

Greenville County
Construction
Industry Analysis



South Carolina
Department of
Commerce



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INTRODUCTION

The South Carolina Department of Commerce Research Division appreciates the opportunity to assist Greenville County decision makers with additional information as follow-up to the Base Labor Market Analysis.

The construction sector was one of five sectors selected for additional study. The construction sector in Greenville County had 13,805 jobs in 2007. Approximately 6 percent of Greenville County's 237,000 jobs were in the construction sector. All types of construction, both commercial and residential, are covered at this level.

This report provides the following information for the construction sector:

- Primary occupations used in the sector
- Skills and education needed for those occupations
- Earnings for those occupations including those that pay a living wage
- Projected growth and/or turnover for those occupations
- Major employers in the sector

METHODOLOGY

To define the construction sector, the two-digit NAICS code for the construction industry (23) was used to develop employer lists, determine employment numbers in Greenville County, and to view occupational staffing patterns.

To estimate employment by occupation for construction in Greenville County, statewide occupational staffing patterns for that sector were applied to Greenville County construction industry employment estimates (staffing patterns are not available for counties). Industry employment estimates came from the Bureau of Labor Statistics' Quarterly Census of Employment and Wages. Staffing pattern data shows the percentage of jobs by occupation for an industry.

Occupational skills and education data were obtained from the national O*Net database. For the skills noted in this analysis, O*Net data ranking the level of the skill needed for each job was used. O*Net data is for occupations nationwide; it is not state or county specific.

For this analysis, the following skills were rated for each occupation:

- Reading Comprehension
- Writing
- Speaking
- Mathematics

To measure adequacy of wages, living wage models were explored. Several models were available utilizing reliable national data from sources such as the U.S. Census, U.S. Department of Commerce Bureau of Economic Analysis, U.S. Department of Labor Bureau of Labor Statistics, U.S. Department

of Agriculture, U.S. Department of Housing and Urban Development, and the Children's Defense Fund.

The model utilized for this analysis was developed by Pennsylvania State University using the sources listed above. The model provided data up to 2004 by area. That data was adjusted for inflation using the 2008 Consumer Price Index for All Urban Consumers. Based on this data, a family consisting of one adult and one child would need an annual salary of \$31,477, or an hourly wage of \$15.13, as a living wage in Greenville County. The hourly wage was determined by dividing the annual salary by 2,080 hours.

To determine whether there were significant employment opportunities for the occupations examined, both growth prospects and turnover were identified.

Occupations with projected growth of 100 or more from 2006-2016 in Greenville County were categorized as high-growth jobs. The source for this data came from Economic Modeling Specialists Inc (EMSI). Occupations for which 70 percent or more of their annual job openings were due to replacement needs (based on statewide data) were identified as high-turnover jobs. For all jobs in South Carolina, turnover accounts for 59 percent of annual openings. South Carolina Department of Commerce 2006-2016 projections data was the source for turnover.

PRIMARY OCCUPATIONS

For this analysis, the following characteristics were determined for occupations with 100 or more employees in Greenville County’s construction sector:

- 2007 employment,
- Median wage (for Greenville County),
- Skills and education typically needed to perform the job,
- The determination whether the occupation has a living wage for Greenville County, and
- The probability that the job will experience growth and/or high turnover.

For the construction sector, 31 occupations have 100 or more employees. Below are the 10 occupations with the highest employment in the sector in Greenville County. A list of all occupations with employment of at least 100 along with their characteristics can be found in the appendix.

