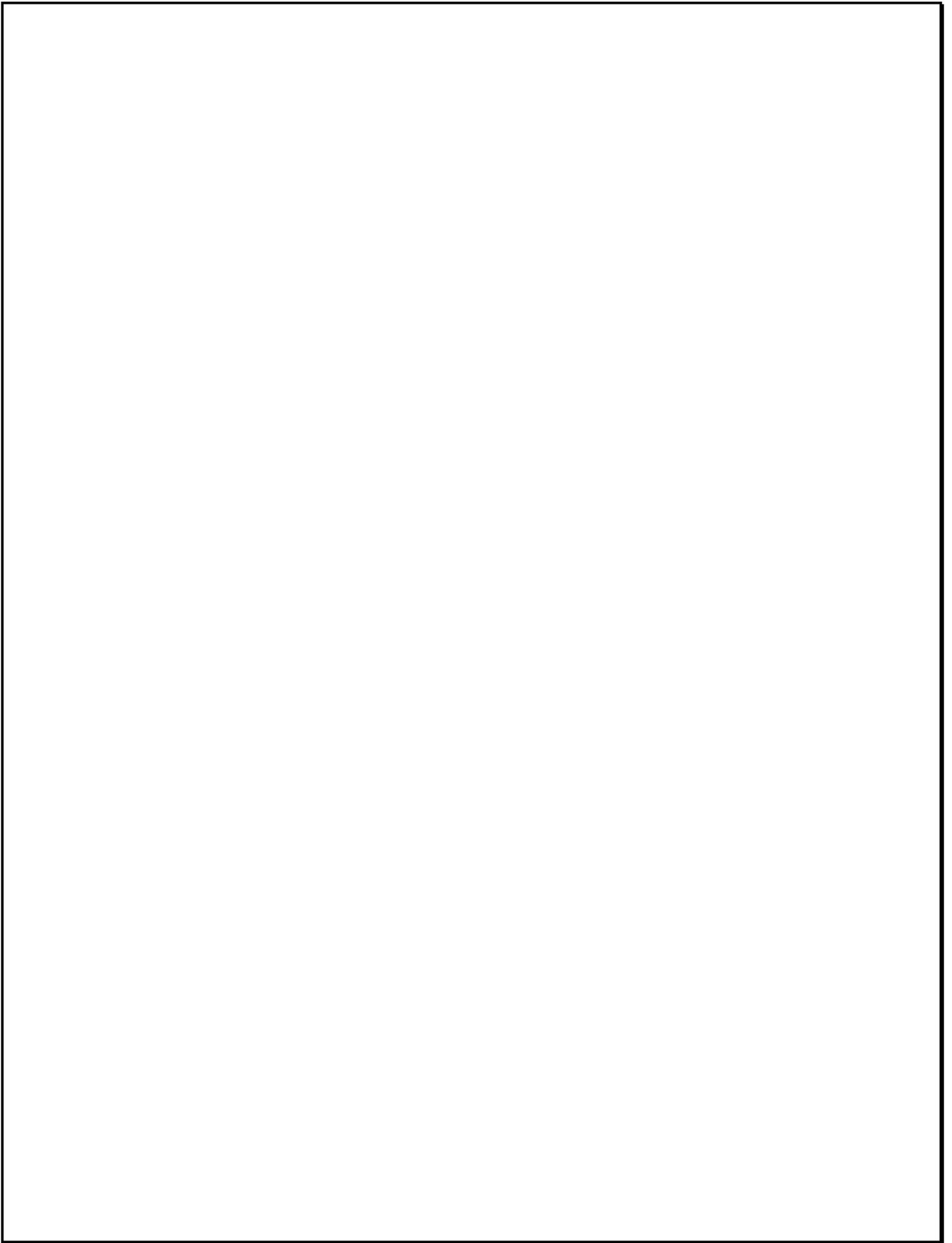


2012

# State of the Workforce Report

*Putting South Carolinians Back to Work*





*The State of the Workforce* report is published by the Labor Market Information (LMI) Division of the South Carolina Department of Employment and Workforce. The information and analysis provided in this publication is based on data collected from many sources throughout South Carolina and the nation, including the U.S. Census Bureau and the U.S. Bureau of Labor Statistics. The LMI Division produced this report under the leadership of:

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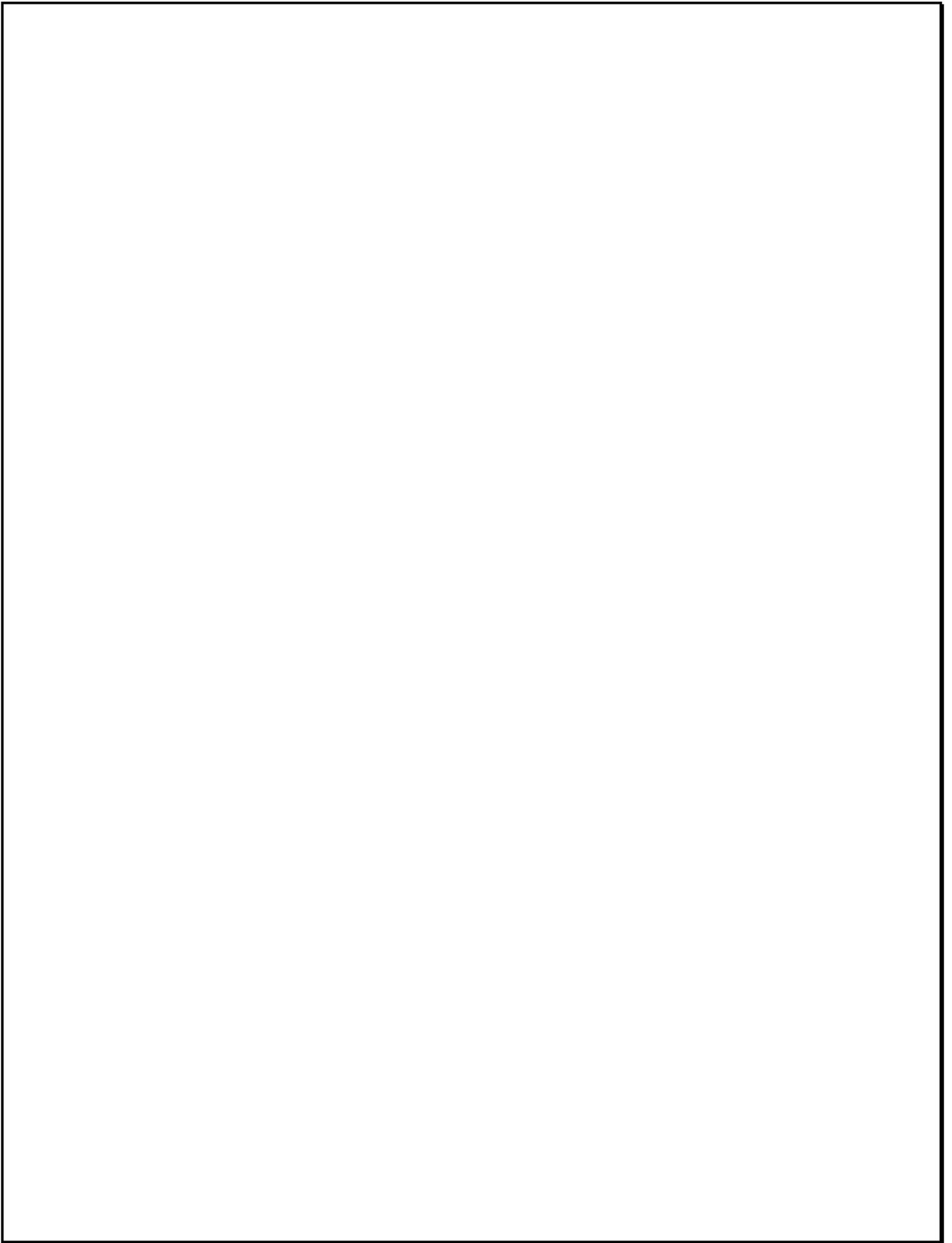
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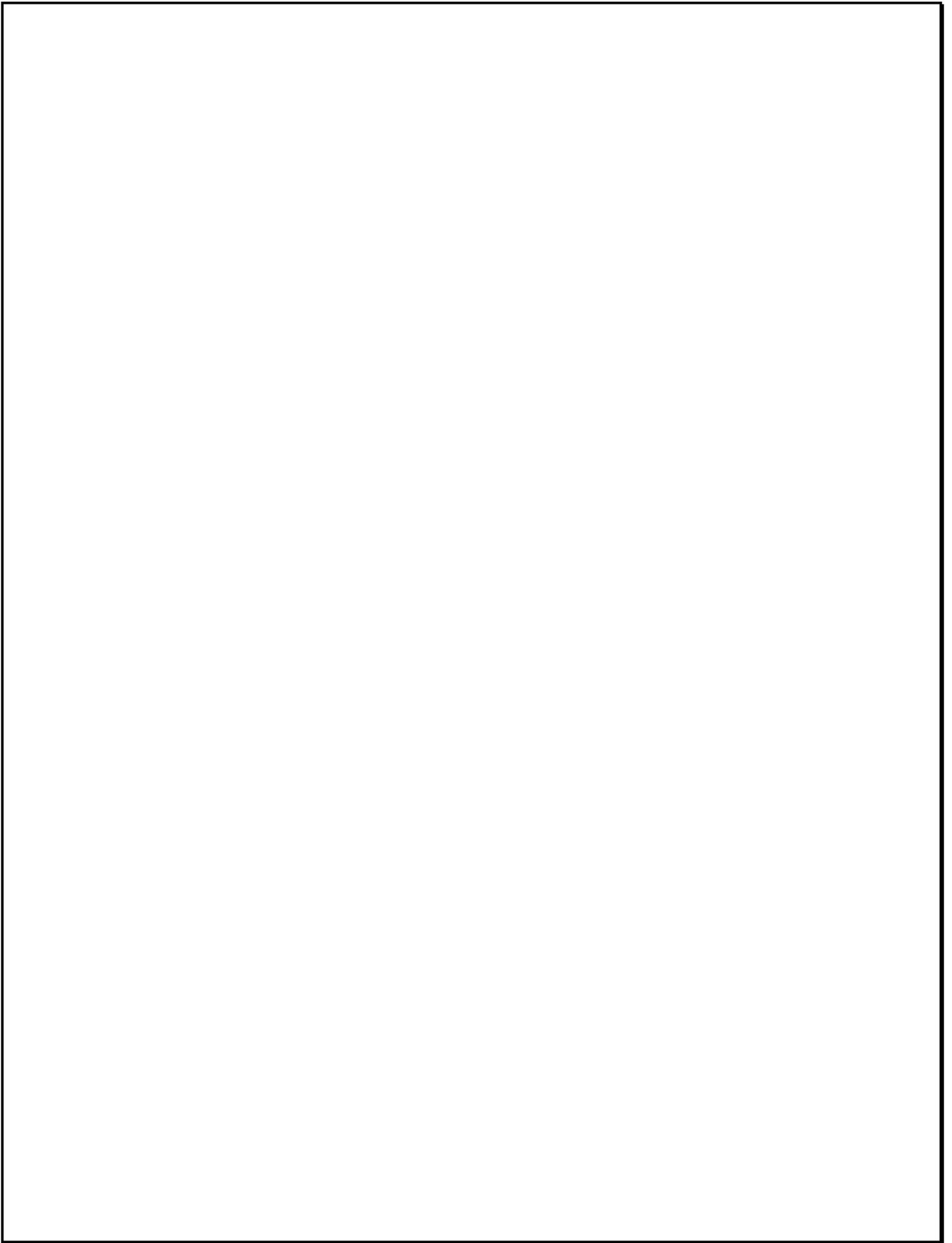


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2012

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## Executive Summary

As the economy in South Carolina recovers from the recession, it is important to examine the current state of our workforce. The economic turmoil of the last several years has had a profound impact on the labor market, and understanding these effects can give us a glimpse into the future needs of businesses and workers.

- Like most states, South Carolina has had a slow recovery.
- South Carolina has a growing population.
- Employers want workers with more education and training, hard skills (industry specific knowledge) and soft skills (teamwork and professional behavior).
- Enrollment in education and training programs is on the rise.
- Recent progress in the Manufacturing and Distribution industries offers a glimpse into South Carolina's promising future.

South Carolina's major industries include Manufacturing, Professional and Business Services, Tourism and Hospitality, and Retail Trade. The Construction industry has suffered greatly during the recession and continues to struggle. Several industries have made modest gains, especially the Healthcare sector.

South Carolina's population grew from 2000 to 2010. Further growth is anticipated, although at a smaller rate. This will also increase the size of the state's labor force, which will help employers.

Enrollment in colleges, universities, and technical schools continues to rise. This is a positive trend and bodes well for the future workforce. Employers want workers with more skills and education. Workers recognize that in order to have a good job, especially in a tough job market, they must have more skills. Jobs requiring middle skills (more than a high school diploma but less than a four-year degree) make up half of the jobs in South Carolina. This proportion is expected to remain large.

South Carolina can become more competitive by further training and educating the workforce. This will make it easier for businesses to find talent among the population.

South Carolina is well-positioned to provide a highly-trained and educated workforce to compete in future national and international economies. We recommend that the best way to be prepared for the future economy is to have a highly trained workforce. This benefits both businesses and workers.

The goal of *The State of the Workforce* report is to understand and assess South Carolina's readiness to meet current and future workforce challenges. It is intended to provide workforce intelligence and guidance for policy creators, researchers, and other interested parties.

## South Carolina's Workforce Challenges

As South Carolina is making great strides in economic growth, the demand for workforce services is also growing. In addition, the older workforce is increasing, bringing more attention to the challenges of that group. One challenge is providing effective retraining to people who have been out of school for a long time.

A significant number of South Carolinians have been unemployed for a long period and lack a high school education. Many of those are in their prime working ages. While recovery will bring job opportunities to some of these people, experience shows that many jobs lost during the recession will not come back. Meeting the needs of the long-term unemployed who lack adequate education and training will be a special challenge. Specifically, we must increase the rate of GED attainment and then provide effective training for that group.

We are in recovery, so we are gaining jobs and will continue to do so. But the issue is how many and what kind of jobs. The number and types of job opportunities will continue to be affected to some degree by technology (e.g. use of self-checkout scanners in retail). Demand for healthcare will rise further, but so will budget pressures, along with the uncertain course of healthcare reform. Contract and temporary employment services account for an increasing number of jobs. Manufacturing needs fewer but more-skilled workers. The number of smaller businesses is growing. They account for many job opportunities but lack the workforce development resources of larger businesses for things such as recruiting and training.

Growth will not be uniform across the state, meaning gains in job opportunities and impacts on service demand will be uneven. The ongoing cycle of job and population loss in many of our smaller, rural areas is a longstanding critical issue for South Carolina.

Our state has many higher-paying jobs that do not require a higher-level education. Those opportunities will increase. A key challenge is preparing enough workers to take advantage of those middle-skill opportunities. Indicators point to potential shortages of workers at that level. We have enough workers to meet those needs, but will need to get their skills up to the necessary levels. Existing education and training resources to serve this population must be improved through, through an increased use of alternative education and training methods such as virtual learning and apprenticeships.

Research shows that employers categorize new entrants to the workforce as “deficient” in four important soft skills (professionalism/work ethic, oral and written communication, teamwork/collaboration, critical thinking/problem solving). There needs to be more collaboration with high schools, adult education, and/or technical colleges to leverage resources to provide soft-skills training.

## Introduction

For South Carolina and the workforce system, this has been a year of transition and renewed commitment to ensuring that every investment and program strengthens our workforce and economy. The state has focused on promoting job growth to help unemployed South Carolinians return to work. Our state's workforce investment system continued to develop and improve ways of helping jobseekers find employment and businesses stay competitive in today's economy.

The economic changes we saw this year remind us that, as a workforce system, we must adapt and evolve to meet the needs of employers and employees. Cultivating an understanding of the workforce allows us to respond to anticipated future needs. Analysis helps to identify the gap between what the workforce has in the way of talent and skills (supply) and what it may need in the future (demand).

The purpose of the State of the Workforce report is to present a comprehensive view of the status of South Carolina's workforce and economy. The Labor Market Information (LMI) Division compiles and publishes employment statistics, job forecasts, wage data, demographics and other labor market information to help public and private organizations better understand today's complex workforce.

The following report includes an analysis of South Carolina's workforce, industries, economic climate, and factors that will affect all three. Forecasts will be made for the workforce, industries, and the economy. The report will start with an economic discussion and then move to an investigation of South Carolina's workforce supply and demand. The report will finish with a conclusion and a look at workforce challenges.

