

UPSTATE LWIA WORKFORCE REPORT 2012



The *Upstate Workforce Report* is published by the Labor Market Information (LMI) Department of the South Carolina Department of Employment and Workforce. The information and analyses provided in this publication are based on data collected from sources throughout South Carolina and the United States.

About SC DEW and LMI:

The Labor Market Information Department compiles and publishes employment statistics, job forecasts, wage data, demographics, and other labor market information to help public and private organizations, researchers, and others better understand today's complex workforce.

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EXECUTIVE SUMMARY

The employment leaders for Upstate Local Workforce Investment Area (LWIA) are Manufacturing and Health Care and Social Assistance. Employment growth is anticipated by 2018 in several industries, especially Health Care and Social Assistance and Accommodation and Food Service. The highest wages are paid by the Management of Companies and Utilities industries.

The LWIA's population grew by under one percent per year since 2000, and it has fewer residents aged 20 to 34 than the state's average.

Employment is rising, and unemployment is declining. The LWIA has a historically higher unemployment rate than the state, and it remained so during and after the recession. Employment is concentrated in the Spartanburg area, and nearly 3,400 more people enter the LWIA for work than leave it every day. Manufacturing is the largest industry represented in unemployment claims. This industry includes apparel; plastics and rubber products; and transportation equipment fabrication.

Upstate has a lower proportion of residents with a bachelor's degree or higher than the state does as a whole. For projected future jobs, 32 percent require no diploma, 36 percent require a diploma and training, 14 percent require an associate's degree or vocational training, and 18 percent require a bachelor's degree or more.

Upstate LWIA businesses desire a trained workforce with the current focus being on manufacturing-specific certifications, like Computer Numerical Control machining and welding. Although many manufacturing firms are willing to train their workers, there exists a perception gap between current and former manufacturing techniques, opportunities, and environments. A challenge for the LWIA is to match the skill levels of the workforce with open positions. There may be a mismatch between the employer's skill demands and the occupations that the worker will accept.

A highly trained and educated workforce is an important part of attracting further economic growth to the Upstate LWIA. It allows companies to bring many aspects of their operations into a single area (manufacturing, administrative, distribution), increasing local employment and lowering the distance between functional units.

Upstate LWIA has several factors working in its favor. It has a growing population and several educational institutions available to strengthen the workforce. The manufacturing sector is a major employment force and has a very high job multiplier. Workers are becoming smarter and are gaining skills. The future looks more sunny than cloudy for the Upstate LWIA.

The patterns and trends described in this report offer cause for both optimism and concern. Upstate LWIA has an exciting future ahead of it and can lead the way in delivering the skilled talent and economic opportunities that businesses and workers in the area deserve.

INTRODUCTION

The Upstate Local Workforce Investment Area is composed of Cherokee, Spartanburg, and Union counties. The LWIA was home to several Revolutionary War battles and is located in the Piedmont region in the upper part of the state, bordering North Carolina. The historical economy was dominated by Agriculture (cotton), Textile Manufacturing, Cattle Farming, and Iron Mining. The modern economy revolves around the Manufacturing Industry.

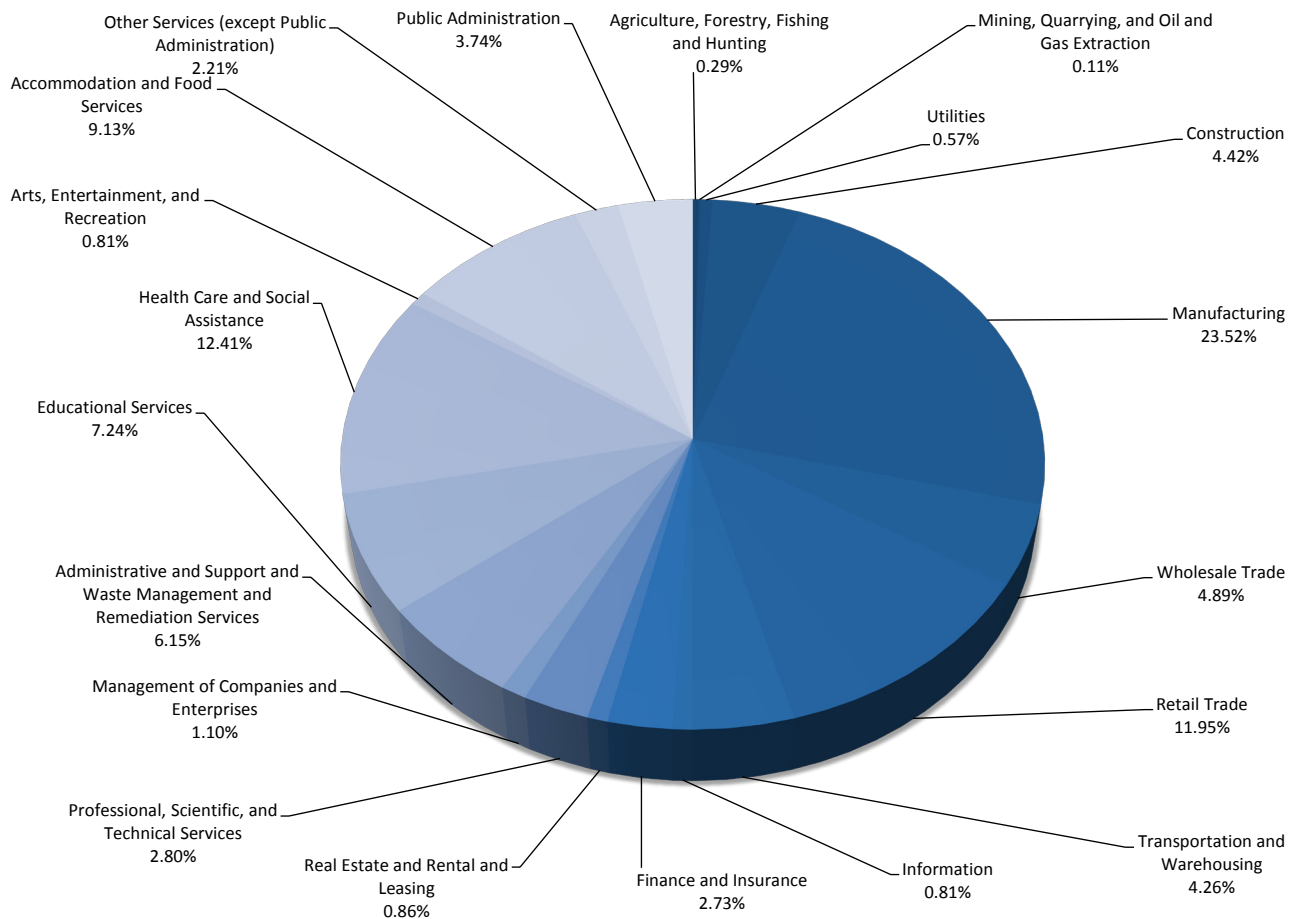
The economic changes this year in the Upstate LWIA demonstrate the shifting needs of employers and employees. Cultivating an understanding of the workforce allows all four counties to respond to anticipated future needs. Analyses help to identify the gap between what the workforce has in the way of talent and skills (supply), and what it may need in the future (demand).

The purpose of the Upstate LWIA Workforce Report is to present a comprehensive view of the status of Upstate LWIA's economy and workforce. The report includes an analysis of Upstate LWIA's workforce, industries, economic climate, and factors that will affect all. Forecasts will be made for the workforce, industries, and the economy.

ECONOMIC DISCUSSION: A CURRENT PICTURE OF THE WORKFORCE

EMPLOYMENT BY INDUSTRY

Figure 1: Upstate LWIA Employment By Industry - 3rd Quarter 2012



Source: Bureau of Labor Statistics (BLS), SC Department of Employment & Workforce (SCDEW), Quarterly Census of Employment and Wages (QCEW)

Manufacturing and Health Care and Social Assistance are the top two industries employing workers in the Upstate LWIA. Industries like Educational Services and Retail Trade are healthy and flourishing, while others like Construction are still recovering from the recession. The 2010 per capita income for Upstate LWIA was \$29,929, which is an increase of 24.7 percent from 2000.¹ Economic growth has taken place in the past decade to enhance the LWIA workforce, although the area is still recovering from a tough business cycle.

LOCATION QUOTIENT

A location quotient (LQ) is a useful tool for determining the concentration of workers in a given area. Location quotients compare the regional share of employment in a particular industry to the national share of employment in the same industry. The resulting quotient reveals the degree of regional specialization or concentration in an industry and provides insight into what makes the area unique in comparison to the national average. An LQ of 1.0 means the concentration of jobs in that industry matches the nation's value. Location quotients higher than 1.0 indicate the level of specialization the area has in particular sectors. Lower quotients can indicate possible industries that could be expanded.

Figure 2: Notable Upstate LWIA Location Quotients - 2011

Industry and Sectors	Location Quotient
<i>Cherokee County</i>	
Textile Mills	85.0
Apparel Manufacturing	6.8
Fabricated Metal Product Manufacturing	4.9
<i>Spartanburg County</i>	
Textile Mills	18.5
Plastics and Rubber Products Manufacturing	6.1
Transportation Equipment Manufacturing	5.9
<i>Union County</i>	
Textile Mills	107.6
Forestry and Logging	37.5
Manufacturing	3.0

Source: US Department of Labor, Bureau of Labor Statistics - http://data.bls.gov/location_quotient