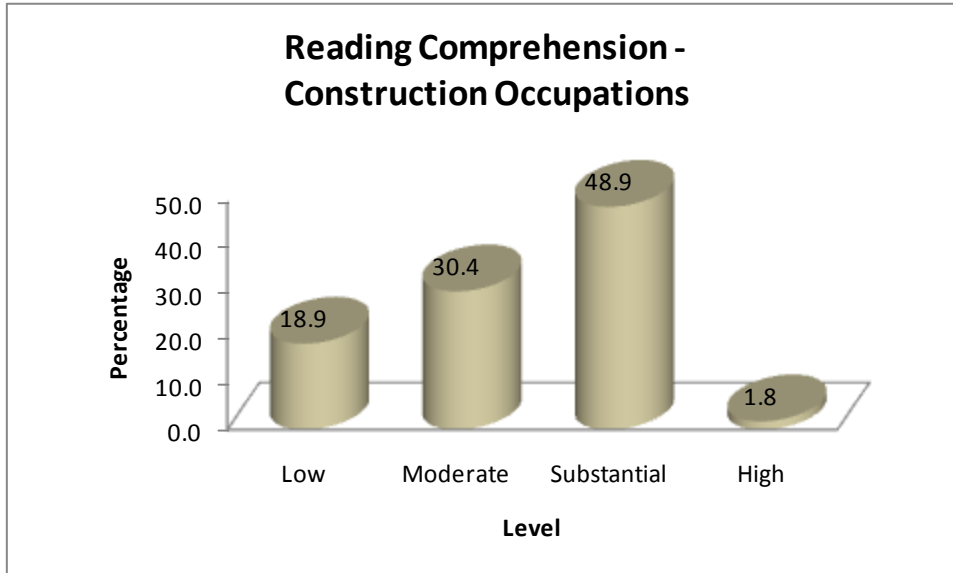
Occupation	Median Wage	Estimated Employment
Carpenters	\$18.86	1,291
Construction Laborers	\$15.19	1,165
Supervisors of Construction Trades	\$22.92	1,055
Electricians	\$18.01	705
Plumbers, Pipefitters and Steamfitters	\$18.50	632
Construction Equipment Operators	\$15.03	498
Heating, Air Conditioning and Refrigeration Mechanics and Installers	\$19.49	363
Construction Managers	\$27.48	353
Painters, Construction and Maintenance	\$19.40	346
Helpers – Carpenters	\$11.69	335

Source: EMSI, SC Department of Commerce.

SKILLS AND EDUCATION

Reading Comprehension

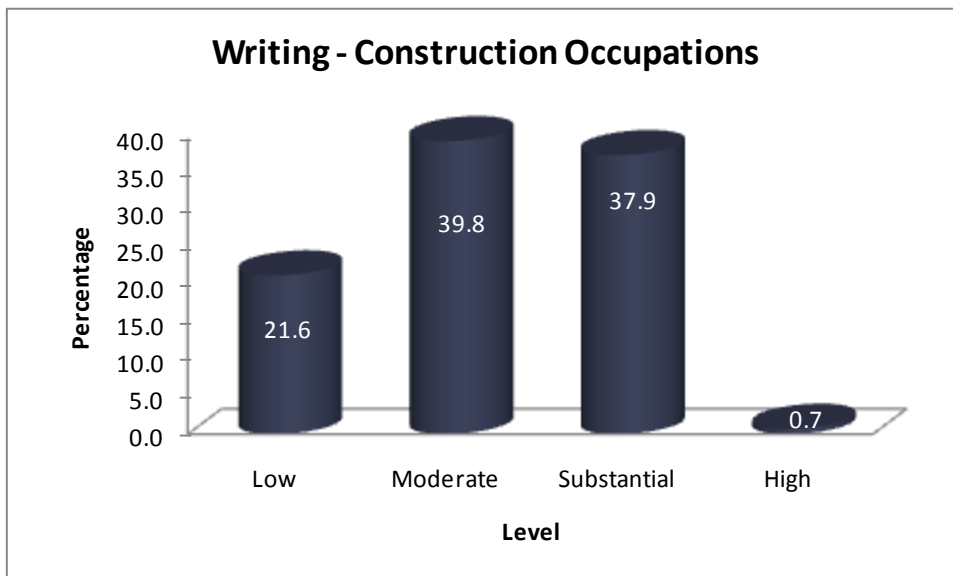
Almost half of Greenville's construction jobs require a substantial level of reading comprehension.



Source: SC Department of Commerce, US Department of Labor (O*Net).

