

# Economic Snapshots: Occupational Mix

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## Key Findings

Overall, North Carolina's top employing occupational groups were similar to those of comparison states and the nation. Many of these top occupational groups experienced a decline in employment over the last five years, in addition to significant employment declines in traditional occupational groups such as Construction and Production. However, strong employment growth occurred in occupational groups such as Healthcare Practitioners and Technical Occupations, Food Preparation and Serving Related Occupations, and Computer and Mathematical Occupations.

- When ranked by employment, the top five occupational groups in North Carolina had median hourly earnings of \$15.21 or less in 2012.
- Construction and Production occupations continue to feel the effects of the recession, having lost 55,757 and 59,584 positions, respectively, from 2007 to 2012. Healthcare, Education, and Food Preparation & Serving Related Occupations are leading the recovery, adding more than 22,000 total positions in the same time frame.
- Since the end of the recession in 2010, the largest net growth in employment in North Carolina has occurred in Food Preparation and Serving Related Occupations. Computer and Mathematical Occupations has experienced the fastest growth, increasing 9 percent from 2010 to 2012.

## Indicator Overview

A region's occupational mix provides a broad overview of the type of workers employed in the economy and has implications for employment growth rates. The relative size of each occupation group, its growth or decline over time, worker skill sets, and the median wages paid to each group are important features of the overall workforce. Examining trends in the occupational mix of a region over time can help inform economic development strategy by leveraging existing workforce assets as a recruitment tool and growing the desirable occupations of the future.

## How Does North Carolina Perform?

When looking at the top occupational groups<sup>1</sup> among comparison states, North Carolina had the same top five employing occupation groups as the nation and multiple comparison states including Georgia, Indiana, Pennsylvania, and South Carolina<sup>2</sup>. The relative sizes of occupation groups among the states and the nation may vary. Massachusetts, Michigan, and Virginia share some of North Carolina's top employing groups but not others. Healthcare and Education had a larger presence in Massachusetts than our comparison states, while Virginia had a stronger focus on Education and Business and Financial Operations. Michigan's top five occupations also included Healthcare Practitioners and Technical Occupations. The variation among occupational groups is due to the fact that occupational mix is reflective of the particular [industry mix](#) of each state.

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<sup>1</sup> Occupation groups correspond to the 2-digit Standard Occupational Classification (SOC) system of the Bureau of Labor Statistics. These are broad groupings of occupations which contain numerous, more specific occupation titles. When examining employment numbers by occupation, it is possible for an individual worker to have more than one occupation.

<sup>2</sup> The relative sizes of occupation groups among the states and the nation may vary relative to the total size of the economy.

The following table provides all of North Carolina's occupation groups, along with their associated median hourly earnings, recent growth, and share of total employment.