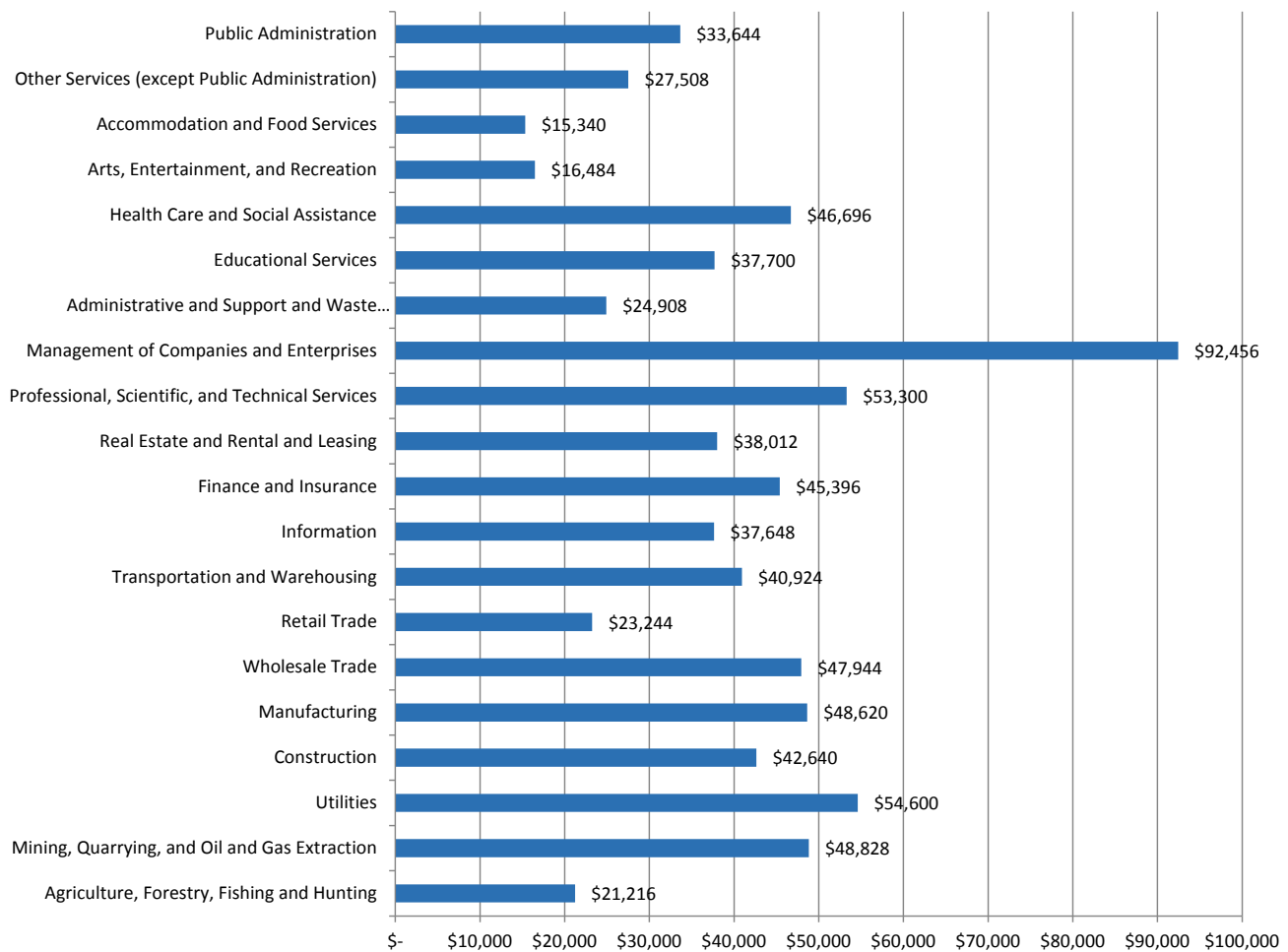
The Textile Mills industry tops the most concentrated sector in this area with location quotients over 80 in Cherokee and Union counties and over 18 in Spartanburg County. Other industries located throughout the area include Forestry and Logging and several types of manufacturing including Apparel, Fabricated Metal Product, Plastics and Rubber Products, and Transportation Equipment.

AVERAGE ANNUAL WAGE BY INDUSTRY

The annual wages for the Management of Companies sector employees are the highest for any LWIA industry. These workers administer and oversee the planning and decision making of companies and manage the securities of establishments. Utility workers are the second highest paid group of employees in the LWIA.

High wage industries like Professional, Scientific, and Technical Services, and Finance and Insurance usually require at least a bachelor’s degree. Having an education is an excellent way to enter a high-wage industry and have more options for employment.

Figure 3: Annual Average Wage by Industry - 3rd Quarter 2012



Source: BLS, SCDEW, QCEW

OCCUPATIONAL EMPLOYMENT

When examining the current occupational employment in the area, one can observe that some of the top 20 occupations are low-skill, low-pay jobs. These jobs, like Cashiers, Waiters and Waitresses, and Food Preparers, have high turnover. These are not necessarily the most robust jobs as far as wages, but they are jobs.

Figure 4 lists occupations, such as Registered Nurses, General Managers, and Sales Representatives, that pay a higher wage. With Manufacturing, Healthcare, and Retail Trade sectors comprising nearly half of the employment in the Upstate LWIA, the positions of Team Assemblers; Retail Salespersons; and Registered Nurses, not surprisingly, are listed among the top occupations.

Figure 4: Top 20 Occupations with Wages - 2012

Occupational Title	Total Employment	Hourly Average Wage (\$)
All Occupations	115,360	18.79
Team Assemblers	5,840	23.68
Cashiers	3,900	8.84
Stock Clerks and Order Fillers	3,090	9.65
Retail Salespersons	3,050	11.40
Laborers and Freight, Stock, and Material Movers, Hand	3,050	12.79
Combined Food Preparation and Serving Workers, Including Fast Food	2,730	8.34
Registered Nurses	2,720	25.86
Waiters and Waitresses	2,070	8.49
Customer Service Representatives	2,060	14.32
Heavy and Tractor-Trailer Truck Drivers	1,960	18.37
Office Clerks, General	1,880	12.58
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	1,640	14.42
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Pr	1,630	29.60
Bookkeeping, Accounting, and Auditing Clerks	1,600	16.27
General and Operations Managers	1,540	52.45
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	1,520	10.22
Industrial Truck and Tractor Operators	1,440	13.84
Maintenance and Repair Workers, General	1,350	17.44
Nursing Assistants	1,330	9.99
Inspectors, Testers, Sorters, Samplers, and Weighers	1,330	15.18

Source: BLS, SCDEW, Occupational Employment Statistics (OES)

SKILLS DATA

Employers are beginning to see that a person's skills, in addition to their education, may help in determining who to hire. Many times the degree is not as important as the skills gained through specialized training and/or experience. In order to be able to determine the current level of skills in the area, the top 50 current occupations by employment are presented, and assigned a low, middle, or high skill designation to that occupation. The definitions for those skills levels are:

- **LOW:** No high school or GED, or high school/GED with less than one year experience and no on-the-job-training (OJT), or short-term OJT
- **MIDDLE:** High school/GED with one year experience, or moderate OJT, or long-term OJT, or apprenticeship, or postsecondary vocational training, or some college, or associate's degree, or less than a bachelor's degree
- **HIGH:** Bachelor's degree or higher

In the Upstate area, 25 of the top 50 jobs in 2012 are considered low-skill jobs. Twenty-one are middle skill, and four are high-skill occupations.

Figure 5: Top Occupations By Skill Classification - Upstate 2012

Skillset: LOW
Cashiers
Childcare Workers
Combined Food Preparation and Serving Workers, Including Fast Food
Construction Laborers
Cooks, Institution and Cafeteria
Cooks, Restaurant
Customer Service Representatives
Food Preparation Workers
Helpers--Production Workers
Home Health Aides
Industrial Truck and Tractor Operators
Janitors and Cleaners, Except Maids and Housekeeping Cleaners
Laborers and Freight, Stock, and Material Movers, Hand
Landscaping and Groundskeeping Workers
Light Truck or Delivery Services Drivers
Maids and Housekeeping Cleaners
Office Clerks, General
Receptionists and Information Clerks
Retail Salespersons
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive
Shipping, Receiving, and Traffic Clerks
Stock Clerks and Order Fillers
Teacher Assistants
Tellers
Waiters and Waitresses
Skillset: MIDDLE
Automotive Service Technicians and Mechanics
Bookkeeping, Accounting, and Auditing Clerks
First-Line Supervisors of Food Preparation and Serving Workers
First-Line Supervisors of Office and Administrative Support Workers
First-Line Supervisors of Production and Operating Workers
First-Line Supervisors of Retail Sales Workers
General and Operations Managers
Heavy and Tractor-Trailer Truck Drivers
Industrial Machinery Mechanics
Inspectors, Testers, Sorters, Samplers, and Weighers
Licensed Practical and Licensed Vocational Nurses
Machinists
Maintenance and Repair Workers, General
Medical Assistants
Nursing Assistants
Production, Planning, and Expediting Clerks
Registered Nurses
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products
Substitute Teachers
Team Assemblers
Textile Knitting and Weaving Machine Setters, Operators, and Tenders
Skillset: HIGH
Accountants and Auditors
Elementary School Teachers, Except Special Education
Middle School Teachers, Except Special and Career/Technical Education
Secondary School Teachers, Except Special and Career/Technical Education

Source: BLS, SCDEW, OES, Workforce Intelligence (WI)

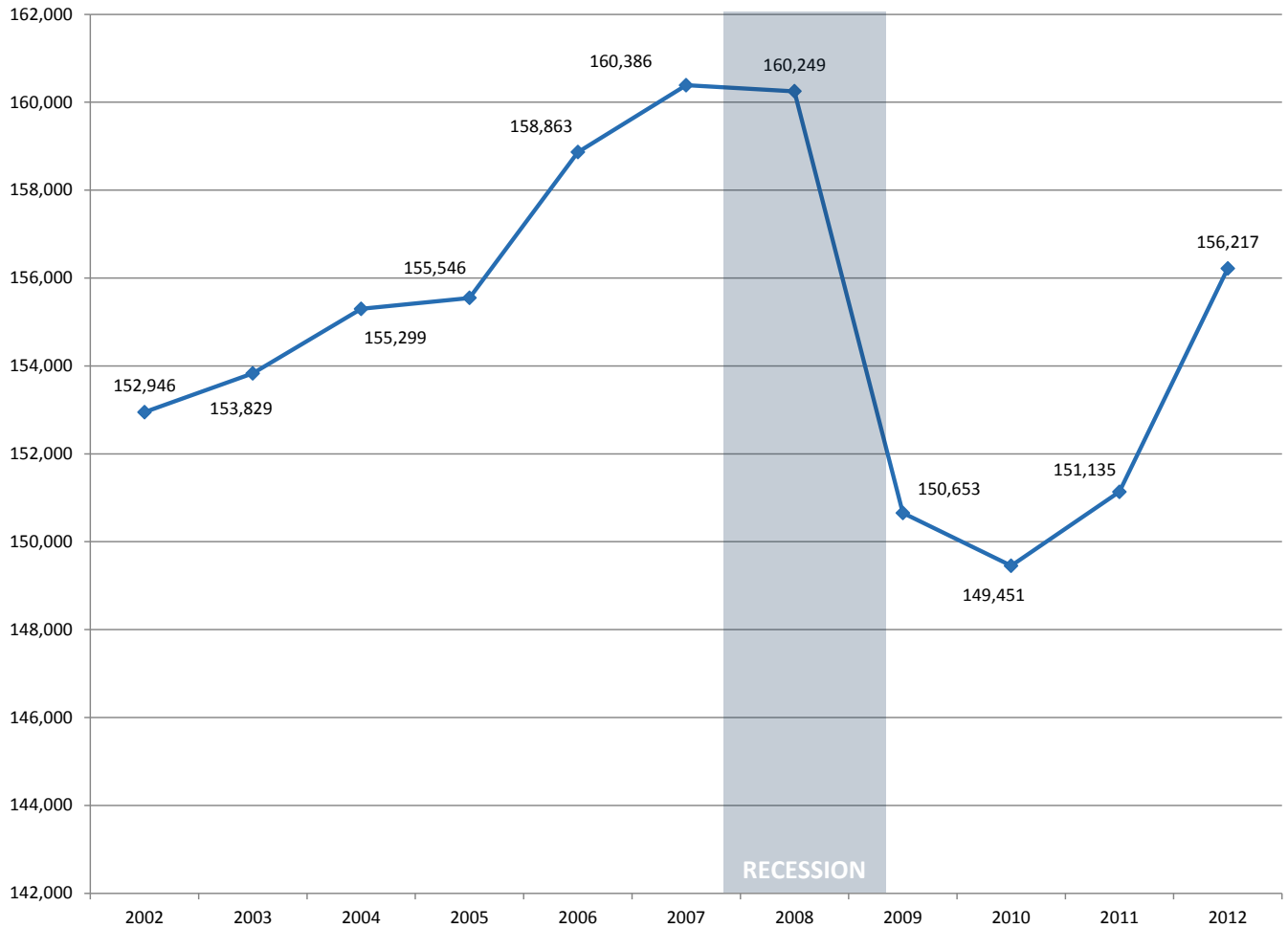
EMPLOYMENT AND UNEMPLOYMENT

A crucial indicator of the health of a workforce is its labor force levels. Labor force data count residents who are employed and unemployed. There are a few Federal definitions that will make discussion of the labor force a little easier to understand.