Writing

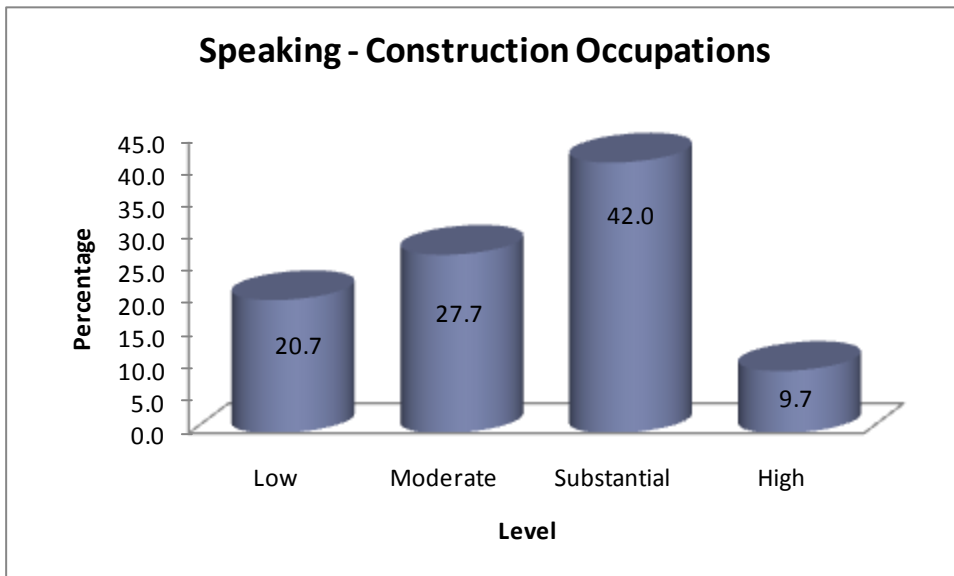
Writing skills needed for Greenville's construction jobs are more evenly divided between moderate and substantial levels.



Source: SC Department of Commerce, US Department of Labor (O*Net).

Speaking

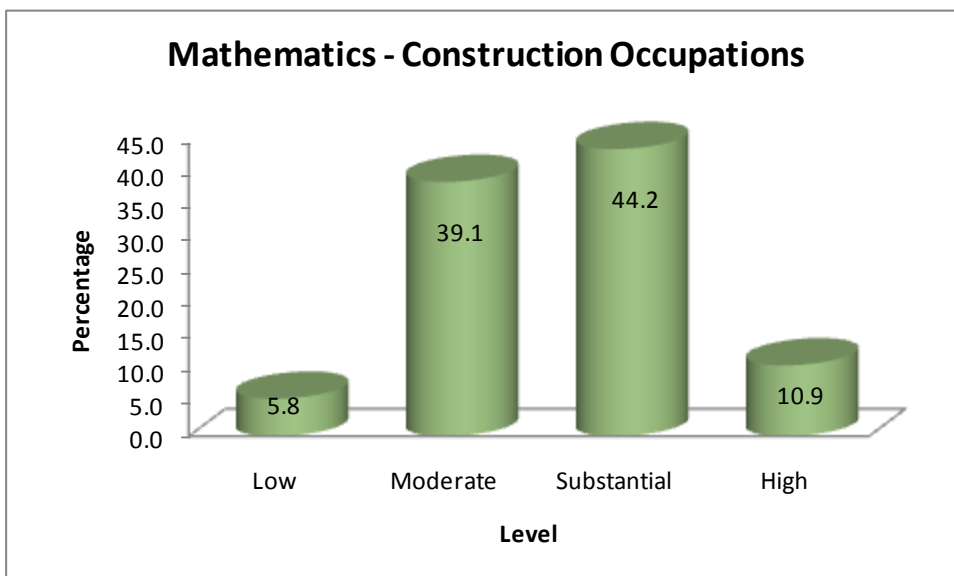
A substantial amount of speaking ability is needed for Greenville's construction jobs.



Source: SC Department of Commerce, US Department of Labor (O*Net).