## Economic Discussion

### South Carolina's Economic Make-up

It is important to know where we've been and understand the swing of the modern economic pendulum. From 1970 to 1989, South Carolina experienced economic growth similar to other Sunbelt states. Low tax rates and a large nonunion workforce have attracted many firms from other states as well as foreign countries. In the 1990s, job losses from the closing of naval facilities in Charleston were largely offset by private undertakings; additionally, the Greenville-Spartanburg area in the northwest has rapidly become a home to new industries.

In the 21<sup>st</sup> century, South Carolina has continued to attract new businesses by having a low corporate income tax rate and other tax incentives. During the economic downturn in the late 2000s, South Carolina's unemployment rate peaked at 12.0 percent in December 2009. Most industries were hit hard, especially the construction sector. The business climate has been improving, and the unemployment rate was 8.3 percent as of November 2012.

Many large companies (Amazon, Boeing, Google, Michelin, and Continental Tire, per Department of Commerce) have moved operations to the Palmetto State and discovered the benefits of expanding their businesses here. South Carolina also benefits from foreign investment, and there are many foreign-owned firms operating in the state that employ thousands of workers. South Carolina is recognized as one of the top business-friendly states in America (ranked 7 in 2012) and is committed to helping businesses thrive.<sup>1</sup> South Carolina offers solid infrastructure with direct access to airports, railroads, waterways, highways, and provides a hospitable economic environment for a wide variety of businesses. The state's population has increased over the last 10 years as opportunities draw talent from across the country.<sup>2</sup>

South Carolina's Manufacturing industries have historically depended on the state's agricultural products as well as on water power. The Textile and Clothing industry in the Piedmont area is based on the region's cotton crop; lumber and related enterprises (such as the manufacture of pulp and paper) rely on the 12.5 million acres of forestland that cover the state. Other leading manufacturing products are chemicals, machinery, and automobiles. South Carolina's mineral resources have been important in the state's economy and include gold, stone, clays, and sand and gravel.

Our state's natural resources are used in many ways to promote industry. Agriculture products include tobacco, soybeans, cotton, peanuts, tomatoes, pecans, sweet potatoes, and peaches.<sup>3</sup> The livestock industry includes chickens, turkeys, cattle, and pigs. Fishing is a major commercial enterprise involving shrimp, blue crabs, and mostly saltwater fish.

All branches of the military are represented in South Carolina. Military bases for the Navy, Marines, Army, and Air Force are located throughout the state. With seven nuclear plants providing power and two more being built, the nuclear industry provides stability and high-income for workers. The tourism industry also ranks as a large source of income for the state, including our beaches in the summer months and the Appalachian Mountains in the fall.

The words “recession” and “recovery” have dominated news headlines for several years now. Unemployment rose dramatically during the Great Recession. South Carolina’s unemployment has been slowly declining over this past year; however, recent months have seen fluctuating rates. A portion of this rise can be attributed to normal and known seasonal effects. Tepid demand for goods has hindered growth, and economic uncertainty is still the driving factor behind slow hiring.

Although there have been improvements in almost every major economic metric over the last few years, the state and nation have not returned to pre-recession levels of employment or growth. In addition to business uncertainty, the lingering European debt crisis has also suppressed exports and financial markets which have limited the economic recovery worldwide.

Here in America, the recession and recovery have been unique events from the start. The real estate industry, banking industry, ratings agencies, and a host of other parties were so connected that the large decline hurt them all. Historically, many recoveries are started and sustained by the strength of the housing market. The strained current housing market has had a slowdown of construction and a surplus of foreclosed and distressed properties. It may not be able to provide much help during the recovery. Additionally, exports have taken a hit as Europe deals with austerity and Asian markets struggle with lowering global demand for consumption and services. A recovery is underway and still in progress. While South Carolina still suffers the lingering effect of the recession, there is reason for optimism. Our state is doing better than in the past few years; positive, though slow, economic growth is expected.

Because the recession was caused by the bursting of the United States housing bubble, the Construction sector was hit hardest, followed by Mining and Manufacturing. By 2010, when South Carolina employment hit bottom, employment in the Construction sector lost 45,065 or 36.1 percent, while Mining lost 255 or 18.1 percent, and Manufacturing lost 41,648 or 16.7 percent. Meanwhile Agriculture, Forestry, Fishing and Hunting; Real Estate and Rental and Leasing; Transportation, Post Office and Warehousing; and Wholesale Trade all suffered double digit percentage point employment losses.

Coming out of every major recession, the economy typically experiences two things: growing itself into a bigger economic market and re-proportioning industry sectors within the market. By re-proportioning, businesses achieve higher efficiency in meeting new demands. By studying how the economy is re-proportioning, knowledge can be obtained to help the workforce adjust and improve to meet the new needs of the economy.

As the below table shows, the most significant proportion changes from 2007 to 2010 occurred in the Manufacturing and Construction industries. Before the recession, Manufacturing's proportion was 12.8 percent of the employment and by 2010, it declined to 11.4 percent.

The next significant change occurred in the Healthcare and Social Assistance industry where its proportion increased from a pre-recession level of 10.5 percent to 12.0 percent in 2010. The third significant change happened in Construction where the proportion dropped from 6.4 percent in 2007 to 4.4 percent in 2010.

<b>Industry Sector</b>	<b>2007 Industry Proportion</b>	<b>2010 Industry Proportion</b>	<b>2007-2010 Proportion Change</b>
Healthcare and Social Assistance	10.5%	12.0%	1.5%
Educational Services	8.2%	8.9%	0.7%
Government, Excluding Post Office, Education and Hospitals	6.7%	7.3%	0.6%
Professional, Scientific, Technical Services	3.7%	4.1%	0.4%
Accommodation and Food Services	9.7%	9.9%	0.2%
Other Services	4.9%	5.1%	0.2%
Finance and Insurance	3.5%	3.6%	0.1%
Utilities	0.6%	0.7%	0.1%
Agriculture, Forestry, Fishing and Hunting	1.7%	1.7%	0.0%
Retail Trade	12.3%	12.3%	0.0%
Management of Companies and Enterprises	0.8%	0.8%	0.0%
Mining	0.1%	0.1%	0.0%
Information	1.4%	1.4%	0.0%
Administrative and Support and Waste Management and Remediation Services	7.0%	7.0%	0.0%
Arts, Entertainment, Recreation	1.4%	1.4%	0.0%
Wholesale Trade	3.6%	3.5%	-0.1%
Real Estate and Rental and Leasing	1.5%	1.4%	-0.1%
Transportation and Warehousing	3.2%	3.0%	-0.2%
Manufacturing	12.8%	11.4%	-1.4%
Construction	6.4%	4.4%	-2.0%

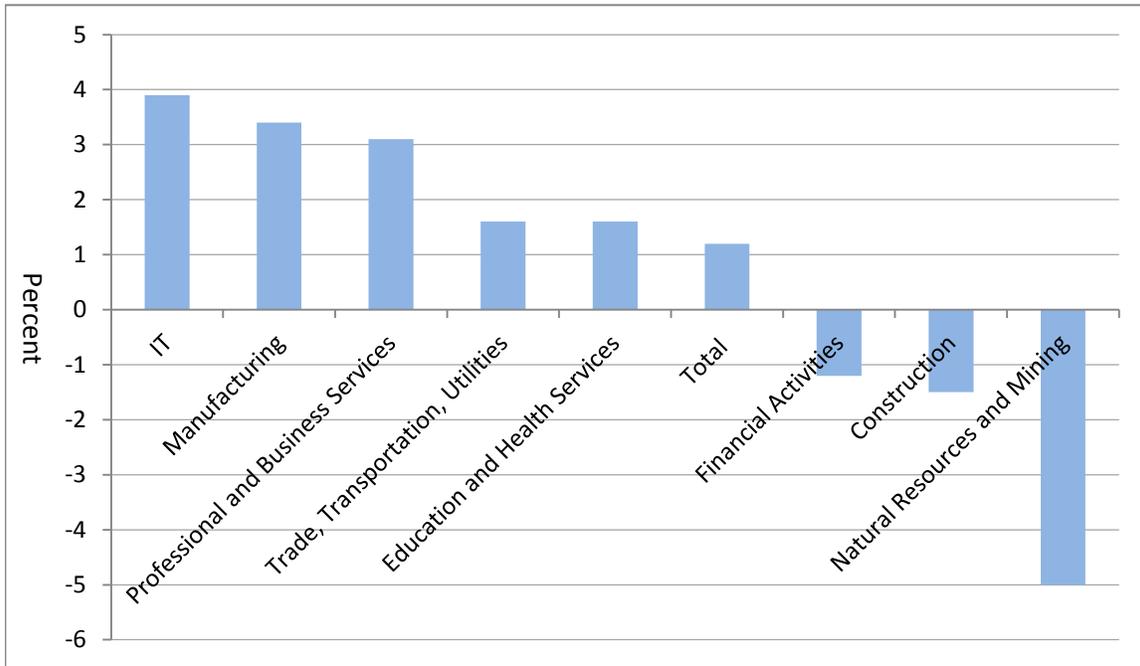
## Present Status of South Carolina's Economy

Entering 2012, the South Carolina economy has shown signs of steady growth as indicated by the South Carolina Leading Index (SCLI).



Having several varied inputs into the SCLI gives us a better overall picture of our economic health than just one metric. The SCLI was constructed in an effort to monitor and forecast the state's economy. When the recession ended in June 2009, the SCLI kept a mostly upward trend for eight months, moving above the 12 month average. Then it gave back most of its gains and moved slightly below its 12 month average from June 2010 to January 2011 before beginning another upward movement for five months. From July 2011 to January 2012, the index moved downward slightly and then held around its 12 month average before it rose sharply in February 2012. From July 2009 to February 2012, the index rose 1.2 points or 1.5 percent. In February, the SCLI jumped 0.3 points to end February at 100.4, a level not seen since June 2011. The SCLI's February climb represented an across-the-board improvement of all the index components. The number of the initial Unemployment Insurance claims and building permits for new privately owned housing had the most improvement, a 36.5 percent decline and a more than 20.0 percent rise, respectively. Meanwhile, the number of building permit units was more than 8.7 percent higher and manufacturing average weekly hours increased to 42 hours. The fact that the index value moved back above its 12 month moving average indicates continued economic growth for South Carolina for several months. In June and July 2012, there was a 14.0 percent decline in building permit activity, a 0.7 percent reduction in the average manufacturing work week, and a 6.0 percent increase in initial Unemployment Insurance claims brought the SCLI down. While the job situation continues to fluctuate in the short-term, it is slowly improving over the long-term.

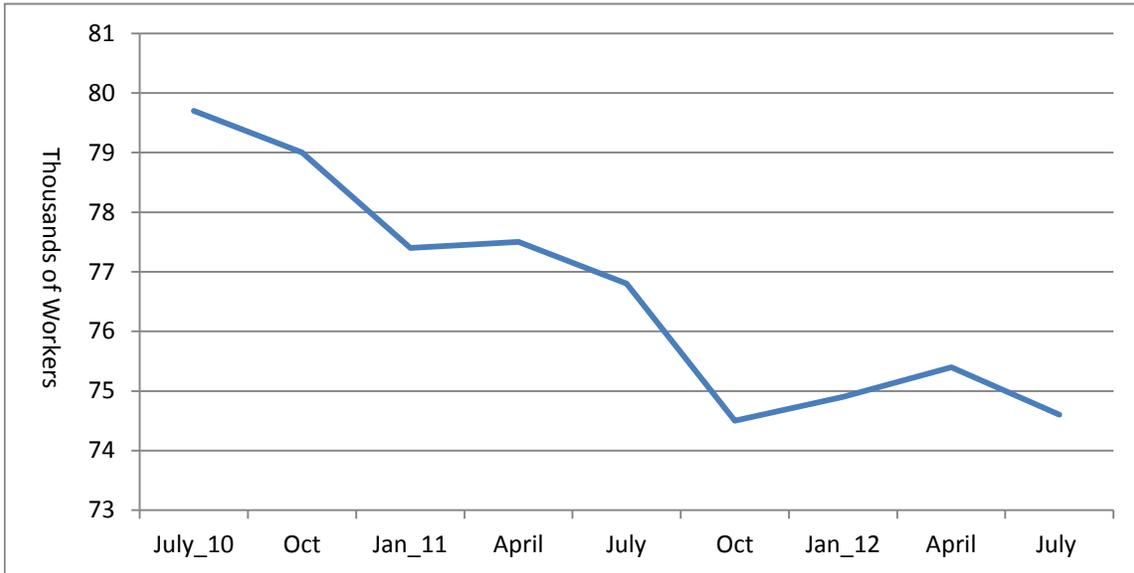
### South Carolina Payroll Change, June 2012, Year-to-Year Change<sup>4</sup>



Viewing payroll changes can give a glimpse into the hiring practices of employers and show the growth in industries across the state. While the Natural Resources and Mining sectors lead the way in employment payroll change (technological advances have led to fewer workers needed in these industries), the impact of the banking crisis and the housing market crash is clearly evident. In the above graph there are two industries affected by the recent recession: Construction and Financial Activities. Where there was once strong employment growth, there is now hiring stagnation and tepid progress. However, there has been some overall improvement in payroll employment since the total change is positive. The Information Technology and Manufacturing industries are leading the way in hiring. Education and Health Services industries continue their positive and expected growth as well.

## Future Trends of South Carolina's Economy

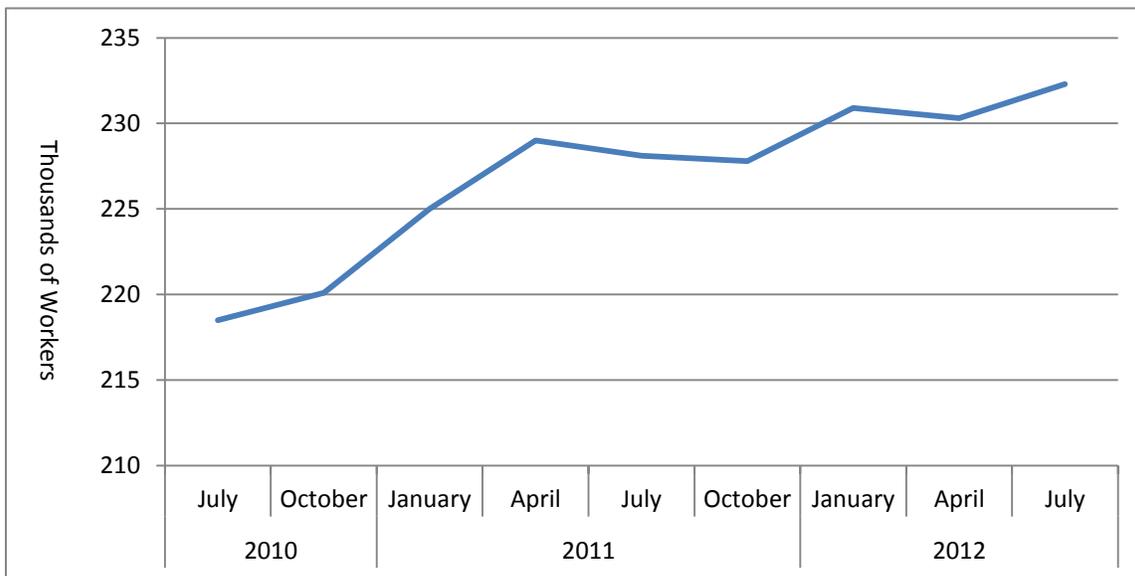
### **Construction Employment, 2010 – 2012<sup>5</sup>**



The economic downturn of the late 2000s hit the Construction industry most acutely. Firms held on for several months after the housing bubble burst, but crews didn't have much work to do as the recession took hold. There has been an almost three-year decline in hiring for the construction industry, which has only recently begun to post positive gains.