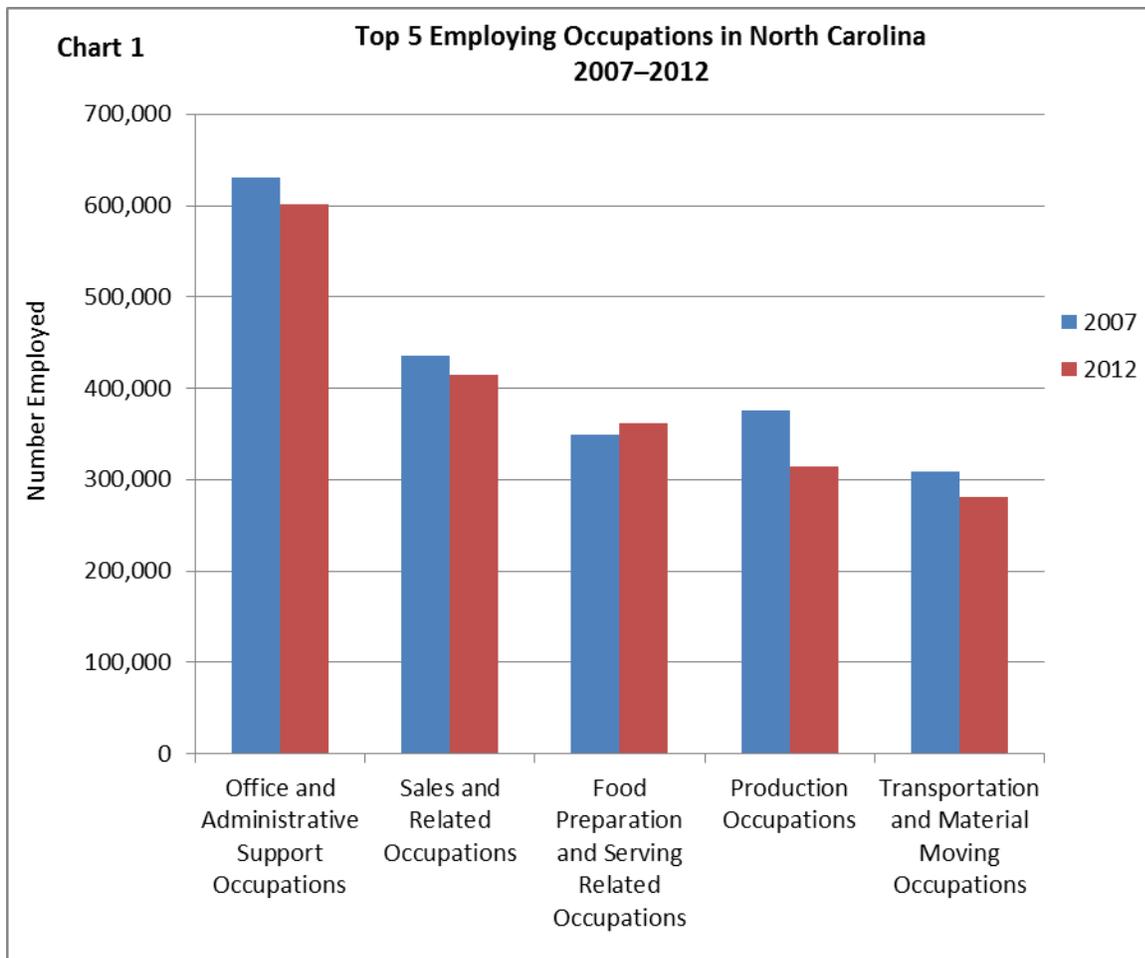
**Table 1** North Carolina Occupation Groups, 2007–2012

Occupation	2007 Employment	2012 Employment	Change from 2007–2012	Percent Change from 2007–2012	Median Hourly Earning
Office and Administrative Support Occupations	626,415	604,711	-21,704	-3	\$15.21
Sales and Related Occupations	440,546	422,254	-18,292	-4	\$14.76
Food Preparation and Serving Related Occupations	348,622	362,398	13,776	4	\$9.37
Production Occupations	375,742	316,158	-59,584	-16	\$14.86
Transportation and Material Moving Occupations	302,363	277,256	-25,107	-8	\$13.67
Education, Training, and Library Occupations	245,147	246,707	1,560	1	\$20.40
Healthcare Practitioners and Technical Occupations	221,726	238,329	16,603	7	\$32.18
Management Occupations	184,826	173,771	-11,055	-6	\$47.25
Business and Financial Operations Occupations	170,190	173,323	3,133	2	\$28.80
Installation, Maintenance, and Repair Occupations	173,072	161,696	-11,376	-7	\$19.11
Healthcare Support Occupations	137,465	144,738	7,273	5	\$11.46
Construction and Extraction Occupations	189,540	133,783	-55,757	-29	\$16.71
Building and Grounds Cleaning and Maintenance Occupations	124,911	125,280	369	0	\$10.44
Computer and Mathematical Occupations	97,555	104,971	7,416	8	\$36.33
Protective Service Occupations	96,498	100,160	3,662	4	\$15.59
Personal Care and Service Occupations	92,427	92,603	176	0	\$10.05
Architecture and Engineering Occupations	63,160	56,166	-6,994	-11	\$32.85
Community and Social Service Occupations	49,850	49,775	-75	0	\$19.11
Arts, Design, Entertainment, Sports, and Media Occupations	41,988	39,801	-2,187	-5	\$20.29
Life, Physical, and Social Science Occupations	32,915	34,549	1,634	5	\$27.73
Legal Occupations	24,013	24,209	196	1	\$31.92
Farming, Fishing, and Forestry Occupations	23,984	23,007	-977	-4	\$11.16
Total	4,062,954	3,905,643	-157,311	-4	\$18.80

Source: Economic Modeling Specialists Inc.