Mathematics

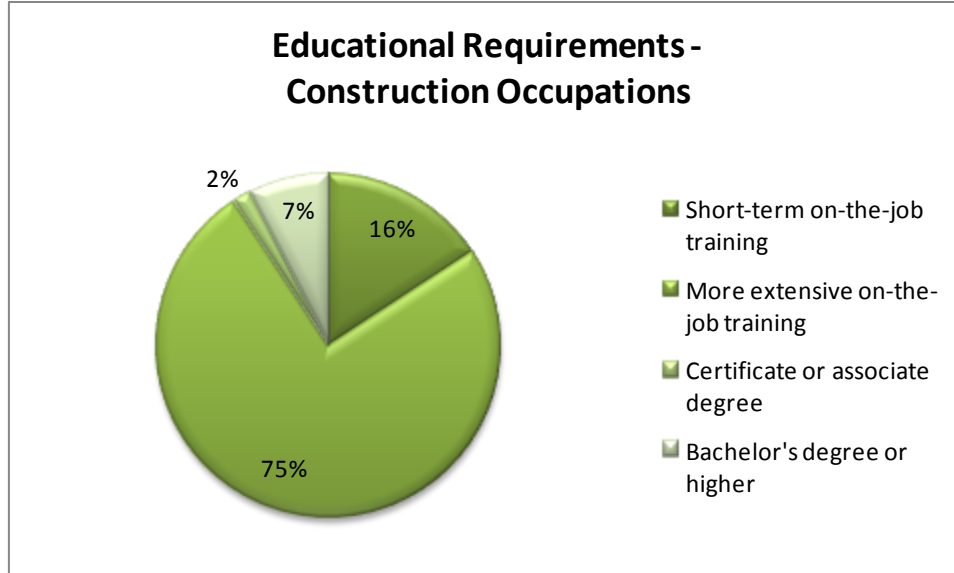
Moderate or substantial levels of mathematics are needed for Greenville's construction jobs.



Source: SC Department of Commerce, US Department of Labor (O*Net).

Education

The majority of occupations in the construction sector require more extensive on-the-job training. However, 16 percent only require short-term training, giving a good number of people the opportunity to enter the industry.



Source: SC Department of Commerce, US Department of Labor (O*Net).

LIVING WAGE JOBS

Within the 31 profiled occupations, the following occupations meet or exceed the living wage described in “Methodology” on page 5.

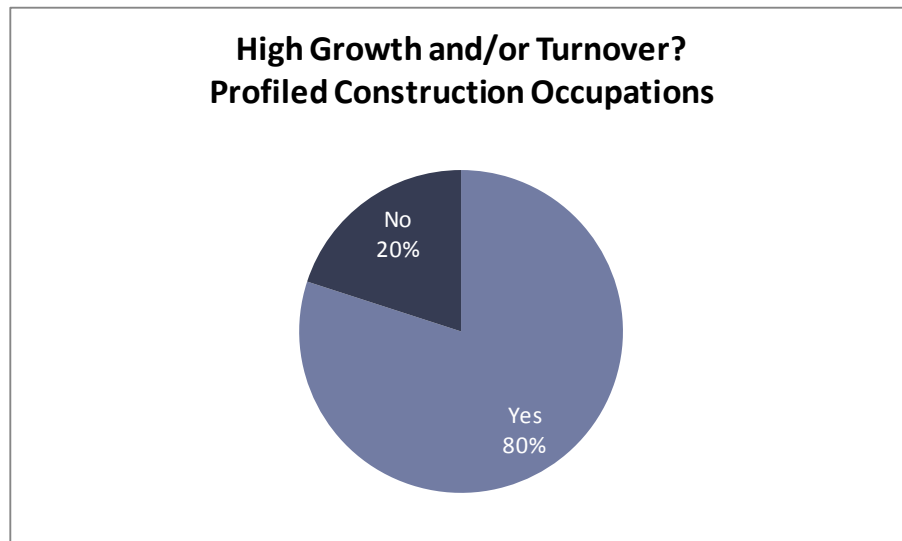
Occupation	Median Wage
General and Operations Managers	\$35.92
Construction Managers	\$27.48
Sales Representatives, Wholesale and Manufacturing (except technical and scientific products)	\$26.86
Supervisors/Managers of Mechanics, Installers and Repairers	\$24.11
Cost Estimators	\$23.24
Supervisors/Managers of Construction Trades and Extraction Workers	\$22.92
Brickmasons and Blockmasons	\$21.20
Truck Drivers, Heavy and Tractor-Trailer	\$20.63
Heating, Air Conditioning and Refrigeration Mechanics and Installers	\$19.49
Painters, Construction and Maintenance	\$19.40
Pipe Layers	\$19.29
Carpenters	\$18.86
Drywall and Ceiling Tile Installers	\$18.65
Plumbers, Pipefitters and Steamfitters	\$18.50
Electricians	\$18.01
Welders, Cutters, Solderers and Brazers	\$17.94
Executive Secretaries and Administrative Assistants	\$17.60
Roofers	\$16.85
Cement Masons and Concrete Finishers	\$16.16
Sheet Metal Workers	\$16.09
Bookkeeping, Accounting and Auditing Clerks	\$15.37
General Maintenance and Repair Workers	\$15.30
Construction Laborers	\$15.19
Operating Engineers and Other Construction Equipment Operators	\$15.03

Source: EMSI.