- Employed: Persons 16 years old or older who worked for pay any time during the week that includes the 12th of the month
- Unemployed: Persons 16 years old or older who are not working but want a job, and are able and willing to work
- Labor Force: Employed plus unemployed
- Unemployment Rate: Unemployment divided by labor force

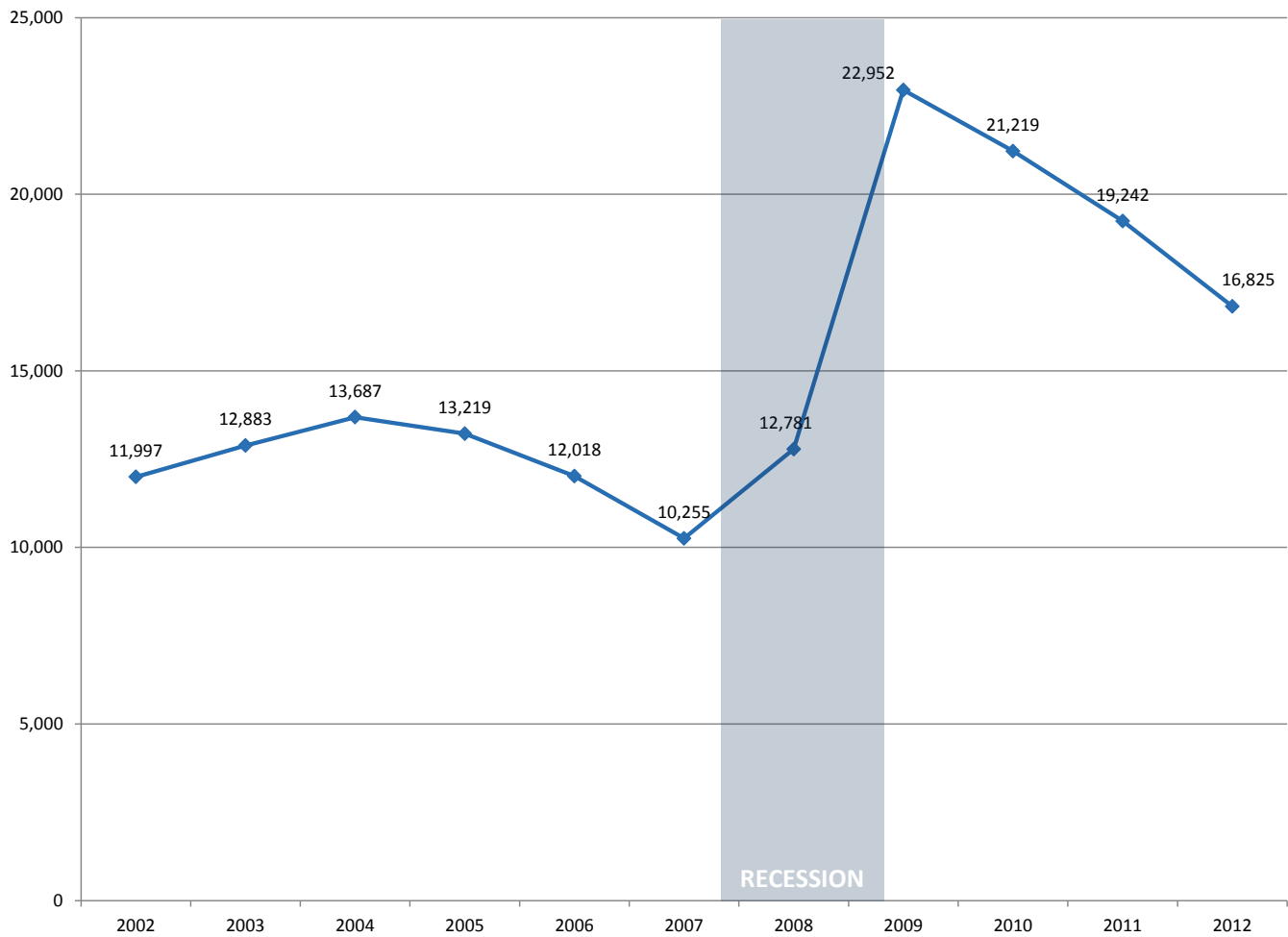
In Figure 6, the recession (officially from December 2007 through June 2009) had a great effect on the labor force. Employment dropped, and unemployment increased by 124 percent.

Figure 6: Employment - 2002-2012



Source: BLS, SCDEW, Local Area Unemployment Statistics (LAUS)

Figure 7: Unemployment - 2002-2012

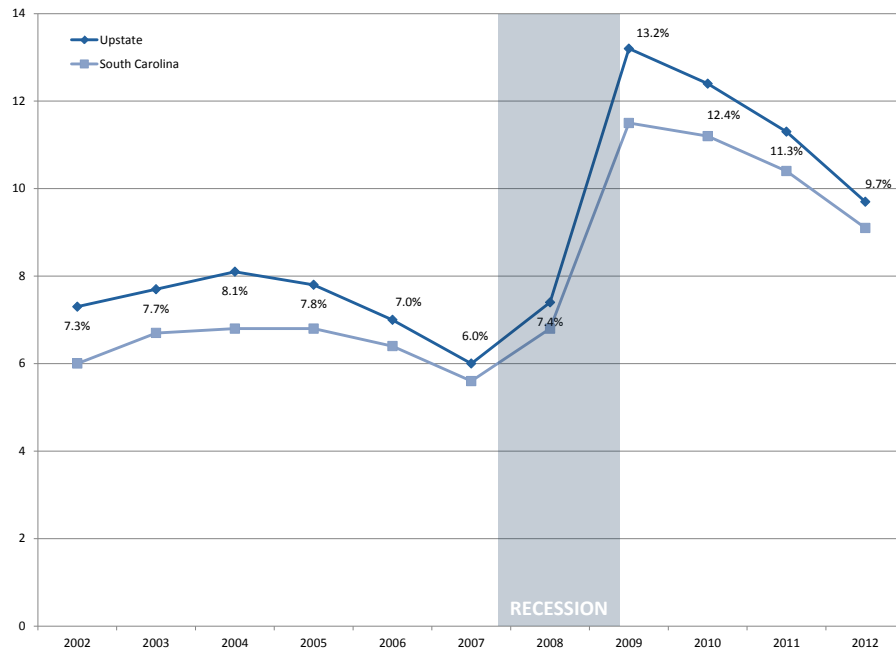


Source: BLS, SCDEW, LAUS

Tracking annual unemployment rates give a good snapshot of the state of an area's workforce. Annual rates smooth out the usual ups and downs of a month-to-month rate (due to normal seasonal or cyclical changes) to give a more accurate picture.

Figure 8 shows the annual rates for the Upstate LWIA area and South Carolina. Upstate has historically been above the state's rate, and this was the same during and after the recession. During the recession, the Upstate rate more than doubled from 6.0 percent in 2007 to 13.2 percent in 2009.

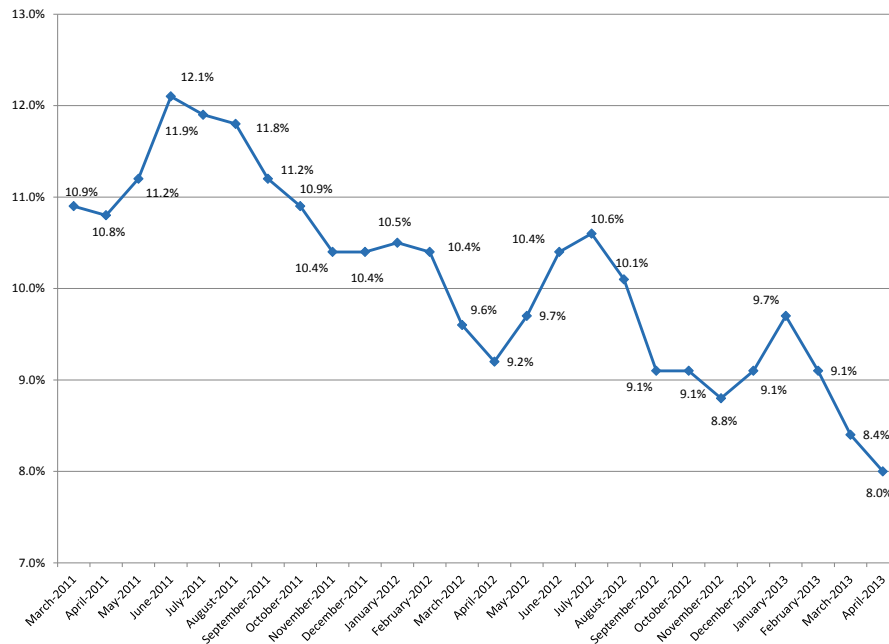
Figure 8: Annual Unemployment - 2002-2012



Source: BLS, SCDEW, LAUS

Figure 9 illustrates that the monthly unemployment rate has seen wide fluctuations since March 2011. The area seems to be steadily recovering from the recession.

