The background features a central vertical band of bright, multi-colored light rays (yellow, orange, green) that fan out from the center, creating a sense of depth and energy. This central band is flanked by a solid green vertical bar on the right side. The overall composition is clean and modern.

2015

**Occupations with Bright Outlooks in
Tennessee's Job Markets**

**Tennessee Department
of
Labor & Workforce
Development
Labor Market Information
Section**

**Tennessee Department of
Labor and Workforce Development**

Labor Market Information Section

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STEM=Science, Technology, Engineering, and Math

Bright Occupations: Introduction

The purpose of this publication is to provide a snapshot of information on some of the top occupations in demand in Tennessee and its 13 local workforce investment areas. The occupations represent a broad range of industries and skill levels.

The occupations included in the profiles were chosen due to their expected high rates of growth and shortages of skilled workers. All occupations are expected to have positive growth rates (most growing more rapidly than the average for all occupations) and more than 35 average annual openings. To meet industry demand, they are expected to require more program completers. These profiles will give current and future job seekers an idea of some of the most desirable programs in the years to come. These occupations also span the STEM (Science, Technology, Engineering, and Math) disciplines.

As Nashville continues to grow, the need for an expanded workforce becomes even more evident. The recent growth in the construction, healthcare, leisure and hospitality, and computer technology industries is the driving force behind Nashville's burgeoning workforce opportunities. Predictions of Tennessee's growth are favorable, with positive growth expected in all local workforce areas.

Presented are twenty occupations with a bright outlook based on their estimated projections and related supply gaps. Both real time and more standardized data are presented on each occupation, including

- Number of job openings by county for the occupation in a recent time period;
- Number of candidates by county (resumes available in jobs4tn.gov in a recent time period);
- Tools and technology required by employers for current job openings listed;
- Minimum required education levels in recent employer job listings;
- Number of annual average job openings projected by local workforce areas;
- The top industries employing those in the occupation;
- Median annual wages by Metropolitan Statistical Area (MSA);
- Career ladder opportunities- other jobs to which individuals in the occupation have moved.

Finally, a summary of the highlights for each occupation is included based on the data presented.

All the data in the profiles are available on www.jobs4tn.gov; real time data are updated daily. Job seekers and counselors are encouraged to use the web site to locate similar data for jobs of interest.

Several additional tables include the bright occupations projections summary, a related occupations wages comparison, a table of programs of study that are projected to have an excess supply of completers compared to labor market demand, and a list of additional resources.

Notes on Data Sources:

Sources of data for each of the tables are listed below. Real time data for this publication was retrieved from jobs4tn.gov in June, 2015.

Jobs by Area	Number of job openings by county displayed in www.jobs4tn.gov .
Candidates by Area	Number of resumes listed in www.jobs4tn.gov .
Required Tools/ Technologies	Advertised tools and technologies in www.jobs4tn.gov .
Required Education	Education requirements on advertised jobs in www.jobs4tn.gov .
LWIA Openings	Annual average openings due to growth and separation, Tennessee and LWIA Long Term Employment Projections to 2022, Tennessee Department of Labor and Workforce Development, LMI Section.
Top Industries	Industries by employment, Tennessee and LWIA Long Term Employment Projections to 2022, Tennessee Department of Labor and Workforce Development, LMI Section.
Median Annual Wages	BLS Occupational Employment and Wages Survey (OES) 2014, Tennessee Department of Labor and Workforce Development, LMI Section.
Career Ladder Opportunities	Occupations to which individuals in the workforce system have moved in the last five years, www.jobs4tn.gov .

Computer Systems Analysts

Computer systems analysts study an organization's current computer systems and procedures and design information systems solutions to help the organization operate more efficiently and effectively.

Computer systems analysts have a favorable outlook for both the short-term and long-term. Several areas of the state, especially the major metropolitan areas, have fewer candidates than job openings. Computer-based occupations are on the rise due to the constantly evolving nature of the technology industry and how technology enhances business operations. Technologically savvy employees are a necessity for growing businesses and industries. An estimated 350 annual openings are expected with a growth rate of 2.2 percent.

Based on data from jobs4tn in June, approximately 84 percent of offered jobs require an associate's degree or higher. Additionally, the estimated median wage in 2013 was \$75,431. Below is a list of some of the top industries employing this occupation in Tennessee, including computer systems design and management companies.



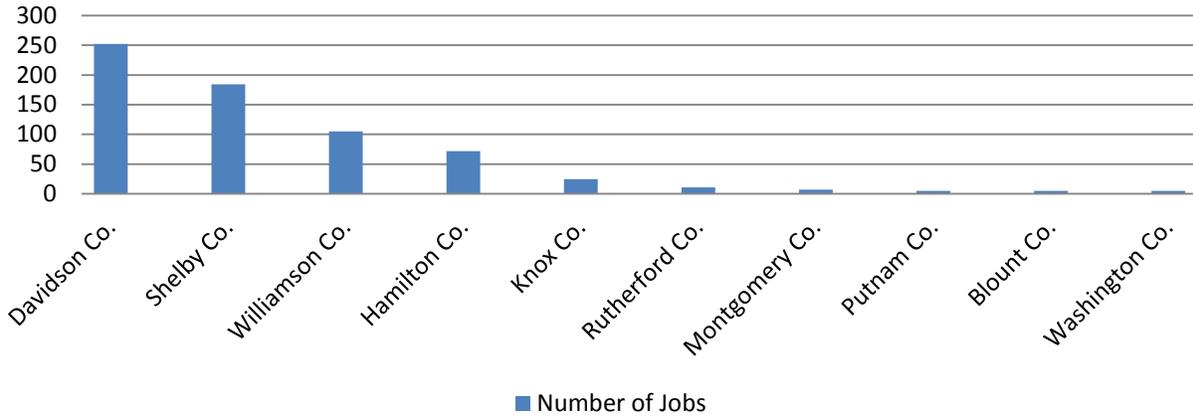
"The other top cities on our growth list all tend to be emerging tech centers. These include No. 8 Nashville, where strong growth in data centers and systems design firms is at least partially tied to its strength in the health sector..."

-Joel Kotkin, "The Valley and the Upstarts: The Cities Creating the Most Tech Jobs." April 14, 2015.

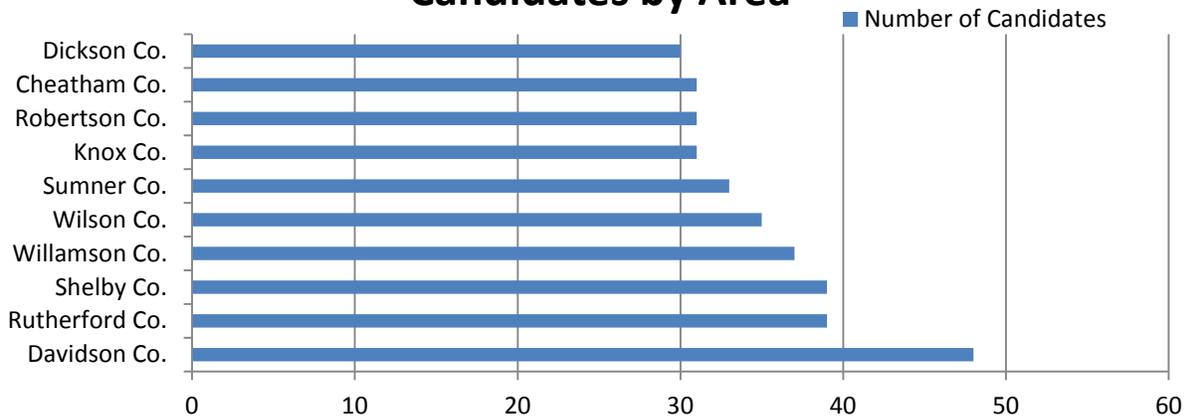
Retrieved on April 27, 2015.

<http://www.forbes.com/sites/joelkotkin/2015/04/14/cities-creating-the-most-tech-jobs-2015/>