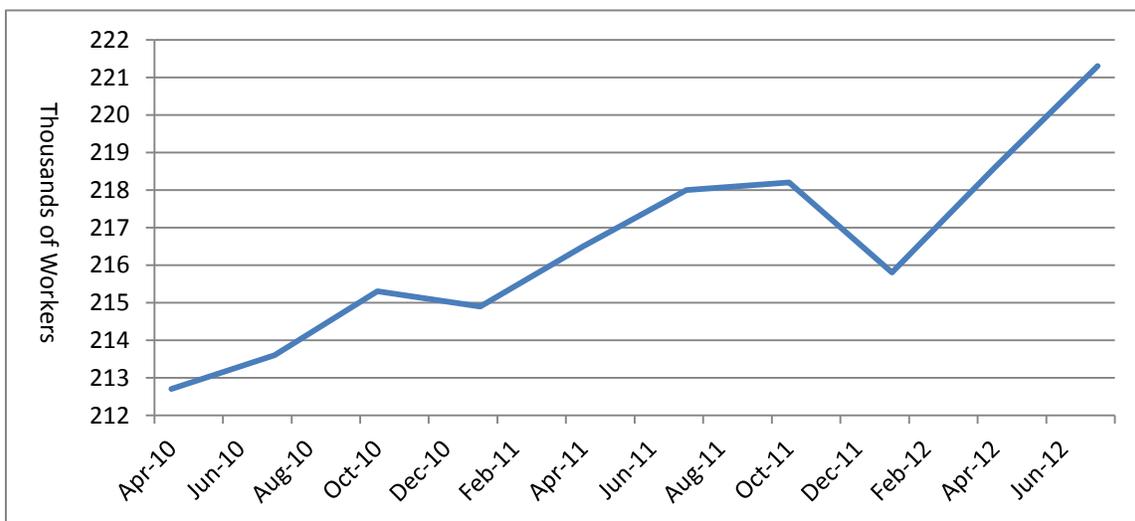
Several energy and manufacturing plants being built have been announced in South Carolina in the past two years. Some of the most promising are the two nuclear reactors being built (we currently have seven plants) and several tire and automotive manufacturing plants. Although constructing a nuclear power plant is very different from building a house, several skills transfer over such as concrete pouring, electrical wiring, and maintenance. The building of nuclear plants may provide the construction industry with stable jobs for at least the next 10 years.

### Professional and Business Services, 2010 - 2012<sup>5</sup>



The Professional and Business Services sector includes a diverse mixture of participants like accountants, engineers, and lawyers. Most of these businesses are small to medium sized operations and require a college degree and other professional credentials. As more South Carolinians are attending colleges and universities, it is reassuring to know that the Professional and Business Services sector is hiring and continuing to grow.

### Education and Health Services Employment, 2010 - 2012<sup>5</sup>



Growing industries with good career potential include Healthcare, Educational Services, Professional Services, Finance and Insurance Services, Retail Trade, and Accommodation and Food Services. The aging and retiring Baby Boomer generation will fuel a need for Healthcare Services. The Healthcare industry is represented well in terms of growing industries and having leading and hot jobs. Leading jobs with the most openings are registered nurses, truck drivers, retail supervisors, retail salespersons, food-service supervisors, physical therapists, customer service representatives, occupational therapists and industrial engineers. Workers with the proper training and credentials will be able to take advantage of these fields and industries.

**Selected Industry and Sector 2010 - 2020 Employment Growth in South Carolina**

<b>Industry</b>	2020 est. employment	Annual growth %	Total employment change	2010-20 Total % change
Educational Services	184,208	1.3	22,104	13.6
Ambulatory Healthcare	99,603	3.8	30,703	44.6
Nursing and Residential Care Facility	47,815	2.4	9,984	26.4
Hospitals	102,641	1.6	14,746	16.8
Health and Personal Care	18,637	2.1	3,441	22.6
Professional, Scientific, and Technical Services	95,713	2.6	21,320	28.7

*Occupational Distribution*

Occupational concentrations (as shown by location quotients) reflect the state’s industrial distribution; South Carolina’s values point to its manufacturing base, having concentrations in production occupations, engineering and maintenance. Manufacturing and Transportation, Distribution and Logistics sector gives the state good concentration of transportation and material moving occupations. Tourism and population growth gives the state high concentrations of retail, food service, and accommodation workers.

### South Carolina Location Quotients

Occupational Code	Occupational Title	SC LQ
170000	Architecture and Engineering Occupations	1.13
290000	Healthcare Practitioners and Technical Occupations	1.07
330000	Protective Service Occupations	1.01
350000	Food Preparation and Serving Related Occupations	1.10
370000	Building and Grounds Cleaning and Maintenance Occupations	1.10
410000	Sales and Related Occupations	1.06
490000	Installation, Maintenance, and Repair Occupations	1.11
510000	Production Occupations	1.48
530000	Transportation and Material Moving Occupations	1.00

*Location quotient (LQ) compares the state share of economic activity in a particular industry to the national share of economic activity in the same industry. The result reveals the degree of state specialization in each industry. If the location quotient for a particular industry is between zero and one, the state is less specialized than the nation, while location quotient values greater than one reveal greater specialization of the industry in the local economy than the national economy.*

#### *Occupation and Industry Projections*

The state's short-term industry projections for 2011 to 2013 data show that the Healthcare and Social Assistance industry will lead the forecast for employment, followed by Educational Services; and Professional, Scientific and Technical Services. Declining industries (in the short-term) include Government, Construction, and Agriculture.

#### **Short-Term Industry Projections for South Carolina, 2011-2013**

<b>Growing</b>	<b>Declining</b>
Healthcare and Social Assistance	Construction
Educational Services	Transportation and Warehousing
Professional, Scientific, and Technical Services	Government
Retail Trade	Agriculture, Forestry, Fishing and Hunting

In the long-term (2010 to 2020), many of the same industries are projected to change. Forecasted to grow are Healthcare and Social Assistance; Retail Trade; and Accommodation and Food Services. Manufacturing, Agriculture, and Government are estimated to decline.

### Long-Term Industry Projections for South Carolina 2010 - 2020

Growing	Declining
Healthcare and Social Assistance	Manufacturing
Construction	Transportation and Warehousing
Accommodation and Food Services	Government
Retail Trade	Agriculture, Forestry, Fishing and Hunting

Note: *Professional, Scientific, and Technical Services* includes services related to accounting, legal, architectural, engineering, design, computer design, consulting, scientific, and advertising.

The projections reflect an aging population through increases in healthcare, while declines are possible due to advances in technology and movement of manufacturing.

Of the top 50 projected occupations in South Carolina, nine are in the Office and Administrative Support group, followed closely by the Healthcare-related group. Also included in the top 50 projected occupations are the Food Preparation and Serving Related group and the Education, Training, and Library occupational group.

### Top 50 Future Jobs in South Carolina by Industry

Group Name	# in Top 50
Office and Administrative Support Occupations	9
Healthcare-Related Occupations	8
Food Preparation and Serving Related Occupations	7
Education, Training, and Library Occupations	6
Sales and Related Occupations	5
Business and Financial Operations Occupations	2
Building and Grounds Cleaning and Maintenance Occupations	2
Personal Care and Service Occupations	2
Construction and Extraction Occupations	2
Installation, Maintenance, and Repair Occupations	2
Transportation and Material Moving Occupations	2
Computer and Mathematical Occupations	1
Protective Service Occupations	1
Production Occupations	1

Projected declining occupations include many jobs that have been eliminated due to technological advances (i.e. order clerks) or because of the movement of manufacturing abroad (mainly in textiles).

### **Declining Occupations in South Carolina, 2008 - 2018**

Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders
General and Operations Managers
Door-to-Door Sales Workers, News and Street Vendors, and Related Workers
Order and File Clerks
Postal Service Mail Sorters, Processors, and Processing Machine Operators
Shipping, Receiving, and Traffic Clerks
Farm Workers
First-Line Supervisors and Managers of Production and Operating Workers
Cutting, Punching, and Press Machine Setters, Operators, and Tenders
Sewing Machine Operators
Textile Bleaching and Dyeing Machine Operators and Tenders
Extruding and Forming Machine Setters, Operators, and Tenders
Chemical Plant and System Operators
Inspectors, Testers, Sorters, Samplers, and Weighers
Freight Handlers and Stock and Material Laborers
Machine Feeders and Offbearers
Packing and Package Laborers

### Economic Health

Demand data (online advertised job openings) has consistently shown a high need for healthcare workers in medical facilities. This is reinforced by the aging population and further industry projections. The Healthcare industry has occupational demands in both short-term and long-term forecasts.

Although projected industry employment indicates a potential decline in the Manufacturing industry, current employment in this sector is healthy. Of the seven industry sectors in South Carolina that account for almost 70.0 percent of South Carolina's employment, the top three are Manufacturing, Accommodation and Food Services, and Educational Services. In addition, job announcements indicate that the Manufacturing industry is expanding in certain industrial segments such as automobile and tire manufacturing.

Small businesses have always been the backbone of employment in South Carolina. With the number of small employers in our state (with 49 employees or less) averaging over 105,000 in the fourth quarter of 2011, "mom and pop" businesses will make a large difference in the state's recovery. Since the federal Small Business Jobs Act was signed into law in 2010, lending for small businesses has increased in our state by \$50.5 million.

These firms serve as a beacon of opportunity for the jobless. They also allow workers to enter new industries and fields. The impact of small businesses on hiring has grown since the new millennium. Small businesses now hire about 46 percent of total employed workers; this trend is expected to continue to rise slowly.

## Supply

### Population

South Carolina experienced an above-average growth rate in population from 2000 to 2010 of 15.3 percent, increasing the population to 4,625,364 people in 2010. Only 11 states gained more people during that time. The state's growth rate of 15.3 percent over the 2000 to 2010 periods was exceeded by only nine states.<sup>6</sup> State population projections show continued, but slower growth through 2020.<sup>7</sup>

South Carolina's population growth has been affected by a positive net migration into the state. The growing economy during this time contributed to the influx of people. The largest portion of the influx includes young adults aged 18-24 years looking for work or education. It is also important to note the group aged 55 years or over provided 25.4 percent of the net migration, demonstrating the power of the Palmetto State's draw for retirees.

Age Group	In-Migration	Out-Migration	Net Migration	% of Net Migration	% of Total Population in Age Group
Under 18	122,500	107,300	15,200	10.5	23.7
18-24	139,800	103,800	35,900	24.8	10.1
25-34	121,400	102,000	19,400	13.4	12.6
35-44	82,000	65,200	16,800	11.6	13.9
45-54	61,600	40,800	20,900	14.4	14.2
55-64	41,900	19,900	21,900	15.1	12.1
Over 65	37,800	22,900	14,900	10.3	13.3
Total	606,900	461,900	145,000	100.0	100.0

South Carolina's Hispanic population more than doubled from 2000-2010 reaching 235,682 people. The group now represents about 5.0 percent of the state's population, and this means a growing need for services like job placement, language proficiency programs, and legal advisement tailored to the Hispanic population.

Another significant population group in South Carolina is veterans. The state's veteran population was 399,403 in 2010, up 1.4 percent from 2005. During that period, the unemployment rate for veterans rose from 5.6 percent to 10.7 percent.<sup>6</sup> Other notable populations are the youth population (less than 20 years) making up 26.4 percent of residents; the largest population group is 40-64 years at 27.0 percent; mostly represented by the Baby Boomer generation.<sup>6</sup> This group has a large and important impact on the healthcare industry.

Like the rest of the country, South Carolina has an aging population. For the large Baby Boomer cohort, many workers are starting to retire. In 2000, the state's median age was 35.4 years. Ten years later, it was up to 37.9 years and is projected to be 40.3 years in 2020. More than 25.0 percent of South Carolina's population is at least 55 years old. Those 55 years or older grew by 42.6 percent from 2000 to 2010 and are projected to grow by 30.5 percent from 2010 to 2020.<sup>6</sup> While labor force participation has declined in South Carolina and the United States in recent years, it has increased for those 55 years or older.<sup>5</sup> They remain in the workforce due to financial, social, or other needs. Meanwhile, there were fewer of those aged 35-44 in South Carolina in 2010 than there were in 2000; additionally, this number is expected to drop slightly by 2020.<sup>6</sup> An aging population will also raise the demand for the healthcare industry, which has been growing in the Palmetto State. The projected job demand in 2020 for registered nurses and nursing aides is 53,177 and 25,397, respectively. That is a growth of 25.6 percent for registered nurses and 25.0 percent for nursing aides.

Along with the aging population, it is important to understand the generational differences between groups that make up most of our workforce. These groups bring varied life experiences and expectations to the workforce.

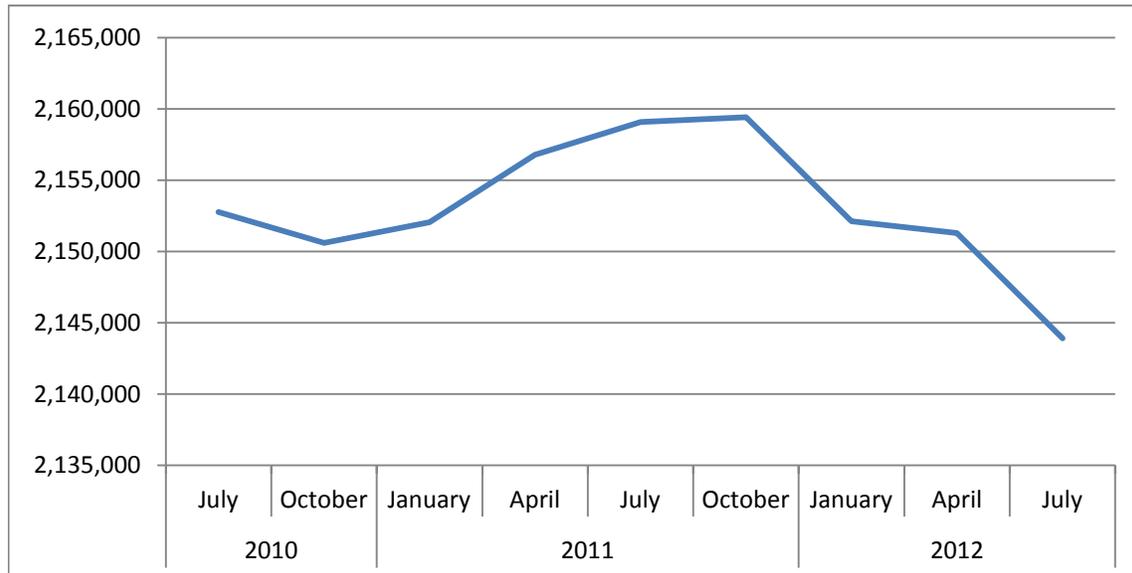
<b>Different Generations<sup>9</sup></b>	<b>Baby Boomers</b>	<b>Generation X/Y</b>	<b>Y/Millennial</b>
Born	1946-1964	1965-1982	1983-2000
Population Size Estimate	80 million	51 million	75 million
Events	Vietnam War, Civil Rights, Cold War, Space program	Latchkey kids, Fall of the Soviet Union, Computer use rises, Challenger disaster	Digital media, 9/11, Iraq/Afghanistan War, cell phone use rises, texting
Education	A person's right	A way to make progress	Very expensive
Percentage of Workforce Estimate	45	40	10
View of Time at Work	Invented the 50-hour workweek	Project Oriented	Flexible workplace and hours

In most cases, a growing population means a growing labor force and, consequently, continued pressure to generate more jobs. Population growth will generate more jobs in sectors such as retail; it will also generate more jobseekers. This means more demand for workforce services. However, that demand may be mitigated somewhat by declining labor force participation. The state's labor force participation rate dropped from 65.7 percent in 2000 to 61.3 percent in 2010.<sup>5</sup>

Population growth has not been uniform across South Carolina. From 2000 to 2009, 17 counties lost population, pointing to critical economic and workforce development needs in those areas.<sup>6</sup>

## Labor Force

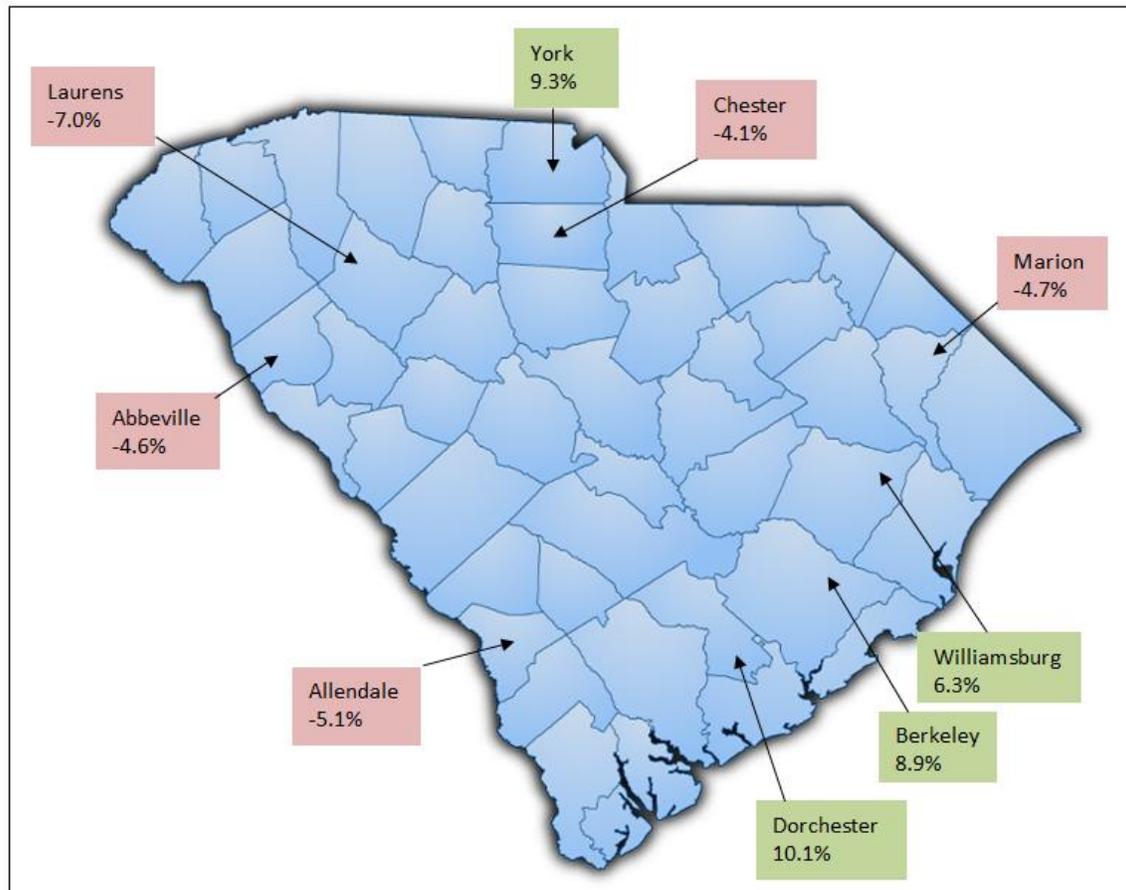
### **South Carolina Labor Force, 2010 - 2012<sup>5</sup>**



The labor force consists of the total number of people in an area that are not institutionalized, are at least 16 years old, and are either employed or are unemployed but looking for work. South Carolina's labor force has fluctuated between 2.09 million and 2.17 million workers in the last several years. This is due to industry changes, recessionary times, unemployment and other factors. Industries are always changing and adapting; this is reflected in the labor force fluctuations.