OCCUPATIONS WITH SIGNIFICANT OPPORTUNITIES

Specific jobs with high projected growth and/or high turnover are listed directly below. As the chart below demonstrates, 24 (80 percent) of the 31 profiled construction occupations have high projected growth and/or high turnover. (Please see “Methodology” for an explanation of what constitutes high growth and turnover for this analysis)

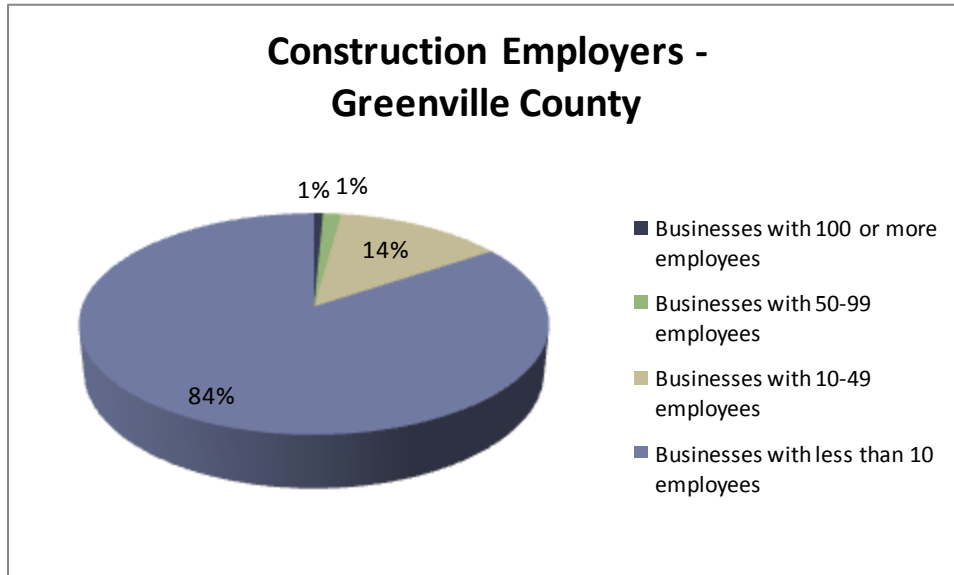
- Carpenters
- Construction Laborers
- Supervisors/Managers of Construction Trades
- Electricians
- Plumbers, Pipefitters and Steamfitters
- Operating Engineers and Other Construction Equipment Operators
- Heating, Air Conditioning and Refrigeration Mechanics and Installers
- Construction Managers
- Helpers – Carpenters
- Helpers – Electricians
- Secretaries (except legal, medical and executive)
- General Office Clerks
- Truck Drivers, Heavy and Tractor-Trailer
- Bookkeeping, Accounting and Auditing Clerks
- Brickmasons and Blockmasons
- Sheet Metal Workers
- Executive Secretaries and Administrative Assistants
- Roofers
- Helpers – Brickmasons, Blockmasons and Stonemasons
- Pipelayers
- Sales Representatives, Wholesale and Manufacturing (except technical)
- Laborers and Freight, Stock and Material Movers (hand)
- General Maintenance and Repair Workers
- Welders, Cutters, Solderers and Brazers



Sources: EMSI, SC Department of Commerce.

EMPLOYERS

The Research Division utilized two national business databases, Dun & Bradstreet and InfoUSA, to come up with a list of construction employers in Greenville County. These two sources showed 3,623 construction businesses in Greenville County, employing from 1 to 2,400 people. About 1 percent, or 26, construction companies employed 100 or more people. The chart below breaks down the construction employer size in Greenville County.



Source: Dun & Bradstreet and infoUSA.

The list below gives detailed information for the 26 construction businesses with 100 or more employees.