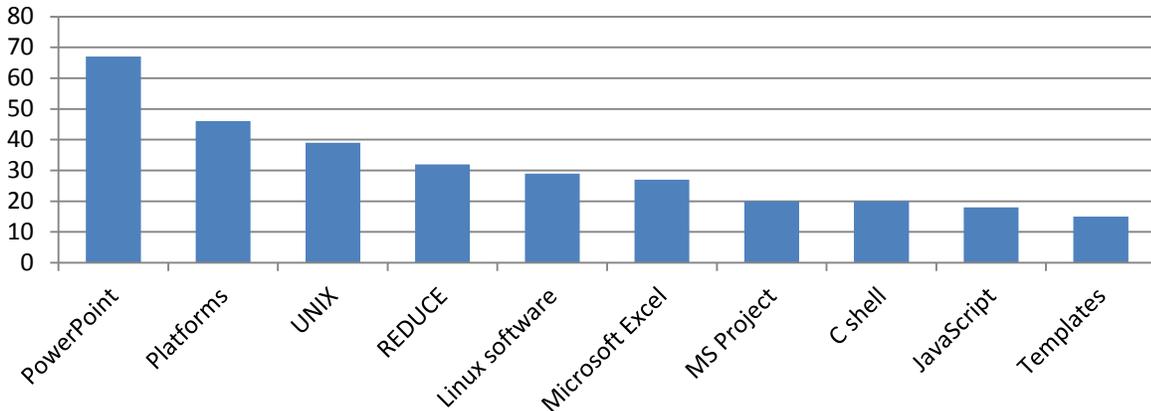
Jobs By Area



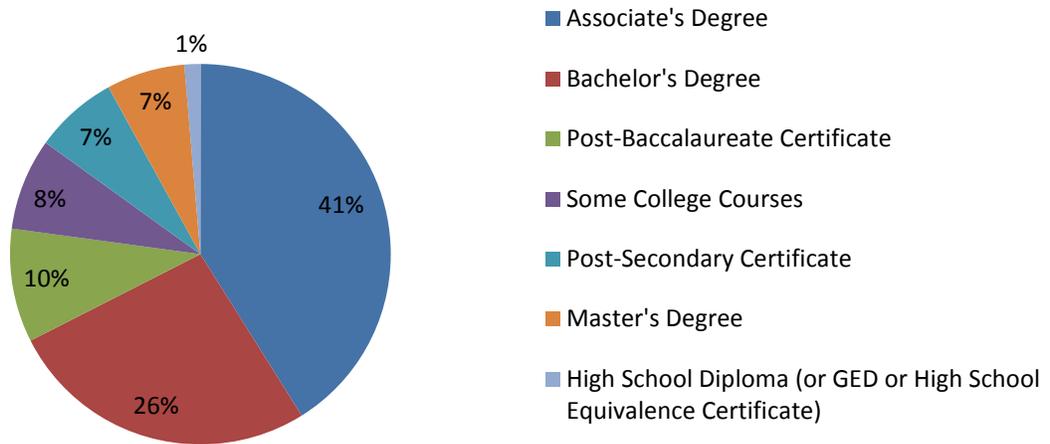
Candidates by Area



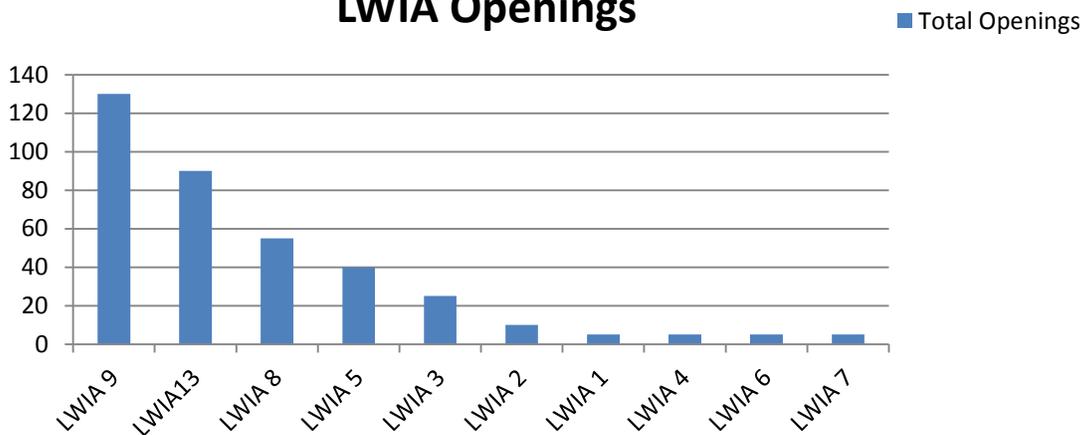
Required Tools/Technologies



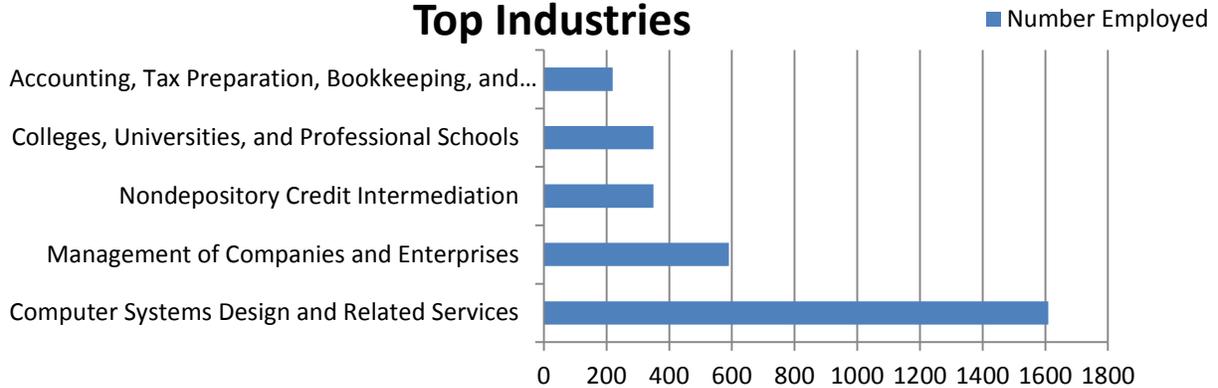
Required Education



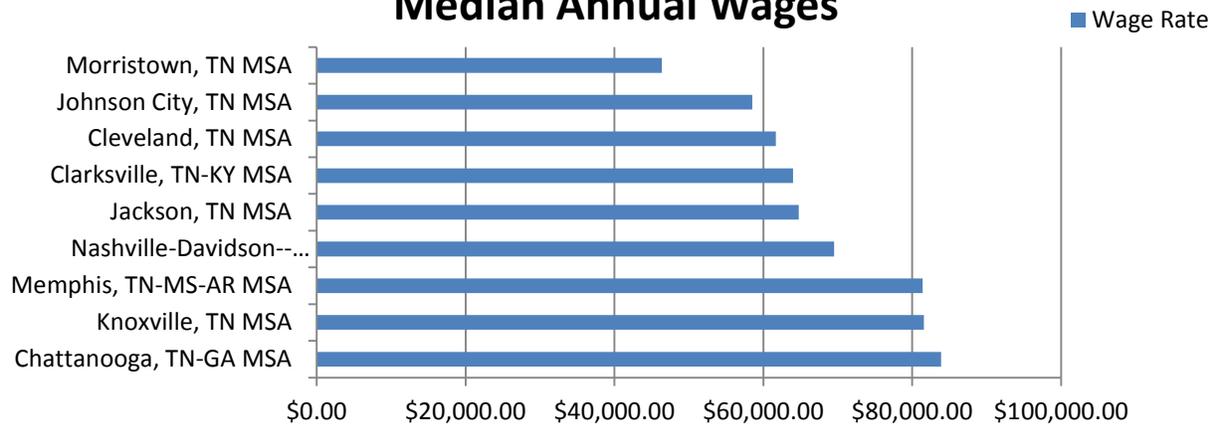
LWIA Openings



Top Industries



Median Annual Wages



Career Ladder Opportunities

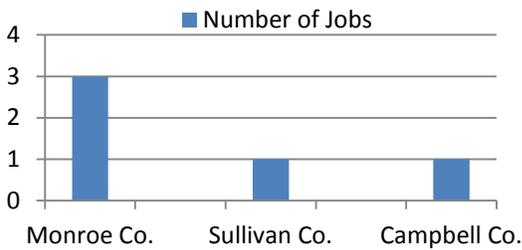
Related Occupations	Number Moved into New Occupation	% Moved
Computer User Support Specialists	728	23.84%
Information Technology Project Managers	477	15.62%
Computer and Information Systems Managers	358	11.72%
Network and Computer Systems Administrators	267	8.74%
Software Developers, Applications	252	8.25%
Computer Occupations, All Other	223	7.30%
Computer Programmers	200	6.55%
Customer Service Representatives	191	6.25%
Computer Systems Engineers/Architects	186	6.09%
Management Analysts	172	5.63%

Fiberglass Laminators and Fabricators:

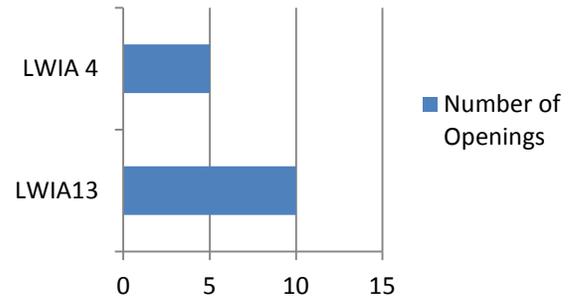
Assemblers and fabricators assemble finished products and the parts that go into them. They use tools, machines, and their hands to make engines, computers, aircraft, ships, boats, toys, electronic devices, control panels, and more. These employees laminate layers of fiberglass on molds to form boat decks and hulls, bodies for golf carts, automobiles, or other products.

Categorized within the precision production and pathway cluster, this occupation is expected to have annual openings of 40 and a healthy 2.5% growth rate. A high school diploma or equivalent is the minimum requirement for available jobs within this occupation. The median salary is \$32,429.