Figure 9: Monthly Unemployment Rate - March 2011-April 2013



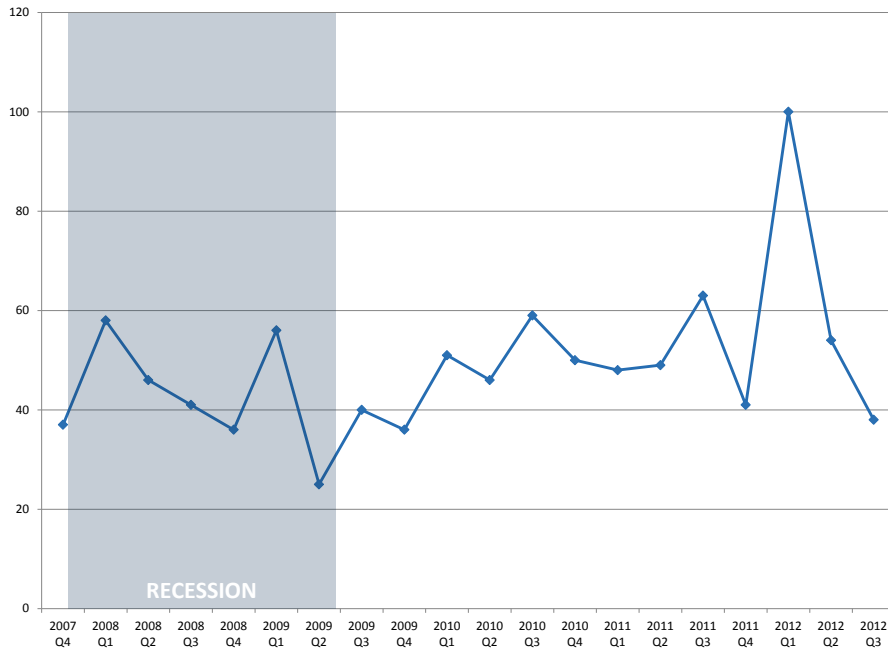
Source: BLS, SCDEW, LAUS

NEW STARTUP FIRMS

One way to see if an economy is improving is to examine data about startup firms. An increase in new companies might be an indicator of expansion in the area, whereas a drop in new firms shows a lack of confidence in the future. (Note: There is almost always a spike in startups in the first quar-

ter of the year.) Again, the recession had a major impact on normal business birth and death rates. Startups have been steady in the area with a large increase in early 2012.

Figure 10: New Startup Firms - 2007-2012



Source: BLS, SCDEW, QCEW

EMPLOYERS BY SIZE OF ESTABLISHMENT

By far, the largest category of business size in the area is small business. Small businesses (or establishments) are defined in South Carolina as companies employing 49 or fewer people. The Upstate LWIA and the state as a whole have 93 percent of establishments designated as small businesses.

Small businesses may need more support and assistance than larger companies because they may not have a designated human resources department or person. They may rely on other resources, such as SC Works Centers, for help with hiring, training, or screening job candidates.

Figure 11: Employers by Size of Establishment - 3rd Quarter 2012

Employees	Upstate	South Carolina
0 to 4	3,647	63,766
5 to 9	1,366	19,667
10 to 19	961	13,316
20 to 49	703	9,881
50 to 99	283	3,907
100 to 249	151	2,433
250 to 499	49	757
500 to 999	16	328
1000 +	7	264

Source: BLS, SCDEW, QCEW

SUPPLY: WHAT'S OUT THERE?

A manufacturing assembly line needs to have resources and supplies on-hand so that the line does not have to stop. The same is true for the workforce. The supply of workers needs to be of the right quantity and quality to do the job. Is the supply of workers in line with what the companies in the Upstate LWIA need? Seven streams of workforce supply provide an indication: population, commuting, education of the population, clusters of high school students, awards earned at higher education institutions, and characteristics of unemployment insurance claims and claimants.

POPULATION BY AGE

Age distribution in the area is similar to the state and the country for most segments of the population. In the 20-34 age cohorts, Upstate has a slightly lower proportion of population than the state as a whole does, and in the 35-59 age cohorts, the LWIA has a slightly higher proportion of population than the state.

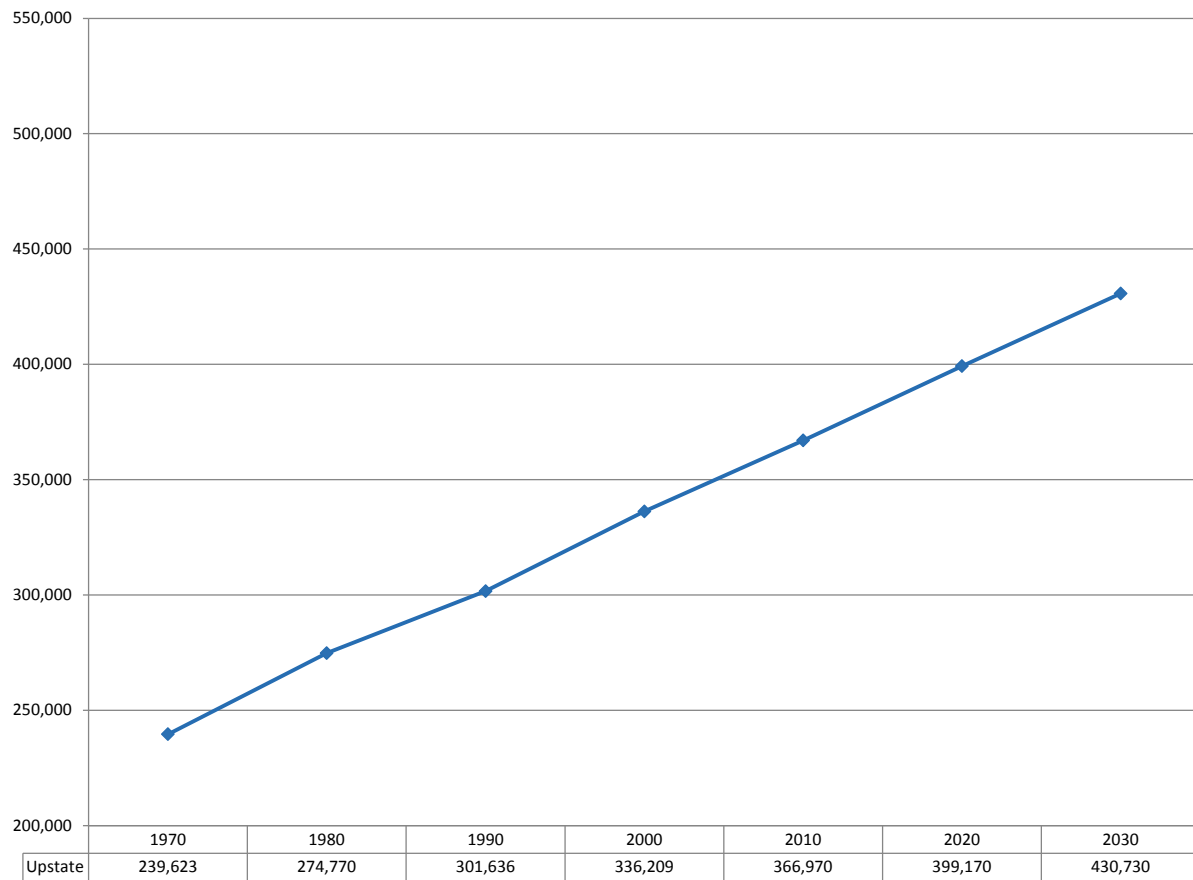
Figure 12: Population by Age

Age Range	Upstate	SC	US
0-4	6.7%	6.5%	6.6%
5-9	6.8%	6.4%	6.6%
10-14	6.6%	6.5%	6.7%
15-19	7.3%	7.2%	7.2%
20-24	6.4%	7.2%	7.0%
25-29	6.0%	6.6%	6.8%
30-34	5.9%	6.2%	6.4%
35-39	6.9%	6.5%	6.6%
40-44	7.0%	6.8%	7.0%
45-49	7.4%	7.2%	7.4%
50-54	7.1%	7.0%	7.2%
55-59	6.7%	6.5%	6.3%
60-64	5.7%	5.9%	5.3%
65-69	4.3%	4.5%	3.9%
70-74	3.4%	3.3%	3.0%
75-79	2.6%	2.5%	2.4%
80-84	1.9%	1.7%	1.9%
85 and older	1.4%	1.5%	1.7%

Source: US Bureau of Census, American Community Survey (ACS)

POPULATION CHANGE AND MIGRATION

Figure 13: Population Projections to 2030



Source: US Census Bureau, Census 2000, SC Department of Health and Environmental Control - Vital Records Department. Population projections calculated by SC Budget and Control Board, Office of Research and Statistics

After a steady increase in population from 1990 to 2000 (up 11.5 percent), the growth of the population of this area slowed slightly, growing by 9 percent over the next 10 years. Growth is projected to increase less than 1 percent per year to 2030.

Figure 14: Population Migration - 2011 - 5-Year Estimate

	Total	Moved From Different State	Moved From Abroad	Moved From Different County	Moved Within Same County
Population 1 year and over	360,361	2.0%	0.3%	2.4%	9.0%
Hispanic or Latino origin (of any race)	17,622	4.0%	2.0%	1.7%	10.9%
White alone, not Hispanic or Latino	255,117	2.0%	0.2%	2.2%	7.4%
Population 25 Years and Over					
Less than high school graduate	50,328	1.0%	0.3%	2.4%	10.2%
High school graduate/GED	78,976	1.6%	0.2%	1.8%	7.4%
Some college or associate's degree	68,040	1.9%	0.2%	1.6%	7.0%
Bachelor's degree	29,318	2.9%	0.3%	2.0%	4.6%
Graduate or professional degree	15,313	3.1%	0.6%	1.6%	2.6%

Source: US Census Bureau, ACS, SCDEW

In-migration (people moving into Upstate) shows that less than 4 percent of residents with a graduate degree and also those with a bachelor’s degree came from out of state or out of the country. While Hispanics moved into Upstate LWIA from a different state at twice the rate of Whites, they moved into Upstate from abroad at 10 times the rate of Whites. Though almost 14 percent of residents over the age of one moved, only 2.3 percent came from outside of South Carolina.

COMMUTING PATTERNS

The vast majority of the workers (70 percent) of Upstate lives and works in the LWIA. The tables in Figure 15 show that 28,500 workers commute in from other areas to work in the LWIA. Greenville County draws a notable portion of Upstate LWIA’s residents out of the area to work. Over 3,400 more employees commute into the area than leave it to work.

