

Predicting North Carolina's Job Market in 2020

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Introduction

This paper discusses North Carolina's job market in 2020 and draws on national and state level industry and occupational employment projections. It also considers the shortcomings of these projections and suggests actions the state can take to capitalize on the projected employment growth areas.

The Bureau of Labor Statistics (BLS) predicts both the industry and occupational composition out ten years on a biennial basis. The most recent projection utilizes 2008 data to project the industry and occupational mix in 2018. A similar set of projections exist from the North Carolina Employment Security Commission (NCESC). Additionally, The North Carolina Commission on Workforce Development issued a June 2011 report called, *State of North Carolina Workforce: 2011-2020* that will serve as the basis for understanding the major trends in North Carolina's workforce. This report relies on projections generated by Economic Modeling Specialists Inc. (EMSI), which are more conservative than those provided by the NCESC.

Major National Trends

BLS projects that by 2018 the labor force will be more diverse and contain a higher percentage of older workers. People age 55 and older will comprise nearly 25 percent of the labor force and higher labor participation rates are projected for Hispanics and Asians as the country's population continues to diversify.

BLS projects that the service sector will contribute nearly all of the net employment gain from 2008 to 2018, primarily in professional and business services and health care and social assistance.

The largest percentage growth in professional and business services will occur in management, scientific, and technical consulting services and specialized design services. The largest health care and social assistance growth will occur in individual and family services, home health care services, and offices of health practitioners. Educational services are also projected to increase. While the percentage growth is small due to industry consolidation, there is a large increase expected in the absolute number of wholesale and retail trade jobs; the number of food service and drinking places jobs is also projected to grow considerably over the period.

Goods producing employment remains flat on the whole, with projected gains in construction employment (1.3 million increase) being canceled out by declines in manufacturing (-1.2 million) and mining (-104,000) jobs.

Despite the sluggish housing recovery, BLS predicts an increase in construction jobs over this period with increased investment and construction of residential housing, particularly retirement communities for the aging population. While manufacturing output will increase, its share of total U.S. output will continue to decline. BLS projects 69 of the 84 industries reviewed by BLS expect to experience employment declines over the 2008-2018 period.

The fastest declines are projected in apparel and textile related industries and the largest declines are expected in computer and electronic product manufacturing, transportation equipment manufacturing, and fabricated metal.

While areas such as computer and electronic product manufacturing will experience declining employment numbers, these industries will simultaneously reflect improved output growth due to productivity improvements.

North Carolina Trends

State of North Carolina Workforce: 2011-2020 outlines some of the major challenges North Carolina has faced during the Great Recession and will face in the 2020 job market. One of the largest challenges is the disappearance of “traditional middle jobs” -- jobs that previously offered individuals with limited educational experience, such as a high school diploma, a “family sustaining wage” in industries such as manufacturing or construction. Fewer low-skill, middle-wage jobs are available and many of the “new middle” jobs demand higher skills, such as post high school technical education, that workers are lacking. Existing residents are also competing for jobs with new in-migrants as North Carolina’s population continues to grow at a rate higher than the national average. The report predicts that the number of state residents born outside of North Carolina will surpass the number of native North Carolinians by 2014.

On a statewide basis, the greatest private sector employment growth is expected to occur in the industries outlined in Table 1.

State growth trends mirror national trends with projected employment opportunities in health and medical services, professional services, wholesale/retail trade, and construction related industries. This employment growth represents the ongoing bifurcation of the economy with some growth in very low wage, low skilled jobs and larger growth in industries requiring more advanced training or educational attainment.

Table 2 outlines the projected fastest declining industries from 2011-2020. This also mirrors some of the national projections with declines in department stores, traditional manufacturing, and even higher tech manufacturing operations such as computer and semiconductor industries.

Table 3 outlines the state’s fastest growing occupations by education level from 2011-2020. It is not surprising that many of these jobs are in the healthcare sector, educational services, and professional occupations.

Table 1: NC's Private Sector Industry Growth 2011-2020

State of North Carolina

NAICS CODE		ANNUAL WAGE
	<i>Healthcare & Medical Services</i>	
62111	Offices of Physicians	\$71,675
62121	Offices of Dentist	\$52,874
62211	General Medical & Surgical Hospitals	\$47,337
62311	Nursing Care Facilities	\$25,764
62161	Home Health Care Services	\$20,575
62412	Services for the Elderly & Persons with Disabilities	\$16,347
	<i>Professional Services</i>	
54151	Computer Systems Design & Related Services	\$74,875
54161	Management Consulting Services	\$67,801
52211	Commercial Banking	\$67,654
	<i>Wholesale and Retail Trade Activities</i>	
42512	Wholesale Trade Agents & Brokers	\$75,114
45291	Warehouse Clubs & Supercenters	\$24,621
72211	Full-Service Restaurants	\$13,801
72221	Limited-Service Eating Places	\$12,642
	<i>Construction Related Services</i>	
23611	Residential Building Construction	\$40,352
23822	Plumbing, Heating, & Air-Conditioning Contractors	\$39,357
23821	Electrical & Other Wiring Installation Contractors	\$38,758
56173	Landscaping Services	\$25,197
	<i>Other Services</i>	
56132	Temporary Help Services	\$24,355