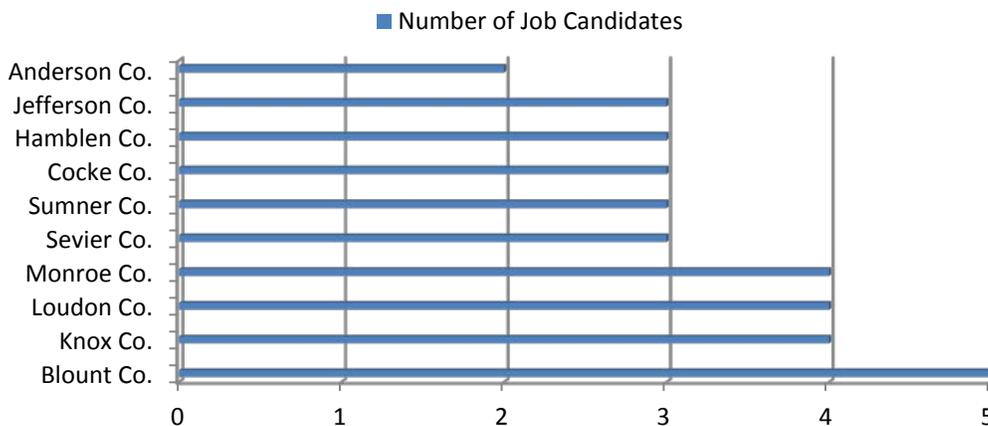
Jobs by Area



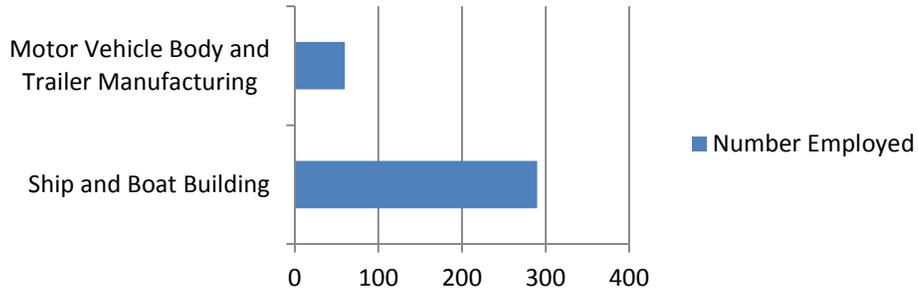
LWIA Openings



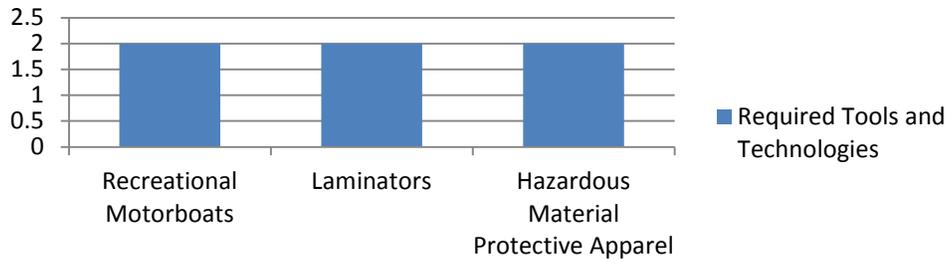
Candidates by Area



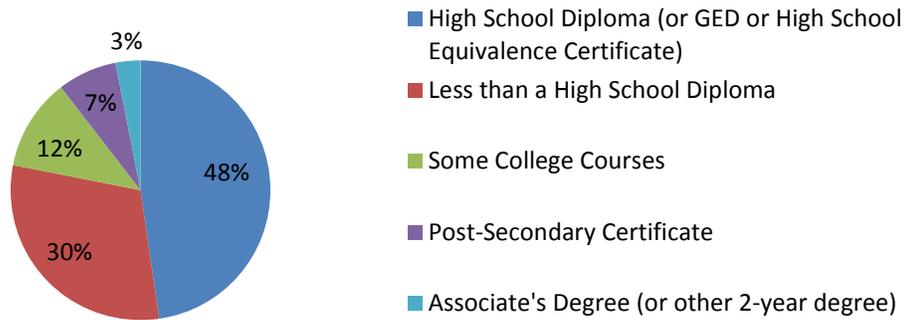
Top Industries



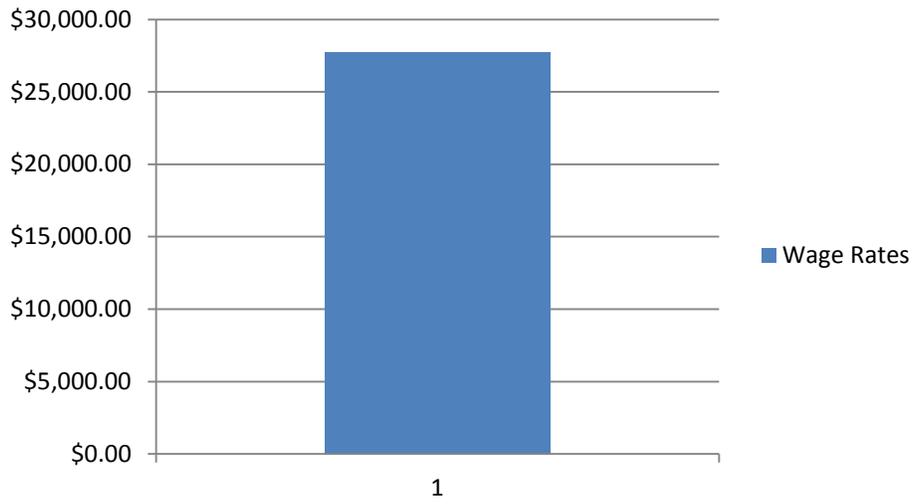
Required Tools/Technologies



Required Education



Median Annual Wage



Career Ladder Opportunities

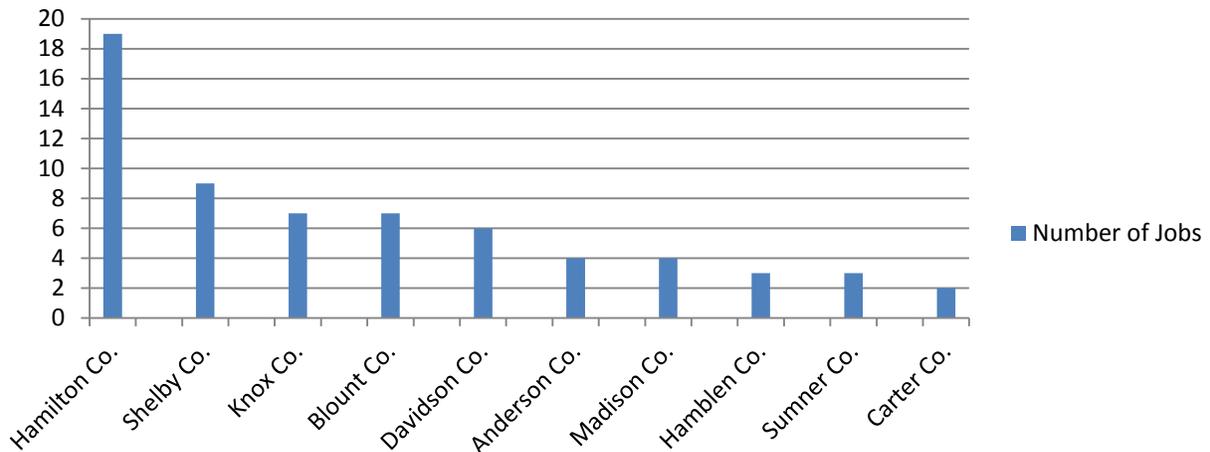
Related Occupations	Number Moved into New Occupation	% Moved
Laborers and Freight, Stock, and Material Movers, Hand	78	18.84%
Production Workers, All Other	55	13.29%
Construction Laborers	48	11.59%
Assemblers and Fabricators, All Other	42	10.14%
Helpers--Production Workers	37	8.94%
Maintenance and Repair Workers, General	34	8.21%
Landscaping and Groundskeeping Workers	32	7.73%
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	31	7.49%
Welders, Cutters, and Welder Fitters	30	7.25%
Team Assemblers	27	6.52%

Computer-Controlled Machine Tool Operators, Metal and Plastic

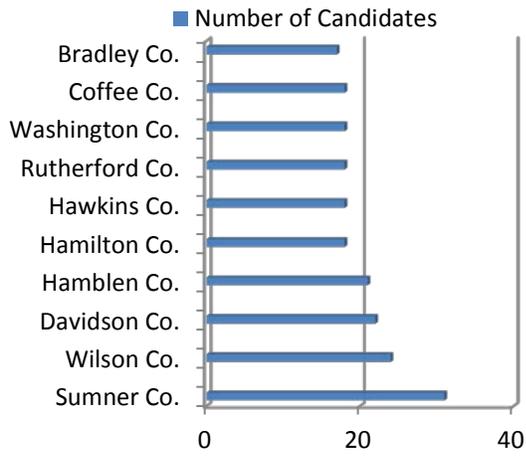
Metal and plastic machine workers set up and operate machines that cut, shape, and form metal and plastic materials or pieces. They operate computer-controlled machines or robots to perform one or more machine functions on metal or plastic work pieces.

Included within the precision production pathway, this occupation is expected to have 160 annual average openings and a growth rate of 2.8 percent. Based on currently available jobs, nearly sixty percent of them require some type of post- high school education, from post-secondary certificates up to and including bachelor's degrees. The median salary for this occupation is estimated as \$33,104 statewide; however, in the Nashville-Davidson-Murfreesboro metropolitan area, median salaries offered by employers were more than \$50,000. Top industries hiring these precision workers included motor vehicle and parts and plastic products manufacturers.

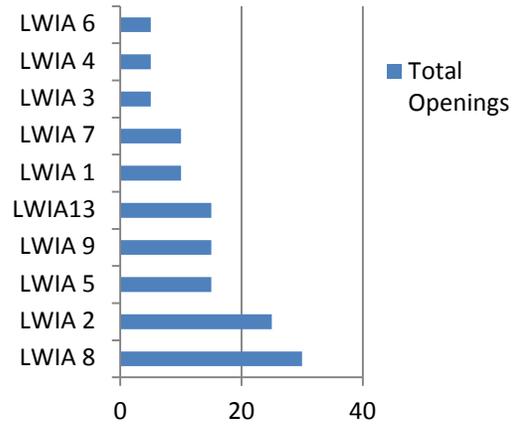
Jobs by Area



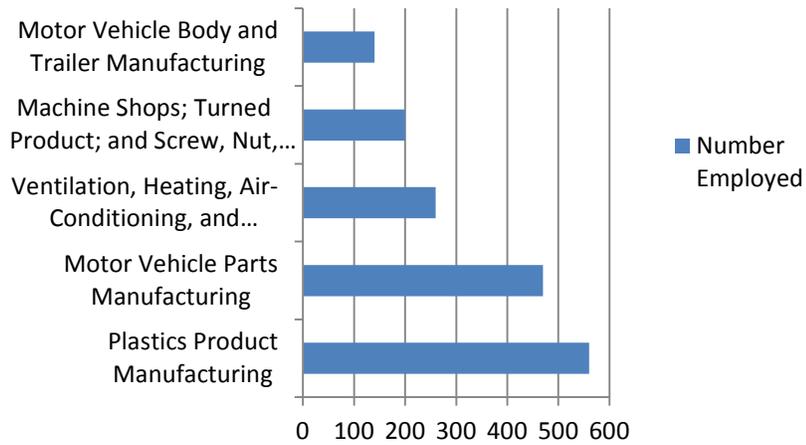
Candidates by Area



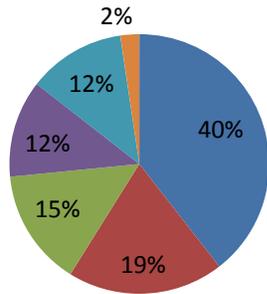
LWIA Openings



Top Industries

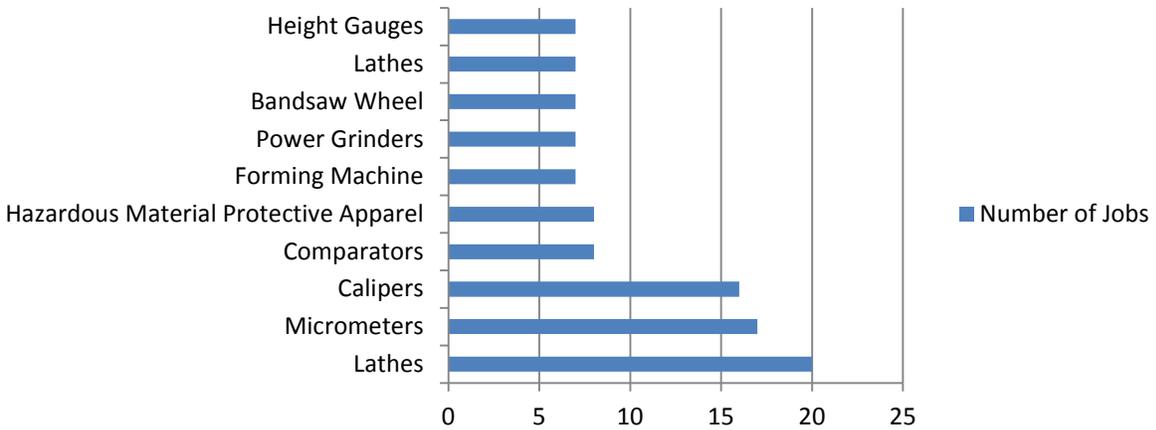


Required Education

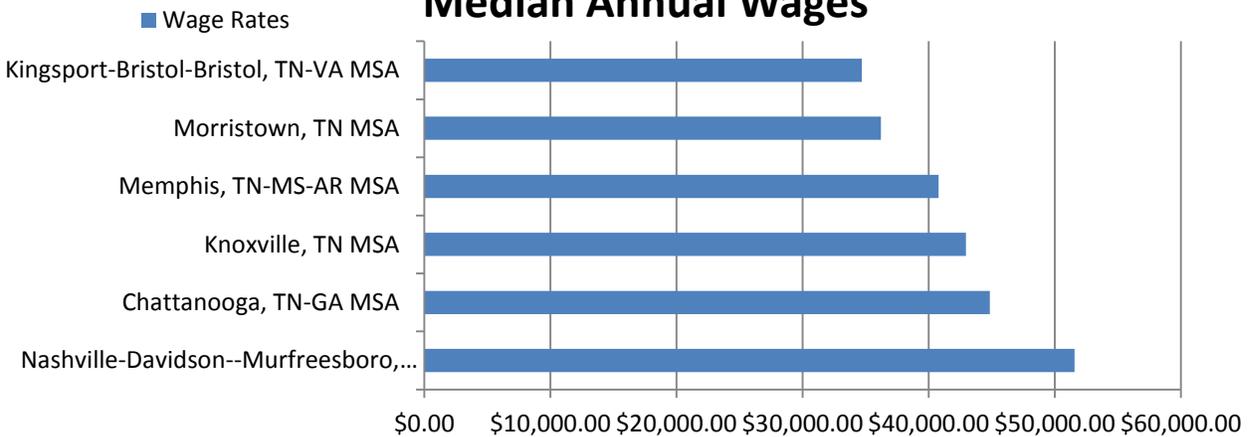


- High School Diploma (or GED or High School Equivalence Certificate)
- Post-Secondary Certificate
- Some College Courses
- Associate's Degree (or other 2-year degree)
- Bachelor's Degree
- Less than a High School Diploma