Greenville County Construction Firms with 100 or More Employees

Company Name	City	Business Description	Employees
Fluor Enterprises Inc	Greenville	General Contractor	2,400
Verizon Business Network Services	Greenville	Electrical Contractor	1,500
Cliffs At Glassy Inc	Travelers Rest	Developer of Real Estate	300
Ashmore Brothers	Greer	Paving Contractor	200
Harper Corp-General Contractor	Greenville	Industrial Building Construction	200
McGee Brothers Co Inc	Greenville	Masonry/Stone Contractor	200
Upstate Pool Management Inc	Taylors	Swimming pool repair and service	200
Jennings-Dill Inc	Greenville	Plumbing/Heating/Air Conditioning Contractor	175
Burgess International	Greenville	Cabinet maker	150
Johnson Electric Co Inc	Greenville	Electrical Contractor	150
Triangle Construction Co	Greenville	General Contractor	150
Southeastern Products Inc	Greenville	Home & office interiors finishing	140
B E & K Building Group	Greenville	General Contractor	125
M B Kahn Construction Co Inc	Greenville	Industrial Building Construction	125
Hayes & Lunsford Electrical	Greer	Electrical Contractor	124
Freeman Mechanical Inc	Greenville	Mechanical Contractor	115
G-M Mechanical Corp	Greenville	Plumbing/Heating/Air Conditioning Contractor	115
Wright Metal Products	Simpsonville	Metal Fabricator	110
Apac-Southeast Inc	Taylors	Highway Construction	100
Butler Contracting Inc	Greenville	Nonresidential Construction	100
City Of Greenville	Greenville	Highway/Street/Utility Construction	100
Huntington & Guerry Electric	Greenville	Electrical Contractor	100
Insulated Roofing Contractors	Greenville	Roofing Contractor	100
McGee Brothers Co Inc	Greenville	Masonry Contractor	100
McGee Brothers Co Inc	Greer	Masonry Contractor	100
South Carolina Department of Transportation	Greenville	Highway/Street Construction	100

Source: Dun & Bradstreet and infoUSA.

Appendix: Profiled Construction Occupations

Title	Standard Occupational Code	Median Wage	Employment	Reading Comprehension	Active Listening	Writing	Speaking	Mathematics	Education	High Growth?	High Turnover?
Carpenters	472031	18.86	1,291	Moderate	Substantial	Substantial	High	High	Long-term on-the-job training	Yes	No
Construction Laborers	472061	15.19	1,165	Low	Low	Low	Low	Moderate	Moderate-term on-the-job training	Yes	No
Supervisors/Managers of Construction Trades & Extraction Workers	471011	22.92	1,055	Moderate	Moderate	Moderate	Substantial	Moderate	Work experience in a related occupation	Yes	No
Electricians	472111	18.01	705	Substantial	Substantial	Moderate	Moderate	Substantial	Long-term on-the-job training	No	Yes
Plumbers, Pipefitters & Steamfitters	472152	18.50	632	Substantial	Substantial	Moderate	Substantial	Substantial	Long-term on-the-job training	Yes	No
Operating Engineers & Other Construction Equipment Operators	472073	15.03	498	Substantial	Substantial	Moderate	Moderate	Substantial	Moderate-term on-the-job training	Yes	No
Heating, Air Conditioning & Refrigeration Mechanics & Installers	499021	19.49	363	Substantial	Substantial	Substantial	Substantial	Substantial	Long-term on-the-job training	Yes	No

Title	Standard Occupational Code	Median Wage	Employment	Reading Comprehension	Active Listening	Writing	Speaking	Mathematics	Education	High Growth?	High Turnover?
Construction Managers	119021	27.48	353	Substantial	Substantial	Substantial	Moderate	Substantial	Bachelor's degree	Yes	No
Painters, Construction & Maintenance	472141	19.40	346	Low	Low	Low	Low	Moderate	Moderate-term on-the-job training	No	No
Helpers--Carpenters	473012	11.69	335	Moderate	Moderate	Moderate	Moderate	Substantial	Short-term on-the-job training	No	Yes
Helpers--Electricians	473013	11.23	327	Substantial	Substantial	Moderate	Substantial	Substantial	Short-term on-the-job training	No	Yes
Secretaries (except legal, medical & executive)	436014	13.97	320	Substantial	Substantial	Substantial	Substantial	Moderate	Moderate-term on-the-job training	Yes	No
General Office Clerks	439061	11.88	292	Substantial	Substantial	Substantial	Moderate	Moderate	Short-term on-the-job training	Yes	No
Cement Masons & Concrete Finishers	472051	16.16	280	Moderate	Substantial	Moderate	Moderate	Substantial	Moderate-term on-the-job training	No	No
Helpers--Pipelayers, Plumbers, Pipefitters & Steamfitters	473015	11.15	265	Substantial	Substantial	Substantial	Substantial	Substantial	Short-term on-the-job training	No	No
Truck Drivers, Heavy & Tractor-Trailer	533032	20.63	252	Substantial	Moderate	Moderate	Substantial	Moderate	Moderate-term on-the-job training	Yes	No

