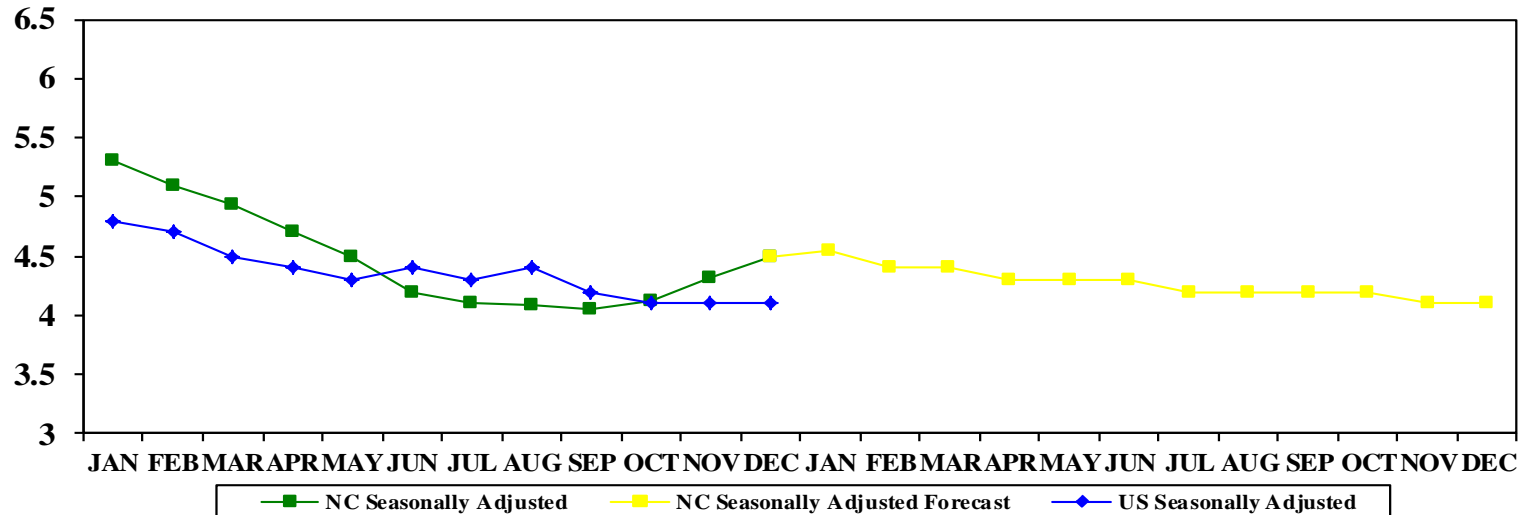
Thirteen of the state's fourteen nonagricultural sectors of the economy are expected to experience employment increases during 2018. The sectors with the strongest expected employment increases in 2018 are construction at 7.6 percent, TWU at 5.7 percent, and hospitality and leisure services at 4.6 percent.

2018 Employment Highlights

	Year-End*	Percent Change
Total Establishment		
Employment	4,585.0	2.9
Mining	6.0	2.1
Construction	217.2	7.6
Manufacturing	486.9	4.2
Durable Goods	267.1	4.9
Nondurable Goods	219.8	3.2
Wholesale Trade	195.2	2.3
Retail Trade	509.0	3.1
TWU	152.7	5.7
Information	74.1	-0.03
FIRE	233.0	1.0
B&P Services	678.9	3.5
E&H Services	613.0	1.3
H&L Services	515.6	4.6
Other Services	161.0	3.7
Government	742.5	0.4

*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 4.1 percent by October. North Carolina started the year with a 5.3 percent rate of unemployment, which also declined to 4.1 percent by October. By December of 2017 the North Carolina unemployment rate ticked up to 4.5 percent. By December 2018 the unemployment rate is expected to fall back down to around 4.0 percent.