Tool and Technology Requirements



Median Annual Wages



Career Ladder Opportunities

Related Occupations	Number Moved into New Occupation	% Moved
Machinists	461	25.29%
Production Workers, All Other	229	12.56%
Laborers and Freight, Stock, and Material Movers, Hand	214	11.74%
Helpers--Production Workers	160	8.78%
Assemblers and Fabricators, All Other	148	8.12%
Milling and Planning Machine Setters, Operators, and Tenders, Metal and Plastic	139	7.62%
Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	135	7.41%
Inspectors, Testers, Sorters, Samplers, and Weighers	125	6.86%
Team Assemblers	107	5.87%
Heavy and Tractor-Trailer Truck Drivers	105	5.76%

Painters, Transportation Equipment

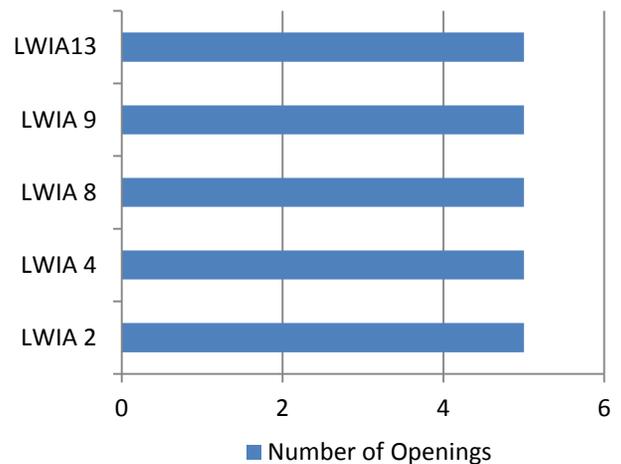
Painting and coating workers paint and coat a wide range of products, including cars, jewelry, and ceramics.

An occupation within the precision pathway cluster, it is projected to have annual openings of 40 and a 2.2 percent growth rate. Educational requirements for three out of four jobs are a high school education or less; the remainder of employers prefer a post-secondary certificate. The median wage for this occupation is \$34,974. The top employing industries are in motor vehicle body and parts manufacturing, industries with significant growth in the state.

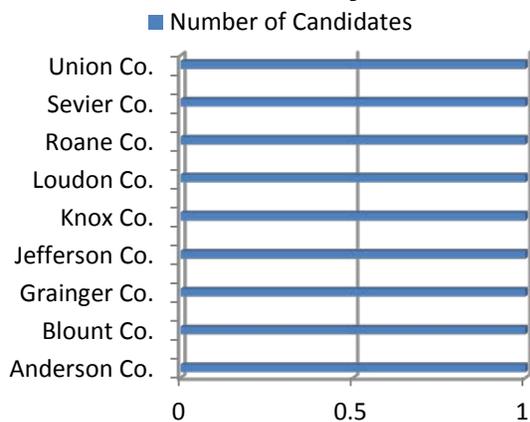
Jobs by Area



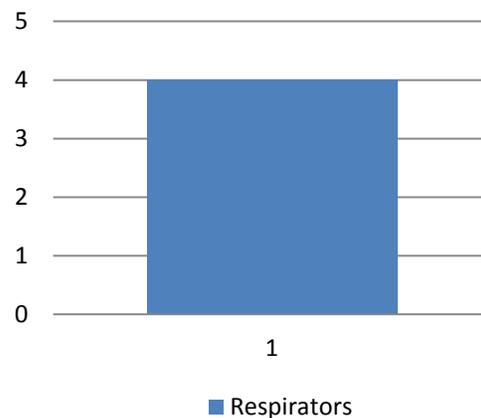
LWIA Openings



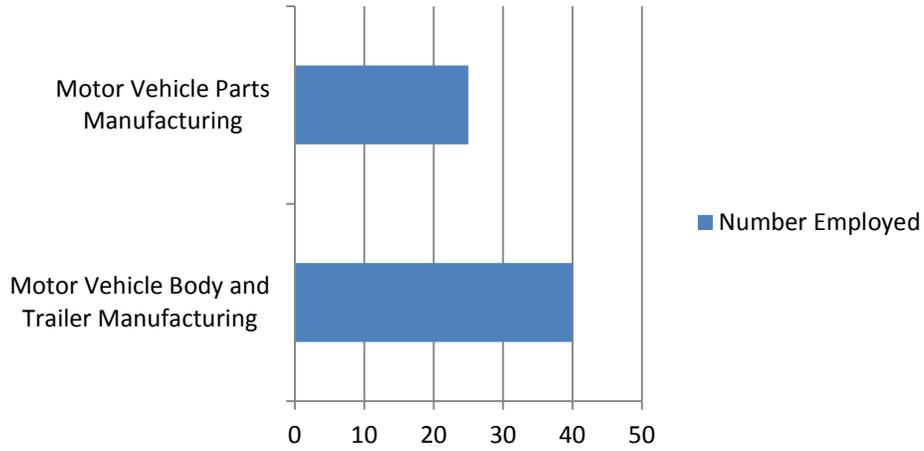
Candidates by Area



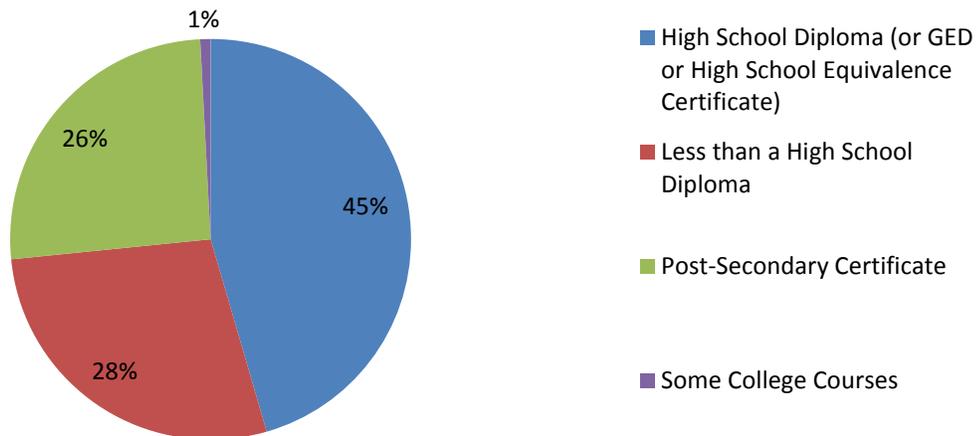
Required Technology



Top Industries



Required Education



Median Annual Wages



Career Ladder Opportunities

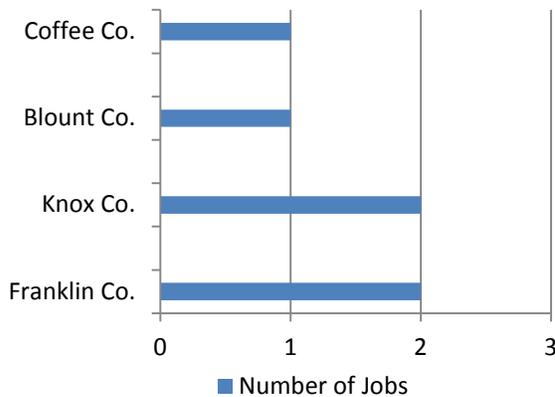
Related Occupations	Number Moved into New Occupation	% Moved
Automotive Body and Related Repairers	128	20.48%
Painters, Construction and Maintenance	100	16.00%
Laborers and Freight, Stock, and Material Movers, Hand	85	13.60%
Construction Laborers	66	10.56%
Helpers--Production Workers	51	8.16%
Production Workers, All Other	51	8.16%
Maintenance and Repair Workers, General	42	6.72%
Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	35	5.60%
Heavy and Tractor-Trailer Truck Drivers	34	5.44%
Painting, Coating, and Decorating Workers	33	5.28%

Medical Equipment Repairers

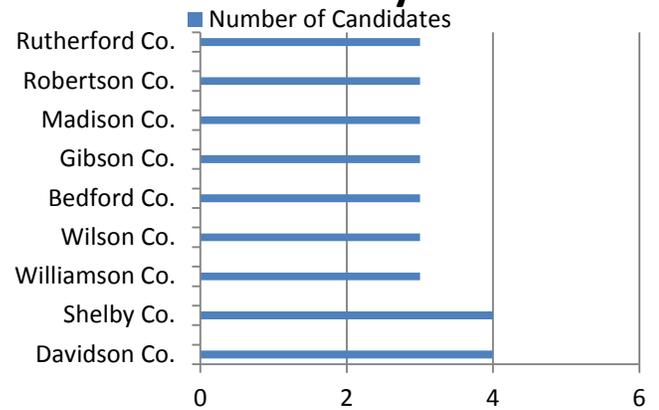
Medical equipment repairers install, maintain, and repair patient care equipment.

This occupation, within the operations and maintenance cluster, is expected to have annual openings of 60 and a growth rate of 2.9 percent. The median salary for this occupation is \$40,254. Nearly half of employers required job candidates to have a post-secondary certificate, associate's degree, or some college courses; however, one out of three would accept a high school degree. The largest employers are wholesalers of professional and commercial equipment, including medical equipment.