Source: Adapted from State of the N.C. Workforce Report: 2011-2020

Table 2: NC's Fastest Declining Industries: 2011-2020

State of North Carolina

NAICS CODE		ANNUAL WAGE
	<i>Manufacturing & Productive Industries</i>	
33411	Computer & Peripheral Equipment Manufacturing	\$110,833
31222	Tobacco Product Manufacturing	\$82,367
33441	Semiconductor & Component Manufacturing	\$70,959
31511	Hosiery & Sock Mills	\$40,298
33341	HVAC & Commercial Refrigeration	\$39,898
31321	Broadwoven Fabric Mills	\$34,142
31324	Knit Fabric Mills	\$33,182
31331	Textile & Fabric Finishing Mills	\$32,184
33721	Office Furniture (Including Fixtures) Manufacturing	\$31,511
33712	Household & Institutional Furniture Manufacturing	\$29,072
31311	Fiber, Yarn, & Thread Mills	\$28,150
11000	Crop & Animal Production	\$25,622
	<i>Utility Service Providers</i>	
22111	Electric Power Generation	\$85,611
51711	Wired Telecommunications Carriers	\$61,838
51721	Wireless Telecommunications Carriers (Except Satellite)	\$51,805
	<i>Retail Trade Services</i>	
44111	New Car Dealers	\$41,435
45211	Department Stores	\$18,632
	<i>Misc. Service Providers</i>	
52229	Other Nondepository Credit Intermediation	\$64,855
51111	Newspaper Publishers	\$34,608

Source: Adapted from State of the N.C. Workforce Report: 2011-2020

Table 3: NC's Fastest Growing Occupations by Education

Level 2011-2020

<p><i>Advanced Degree</i></p>	<p>Postsecondary Teachers Physicians & Surgeons Medical Scientists (Except Epidemiologists) Lawyers Pharmacists</p>
<p><i>4- Year College Degree</i></p>	<p>Elementary School Teachers (Except Special Education) Accountants & Auditors Business Operation Specialists Computer Software Engineers Computer Systems Analysts</p>
<p><i>Tech Degree</i></p>	<p>Registered Nurses Nursing Aides, Orderlies, Licensed Vocational Nurses Preschool Teachers (Except Special Education) Medical Secretaries Cosmetologists</p>
<p><i>High School Diploma, Some Experience</i></p>	<p>Construction & Extraction Managers Office & Administrative Managers Carpenters Retail Sales Managers Electricians</p>
<p><i>High School Diploma</i></p>	<p>Customer Service Representatives Construction Workers Executive Secretaries & Administrative Assistants Truck Drivers Bookkeepers, Accounting, & Auditing Clerks</p>

Source: Adapted from State of the N.C. Workforce Report: 2011-2020

Offshoring

Offshoring, or the movement of economic activities to locations abroad, has been occurring in U.S. manufacturing for at least two decades. In more recent years, there has been growing concerns about the offshoring of high tech research and development and service jobs. Offshoring is best examined at an occupational level, since the nature of a particular occupation best indicates its likelihood of being sent overseas. In 2008, BLS identified 160 service-providing occupations that are susceptible to offshoring. Characteristics of these occupations include work which can easily be routinized, digitized or transported electronically, and work which requires no face-to-face communication. Those jobs requiring some cultural knowledge, such as marketing, or present logistical hurdles are more resistant to movement overseas. Pharmacists, bookkeepers, accounting and auditing clerks and customer service representatives are three of North Carolina's projected fastest growing occupations that rank among the 33 occupations most susceptible to offshoring.

Suggestions to Capitalize on the Industry Projections

Lower skilled and semi-skilled workers no longer have access to large numbers of middle income manufacturing jobs. Individuals at this skill level are frequently forced to move into lower paying jobs in healthcare assistance or service industry positions such as retail. Those middle income jobs still available now required more training and, in some cases, technical or bachelor's degrees. This represents a significant hurdle for many workers. The ever changing technological advances and integrated world economy limit the reliability of industry and occupational projections to inform where 2020 graduates should focus their educational training. This suggests that high school students that develop flexibility along with strong analytical skills will be best suited to capitalize on a changing job market regardless of their eventual formal educational attainment.