Figure 15: Commuting Patterns - 2010

To Upstate WIA From	28,522	From Upstate WIA To	25,085
Greenville County, SC	15,161	Greenville County, SC	16,577
Cleveland County, NC	1,787	Cleveland County, NC	854
Polk County, NC	1,732	Laurens County, SC	739
Laurens County, SC	1,719	Mecklenburg County, NC	671
		York County, SC	490

Source: US Census Bureau, ACS

EDUCATIONAL ATTAINMENT

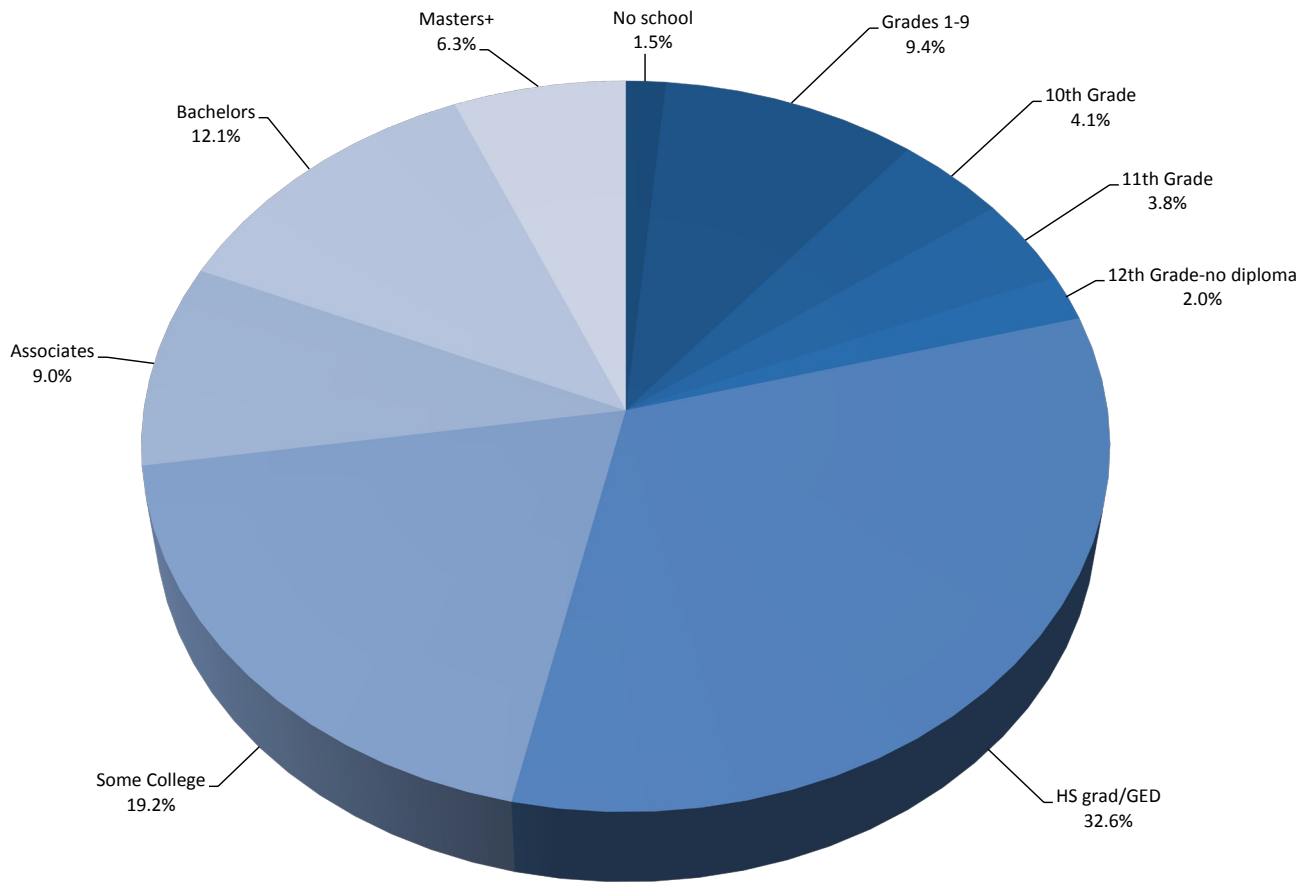
The Upstate LWIA has a higher concentration of residents with less than a high school diploma or GED than the state as a whole but a higher concentration with a high school education or with an associate’s degree than the state as a whole. It also has a notably lower percent of residents with a bachelor’s degree or higher than the state does.

Figure 16: Educational Attainment - Upstate and South Carolina 2011

Education Level	Upstate	SC
No school	1.5	1.1
Grades 1-9	9.4	7.0
10th Grade	4.1	3.3
11th Grade	3.8	3.2
12th Grade-no diploma	2.0	1.8
HS grad/GED	32.6	30.9
Some College	19.2	20.1
Associates	9.0	8.4
Bachelors	12.1	15.6
Masters+	6.3	8.6

Source: US Census Bureau, ACS, SCDEW

Figure 17: Educational Attainment - Upstate 2011

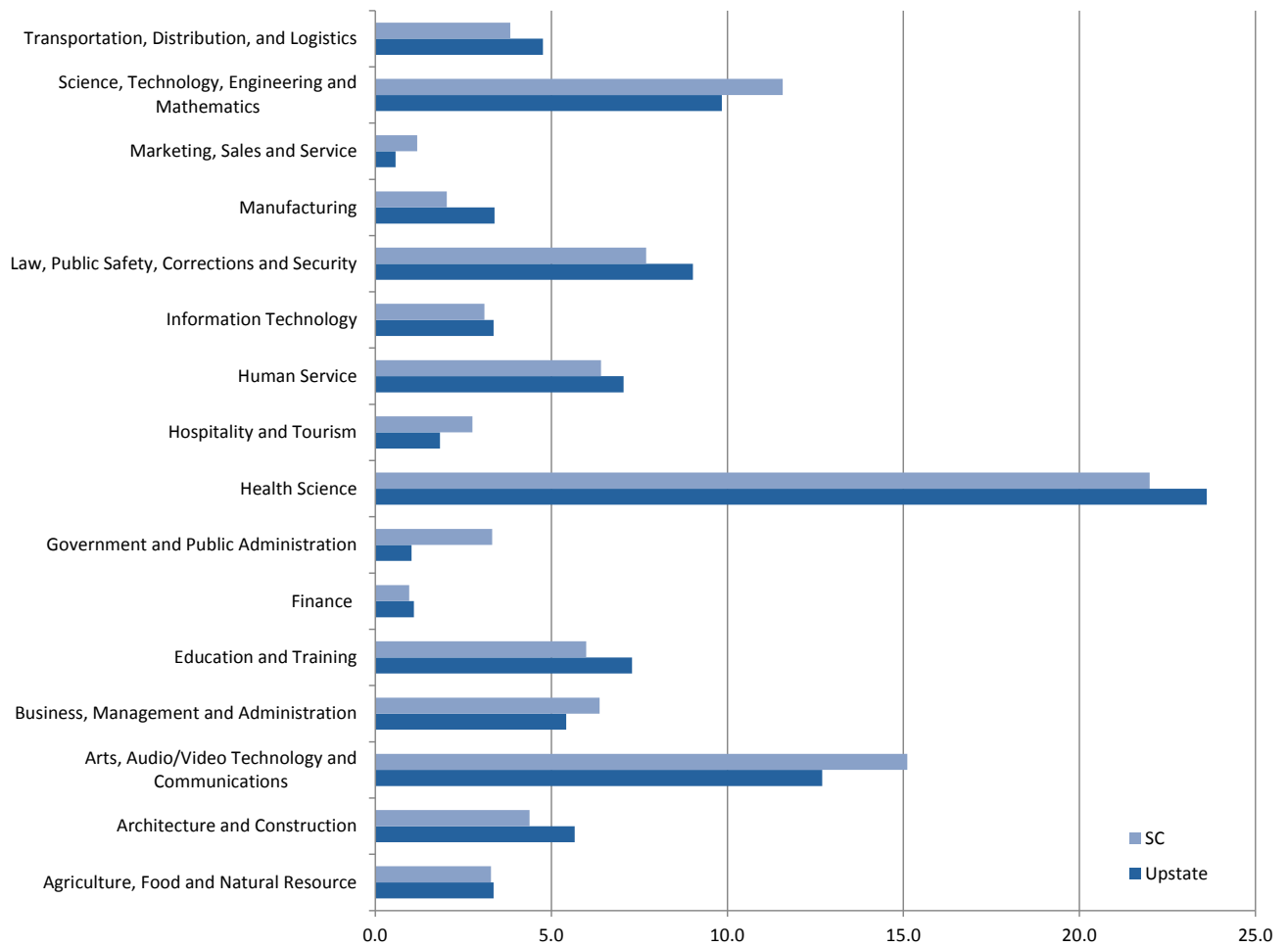


Source: US Census Bureau, ACS, SCDEW

CAREER CLUSTERS SELECTED BY HIGH SCHOOL STUDENTS

Eighth-grade students in South Carolina are required to choose a career cluster to concentrate on to lead them to a post-high school job or college major. There are 16 career clusters.

Figure 18: Percent of Students Declaring a Career Clusters In Upstate and SC - 2012



Note: Declared clusters for students declaring a specific cluster on their primary Electronic Individual Graduation Plan (e-IGP) for 2011-2012 year

Source: SC Department of Education

The Health Science career cluster is the top choice for students in the Upstate area likely in response to news of a shortage of healthcare workers in South Carolina. In keeping with the state trend, the area’s students also picked the Arts, Audio/Video Technology and Communications cluster in notable numbers. Science, Technology, Engineering and Mathematics and Law, Public Safety, Corrections and Security clusters were choices for many students.

Figure 19: Career Clusters - 2012

Cluster	Upstate	SC
Agriculture, Food and Natural Resource	3.4	3.3
Architecture and Construction	5.7	4.4
Arts, Audio/Video Technology and Communications	12.7	15.1
Business, Management and Administration	5.4	6.4
Education and Training	7.3	6.0
Finance	1.1	1.0
Government and Public Administration	1.0	3.3
Health Science	23.6	22.0
Hospitality and Tourism	1.8	2.8
Human Service	7.0	6.4
Information Technology	3.4	3.1
Law, Public Safety, Corrections and Security	9.0	7.7
Manufacturing	3.4	2.0
Marketing, Sales and Service	0.6	1.2
Science, Technology, Engineering and Mathematics	9.8	11.6
Transportation, Distribution, and Logistics	4.8	3.8

Source: SC Department of Education

DEGREES AWARDED

In higher education, Upstate area colleges and universities have conferred a wide variety of awards. Of the top 20, Liberal Arts and Sciences and Business Administration and Management are the most popular followed by Registered Nurse Training. The institutions included in this data are Converse College, Limestone College, Spartanburg Community College, Spartanburg Methodist College, USC-Union, USC-Upstate, and Wofford College.