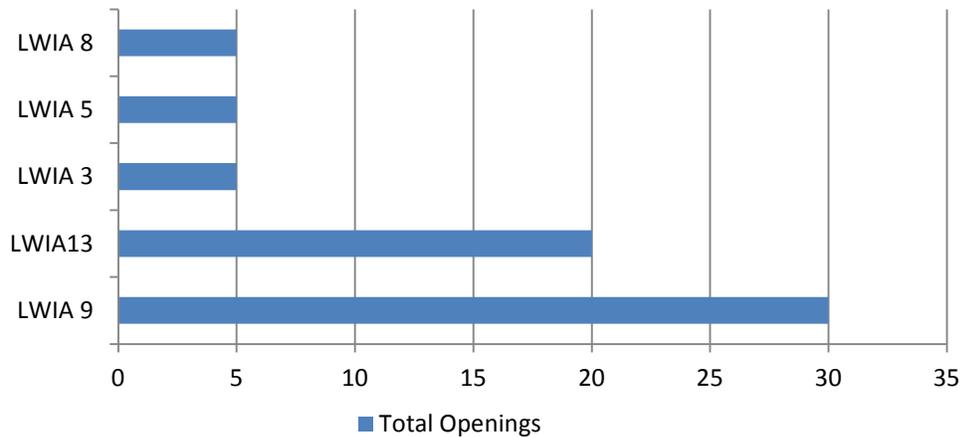
Jobs by Area



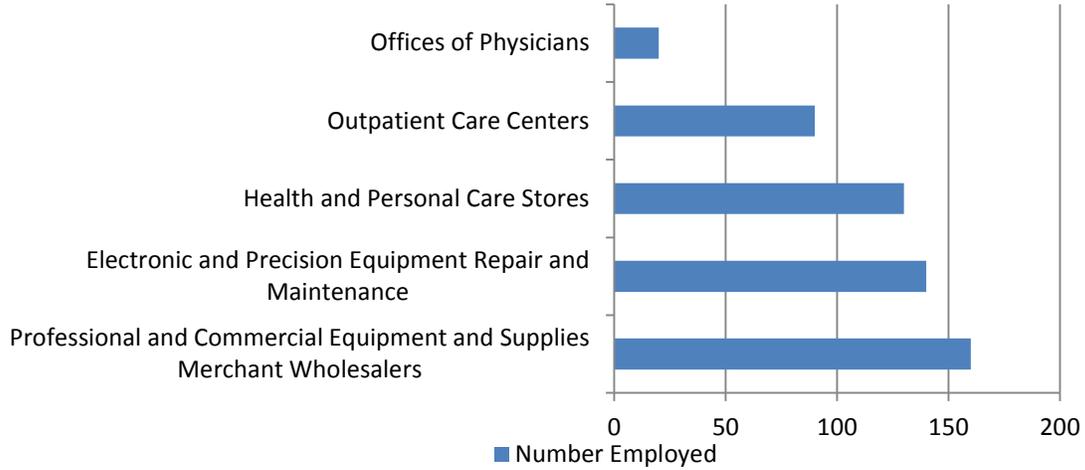
Candidates by Area



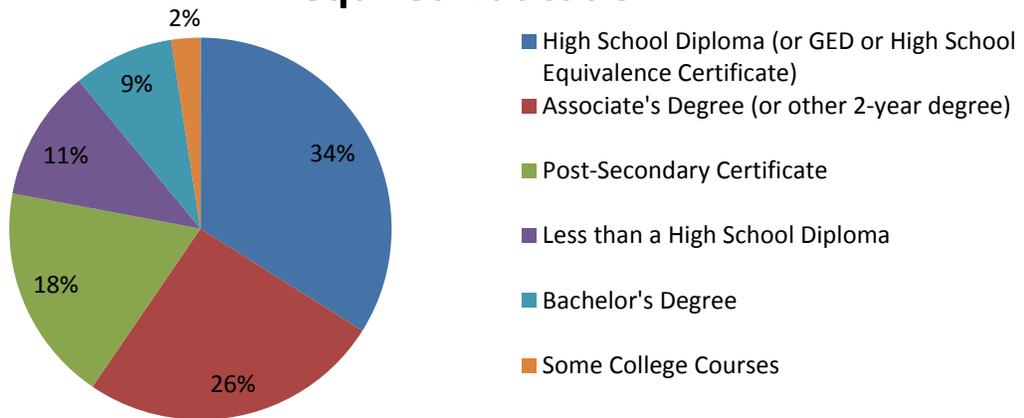
LWIA Openings



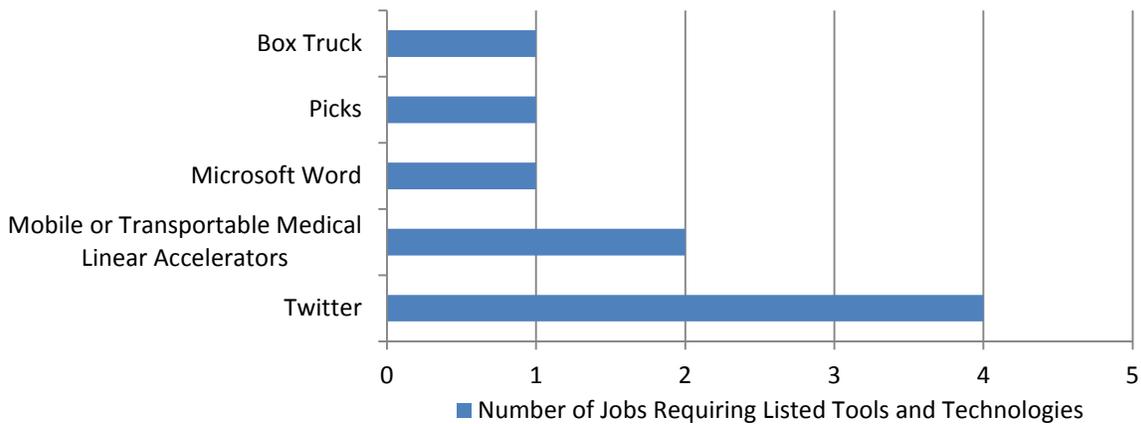
Top Industries



Required Education



Required Tools and Technologies



Median Annual Salary



Career Ladder Opportunities

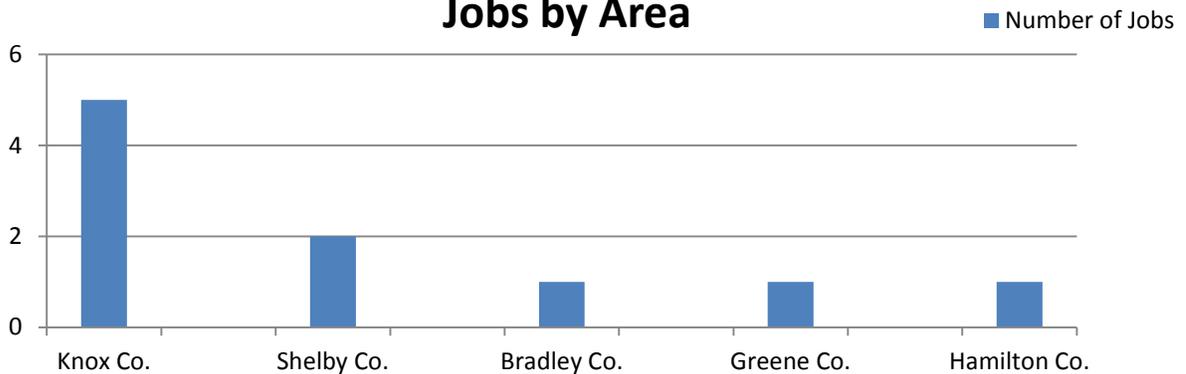
Related Occupations	Number Moved into New Occupation	% Moved
Customer Service Representatives	20	15.15%
Electrical and Electronics Repairers, Commercial and Industrial Equipment	19	14.39%
Biomedical Engineers	15	11.36%
Computer User Support Specialists	13	9.85%
Maintenance and Repair Workers, General	12	9.09%
Medical Equipment Preparers	11	8.33%
Driver/Sales Workers	10	7.58%
Heavy and Tractor-Trailer Truck Drivers	10	7.58%
Inspectors, Testers, Sorters, Samplers, and Weighers	10	7.58%

Brickmasons and Blockmasons

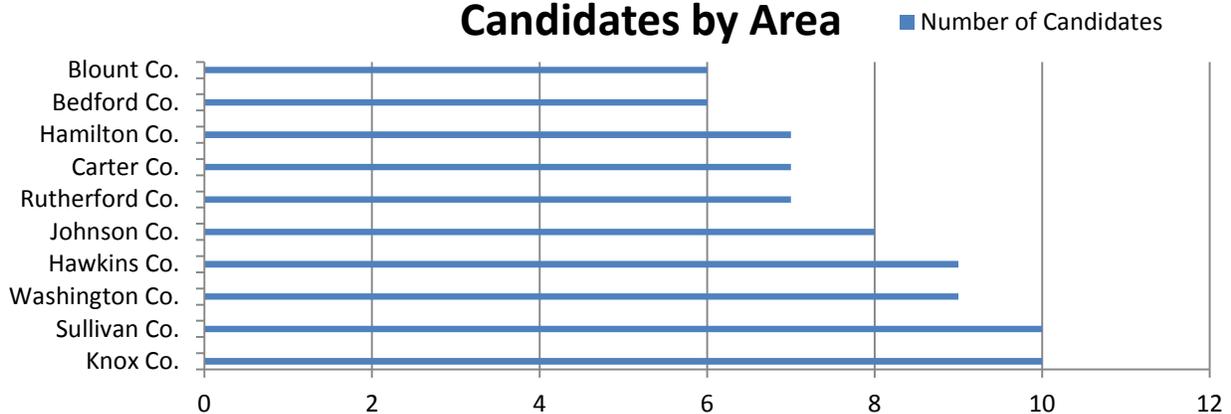
Brickmasons, blockmasons, and stonemasons (or, simply, masons) use bricks, concrete blocks, and natural and man-made stones to build fences, walkways, walls, and other structures.

The construction industry in Tennessee, especially Nashville, is booming in the wake of the recent recession, increasing the need for construction workers. Brickmasons and blockmasons are expected to have 40 average annual openings and a growth rate of 3.1 percent. Nearly six in ten jobs posted required less than a high school diploma or equivalent, although the number posted was low. The median salary for the occupation is estimated as \$ 42,440.