Flexibility is also needed in our state's ability to capitalize on these industry projections. A recent study by Newmark, Wall, and Zhang (2011) found that small businesses create more jobs than large businesses in both the service and manufacturing sectors. Specifically, the authors find that a disproportionate share of job creation occurs within firms with fewer than 20 employees. In North Carolina, the state's incentive policies are tilted toward those firms with sufficient tax liability to take advantage of tax credits and/or those industries that qualify for the state's discretionary grant programs, such as the Job Development Investment Grant (JDIG), are typically large. Even the state's One North Carolina Fund program is unlikely to target firms with fewer than 20 employees.

While business recruitment remains a contentious approach to economic development, it remains a critical tool for the state. Given the new research on the impact of small businesses on job creation and the industry growth projections discussed above, our state is in a good position to begin a systematic program to identify small, high growth companies, often known as gazelles, and recruit these firms to North Carolina. Such an approach will require a recasting of the state's incentive policies to better target small firms and willingness for the state to take a risk on a larger number of small firms, some of which may fail, in order to net larger job creation opportunities over the long-term.

North Carolina policymakers should ask themselves a key question: "For whom are we creating jobs?" In some cases, the state's effort to subsidize job creation in fast growing metro areas utilizes foregone tax revenue and economic development grants funded by existing state residents to subsidize job creation for new in-migrants. The net effect of such policies is that native taxpayers subsidize job creation for new in-migrants and may only realize the economic benefits of these jobs through trickle down economic effects. The state's major metropolitan areas are leading the way with the largest in-migration and will also see the largest growth in the next decade, while rural North Carolina will continue to face economic challenges. While new in-migrants represent additional

laborers for companies, they also bring with them increased public sector service costs to metropolitan areas with strained infrastructure and at-capacity schools. For years, the state's competitive advantage rested on a customized workforce training program and a community college system that were among the best in the country. To prepare native workers to capitalize on existing trends and to compete with in-migrants, the state must strengthen its investment in workforce development and job training.

The state must also graduate its college students. As noted by the State of the North Carolina Workforce: 2011-2020 report, "in 2009, 73,665 new North Carolina residents moved to the state with a bachelors degree or higher, including about 11,578 from abroad, representing a larger source of new skilled workers for North Carolina than the state's university system [provides] (p. 32)." If native North Carolinians are going to be competitive for future jobs in our state, our universities must not just successfully enroll students, it must successfully matriculate and ultimately graduate them. The University of North Carolina at Chapel Hill (74.4%) and the University of North Carolina School of the Arts (51.4%) are the only public universities to graduate more than 50 percent of their first-time, full-time freshmen in four years. UNC-Chapel Hill (86.1%) and North Carolina State University (71.5%) are the only public universities to graduate more than 70 percent of their first-time, full-time freshmen in six years. Seven of the 16 public universities failed to graduate more than 50 percent of their first-time, full-time freshmen in six years. This failure represents not only an expense to the state's taxpayers, but also lost opportunities for these students to compete for employment in the job market with more educated in-migrants.

Limitations to the Projections

BLS, NCEC, and Workforce Commission employment projects are all subject to similar shortcomings and limitations that should be recognized by individuals and policymakers making workforce development and training decisions. For example, in 2004, BLS issued an employment outlook for the period 2002-2012. Thus far, these forecasts have fallen considerably short of the 2012 projections. For example, BLS's 2012 projections estimated that total U.S. employment would rise from 144 million in 2002 to 165 million in 2012. In May 2011, actual total employment was 140 million, which represents a decline of over 4 million from 2002 and falls 26 million jobs short of or 15% less than BLS's projections. Projections in key industries that were impacted by the Great Recession are even further off target. BLS projected the construction industry would grow from 6.7 million jobs in 2002 to 7.75 million jobs in 2012, yet actual May 2011 employment numbers revealed construction jobs were 5.5 million—1.2 million less than 2002 and 2.25 million (29%) less than BLS projections for 2012. It is important to acknowledge these limitations and prediction inaccuracies when relying on projections for decision-making.

Conclusion

North Carolina faces serious challenges as its traditional manufacturing base continues to erode and middle income workers are forced to accept lower paying service sector jobs or retrain for jobs in growing fields such as healthcare. The state must invest in its historical strengths in community colleges and workforce training to prepare native residents for the jobs of tomorrow. The state must also reconsider the way we practice economic development, recasting our state's incentive programs to target smaller growth companies. For decades North Carolina has worked to improve its high school graduation rate and must make the same commitment to preparing and graduating students from its public universities.

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