The Manufacturing industry has lost 132,000 jobs since 1990. Construction has lost 52,000 jobs since the recession started in 2007. While initially a laid off worker might remain unemployed and in the labor force looking for work, as time progresses, a person may become discouraged by the job market and stop looking for work. This removes a worker from the labor force. When the job market improves and the person looks for work again, he is considered to be a member of the labor force. A recession and the associated high unemployment affect the labor force as people begin to look for work or stop looking for a job. Workers may also leave the labor force to pursue further education. Recessionary times cause greater fluctuations in labor force participation due to unemployment and uncertainty. Since the peak in February 2009, the state's labor force has lost 15,606 people.<sup>5</sup>

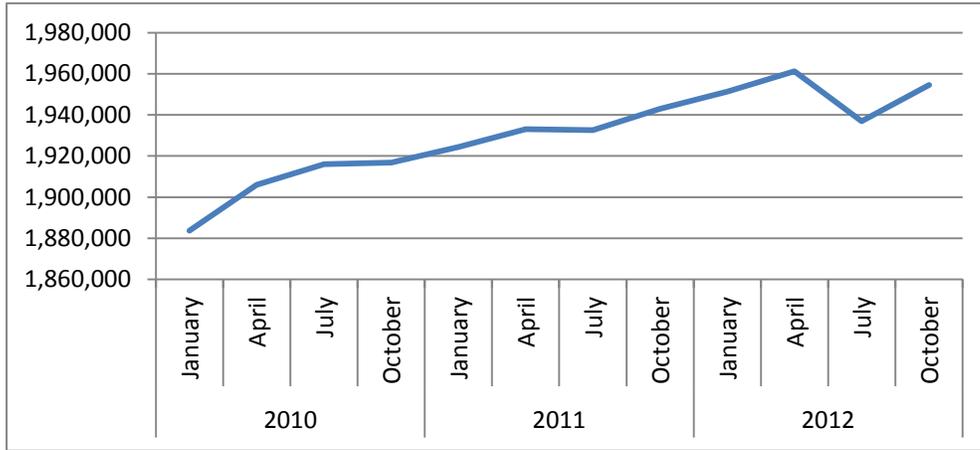
## Largest Labor Force Changes from 2007 - 2011 <sup>5</sup>



As people recognize the opportunity for work, they move to centers of commerce. The economic gravity of some areas pulled workers from less economically vibrant places. Growing metropolitan areas have attracted workers in the last decade and during the recession. York County is close to Charlotte, North Carolina, and is gaining commuting workers (3,306) from Chester County due to its strong Manufacturing, Retail and Wholesale Trade, Healthcare, and Educational industries. As Charleston County grows, firms and workers are being attracted to surrounding counties for employment and trade. Two of Charleston County's neighbors have experienced labor force growth; Williamsburg County has done well during this time also. Residents of Marion County are finding employment in Florence and Horry counties. It appears that workers are going where the jobs are. Abbeville, Marion and Allendale counties had a shrinking workforce from 2000 to 2007, and Dorchester and Berkeley counties grew during the same time. Many counties have been stuck in a job-loss rut for many years, while other traditionally prosperous counties continue to do well.

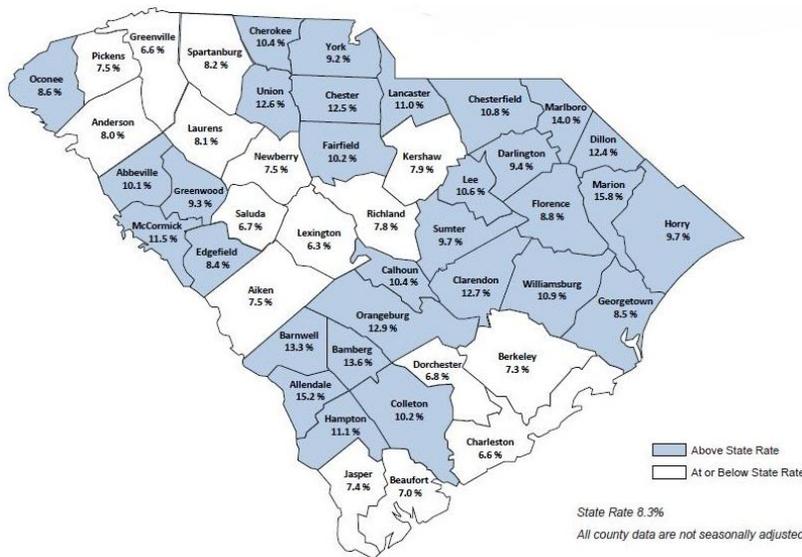
Employment and Unemployment

**South Carolina Employment, 2010 - 2012<sup>5</sup>**

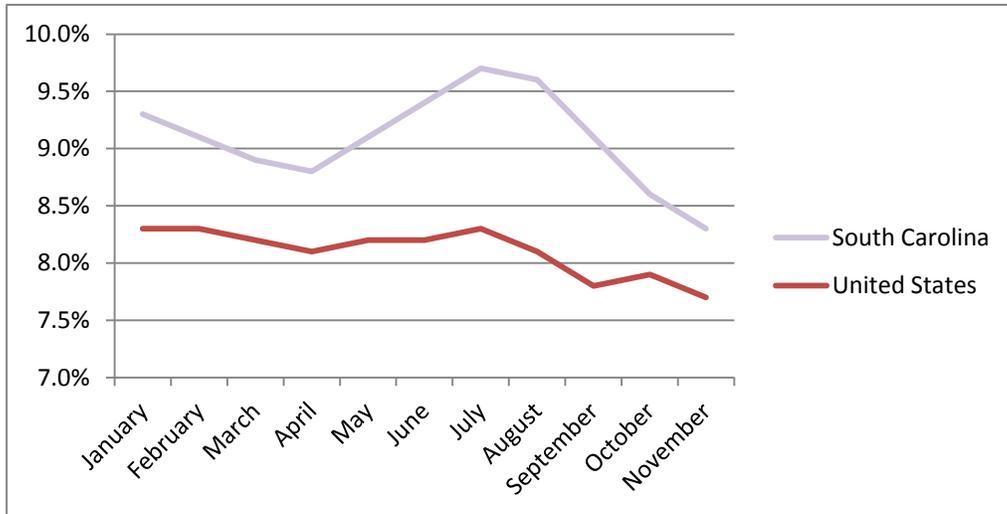


In the wake of the recent recession, South Carolina’s employment level has experienced declines from 2008 to 10. During 2010, employment dropped to 1.87 million workers, erasing gains made from the previous several good years. Since then, there has been a slow and steady increase in employment as the state and nation recover from the recession. There were 70,000 more employed workers in June 2012 than in November 2009.<sup>5</sup>

**Unemployment Rate by County, November 2012**



### South Carolina and National Unemployment Rates, 2012 <sup>4</sup>



South Carolina has had employment gains in the past year. A slowly declining unemployment rate is a positive but frustrating metric. The national unemployment rate is still lower than the Palmetto State's rate. The rate can fluctuate due to changes in the labor force unrelated to the economic growth.

### South Carolina Unemployment Rate 2012 <sup>5</sup>

Month	South Carolina	United States
November	8.3%	7.7%
October	8.6%	7.9%
September	9.1%	7.8%
August	9.6%	8.1%
July	9.6%	8.3%
June	9.4%	8.2%
May	9.1%	8.2%
April	8.8%	8.1%
March	8.9%	8.2%
February	9.1%	8.3%
January	9.3%	8.3%

There are different types of unemployment. Cyclical unemployment results from normal and periodic declines in the business cycle (recessions). During a recovery, cyclical unemployment will be reduced as workers are hired back. Cyclical unemployment usually lags behind the business cycle by several months as employers tend to hold onto labor in the hope that they might ride out the economic storm. Frictional unemployment occurs when workers voluntarily leave their job and look for a different one. It is the time period between jobs when a worker is transitioning from one job to another.

The most difficult to control is structural unemployment. This type of unemployment occurs when the basic nature of the economy changes over time such that skills which unemployed workers possess are no longer demanded by employers. Structural unemployment is involuntary unemployment and typically requires retraining or education of displaced workers to bring their skills in line with demand. It results from a mismatch between demand in the labor market and the skills of the workers seeking employment. While there may be a large number of vacant jobs available, workers may lack the skills needed to fill them. Job losses that stem from structural changes tend to be permanent. As industries decline, jobs are eliminated, compelling workers to switch industries, sectors, locations, or skills in order to find a new job.

Another segment of South Carolina's current population is the long-term unemployed. Those unemployed over 26 weeks make up about half of the state's unemployed population. Long-term unemployment is often an indicator of significant barriers to employment. From 2005 to 2010, the largest job losses were suffered by those who did not have a high school diploma or GED. The Census' American Community Survey found that most of the people lacking a high school diploma or GED that are unemployed and have stopped looking for work are in their 30s and 40s.

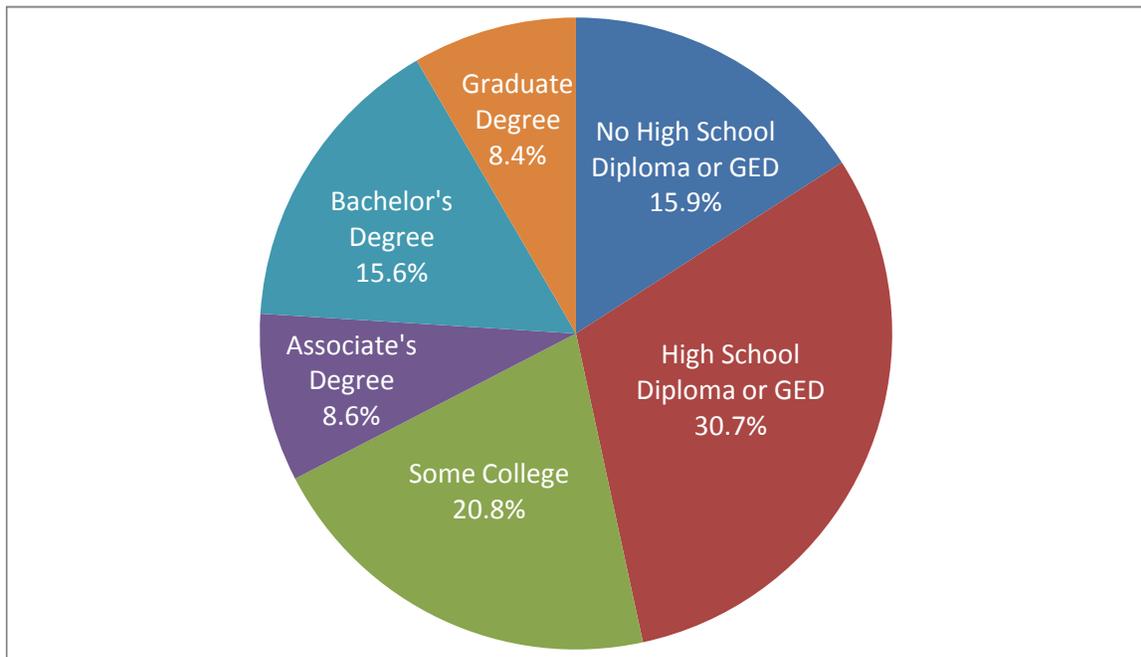
South Carolina is faced with a significant population of people in their prime working ages who lack the most basic credential needed for a job and see little or no hope of success in the job market. Long-term unemployment ultimately reduces the productive capacity of an economy as workers' skills become outdated. Unemployment, especially long-term unemployment, is costly for everyone. It strains public funds due to the payment of unemployment benefits and reduces tax revenue when individuals are forced to consume less.

Unemployed workers are seeking opportunities and hoping that someone sees their abilities and what they can contribute to an organization. They are also waiting to start or continue their adult life, with normal transitions like homeownership, marriage, and family. The average Unemployment Insurance recipient in South Carolina has a high school diploma, is in his or her 30s, and receives benefits for 14.4 weeks. The main reasons for being unemployed are lack of work or being let go for misconduct; 73.0 percent of recipients are between the ages of 25 to 55 years. This shows that a lack of demand and a mismatch of skills are large contributors to the unemployment number. It is important to note that legislation has been passed to eliminate state unemployment benefits for a worker that was fired for misconduct.

## Education

U.S. Census Bureau statistics show that the greatest percentage of educational attainment in South Carolina is for high school graduates (diploma or GED), at 30.7 percent. Overall, South Carolina ranks in the lower half of all the states on percentage of residents with a bachelor's degree. Since education has been correlated to increased earnings and better health, it is in the best interest of the state to encourage workers to pursue their education, whether that means college or skills training.

### **Educational Attainment in South Carolina, 2011<sup>6</sup>**



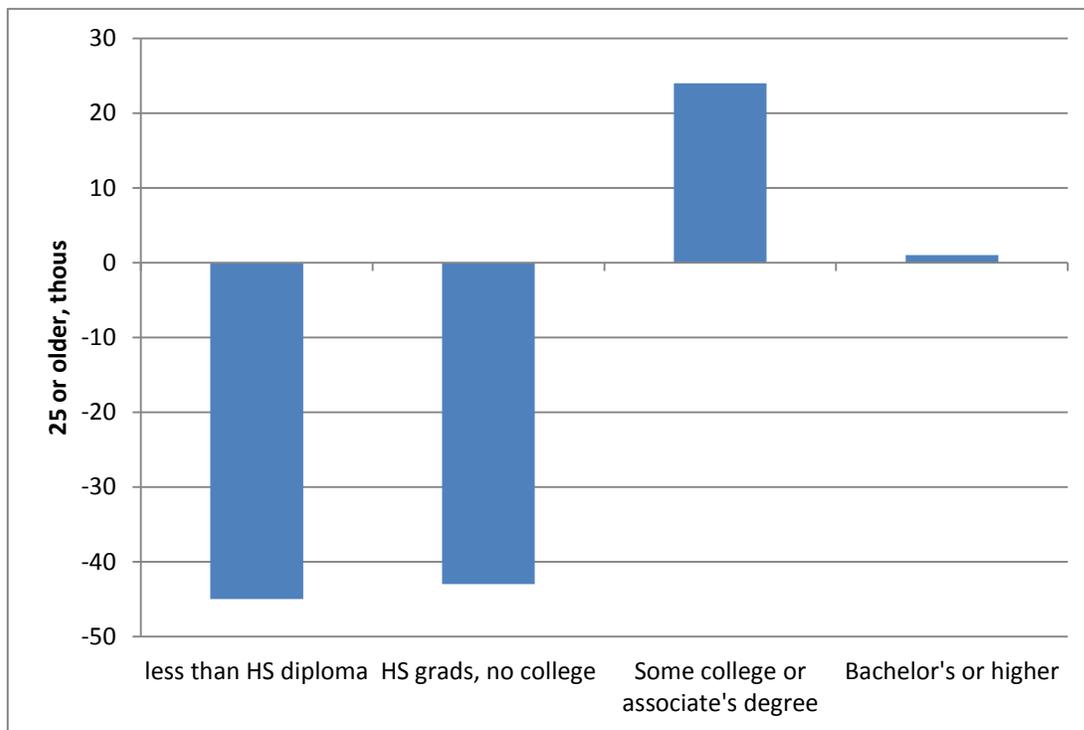
The percentage of residents with a bachelor's degree is a common measure of a state's workforce. The percentage has been increasing in the last decade and is expected to continue to rise.