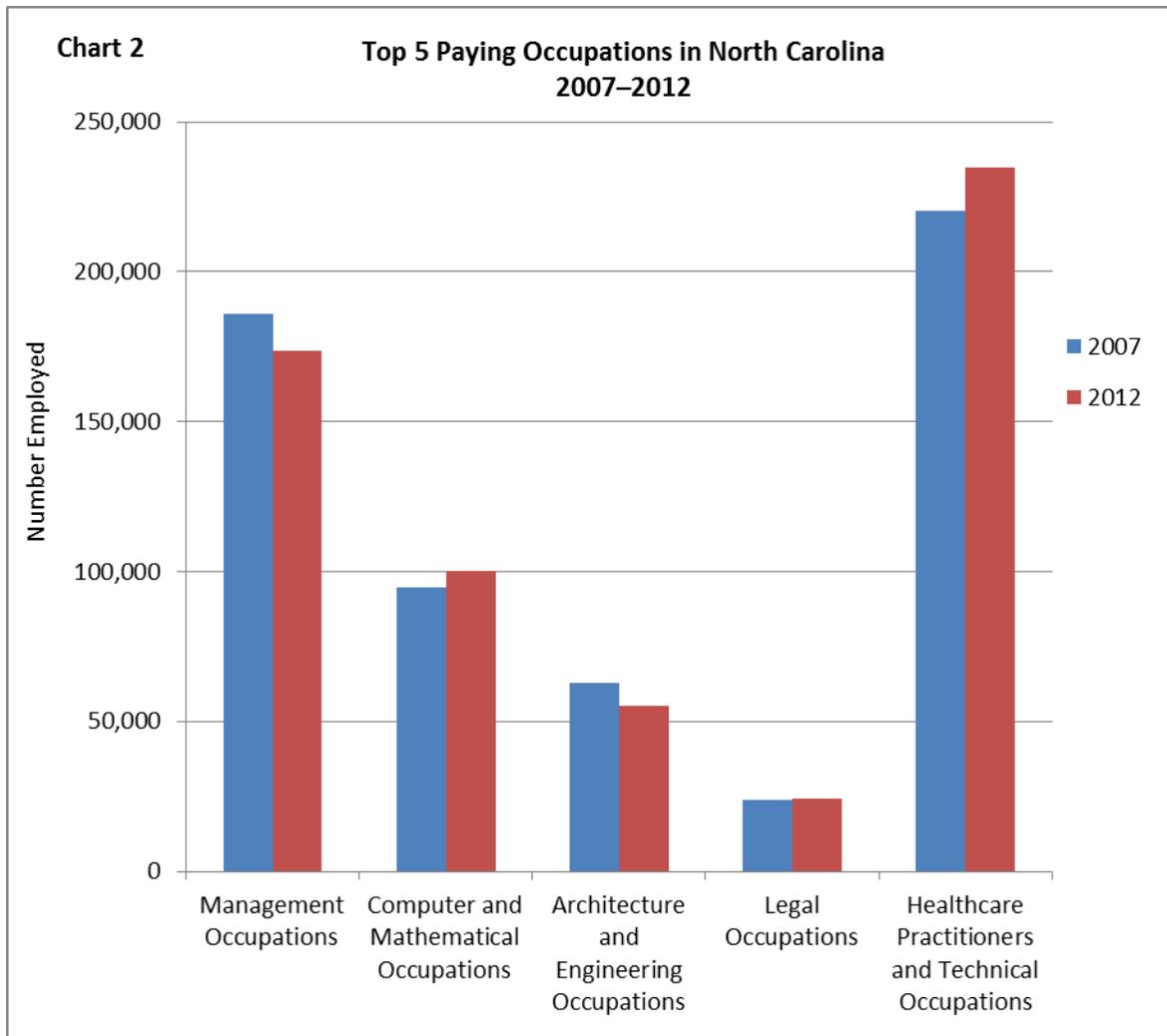
When ranked by employment, each of the top five occupation groups in North Carolina had median hourly earnings of \$15.21 or less. These occupations accounted for 51 percent of the state's total jobs. The top five occupations grew by 3 percent overall and added 71,208 jobs from 2010 to 2012, despite losing nearly 111,000 jobs over the longer 2007 to 2012 time frame.<sup>3</sup> Of the top five occupations in North Carolina, Food Preparation and Serving Related Occupations grew the most from 2010 to 2012 (5.7 %, adding 19,517 positions) while three groups (Construction and Extraction Occupations, Protective Service Occupations, and Farming, Fishing, and Forestry Occupations) lost employment. Food Preparation and Serving Related Occupations also had the lowest median hourly earnings at \$9.37, and generally require less than a high school education. The sixth- through tenth-largest occupation groups made up only 25 percent of existing jobs but had much higher median hourly wages. Most of the higher earning occupation groups require higher levels of education.