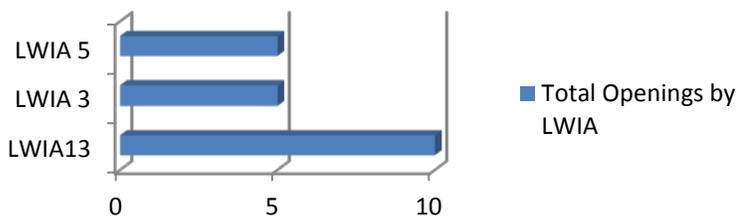
Jobs by Area



Candidates by Area

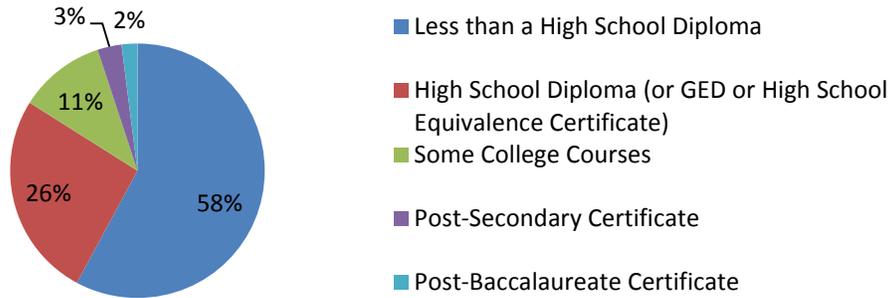


LWIA Openings

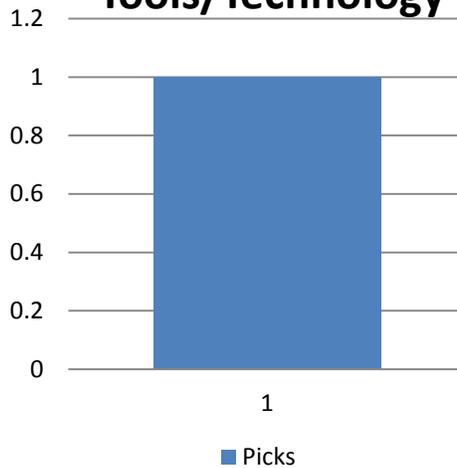


NO TOP INDUSTRIES DATA

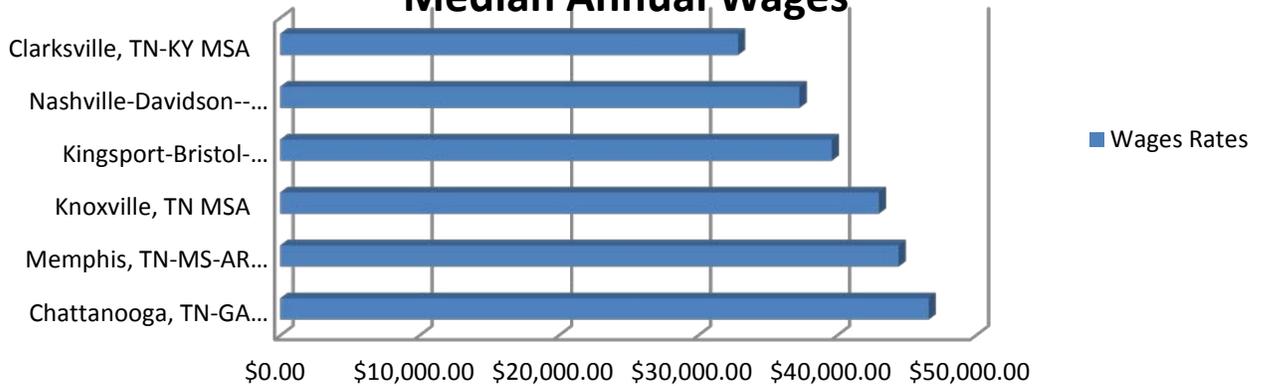
Required Education



Required Tools/Technology



Median Annual Wages



Career Ladder Opportunities

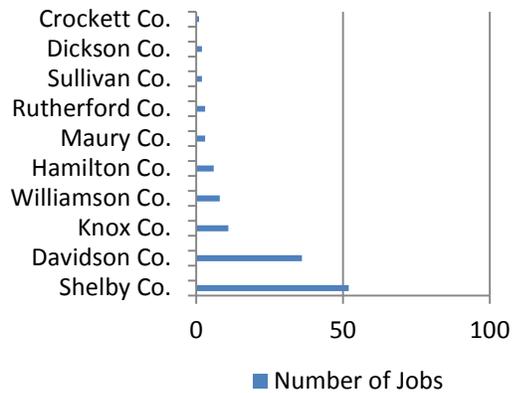
Related Occupations	Number Moved into New Occupation	% Moved
Construction Laborers	214	23.99%
Laborers and Freight, Stock, and Material Movers, Hand	133	14.91%
Landscaping and Groundskeeping Workers	83	9.30%
Heavy and Tractor-Trailer Truck Drivers	72	8.07%
Maintenance and Repair Workers, General	71	7.96%
Production Workers, All Other	69	7.74%
Helpers--Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters	66	7.40%
Cement Masons and Concrete Finishers	63	7.06%
Helpers--Production Workers	62	6.95%
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	59	6.61%

Market Research Analysts & Marketing Specialists

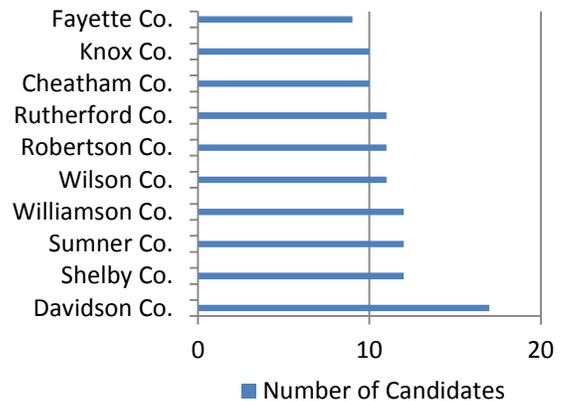
Market research analysts study market conditions to examine potential sales of a product or service. They help companies understand what products people want, who will buy them, and at what price.

The banking and finance cluster is another area experiencing a current shortage of program completers. Recent data showed Shelby County with just over ten job candidates compared to more than 50 job openings. The occupation of market research analysts and marketing specialists is projected to have annual openings of 280 and a growth rate of 3.2 percent. A bachelor's degree was the level of education required by most employers; one in five required a master's degree. The median wage for this occupation is \$49,737. More than half later move into management.