### **Percentage of Residents with at least a Bachelor's Degree in the Southeast<sup>6</sup>**

State	Georgia	North Carolina	South Carolina	Tennessee	Kentucky
Percentage	27.2	26.1	<b>24.0</b>	22.7	20.3

The least educated of the state's citizens tend to suffer the highest employment losses when the economy declines. Having an education is a start to becoming recession-proof in the workforce. All things equal, employers have shown a willingness to hire the more-educated workers versus their less-educated peers. When an economy shrinks, large firms with low-skill workers may close their doors permanently or relocate operations. Because the workers are low-skilled, they may be easier to replace than a highly-trained workforce. The graph below shows that in the economic downturn from 2007 to 2010, educated workers had positive employment growth, while less educated workers were separated from employment the most. Their jobs were either given to workers with more skills or were lost altogether.

#### South Carolina Employment Change by Educational Attainment, 2007 – 2010 <sup>5</sup>

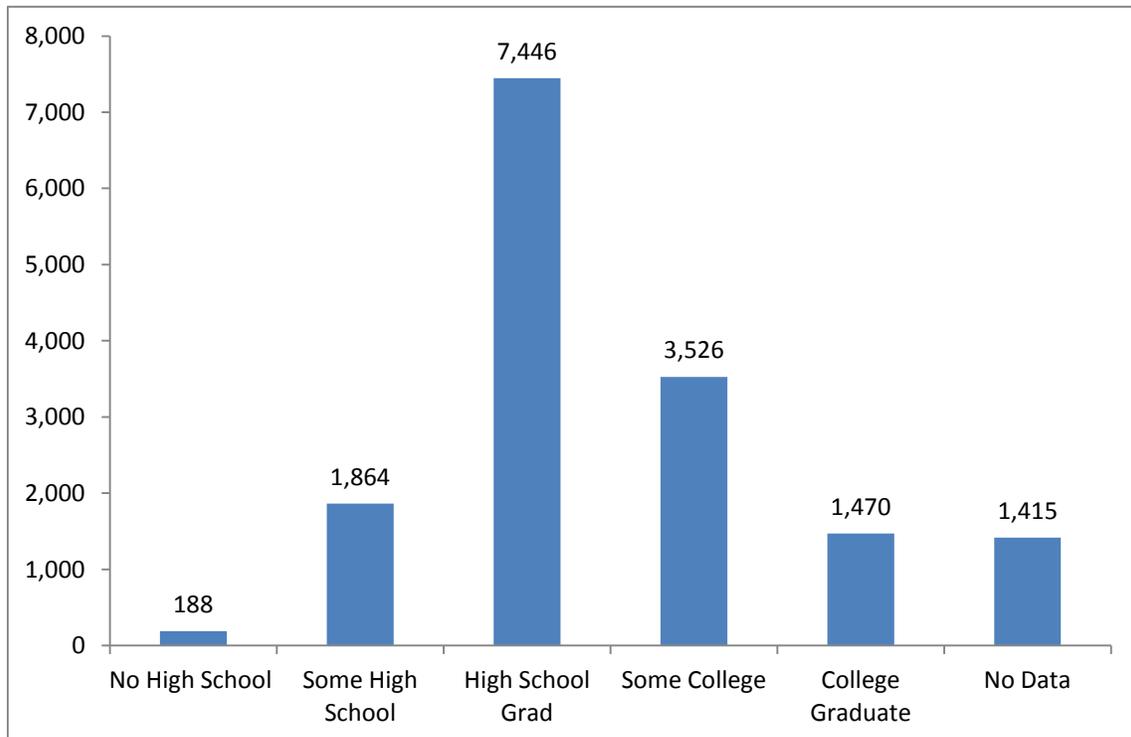


When comparing the population's 2010 educational attainment with projected jobs, there are some concerns:

- In both the 18 - 24 years and the 25 years and over groups, there are an abundance of people with some college or an associate's degree
- Both age segments are below future estimates of needs for workers with a high school diploma, GED, or some kind of post-secondary/vocational training.
- Both age groups also fall below the needs for jobs requiring a bachelor's degree.

Unemployment claims filed in May 2012 shows that approximately 90.0 percent of recipients have not earned a bachelor's degree. Most claimants have no college experience at a critical time when employers have a rich supply of available labor. This also provides some evidence that the least educated workers suffer the most during an economic decline.

### South Carolina Unemployment Claimants by Educational Attainment, May 2012



### Supply Findings

The data show that in order to have the required levels of education for our future workforce, we will need to increase the number of individuals with a high school diploma/GED/post-secondary vocational training and increase the number of people with bachelor's degrees. In addition, our technical college system has done a good job of training workers; however, there is still a large amount of students that have attended college or training but have not graduated. In order to get the state's workers the middle-skills that they need, we will need to move more individuals from not having a high school education to getting a high school diploma or GED so they can continue on and qualify for training related to middle-skill jobs.

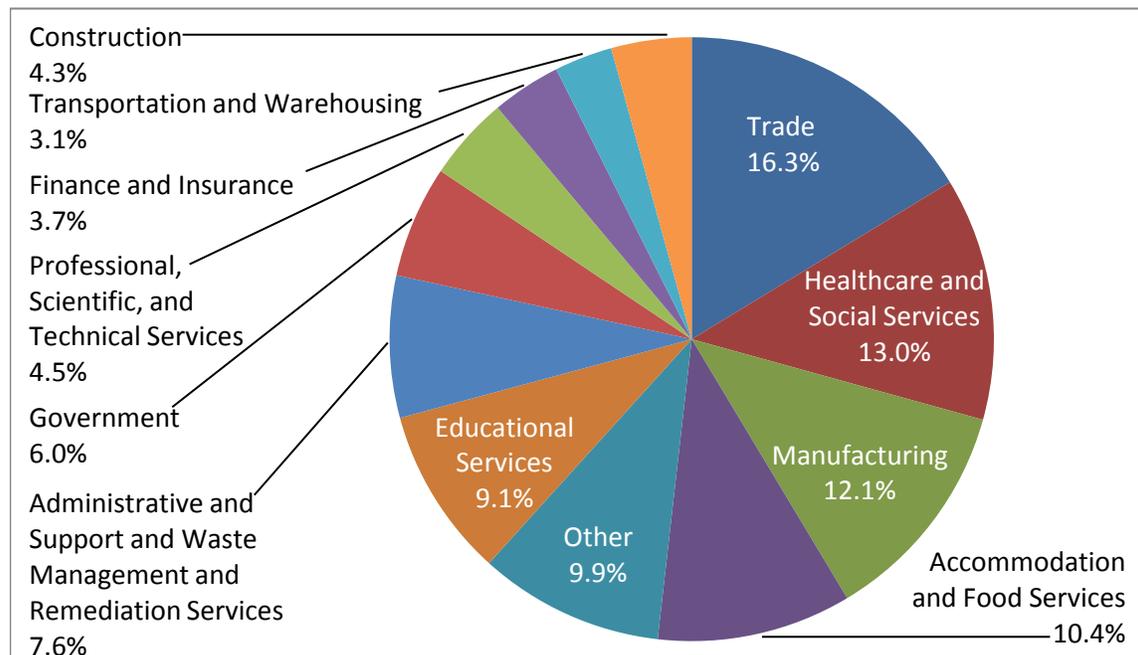
## Demand

Thanks to its favorable business climate, skilled workforce, transportation infrastructure, and low-cost power, South Carolina has been a leader in the Southeast and nationwide in recruiting new manufacturing plants and expanding its industrial base. The impact of manufacturing is immense. There is the direct impact of local expenditures on wages and purchases that are injected into the economy. The firms pay local workers and buy local supplies. Indirect impact represents the ripple effects of spending on in-state suppliers. Suppliers may choose to cluster around a manufacturing plant, which lowers transportation, carrying, and storage costs. Induced impact is the ripple effect of expenditures from wages and involves household spending. Restaurants may open up in the area to meet the worker's needs. Manufacturing jobs have a high multiplier effect, meaning that for every one direct manufacturing job, several other jobs are created as well.<sup>10</sup>

### Industry Trends

South Carolina is home to many diverse businesses. The Manufacturing sector provides a wide range of products including airplanes, automobiles, tires, and electrical components. Power is generated by nuclear, coal, hydroelectric, and natural gas plants. The Transportation sector is large and has access to highways, runways, railroads, waterways, and ports. The state's lakes, mountains, beaches, and parks contribute to the large Tourism industry.

### **South Carolina Economy by Industry, 2011**



Industries including Manufacturing; Scientific and Technology services; Warehouse and Distribution; Financial Services, and Healthcare typically provide jobs with higher pay and greater benefits. This brings in better human capital and workforce development and offers opportunities for advancement and security. A successful economic base stimulates other business sectors like housing, retail, and tourism. All of this activity supports a strong local tax base which provides more support for community services and improves the quality of life.

The future mixture of our economy is unknown, but by using trends and data we can anticipate sector growth or decline.

<b>Nonfarm Employment by Industry</b>	<b>2011</b>	<b>Percent of total jobs</b>
Agriculture, Forestry, Fishing, Hunting	10,919	0.6
Mining	1,233	0.1
Utilities	17,020	1.0
Construction	76,698	4.3
Manufacturing	215,081	12.1
Trade	291,322	16.3
Transportation and Warehousing	54,703	3.1
Information	27,916	1.6
Finance and Insurance	65,314	3.7
Real Estate	26,366	1.5
Professional and Technical Services	80,697	4.5
Management	15,054	0.8
Administrative and Waste Services	135,058	7.6
Educational Services	162,561	9.1
Healthcare and Social Assistance	231,776	13.0
Arts, Entertainment, Recreation	28,489	1.6
Accommodation and Food Services	185,087	10.4
Other Services	48,506	2.7
Public Administration	106,950	6.0
<b>Total</b>	<b>1,780,750</b>	<b>100.0</b>

The largest sector in terms of employment is Trade, Transportation, and Utilities, which accounts for over 350,000 jobs. Healthcare is a strong second, and the Manufacturing industry employs 215,081 workers and counting. The Government and Trade, Transportation, and Utilities are projected to add employment due largely to projected population growth. The anticipated growth will affect the demand for state and municipal services as well as consumer goods and services.

### *Construction and Manufacturing Sector*

While Construction wasn't in the top five employment sector, it is worth noting the growth potential. Total annual 2011 employment in Construction was at 75,800 while its 2020 projected growth is over 100,000. This growth may be due to construction of several energy and manufacturing plants. There are seven nuclear power plants providing at least half of the state's total power. Two more nuclear power plants are being built and are anticipated to be operational in 2017.



*American-produced nuclear power can boost economic growth and support high-paying jobs that cannot be shipped overseas. Construction on V.C. Summer units in Jenkinsville is providing 3,000 long-term construction jobs and 800 career-long utility jobs.*

A wide variety of medium and long-term jobs will become available as the two new power plants undergo construction. Construction skills like welding, with specific nuclear industry certifications, will be required to build the power plant and support systems. Nuclear operators and technicians are needed to maintain and control power systems. Landscapers, administrative teams, and information technology professionals are also required to complete important functions. Plants being built and expanded across the state include Continental Tire, two new V.C. Summer Nuclear Station units, Michelin Tires, Bridgestone Tires, Boeing, Nephron Pharmaceuticals, and BMW. The growth in manufacturing plants is increasing the need for construction.

South Carolina has lost many manufacturing jobs over the last 30 years and the recent recession has accelerated this process. Recent growth in this industry in South Carolina is encouraging. Both foreign and domestic manufacturing firms located and expanded in South Carolina. "Made in America" is no longer a manufacturing whisper, but is becoming more of a shout as firms re-shore jobs and avoid international entanglements, drama, and currency fluctuations.

There is a growing investment in manufacturing. The manufacturing industry is slowly becoming stronger in South Carolina as plants are being built and staffed in new and existing areas.

### *Healthcare and Education Sector*

Healthcare is a growing and important part of the state's economy. It is needed at every stage of life. It is a growing and usually recession-proof industry and South Carolina's aging population will provide demand for many years.

Industries in the hospitals subsector provide medical, diagnostic, and treatment services to inpatients. Hospitals may also provide outpatient service as a secondary activity. There were 1,592 online job openings for hospitals advertised on September 3, 2012.

The average weekly wage for hospital workers in South Carolina in the last quarter of 2011 was \$1,020. This would be equivalent to \$25.50 per hour or \$53,040 per year, assuming a 40-hour week. The 2020 long-term projected employment for the hospital industry in South Carolina was 102,641 with a total percentage growth of 16.8 percent.

The nursing and residential care facilities group provides residential care combined with nursing, supervision, rehabilitation, and other types of required care. There were 436 job openings advertised online on September 3, 2012. The average wage was \$13.10 per hour and \$27,248 per year.

Employers are demanding more skilled workers. These skills can be gained on the job or in a classroom. The workforce trend towards more skills and education is expected to continue, so there will be education jobs to fill at all levels to train South Carolina citizens.

The Educational sector provides instruction and training in a wide variety of subjects. This sector includes colleges, universities, primary and secondary schools, and professional schools. As workers require more training and education, the need for this sector will rise. There were 1,032 online jobs advertised on September 3, 2012. The average weekly wage was \$738, equal to \$18.45 per hour or \$38,376 per year.

### *Professional and Business Services Sector*

Industries in the Professional, Scientific, and Technical Services group engage in processes where human capital is the major input. They make available the knowledge and skills of their employees; a team or individual is responsible for the delivery of services to the client. Examples include architectural, engineering, accounting, design, and technical firms. There were 1,754 job openings advertised online for professional, scientific, and technical services in South Carolina on September 3, 2012. The average weekly wage was \$1,299, equal to \$32.28 per hour or a \$67,548 annual salary assuming a constant 40-hour work week.

### Occupational Trends

South Carolina has identified “hot jobs” which meet the following criteria: growth rate of at least 9.0 percent between 2010 and 2020, increase of at least 1,000 jobs, and a minimum average salary of \$37,920. These jobs include school teachers, supervisors, registered nurses, accountants, and sales agents (insurance, retail, wholesale).

#### **South Carolina Hot Jobs**

	2020 Employment	Annual Growth	2010 - 2020 Growth	Estimated Annual Job Openings
Registered Nurses	53,177	2.3%	25.6%	1,851
Nursing Aides, Orderlies, Attendants	25,397	2.3%	25.0%	770
Elementary School Teachers	23,189	1.6%	17.4%	778
Personal care aides	13,303	4.8%	60.2%	566
Self-enrichment education teachers	3,980	2.2%	24.4%	127

Employment of self-enrichment education teachers is expected to increase over the 2010 to 2020 period by 24.4 percent, which is much faster than the average for all occupations. The need for self-enrichment teachers is expected to grow as more people embrace lifelong learning and course offerings expand. The demand for self-enrichment education will also increase as more people seek to gain or improve skills that will make them more attractive to prospective employers.

Nursing aides, orderlies, and attendants provide basic patient care under direction of nursing staff. Overall employment of nursing and psychiatric aides is projected 18.0 percent growth between 2010 and 2020, faster than the average for all occupations. Employment for nursing aides, orderlies, and attendants will grow 25.0 percent predominantly in response to the long-term care needs of an increasingly elderly population.

Financial pressures on hospitals to discharge patients sooner may boost admissions to nursing care facilities. As a result, new jobs will be more numerous in nursing and residential care facilities than in hospitals and growth will be especially strong in community-care facilities for the elderly. Modern medical technology will also drive demand for nursing aides, because as the technology saves and extends more lives, it increases the need for long-term care provided by aides. Growth may be hindered by nursing facilities' reliance on government funding, which does not increase as fast as the cost of patient care. Government funding limits the number of nursing aides that facilities can afford to have on staff.

High replacement needs for nursing aides reflect the modest entry requirements, high physical and emotional demands, and limited opportunities for advancement within the occupation. Many aides leave the occupation to attend training programs for other healthcare occupations.

Additionally, employment of registered nurses is expected to grow by 25.6 percent between 2010 and 2020; this partly due to an aging population. People over 55 are much more likely than younger people to need nursing care; many also require long-term care. Many elderly patients want to be treated at home or in residential care facilities, which will drive demand for registered nurses in those settings. Job growth also is expected in units that provide specialized long-term rehabilitation for stroke and head injury patients.