<sup>3</sup> An examination of a more recent time period (2010 to 2012) shows areas of job growth, which are obscured by using a longer time frame (2007 to 2012) due to the large numbers of job losses during the recession.



Source: Economic Modeling Specialists Inc.

Turning to the highest earning occupations, Management Occupations paid the highest wages in North Carolina, followed by Computer and Mathematical Science Occupations, Architecture and Engineering, Legal, and Health Care Practitioners. All five of the top earning occupations in the state had median hourly earnings of \$31.92 or more. However, there were far fewer North Carolinians working in the top five earning occupations (15 %) than those working in the top five employing occupations (51 %) discussed in Chart 1.



Source: Economic Modeling Specialists Inc.

North Carolina’s occupational mix reflected the job losses associated with the most recent recession. Three important occupation groups had large declines from 2007 to 2012: Production (-16 %), Transportation and Material Moving (-8 %), and Construction and Extraction (-29 %). In fact, only three of the current top 10 employing occupations grew from 2007 to 2012: Food Preparation and Serving Related Occupations (4 %); Education, Training, and Library Occupations (1 %); and Healthcare Practitioners and Technical Occupations (7 %). Looking at the three growing occupation groups, the growth in Food Preparation and Serving Related Occupations was driven by Fast Food and Counter Workers, which grew by 8 percent from 2007 to 2012. These occupations require only short-term, on-the-job training. Growth in Education occupations mostly occurred in Postsecondary Teachers (7 %). These occupations require a bachelor’s degree or higher. Finally, Healthcare Practitioners and Technical Occupations recovered primarily due to Registered Nurses growing 9 percent. Registered nurses comprise 36 percent of all Healthcare Practitioners and Technical Occupations workers.

There were also a few bright spots outside the larger occupational groups. Computer and Mathematical Occupations, while not in the top 10 by employment, grew by 8 percent from 2007 to 2012 and had median hourly earnings of \$36.33. These include Software Developers and Programmers, Computer Support Specialists, and

Database and Systems Administrators. These occupations generally require a bachelor's degree. Also, Life, Physical, and Social Science Occupations, while a small occupation group, grew by 5 percent from 2007 to 2012 and paid median hourly earnings of \$27.73. Life Scientists, in particular, grew by 10 percent during that period and had a higher concentration in North Carolina than in the rest of the country. These jobs require at least a bachelor's degree as well.

### **Sources Guide**

North Carolina Employment, Earnings, and Regional Data by Occupation: Occupational data for North Carolina are from Economic Modeling Specialists Inc. (EMSI). EMSI's occupation data are based on industry data and regional staffing patterns taken from the Occupational Employment Statistics program (Bureau of Labor Statistics). Wage information is partially derived from the American Community Survey. Information from EMSI is provided as part of a paid subscription service. See EMSI Release Notes.

([https://west.economicmodeling.com/internal/releasenotes/ANALYST\\_Data\\_Release\\_Notes\\_2013.3\\_Final.pdf](https://west.economicmodeling.com/internal/releasenotes/ANALYST_Data_Release_Notes_2013.3_Final.pdf)).

Economic Modeling Specialists; Economy Section, Occupations Data, Class of Worker, QCEW Employees

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