Figure 20: Top 20 Majors in Upstate - 2011

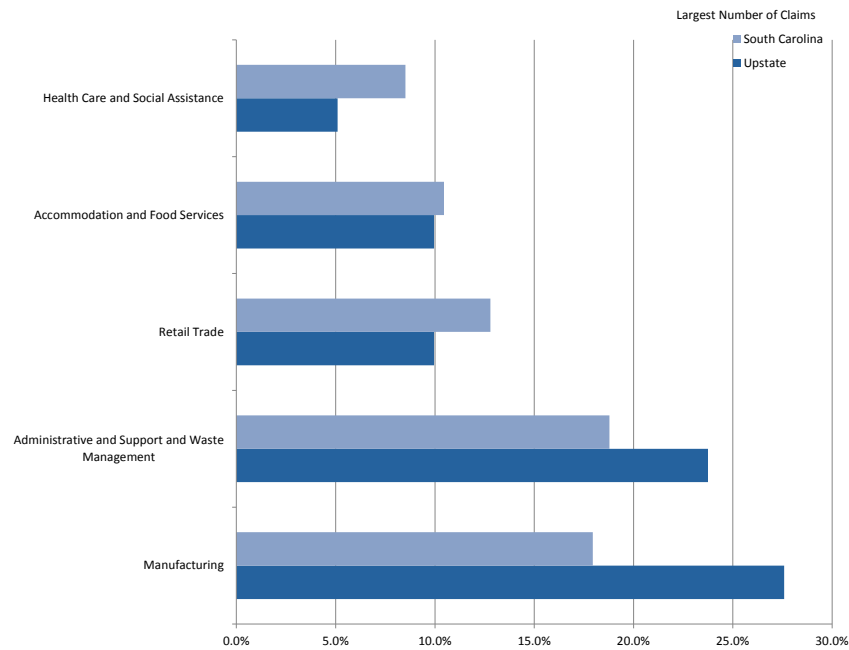
Majors	
Liberal Arts and Sciences/Liberal Studies	474
Business Administration, Management and Operations	264
Nursing - Registered Nurse Training, BSN Generic	213
Management	176
Psychology, General	138
Early Childhood Education and Teaching	119
Elementary Education and Teaching	114
Biology/Biological Sciences, General	106
Social Work	102
Criminal Justice/Law Enforcement Administration	101
Nursing - Registered Nurse Training, BSN Comp	69
Multi-/Interdisciplinary Studies, Other	60
Speech Communication and Rhetoric	56
Business Administration and Management, General	52
English Language and Literature, General	52
Business/Commerce, General	50
History, General	45
Business/Managerial Economics	44
Welding Technology/Welder	43
Political Science and Government, General	42

Source: SC Commission on Higher Education, http://www.che.sc.gov/New_Web/Data&Pubs.htm

CHARACTERISTICS OF UI CLAIMS BY OCCUPATION

Another source of supply for the workforce is people who are receiving unemployment compensation. In the Upstate LWIA area, the highest number of claims is filed in the Manufacturing industry followed by the Administrative and Support and Waste Management group. The latter group includes office administrative services; facilities support services; employment services; services to buildings and dwellings; and waste collection, treatment, and disposal services. These industries highlight the manufacturing base of the economy of the Upstate LWIA and its support.

Figure 21: Characteristics of UI Claims by Occupation - April 2013



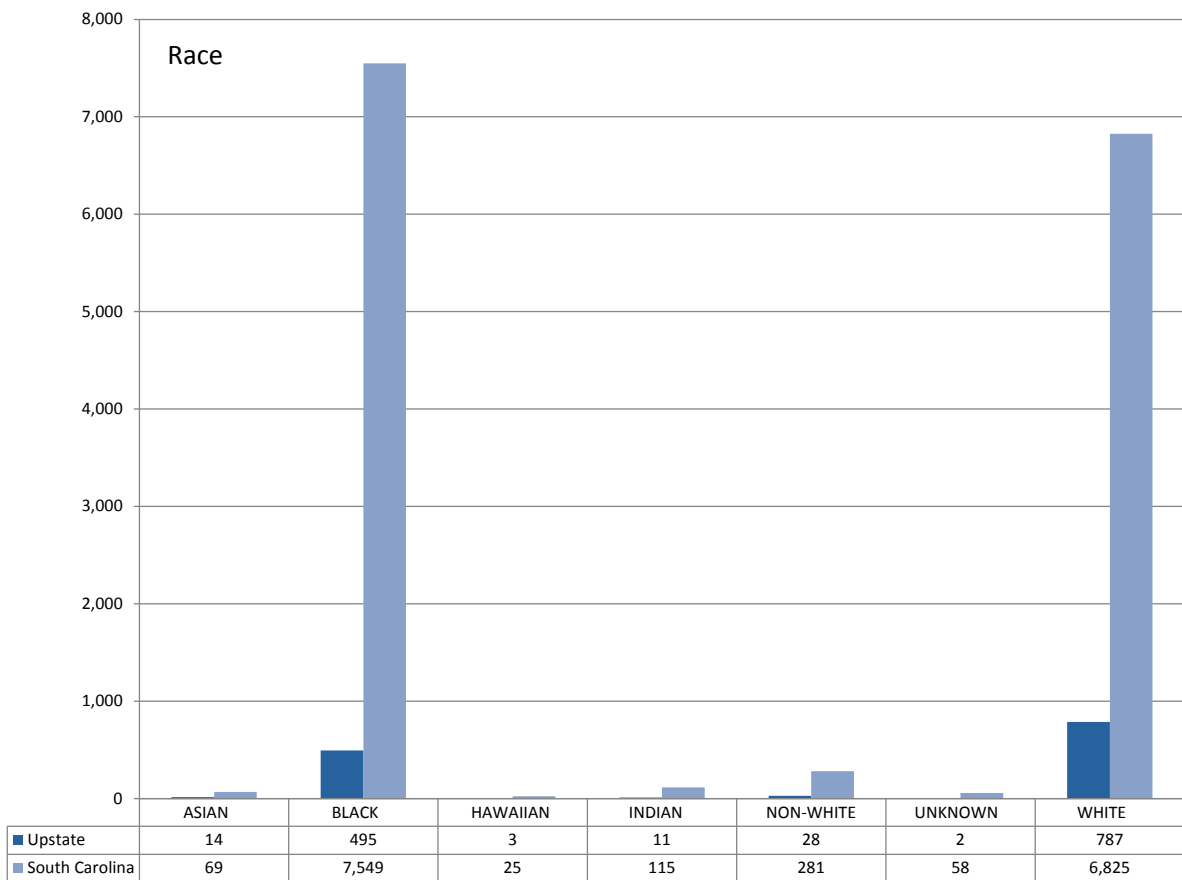
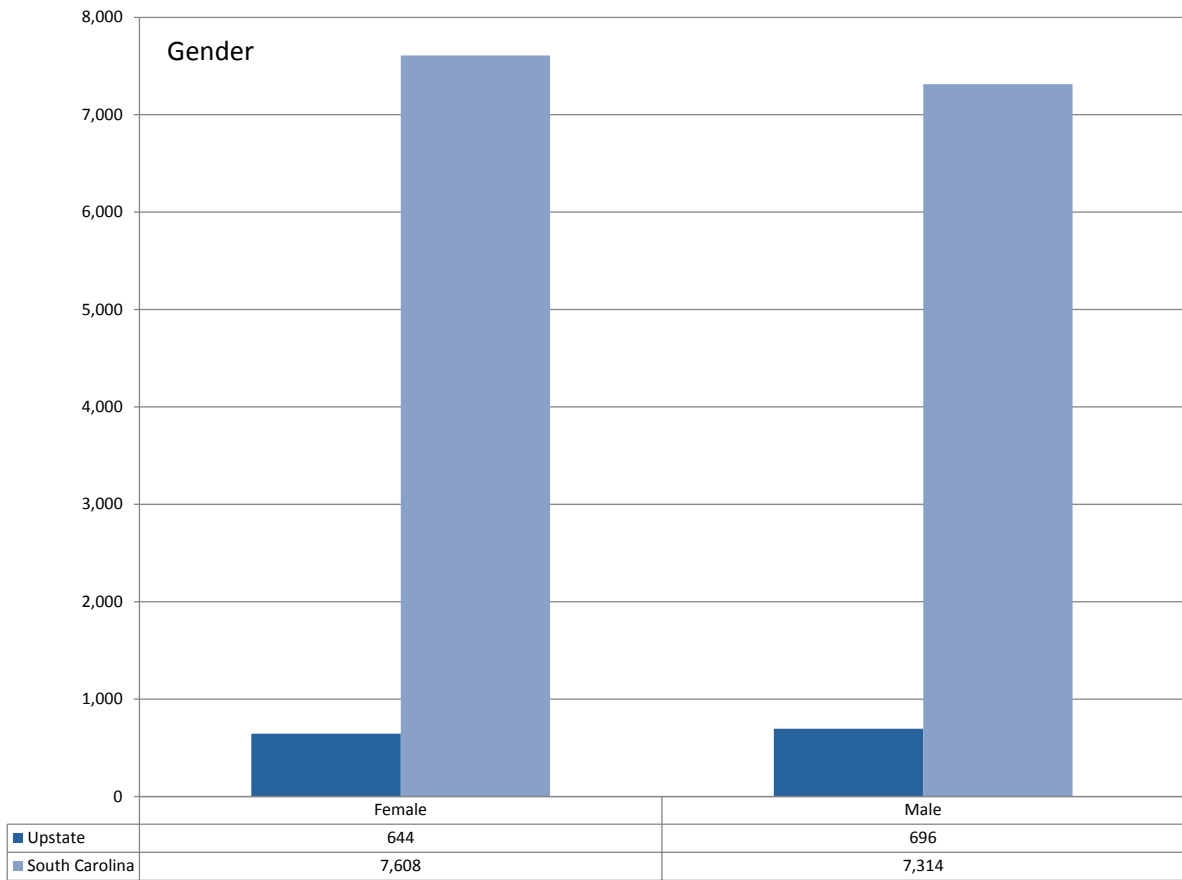
Occupation	Upstate	South Carolina
Manufacturing	352	2,267
Administrative and Support and Waste Management	303	2,373
Retail Trade	127	1,616
Accommodation and Food Services	127	1,321
Health Care and Social Assistance	65	1,076
Construction	62	820
Wholesale Trade	59	445
Professional, Scientific, and Technical Services	53	698
Transportation and Warehousing	34	414
Other Services (except Public Administration)	23	292
Finance and Insurance	21	300
Educational Services	15	222
Real Estate and Rental and Leasing	10	213
Public Administration	9	206
Information	7	122
Management of Companies and Enterprises	4	35
Arts, Entertainment, and Recreation	3	94
Agriculture, Forestry, Fishing and Hunting	1	98
Utilities	1	22