Title	Standard Occupational Code	Median Wage	Employment	Reading Comprehension	Active Listening	Writing	Speaking	Mathematics	Education	High Growth?	High Turnover?
General & Operations Managers	111021	35.92	240	Substantial	Substantial	Substantial	Substantial	Substantial	Bachelor's or higher degree, plus work experience	N/A	N/A
Bookkeeping, Accounting & Auditing Clerks	433031	15.37	214	Substantial	Substantial	Substantial	Moderate	Substantial	Moderate-term on-the-job training	Yes	No
Brickmasons & Blockmasons	472021	21.20	211	Moderate	Substantial	Moderate	Substantial	Substantial	Long-term on-the-job training	No	Yes
Sheet Metal Workers	472211	16.09	202	Substantial	Substantial	Substantial	Substantial	Substantial	Long-term on-the-job training	No	Yes
Executive Secretaries & Administrative Assistants	436011	17.60	198	Substantial	Substantial	Substantial	Substantial	Moderate	Moderate-term on-the-job training	Yes	No
Roofers	472181	16.85	160	Low	Low	Low	Low	Low	Moderate-term on-the-job training	No	Yes
Helpers--Brickmasons, Blockmasons, Stonemasons & Tile & Marble Setters	473011	14.65	160	Low	Low	Low	Low	Low	Short-term on-the-job training	No	Yes

Title	Standard Occupational Code	Median Wage	Employment	Reading Comprehension	Active Listening	Writing	Speaking	Mathematics	Education	High Growth?	High Turnover?
Cost Estimators	131051	23.24	159	Substantial	High	Substantial	Substantial	Substantial	Work experience in a related occupation	No	No
Drywall & Ceiling Tile Installers	472081	18.65	138	Low	Low	Low	Low	Moderate	Moderate-term on-the-job training	No	No
Supervisors/Managers of Mechanics, Installers & Repairers	491011	24.11	129	Substantial	Substantial	Substantial	Substantial	Substantial	Work experience in a related occupation	No	No
Pipelayers	472151	19.29	126	Low	Moderate	Low	Low	Moderate	Moderate-term on-the-job training	No	Yes
Sales Representatives, Wholesale & Manufacturing (except technical & scientific products)	414012	26.86	112	Substantial	Substantial	Substantial	Substantial	Substantial	Moderate-term on-the-job training	Yes	No
Laborers & Freight, Stock & Material Movers (hand)	537062	10.90	109	Moderate	Moderate	Moderate	Low	Moderate	Short-term on-the-job training	Yes	Yes

Title	Standard Occupational Code	Median Wage	Employment	Reading Comprehension	Active Listening	Writing	Speaking	Mathematics	Education	High Growth?	High Turnover?
General Maintenance & Repair Workers	499042	15.30	105	Substantial	Substantial	Moderate	Moderate	Moderate	Moderate-term on-the-job training	Yes	No
Welders, Cutters, Solderers, and Brazers	514121	17.94	101	Moderate	Moderate	Low	Moderate	Moderate	Long-term on-the-job training	Yes	No
Tile & Marble Setters	472044	21.62	92	Substantial	Substantial	Substantial	Moderate	Substantial	Long-term on-the-job training	No	No
Paving, Surfacing & Tamping Equipment Operators	472071	13.12	91	Moderate	Substantial	Moderate	Moderate	Moderate	Moderate-term on-the-job training	No	No

Occupations pay above the living wage of \$15.13 per hour.

Sources: Economic Modeling Specialists Inc., U.S. Department of Labor (O*Net) and S.C. Department of Commerce.



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