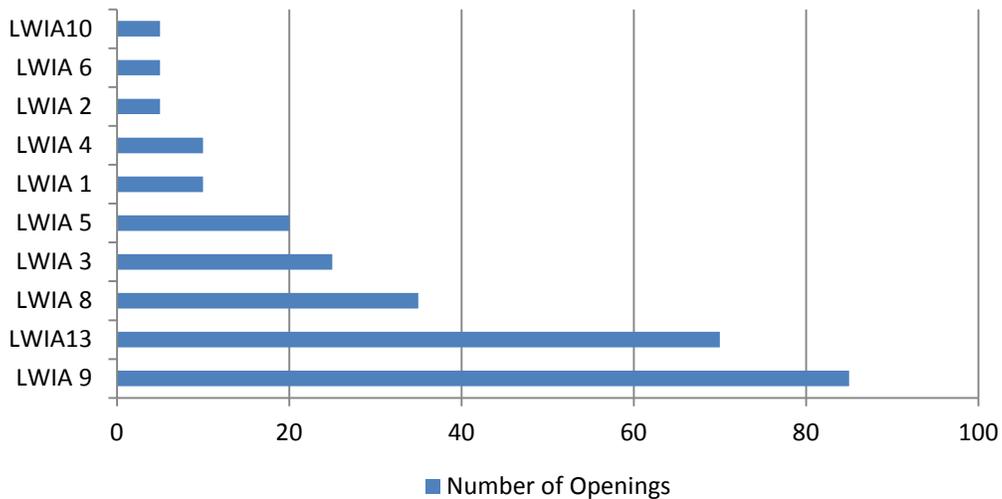
Jobs by Area



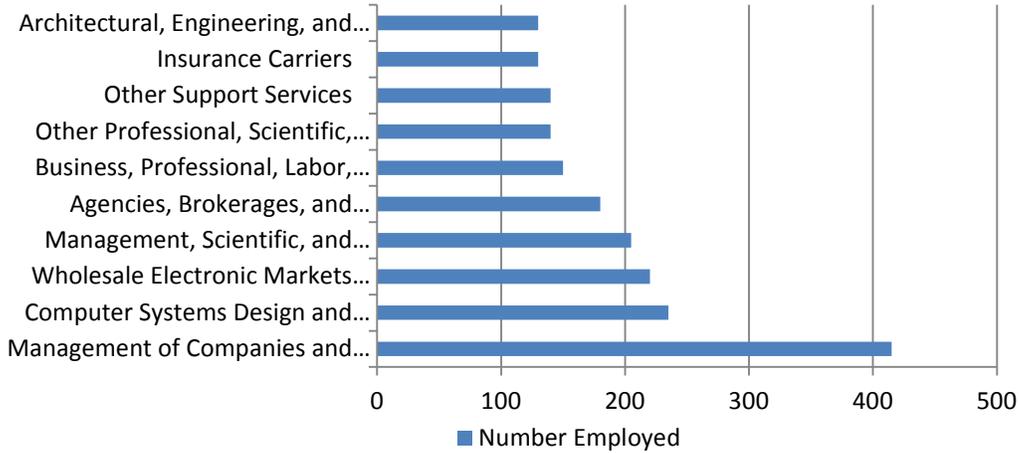
Candidates by Area



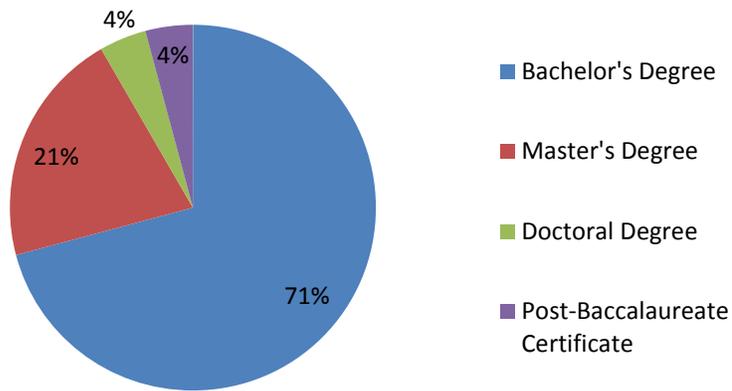
LWIA Openings



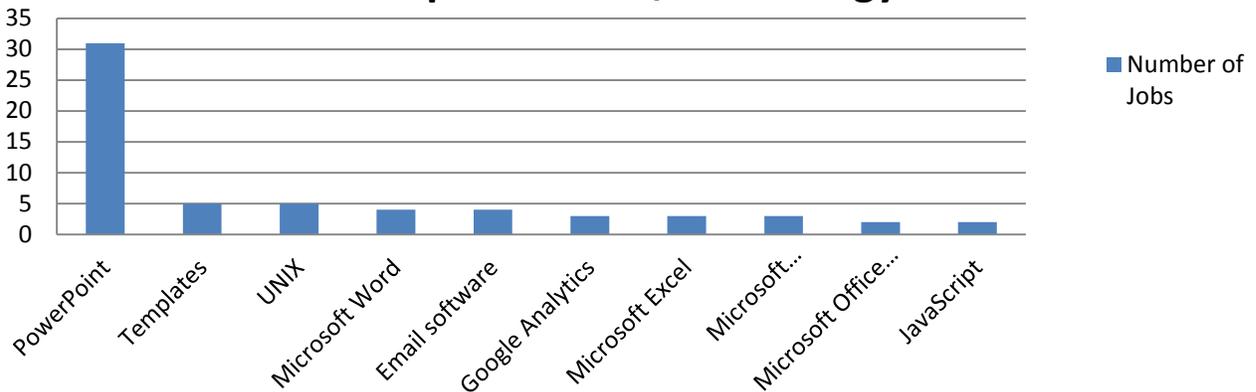
Top Industries

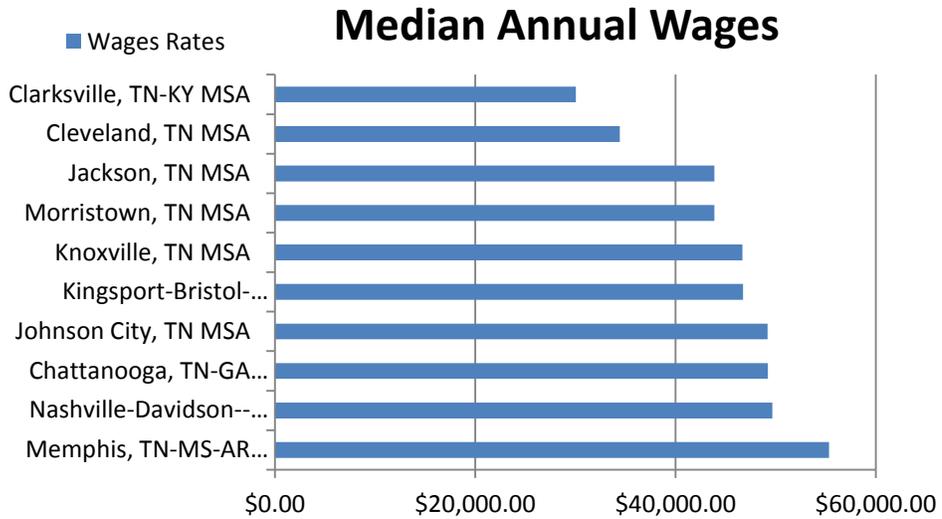


Required Education



Required Tools/Technology





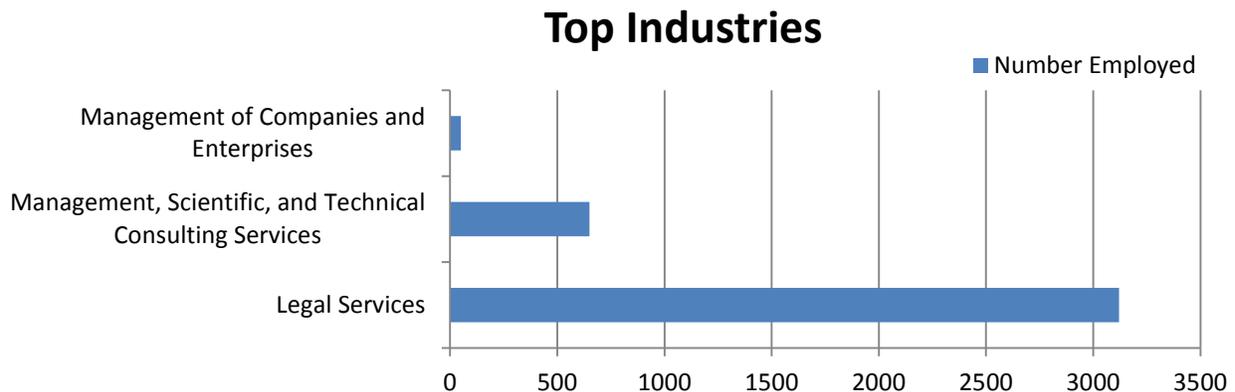
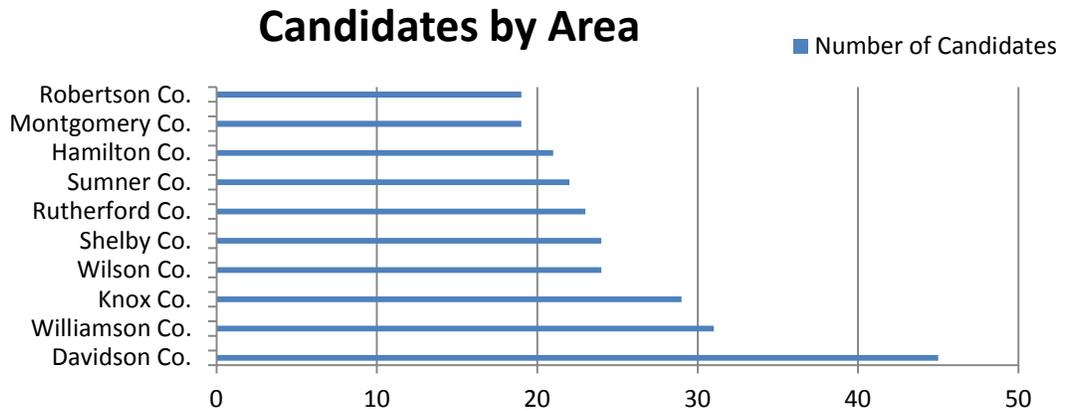
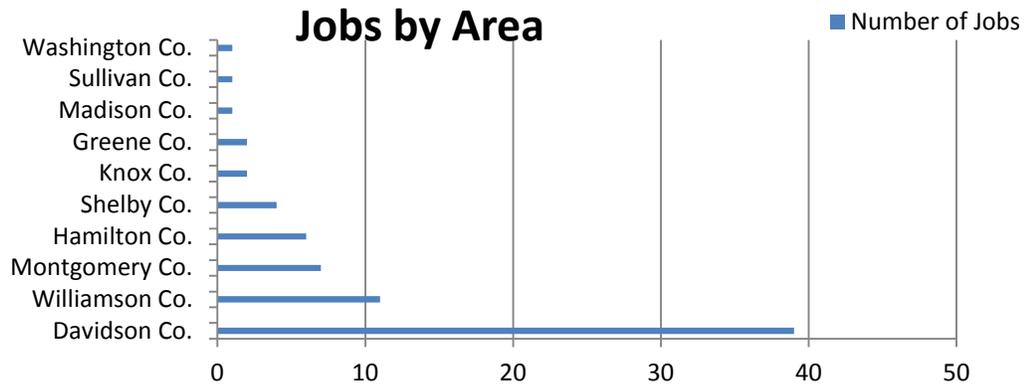
Career Ladder Opportunities

Related Occupations	Number Moved into New Occupation	% Moved
Marketing Managers Green Occupation	690	32.09%
Customer Service Representatives	316	14.70%
Sales Representatives, Services, All Other	210	9.77%
Managers, All Other	165	7.67%
Administrative Services Managers	153	7.12%
Executive Secretaries and Executive Administrative Assistants	149	6.93%
Sales Managers	143	6.65%
Retail Salespersons	139	6.47%
Management Analysts	98	4.56%
General and Operations Managers	87	4.05%

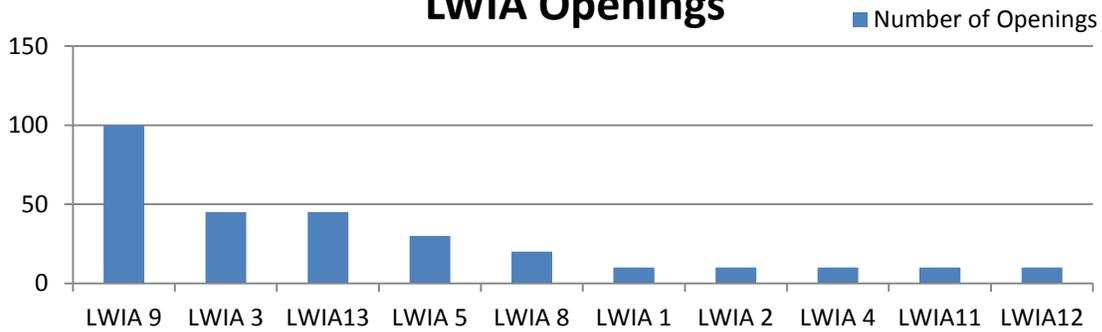
Paralegals and Legal Assistants

Paralegals and legal assistants do a variety of tasks to support lawyers, including maintaining and organizing files, conducting legal research, and drafting documents.

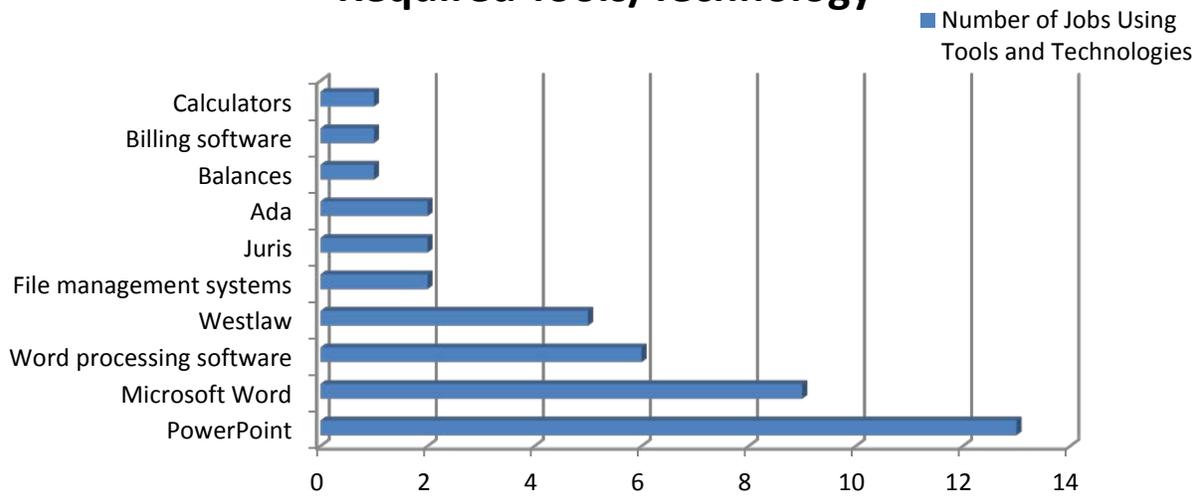
This occupation is expected to grow faster than most occupations through 2022. Expected annual average openings are 310, with a growth rate of 4.1 percent forecast. The median salary is \$42,807. 44 percent of jobs required a bachelor's degree and 29 percent an associate's degree. Almost 1 in 10 became lawyers.



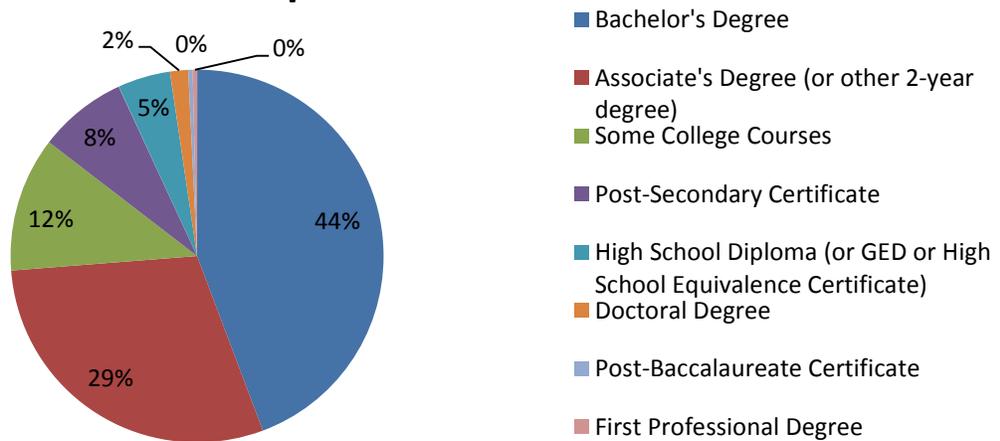
LWIA Openings



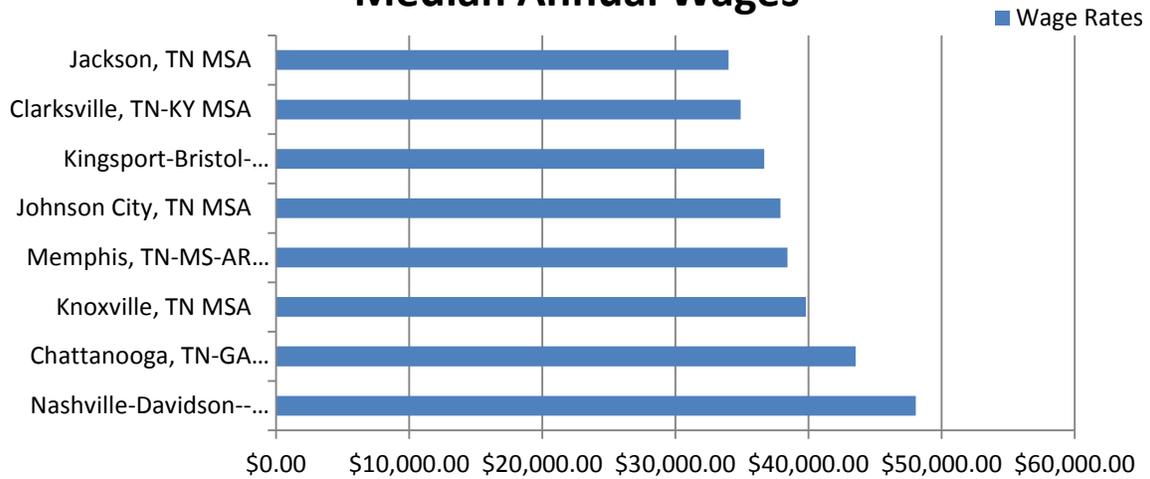
Required Tools/Technology



Required Education



Median Annual Wages



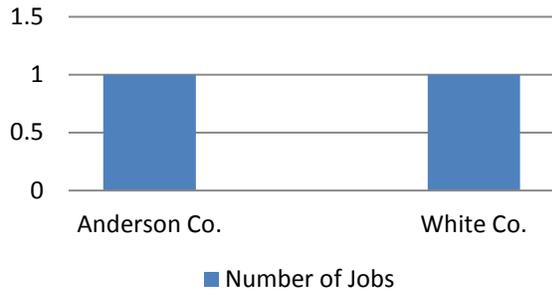
Career Ladder Opportunities

Related Occupations	Number Moved into New Occupation	% Moved
Legal Secretaries	581	18.37%
Executive Secretaries and Executive Administrative Assistants	417	13.18%
Customer Service Representatives	406	12.84%
Legal Support Workers, All Other	363	11.48%
Lawyers	289	9.14%
Administrative Services Managers	259	8.19%
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	257	8.13%
Office Clerks, General	225	7.11%
Office and Administrative Support Workers, All Other	190	6.01%
Receptionists and Information Clerks	176	5.56%