Employment in home healthcare is expected to increase in response to the growing number of persons over 55 years old with functional disabilities, consumer preference for care in the home, and technological advances that make it possible to bring increasingly complex treatments into the home. The type of care demanded will require nurses who are able to perform complex procedures. To attract and retain qualified nurses, hospitals may offer signing bonuses, family-friendly work schedules, or subsidized training. In addition, all four advanced practice specialties—clinical nurse specialists, nurse practitioners, nurse-midwives, and nurse anesthetists—will be in high demand, particularly in medically underserved areas such as inner cities and rural locations.

Excellent job opportunities are expected for personal care aides because of rapid employment growth and high replacement needs. This is an excellent example of a profession that is in high demand and that demand is only expected to grow.

Other leading jobs with the most openings are truck drivers, retail supervisors, retail salespersons, food-service supervisor, customer service representatives, and industrial engineers.

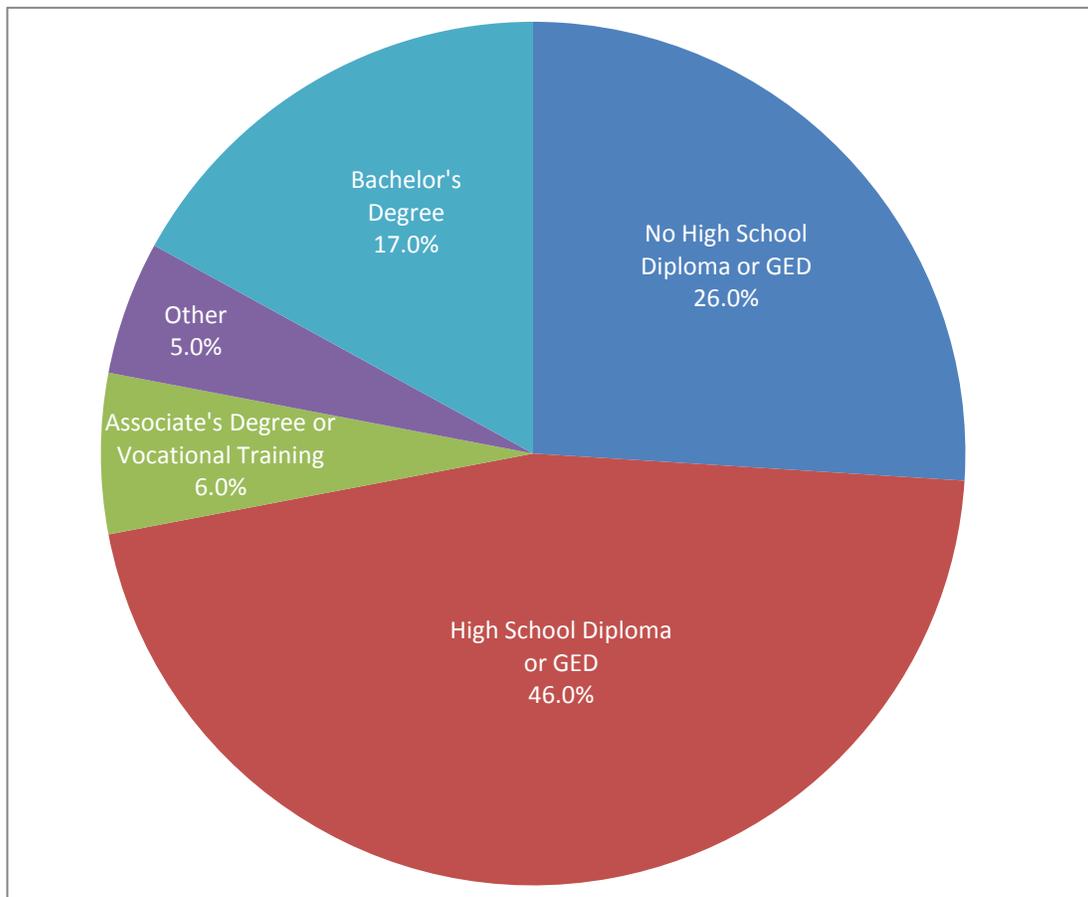
Education, training, and experience typically make a difference in the type of job and wages a worker can expect. But not all “good” jobs require a college degree. Jobs with higher wages that don’t require a four-year degree and that are expected to have a significant number of opportunities over the next several years are:

<b>Selected Jobs</b>	<b>Avg. 2011 Salary</b>	<b>Education/Training</b>
Registered Nurse	\$61,350	Associate’s Degree
Licensed Practical and Vocational Nurses	\$38,960	Postsecondary Non-degree Award
Automotive Technician	\$36,740	Postsecondary Vocational Training
Electrician	\$40,270	Long-term On-the-Job Training (OJT)
Dental Assistant	\$32,880	Moderate-term OJT
Truck Driver	\$36,840	Short-term OJT

## Education

It is important to understand the educational level of the state's workforce. Employers need to know if skilled and educated workers are available to operate their firms. An analysis of the minimum education levels for the current top 100 occupations in South Carolina shows that 46 percent require a high school diploma or GED, 26 percent require no diploma, and 17 percent require a bachelor's degree. Based on this data, 54 percent of the top 100 jobs are considered middle-skill jobs (HS diploma/GED/vocational training/some college/associate's degree), 26 percent are low-skill jobs, and 20 percent are high-skill jobs. During August 2012, 33.2 percent of online job postings required at least a bachelor's degree and 24.1 percent required at least a high school diploma.

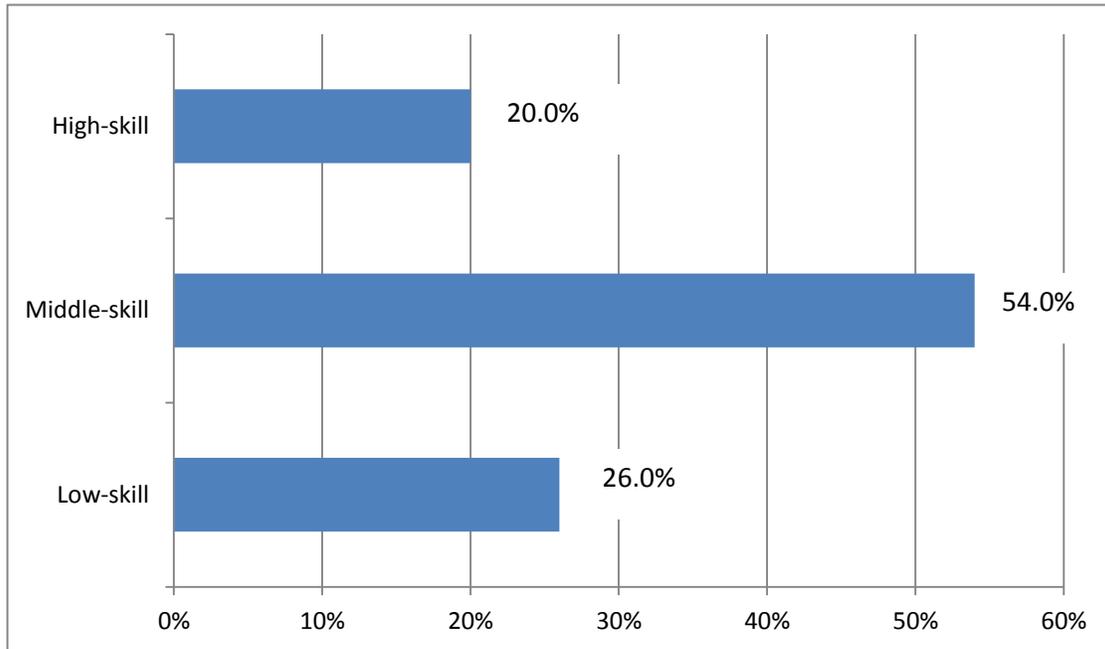
### **Educational Level of Top 100 Jobs in South Carolina**



The state's top jobs require middle skills and 74 percent of all top jobs exclude low-skilled labor. This shows the shift in the last few decades from a low-skilled workforce to a higher-skilled pool of talent. When 2008 to 2018 top jobs are forecasted, 35 percent are low-skilled, 47 percent are middle-skilled, and 18 percent are high-skilled.<sup>12</sup>

## South Carolina Top 100 Jobs by Skill Level

### **South Carolina Top 100 Jobs by Skill Level, 2011**

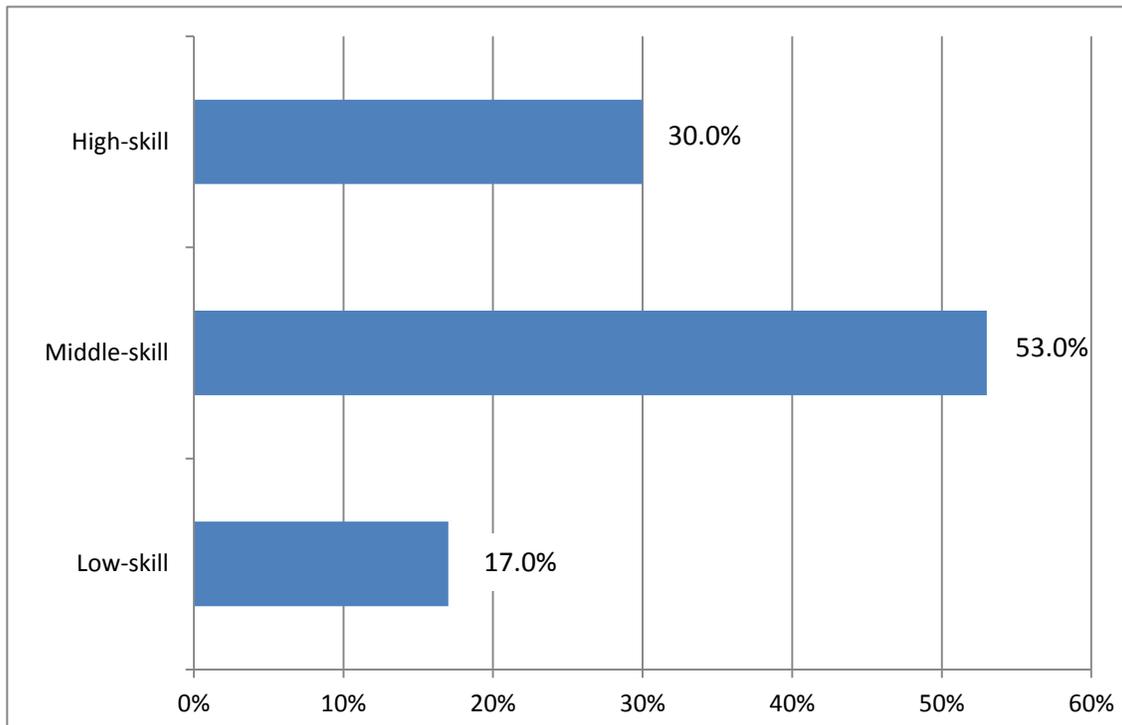


There is a trend towards workers acquiring more skills to maintain proficiency and competitiveness in their professions. Workers are expected to become better and more technically accredited. The vast majority of South Carolina's projected top jobs require at least a high school diploma/GED (83.0 percent). The labor force has a growing emphasis on middle-and high-skill positions. Low-skill labor positions tend to be easily taught to a new workforce. This increases the likelihood of a firm moving to a lower wage area when conditions allow. Many low-skill jobs have been outsourced already or have been automated by technology and machinery.

Middle-skill jobs require more than a high school diploma, but less than a bachelor's degree. They make up the majority of jobs in South Carolina and the United States. Professions with middle skills include registered nurses, dental hygienists, electrical technicians, auto mechanics, and legal secretaries. There is an anticipated robust need for middle-skill jobs, which can provide good wages and career paths. Low-skill workers that participate in training and/or earn a degree will be able to enter a middle-skill field.

South Carolina Top 100 Projected Jobs by Skill Level

**South Carolina Top 100 Projected Jobs by Skill Level, 2008 - 2018**

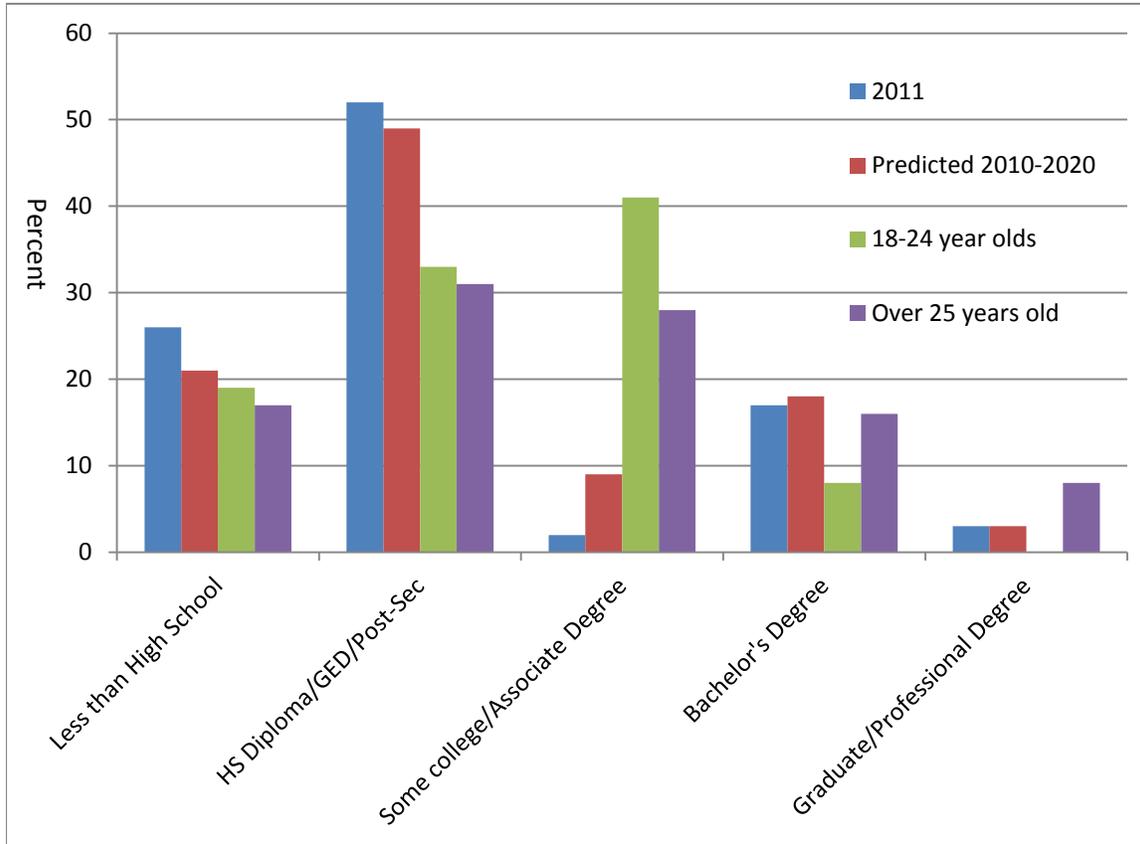


In addition to “middle-skills” needs, the report “Are They Really Ready to Work?” suggests that the most important soft skills needed to succeed in the workplace were:

- Professionalism and work ethic
- Oral and written communication
- Teamwork and collaboration
- Critical thinking and problem solving

This report was a survey of 400 employers across the United States conducted by a joint consortium of The Conference Board, Partnership for 21<sup>st</sup> Century Skills, Corporate Voices for Working Families, and the Society for Human Resource Management. Hard skills are things learned in school (bachelor’s degree, welding certificate), while soft skills are difficult to teach and include things like punctuality and work ethic. The employers reported deficiencies in all four soft skills in the new workers they are seeing. Over 42.0 percent of the employers rated new entrants to the workforce with a high school diploma as “deficient” in overall preparation for the entry level jobs that they would normally fill.

### Comparison of Educational Requirements for South Carolina's Top 100 Jobs <sup>6</sup>



In order to have the required levels of education for our future workforce, the state will need to increase the number of individuals with a high school diploma/GED/post-secondary training, as well as increase the number of individuals with bachelor's degree. The technical college system has played a large role in training workers. Preparing those individuals with some college or an associate's degree to continue their education and obtain a bachelor's degree will also help ensure adequate education levels for the future workforce. The graph above shows that the future workforce will need to be more educated, especially obtaining a bachelor/master's degree. With a continuing increase in manufacturing employment, many of these jobs will require middle-skills, increasing the number of workers needed with a high school diploma/GED/post-secondary vocational training. Their further education and training will be vital to the recovery of the workforce.