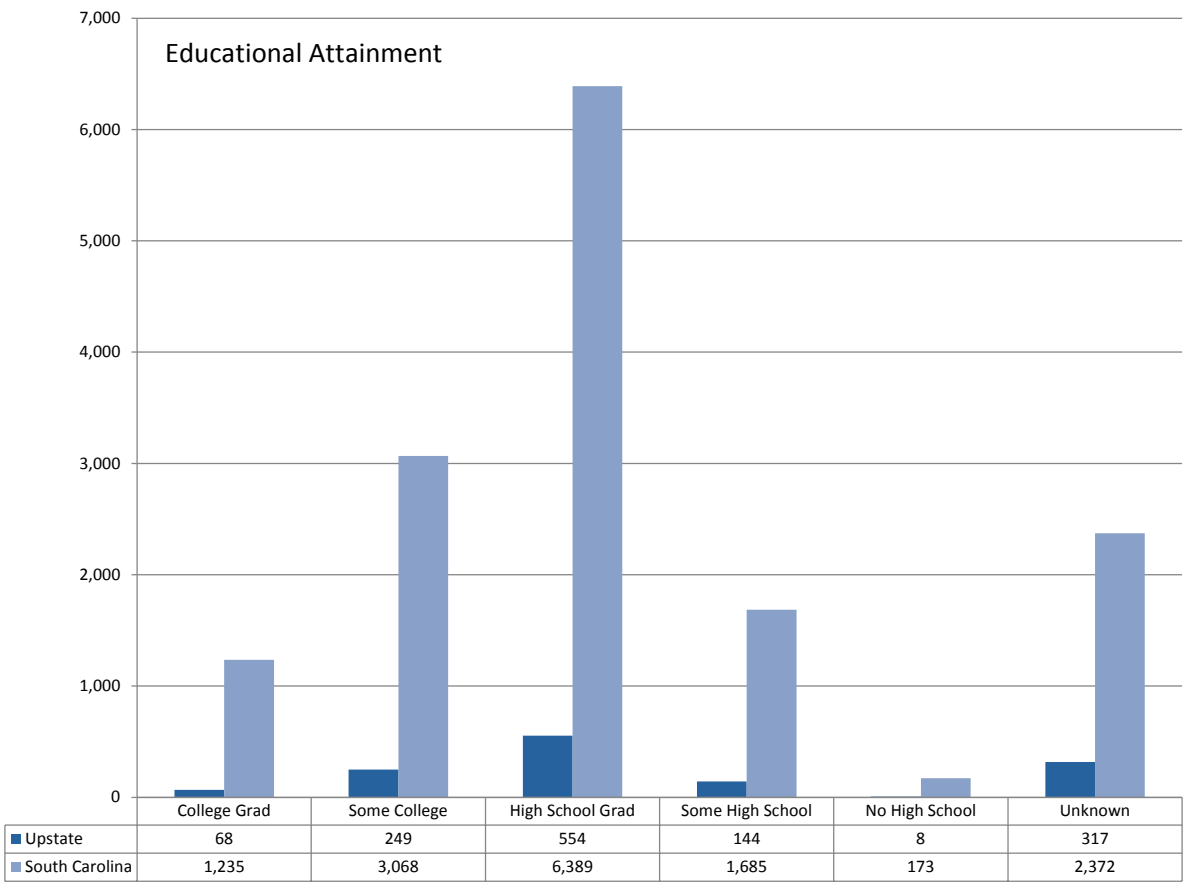
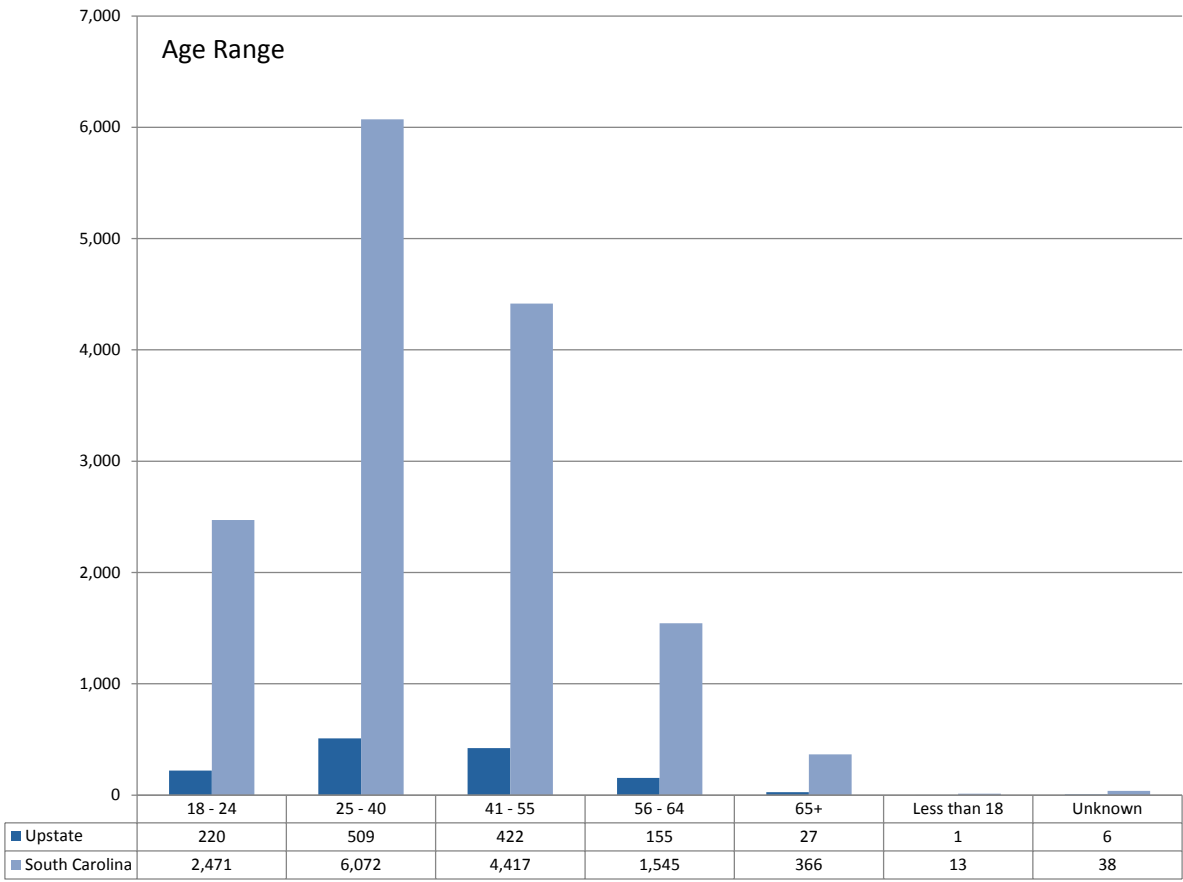
Source: SCDEW

UNEMPLOYMENT INSURANCE CLAIMANT CHARACTERISTICS

The people in this area who were receiving unemployment insurance benefits in April 2013 were typically male, white, 25-40 years old, and were high school graduates or earned a GED.

Figure 22: UI Claimant Characteristics - April 2013





Source: SCDEW

DEMAND: WHAT DO WE NEED?

Workforce demand shows what is needed in an area to support current and future employers. This section examines current (real-time) demand through online job advertisements, industry and occupational projections to 2018, educational requirements for future jobs, and the skills needed for those occupations.

Online job advertisements give a snapshot of what positions need to be filled in an area. The data is from the Conference Board Help Wanted OnLine® Data Series (HWOL) which measures the number of new and reposted job ads from over 16,000 Internet job boards. In April 2013, the largest occupational group with job ads in the Upstate LWIA was Healthcare Practitioners and Technical Occupations followed by Sales and Related Occupations.

ONLINE JOB ADVERTISEMENTS

Figure 23: Upstate HWOL - April 2013 by Major Group

Occupation	# of Job Ads
Healthcare Practitioners and Technical Occupations	632
Sales and Related Occupations	350
Transportation and Material Moving Occupations	283
Office and Administrative Support Occupations	255
Architecture and Engineering Occupations	200
Management Occupations	199
Production Occupations	168
Healthcare Support Occupations	161
Installation, Maintenance, and Repair Occupations	149
Computer and Mathematical Occupations	146
Business and Financial Operations Occupations	133
Food Preparation and Serving Related Occupations	114
Miscellaneous	108
Building and Grounds Cleaning and Maintenance Occupations	53
Construction and Extraction Occupations	46
Arts, Design, Entertainment, Sports, and Media Occupations	37
Education, Training, and Library Occupations	36
Personal Care and Service Occupations	33
Life, Physical, and Social Science Occupations	31
Protective Service Occupations	24
Community and Social Services Occupations	13
Farming, Fishing, and Forestry Occupations	10
Legal Occupations	7
Military Specific Occupations	1

Note: A job advertisement may include multiple openings.

Source: The Conference Board Help Wanted OnLine® Data Series (HWOL)

INDUSTRY PROJECTIONS

The Health Care and Social Assistance industry is projected to have the largest increase in employment from 2008 to 2018, growing by 2,855 jobs or 286 jobs/year. This sector includes services such as ambulatory health care services, hospitals, nursing and residential care facilities, and social as-

sistance services. The Accommodation and Food Services category reports the next largest growth with a projected 159 openings/year. This sector includes hotels, motels, recreational vehicle parks, restaurants, and drinking places.

Figure 24: Industry Projections - 2008-2018

Industry	Estimate Employment (2008)	Projected Employment (2018)	Change	Percent Change	Annual Percent Change
Total Employment, All Jobs	159,479	167,029	7,550	4.73	0.46
Health Care and Social Assistance	15,556	18,411	2,855	18.35	1.70
Accommodation and Food Services	12,921	14,506	1,585	12.27	1.16
Professional, Scientific, and Technical Services	4,202	5,639	1,437	34.20	2.99
Retail Trade	16,983	17,973	990	5.83	0.57
Transportation and Warehousing	6,023	6,897	874	14.51	1.36
Wholesale Trade	6,965	7,778	813	11.67	1.11
Educational Services	11,851	12,629	778	6.56	0.64
Construction	8,406	8,985	579	6.89	0.67
Finance and Insurance	4,565	5,076	511	11.19	1.07
Management of Companies and Enterprises	2,072	2,447	375	18.10	1.68
Government	7,530	7,736	206	2.74	0.27
Arts, Entertainment, and Recreation	1,462	1,661	199	13.61	1.28
Real Estate and Rental and Leasing	1,384	1,483	99	7.15	0.69
Administrative and Support and Waste Management and Remediation Services	7,136	7,191	55	0.77	0.08
Information	1,000	1,025	25	2.50	0.25
Utilities	387	396	9	2.33	0.23
Mining	207	179	-28	-13.53	-1.44
Other Services (Except Government)	6,145	6,042	-103	-1.68	-0.17
Agriculture, Forestry, Fishing and Hunting	1,193	809	-384	-32.19	-3.81
Manufacturing	34,466	30,936	-3,530	-10.24	-1.07

Source: BLS, SCDEW, QCEW, WI

OCCUPATIONAL PROJECTIONS

Many of the jobs that are projected to have numerous openings between 2008 and 2018 in this area support a growing economy. Healthcare occupations lead the projected highest percent change employment listing with eight of the top ten positions.