Employers expect a capable and trained workforce to be available. It can be a major factor when an employer is looking to expand or locate its operations in the state. If the workforce has more skills to offer, the employer may expand operations accordingly, increase innovation, or use the flexibility that a trained workforce provides.

### Demand Findings

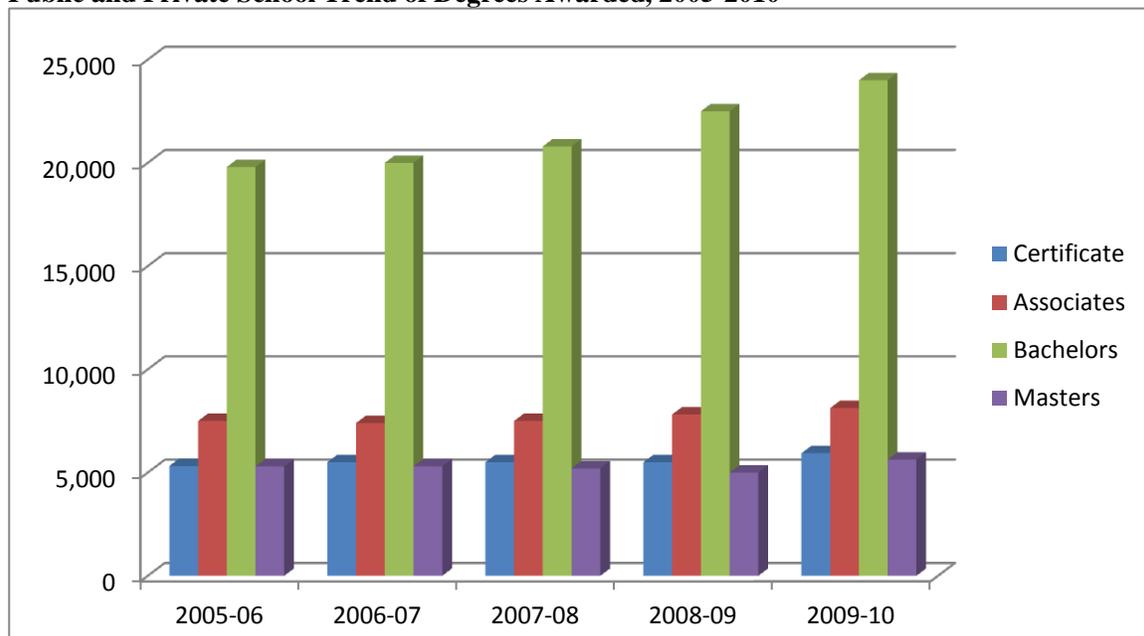
The recent recession gave South Carolina's workforce system a new set of issues to focus on, including a large loss of jobs that may never be replaced, high unemployment, and stagnating personal income. A growing skills gap, rapidly advancing technology, globalization, demographic changes, and educational dilemmas are challenges in the modern workplace. Students and workers understand the rising demand for education and training and have responded by entering colleges, universities, and technical schools in record numbers. Employers want a constantly advancing workforce with both hard and soft skills. This trend is expected to continue, especially during the weak current job market.

## Challenges

### Education and Skills

Although the recession has been difficult, it presents a unique opportunity for workers to pursue further education and training. South Carolina has many institutions of learning in which to provide a skilled workforce. Students are taught at universities, colleges, and technical schools all over the state. One way to improve the workforce is to increase the number of college graduates. From 2010 to 2011, South Carolina awarded over \$425 million to public colleges and universities. During 2010, there were 245,319 students enrolled in higher learning institutions; 43,854 degrees (all levels) were awarded.<sup>9</sup>

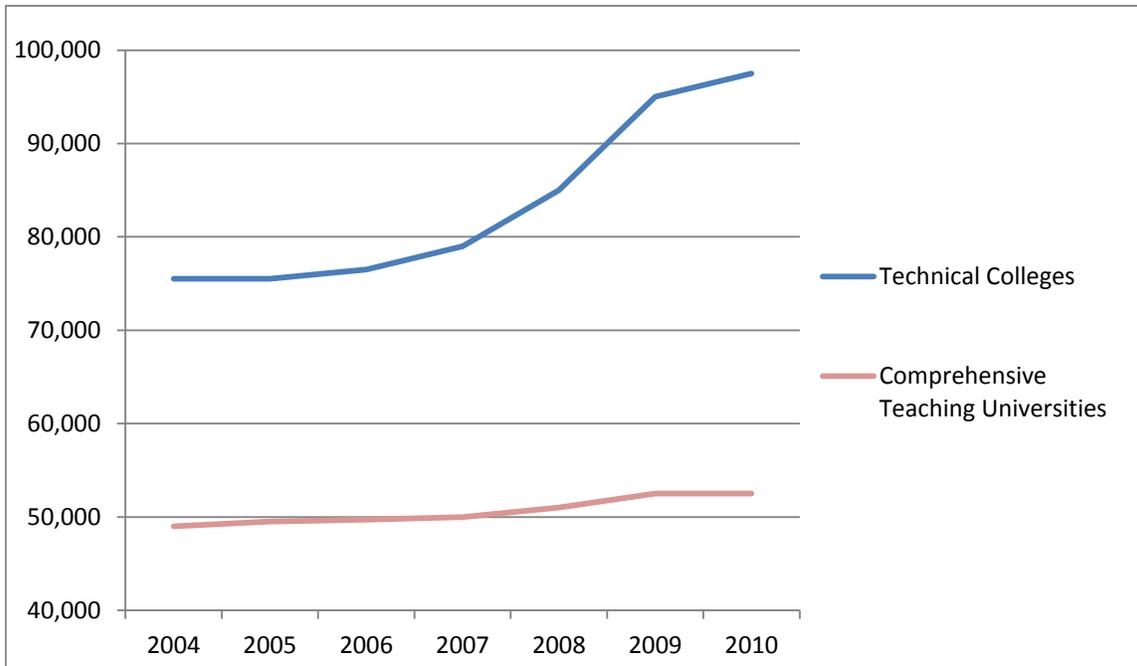
### **Public and Private School Trend of Degrees Awarded, 2005-2010**<sup>11</sup>



Students increasingly recognize the need for more skills and training when preparing for and entering the workforce. While there has been a steady increase in the number of certificates, master's, and associate's degrees, the largest growth trend has been the attainment of bachelor's degrees. This rise in student participation is especially pronounced when considering the hurdles that must be overcome to obtain an education.

The recent recession has been financially devastating for many families. Families may have had to dip into college funds or stopped contributing to these funds altogether. Students are also facing rising tuition costs, higher achievement levels for entry, difficult financing options, and uncertainty about the future job market. During a recession and a tough economy, it creates a dilemma to sacrifice the time, money, and energy in hopes of future success.

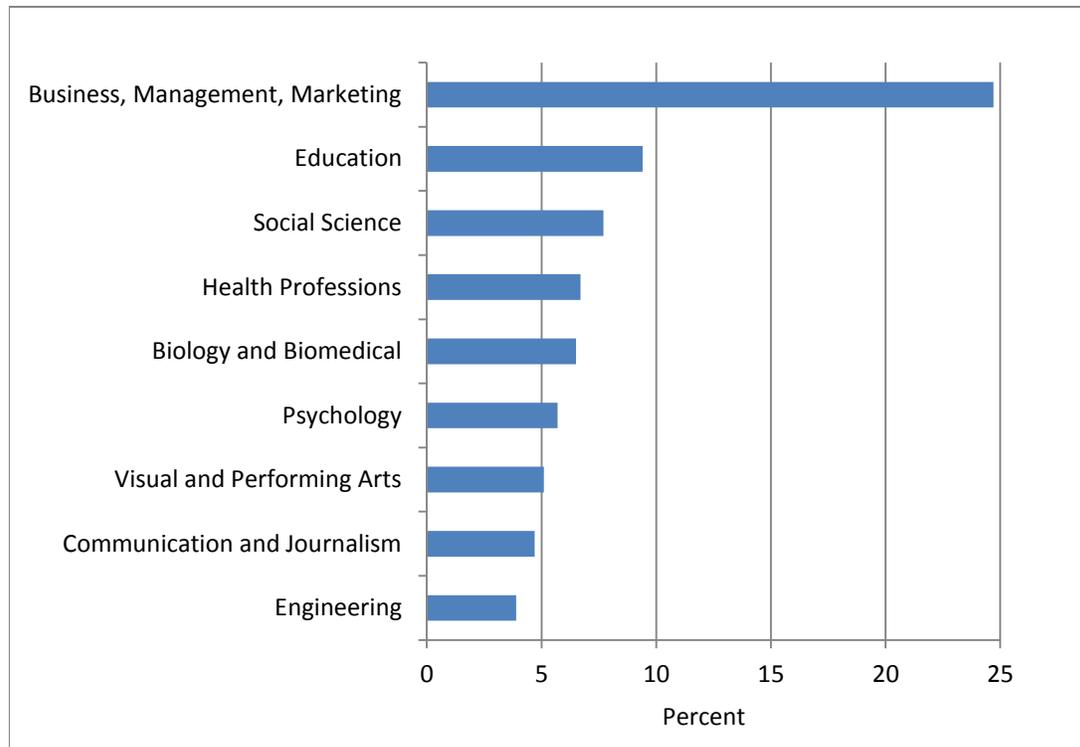
### Selected South Carolina University and College Total Headcount, 2004 - 2010<sup>11</sup>



Although there has been a steady growth in the number of students attending research and comprehensive teaching universities, technical colleges have also experienced a surge in enrollment in the last few years. The post-recession resurgence in manufacturing has driven people to attend more technical colleges. The employers have a need for a technically competent workforce and students have responded to this need.

Higher-learning enrollment is up for almost every school in South Carolina. Employers recognize the need for educated workers. A college education means more than a focused degree; it also spurs creativity, innovation, and soft skills. Although experience is highly regarded in most businesses, education is also prized. It is good for South Carolina's future workforce that the state is experiencing an increasing enrollment rate at almost every educational institution.

### Top Bachelor's Degrees Awarded by Discipline, 2010 <sup>11</sup>



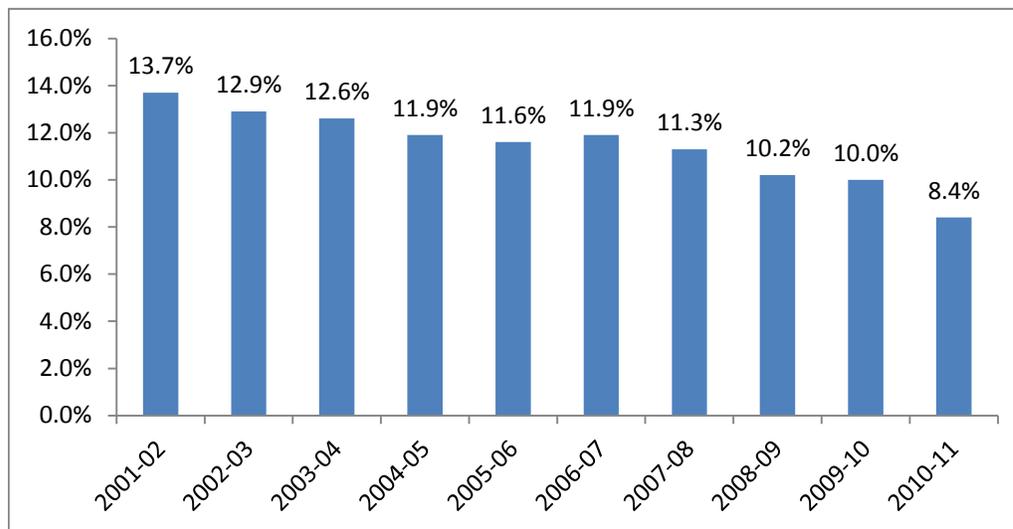
The types of bachelor's degrees awarded can give us an insight into the makeup of our future workforce. Several hot jobs will be targeted by education and health profession majors in these growing fields. Business and related majors will administer programs, commerce, and ideas throughout the state. Businesses have learned that people of all majors contribute to an organization. A visual arts graduate may have groundbreaking ideas for a marketing firm. An education major can write for a trade publication or work in sales. Employers desire a well-rounded team to create new ideas, products, and services. A common college experience is working on a project as part of a team. This teaches teambuilding skills and professional behavior, an extremely important part of any business. While some occupations are solitary, most jobs will involve interactions with work colleagues. The teambuilding skills learned in college strengthen this idea and further prepare the student for successful integration into the workforce.

### Full-Time Student Tuition Change and Cost in 2011<sup>11</sup>

	Avg. 10yr Tuition Change	Avg. 5yr Tuition Change	Avg. 1 yr Tuition Change	Average Annual Tuition Cost
USC and Clemson	131.4%	25.8%	6.9%	\$10,820
Comprehensive Teaching Institutions (i.e. The Citadel, College of Charleston, Presbyterian)	131.2%	28.9%	6.3%	\$9,278
Technical Colleges	98.3%	16.3%	4.3%	\$3,438

The above table provides a glimpse of the financial burdens that students now face. When trying to increase their educational attainment, average tuition rates had risen for several years prior to the recent recession. Current economic woes have caused schools to raise tuition rates even further to make up for cuts in state funding and rising operational costs. The upward trend in tuition costs is expected to continue. The South Carolina Education Lottery (SCEL) helps fund public education institutions. Over time, the financial burden has shifted more and more toward the SCEL.

### Recurring State General Fund Appropriations for S.C. Public Universities and Colleges as a Percentage of Total Recurring Appropriations, 2001 - 2011<sup>11</sup>



It may be attractive to get more training while wages are lower to improve employability when the economy resolves. Working adults can obtain a college-level education by enrolling in a two-year or four-year university program. But working adults tend to lead very busy lives, often including children and full-time jobs. Many may not be able to afford to stop working to become full-time college students or pay tuition.

Maximizing the potential of our workforce and boosting economic growth will require increased support for education and training programs. We must understand the issues that working people face when deciding whether or not to pursue further education and training. Changes in public policy may lower the barriers that many face when deciding to further their educational goals.

Employers are looking for skilled workers with experience. A dynamic and well-educated workforce equipped with science, technology, engineering and math (STEM) skills will be required in the new economy. Firms build competitive advantages based on the talents of workers in these occupations.

Moving forward, more jobs will require at least a basic understanding of scientific and mathematical principles, a working knowledge of computer hardware and software, and problem-solving skills developed and refined through coursework. There may be a shortage of quality engineers, scientists, information workers, and technicians of all types; this affects our economy.

Manufacturing firms increasingly want skilled workers and this also means being proficient in certain computer programs. Project management software knowledge is also desired, along with word processing and other technological familiarity. If employers want their workers to have certain skills, and the pool of potential workers does not have these skills, this presents a skills-gap.

Job seekers face several problems. Workers may be available and qualified to take a job, but the offered wage is too low, so the job goes unfilled. Increasing job requirements also cause a need for diverse skills and experiences; these requirements make it difficult for a young worker or an industry veteran to get a job in a new field.

Employers have challenges too; many report being unable to find qualified workers to take a position. A company may want experience and skills when workers may only have one or the other. Employers want skilled workers now and would rather not deal with on-the-job-training for new hires. A firm can be more selective for candidates when the unemployment rate in the area is higher. Employers want more qualified workers. The workforce will need more education and skills to compete for jobs in the future.

Producing a highly-skilled workforce to help businesses compete in a global economy continues to be a goal of South Carolina's economic developers. By conducting business roundtable meetings and surveys, employers have had an opportunity to explain characteristics that they desire in a workforce. Two characteristics received particular focus: workers need more skills/certification/education (hard skills), and workers need soft skills.

Employers need workers that can do more work and solve more problems. This creates a very flexible and versatile workforce. It can allow the employer more operational flexibility when tough decisions have to be made.

More certifications, skills, and education bring creativity and productivity to any workforce. This also minimizes on-the-job training required for a new employee to a firm. This can amount to significant savings in time and money when business moves at a fast pace. It can allow the firm to produce different products and increase production. It also makes the hiring process easier for both parties, if specific and desired skills are present.

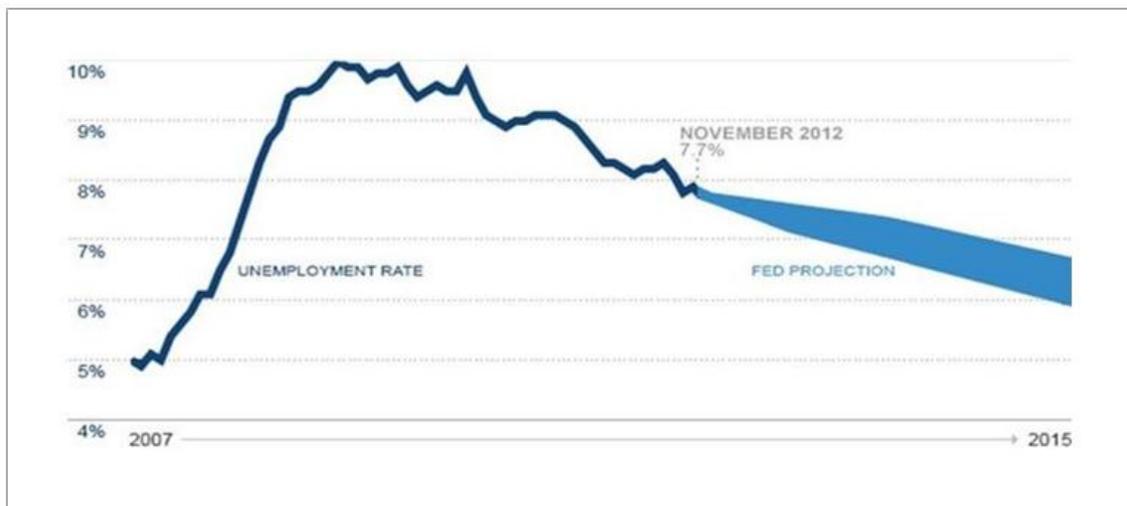
The desire for soft skills has been increasingly important over the last several years as more people have been interviewing for jobs. Hard skills are related to an organization's specific tasks and activities, like operating machinery and using computer protocols. They are easy to observe and teach compared to soft skills which are typically broad, hard to observe or measure, and can be used in many different settings. Professionalism, teamwork, communication, critical thinking, work ethic, and listening are all considered soft skills. Conventional wisdom is that hard skills will help someone get a job interview, but soft skills will allow them to get the job and keep it. Soft skills can help minimize conflicts, complaints, micromanaging and ultimately lead to an efficiently run business.

## Conclusion

The South Carolina workforce faces several challenges. These include transitioning workers to new work environments and schools, structural employment changes, helping workers adapt to different labor and market demands, and having the necessary training and education for jobs. Soft skills must be developed and older and discouraged workers need help with employment.

From the November 2012 Federal Open Market Committee meeting, financial minds have come up with their predictions for national unemployment for the next few months and years. As we can see in the graph below, a downward unemployment trend is anticipated for the next several years. It also shows that national unemployment is expected to be above 7.0 percent for the next two years; this is especially worrisome since South Carolina's rate is usually above the national average. These ideas are reinforced by Chairman Bernanke in statements made on July 17, 2012, about the national economy, saying the "...economy had decelerated...consumer confidence remains relatively low...a reduction in unemployment rate seems frustratingly slow..."<sup>12</sup> The economic recovery is still on shaky ground and the nation is having a tougher time than most people have anticipated.

### Federal Reserve's Unemployment Projections for the United States



Some workers needing to obtain further education or training may not be ready to re-enter the classroom. Barriers to education include time, money, educational prerequisites like a diploma/GED and language issues. It can be a daunting process to apply for school, be accepted, apply for loans, and have the time and energy to succeed.

The skills gap is also an issue. Workforce development leaders must determine the areas in which the workforce is deficient and take actions to close the gap. Employer needs and their hiring methods must also be considered.

There are several questions for the current workforce: Do they have the skills needed to fill current and emerging job openings? Do employers have the skilled workforce they need to remain competitive and contribute to the local economy? If the skills are deficient, how does the state assist in improving them? How can job seekers be matched with employers quickly and effectively? How do we promote the availability of a qualified workforce in order to gain a competitive economic development advantage?

As South Carolina is making great strides in economic growth, the demand for workforce services is also growing. One challenge is providing effective retraining to people who have been out of school for a long time. A significant number of South Carolinians have been unemployed for an extended period and lack a high school education. While recovery will bring job opportunities to some of these people, experience shows that many jobs lost during the recession will not return. Meeting the needs of the long-term unemployed who lack adequate education and training will be a special challenge.

The ongoing cycle of job and population loss in many of our smaller, rural areas is a longstanding critical issue for South Carolina. A key challenge is preparing enough workers to take advantage of middle-skill job opportunities. People are ready to train but they still need more skills. Funding may need to be sought for hard and soft skills training. Collaboration with high schools, technical colleges, and colleges/universities would benefit workers and firms.

The current economic status is a clear improvement from where the state was two and three years ago but still far from where it was pre-recession. A wide range of indicators suggests that the job market has been improving, which is a welcome development. The economic horizon is hazy, with firms and people feeling apprehensive about the future. The recession served to accelerate many of the economic and related workforce trends, severely impacting many people.

As firms begin to rehire, they may not replace the workers they shed during the recession. They have learned to be more efficient and to do more work with less people. Workers employed in low-skill and middle-wage jobs are competing for fewer high-paying jobs while employers now demand more skills for the same positions. It is becoming progressively less expensive to automate functions that used to be performed by workers. Product cycles will get shorter and technological change will alter firms and industries. In this environment it is important that workers be able to obtain the training they need to keep pace with the ever-changing economy.

With recovery taking hold, employment will grow in South Carolina over the next several years. Continued population increases will drive employment growth in retail trade. Growth, particularly among the elderly, will continue to create demand for healthcare workers. The trends toward outsourced business services and smaller businesses will generate more professional jobs. Tourism growth will increase tourism-related jobs, although most will be low-wage.

Continued development of distribution centers and port facilities will increase transportation and logistics employment. Manufacturing has been generating more jobs, and is expected to continue to do so based on recent economic development successes. Those jobs often require higher levels of skills than in the past.

The state and nation are increasingly becoming a knowledge-skill based economy. New jobs will require workers with more advanced levels of training and education. Firms have become more productive, requiring fewer skilled workers to produce the desired output. The most successful workers are those with college or industry certifications. Workers who are well prepared for the future workforce will be best able to adapt to growing and changing business needs. If firms cannot find the workers they need, they may locate elsewhere and South Carolina could lose its competitive advantage.

The recent recession has delayed the retirement of many in the Baby Boomer generation due to lost value in housing and retirement funds. This delay has also slowed the career growth for many younger workers hoping to get better jobs and move up their career ladders. While recovery will bring job opportunities to some of this group, experience shows that many jobs lost during the recession will not return. While in recovery, it is important to understand which types of jobs will be in demand and if the workforce has the necessary skills to meet these needs. A challenge to the workforce is having enough prepared and qualified workers to take advantage of these middle-skill opportunities.

Employers characterize new entrants to their workforce as deficient in several soft-skill areas such as professionalism, communication, and teamwork. There should be more collaboration with high schools, adult education, and technical colleges to leverage resources to provide soft-skill training. The labor force in South Carolina is expected to increase in number over the next several years because of continued population growth trends. The rate of growth will decelerate, though, due to slower population growth and diminished labor force participation.

Evolving and new industries need a more skilled and educated workforce. South Carolina is working to supply this demand through a large number of universities and technical colleges throughout the state. Completion of high school is an important step to ensure that young adults can receive advanced training and skills to enhance the workplace. The population of less educated and trained workers will have fewer well-paying jobs and career opportunities. South Carolina's opportunities for long-term economic growth will increasingly depend on having a well-trained and educated workforce that responds quickly to industry needs.

## Final Thoughts

A key to reducing unemployment is economic growth, a rising demand for goods and services. Continued weakness in aggregate demand is likely the predominant factor in unemployment. Once business picks up in South Carolina, North America, Europe, Asia, and the rest of the world, the unemployment rate will fall as demand stimulates the hiring of workers.

Reducing the unemployment rate is an important issue for many people. South Carolina no longer has unemployment insurance benefits for workers past 42 weeks, and will be ending the same support for unemployed workers past 20 weeks starting in 2013. However, services like job placement, resume review, and job portals will be available.

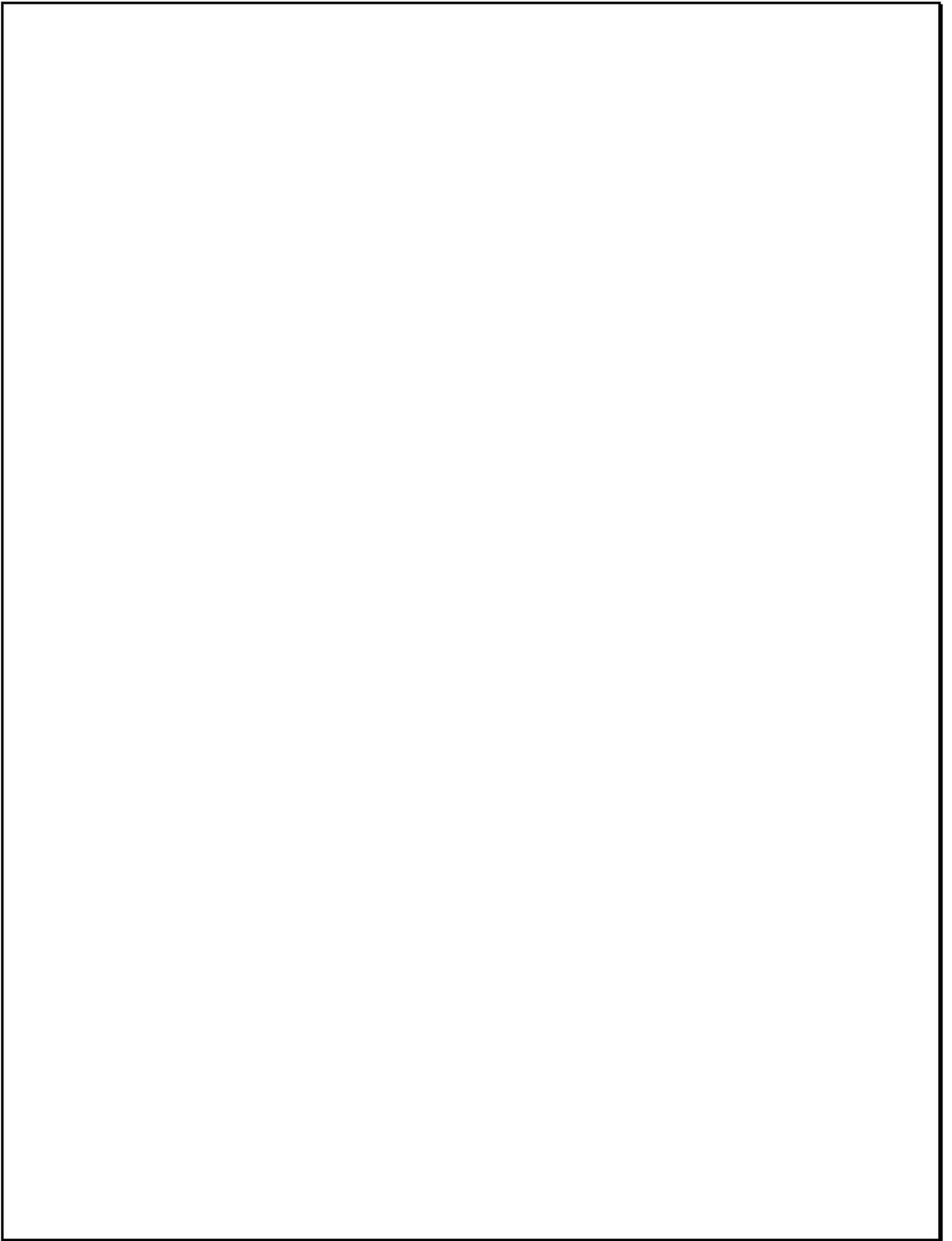
The South Carolina Technical College System is comprised of 16 technical colleges located throughout the state. The system serves 242,000 students annually. The main goal of the system is to have a technical training program that is accessible to all South Carolina workers that want to obtain a marketable skill. In addition to technical colleges, the system runs two important programs: readySC and Apprenticeship Carolina. The readySC program assists with business recruiting and training, develops a training curriculum, and oversees project management throughout the process. They provide new, relocating, or expanding firms with access to human capital and will train and coordinate a workforce. Apprenticeship Carolina coordinates a flexible employer-sponsored training program that creates a highly-skilled worker. The program is involved in many industries including construction, manufacturing, energy, information technology, healthcare, tourism, and transportation. The South Carolina Technical College System is an important part of training high school graduates to enter the workforce with relevant and contemporary job skills. This makes the workforce more competitive and provides the employers with the skilled workers they want.

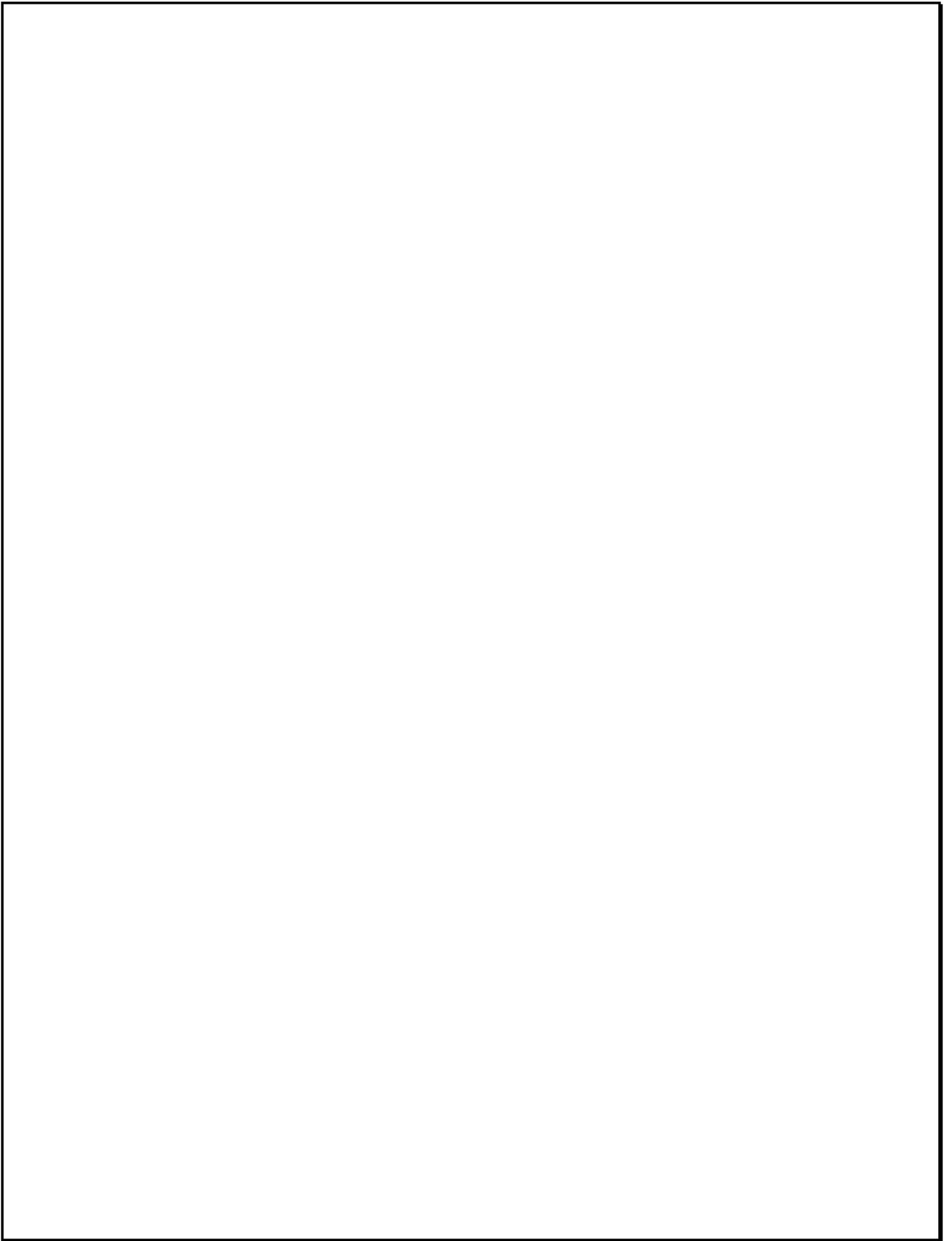
The South Carolina Department of Employment and Workforce offer several benefits to workers, including having certified trainers and training available. SCWorks centers are available to help job seekers find the training that they need for an in-demand job. They also connect workers with employers. WORKSC provides resources like resume writing and soft skills for workers. Palmetto Workforce Connections provides information about employment and economic conditions and news from around the state.

The patterns and trends described in this report offer cause for both optimism and concern. This is a time of great opportunity for South Carolina and the state has much to be proud of, including a growing population, a strengthening economy, and an excellent credit rating. We are excited about our state's future and are prepared to lead the way in delivering the skilled talent and economic opportunities that businesses and South Carolinians deserve.

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