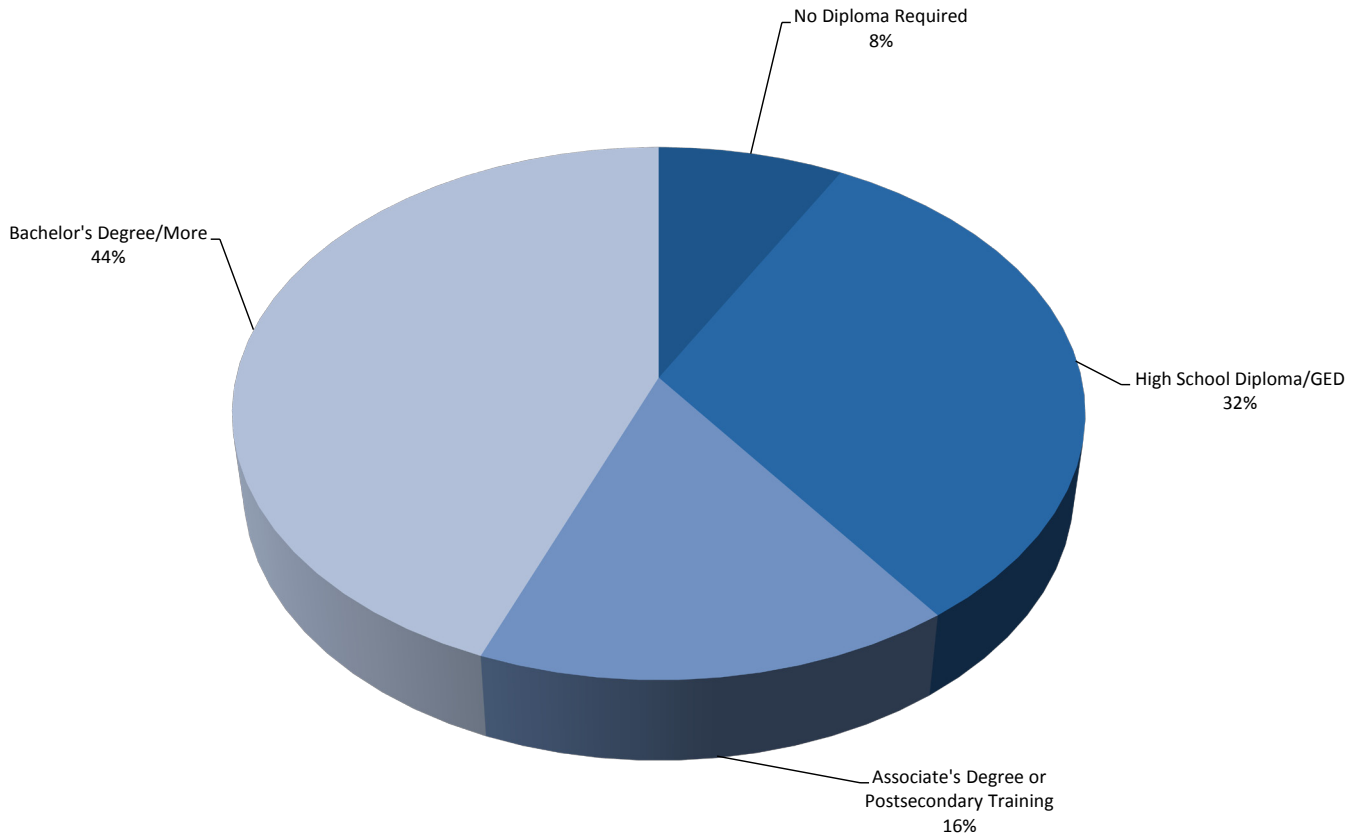
Figure 25: Growing Occupations - 2008-2018

Occupation	Estimated Employment (2008)	Projected Employment (2018)
Nursing Aides, Orderlies, and Attendants	1,782	2,213
Carpenters	933	1,199
Pharmacy Technicians	468	651
Insurance Sales Agents	438	548
Medical Assistants	360	473
Fitness Trainers and Aerobics Instructors	327	418
Physical Therapists	310	408
Dental Hygienists	259	356
Pharmacists	280	345
Dental Assistants	244	337
Paralegals and Legal Assistants	188	251
Nonfarm Animal Caretakers	192	239
Physical Therapist Assistants	86	121
Veterinary Technologists and Technicians	67	95
Chiropractors	52	64
Mental Health and Substance Abuse Social Workers	45	56
Veterinary Asst. and Laboratory Animal Caretakers	40	51
Veterinarians	30	40
Surveyors	16	21
Financial Examiners	3	4

Source: BLS, SCDEW, OES, WI

Of the top 50 projected occupations, 16 require a high school diploma or GED, four require less than a high school diploma or GED, 22 require a bachelor's degree or higher, and eight need an associate's degree or require some kind of postsecondary training. All of the four requiring less than a high school diploma or GED also require short-term on-the-job training (OJT), which is defined by the US Department of Labor as less than one month.

Figure 26: Education for Top 50 Projected Occupations



Source: BLS, SCDEW, OES, WI

It is just as important to know which occupations are declining in the area. Declines are often due to technological advances (i.e. computers or robots replacing humans), so many of the declining occupations are projected to be manual labor jobs, as shown in Figure 27.

Figure 27: Top 20 Projected Declining Occupations in Upstate - 2008-2018

Occupation
Chemical Plant and System Operators
Computer Operators
Drywall and Ceiling Tile Installers
Extruding and Forming Machine Setters, Operators
File Clerks
Furnace, Kiln, Oven, Drier, & Kettle Oper. & Tender
Information and Record Clerks, All Other
Lathe and Turning Machine Tool Setters, Operators
Machine Feeders and Offbearers
Meter Readers, Utilities
Order Clerks
Postal Service Clerks
Postal Service Mail Sorters, Processors
Roofers
Sewing Machine Operators
Stationary Engineers and Boiler Operators
Textile Bleaching & Dyeing Machine Op. & Tenders
Textile Cutting Machine Setters, Operators, Tender
Textile Knitting and Weaving Machine Setters
Textile Winding, Twisting, and Drawing Out Machine

Source: BLS, SCDEW, OES, WI

SKILLS OF PROJECTED OCCUPATIONS

Using the top 50 projected occupations, the skill levels needed for the future workforce based on the definitions given earlier in this report can be categorized.

Figure 28: Skill Levels

Low	7
Middle	21
High	22

Source: BLS, SCDEW, OES, WI

Low-skilled jobs often have commensurate (i.e. low) pay and do not require much education, experience, or OJT. Does the supply of workers have the right skills for the jobs in the future?

WORKFORCE CHALLENGES

The current economic situation in the Upstate LWIA, the supply of workers, and the characteristics of workers who will be in demand has been reviewed. What can be gleaned from these findings? Are there gaps between supply and demand?

Supply Findings

Although the population should grow to 2030, a smaller-than-the-state share of 20-34 year olds in their prime working age, this area looks to have a challenge in having a proper mix of workers. In addition, in-migration from other states/countries adds few residents at the top end of the educational spectrum. The LWIA has a lower percent of residents aged 25 and older with at least a bachelor's degree than the state does as a whole.

Many students selected the Health Science career cluster in keeping with state trends. The next most popular career cluster was Arts, Audio/Video/Technology, and Communications.

Demand Findings

Employer demand was consistent between online advertisements (current) and 2018 projected occupations (long-term needs) in general. Both had the need for workers in Marketing, Sales, and Service; and Business, Management, and Administration. Health Science was a short-term need, while Hospitality and Tourism and Manufacturing were long-term needs. Almost all of the top projected growing occupations require at least a high school diploma or GED.

Figure 29: Comparison of Supply and Demand

	Demand		Supply	
	Top online ads	Projected Occupations	Degrees Earned	Career Clusters Selected
Agriculture, Food and Natural Resource	1.4	2.3	0.9	3.4
Architecture and Construction	5.7	5.8	0.3	5.7
Arts, Audio/Video Technology and Communications	1.6	1.2	2.2	12.7
Business, Management and Administration	13.9	15.4	19.2	5.4
Education and Training	1.6	6.1	31.4	7.3
Finance	3.6	2.0	0.5	1.1
Government and Public Administration	0.1	0.2	1.4	1.0
Health Science	21.4	9.6	18.4	23.6
Hospitality and Tourism	4.1	12.9	0.4	1.8
Human Service	3.3	4.9	4.8	7.0
Information Technology	4.5	1.4	4.4	3.4
Law, Public Safety, Corrections and Security	0.8	2.2	2.8	9.0
Manufacturing	6.3	12.3	4.4	3.4
Marketing, Sales and Service	16.7	14.0	0.5	0.6
Science, Technology, Engineering and Mathematics	5.4	1.5	8.2	9.8
Transportation, Distribution, and Logistics	9.6	8.1	0.3	4.8

Source: BLS, SCDEW, WI, SC Department of Education, OES, HWOL

A few observations about the comparison that could be considered challenges to the workforce pipeline include:

- There are currently more open jobs than graduates to fill them in Architecture and Construction; Marketing, Sales and Service; and Transportation, Distribution, and Logistics.
- There are many post-secondary degrees being earned by area graduates in Business, Management, and Administration and Education and Training that exceed short-term demand in the LWIA. Possibly the glut in Business graduates could help supply the need for workers in the related field of Marketing, Sales, and Service.
- There is an overabundance of Arts, Audio/Video Technology and Communication; Health Science; Science, Technology, Engineering, and Math; and Law, Public Safety, Corrections and Security clusters selected by students that will far outpace the LWIA's long-term demand.
- There are too few students in Business, Management, and Administration; Hospitality and Tourism; Manufacturing; and Marketing, Sales and Service to meet long-term demand.

There is always a demand for employees with soft skills. It is said that hard skills (training, degrees, or certification) get you hired, but soft skills get you fired. Many of our residents need to learn or get a refresher in soft skills in order to KEEP their jobs. Employers see the need.

Top 10 Soft Skills Found in Online Ads for South Carolina (April 2013)

1. Oral and written communication skills
2. Customer Service Oriented
3. Problem solving
4. Detail oriented
5. Microsoft Office
6. Self-starting / Self-motivated
7. Organizational skills
8. Troubleshooting
9. Work independently
10. Sales experience

Source: The Conference Board Help Wanted OnLine® Data Series (HWOL)

CONCLUSION

The Upstate LWIA area overall encompasses an economy dependent on manufacturing, health care, and retail trade. The population continues to increase, but the education level for the population is lower than the state as a whole at the high end with lower percentages of residents with bachelor's degree or higher. The workforce (current and potential) does face challenges in having the proper mix of employer demand being met by trained applicants. The majority of employers are advertising for jobs in health care; business, management, and administration; and marketing and sales. However, some supply flows could be fine-tuned to be more in line with demand.

The data shows that in the area:

- There is an undersupply of today's students choosing the fields of Business, Management and Administration; Hospitality and Tourism; Manufacturing; Transportation, Distribution, and Logistics; and Marketing, Sales and Service to meet the LWIA's future demand.
- There is an oversupply of today's students choosing the areas of Arts, Audio/Video Technology and Communication; Law, Public Safety, Corrections and Security; Science, Technology, Engineering and Mathematics; and Health Science that will far outpace the area's long-term demand.
- Comprehensive soft skills training is needed for all students and job seekers (high school, post-secondary, adult, new and returning entrants to the labor force, and incumbent workers) so that they can not only get hired but retain their positions and thus reduce employee turnover.

Getting education in line with the demands of employers will help the Upstate LWIA meet the challenges it faces.