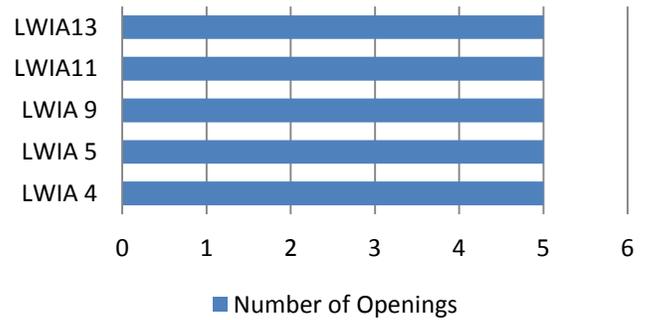
Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic

These employees develop programs to control machining or processing of metal or plastic parts by automatic machine tools, equipment, or systems. The precision production occupation is projected to have annual openings of 40 and a growth rate of 4.2 percent. The median wage for the occupation is \$41,980.

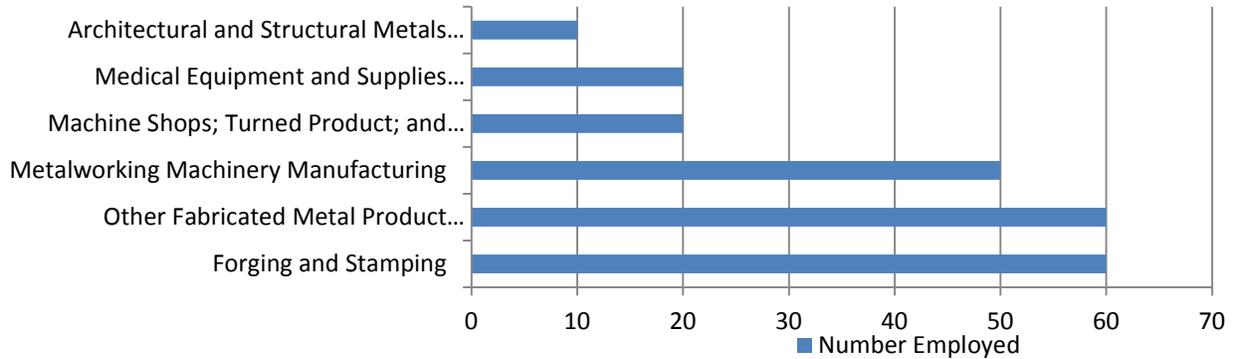
Jobs by Area



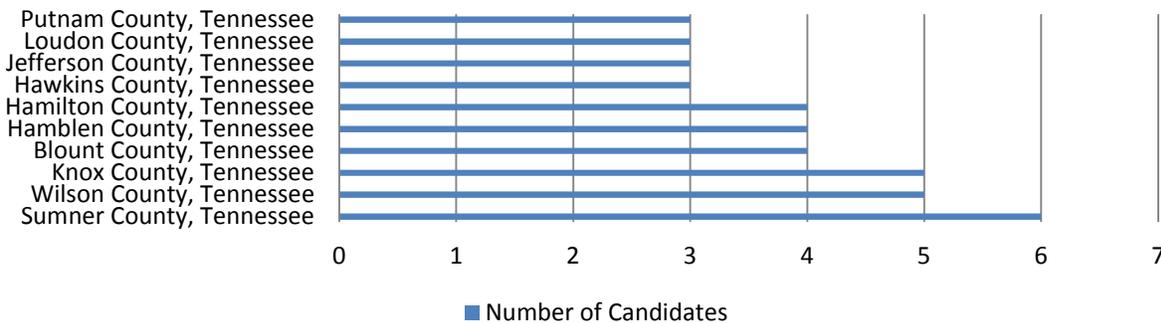
LWIA Openings



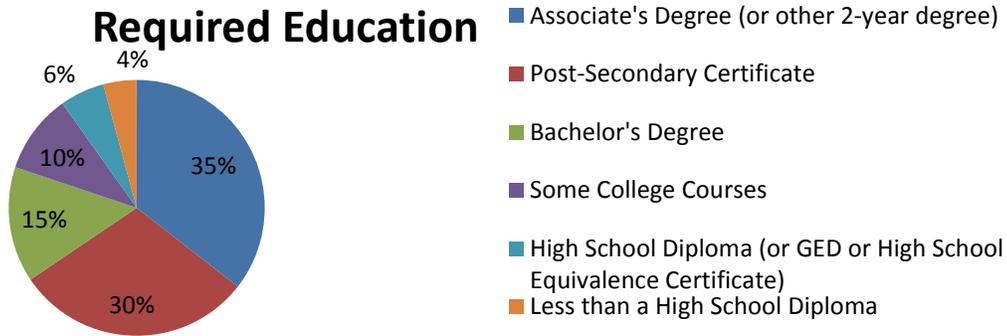
Top Industries



Candidates by Area



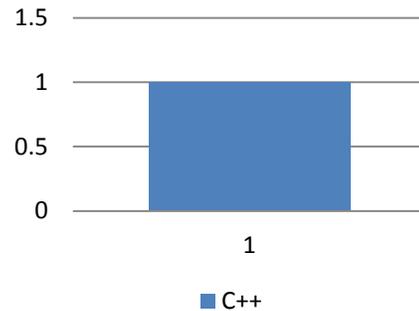
Required Education



Median Annual Wages



Required Tools/Technology

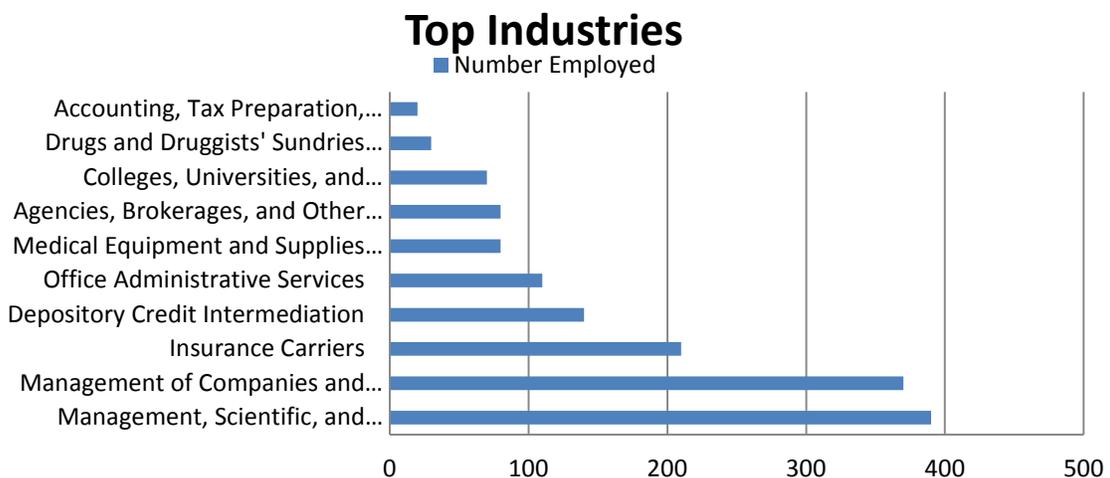
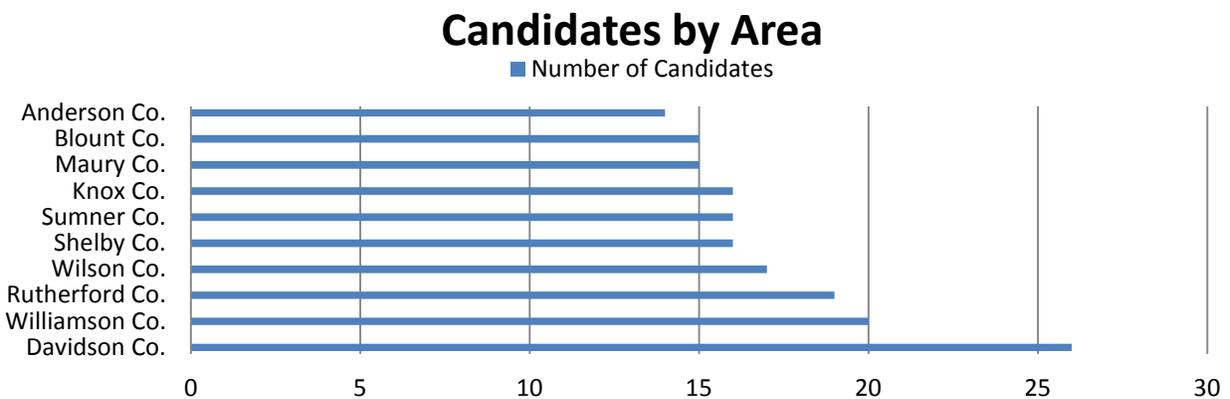
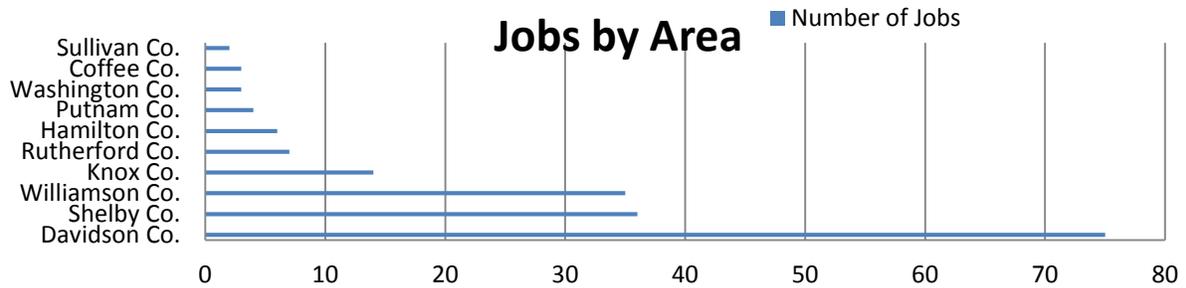


Career Ladder Opportunities

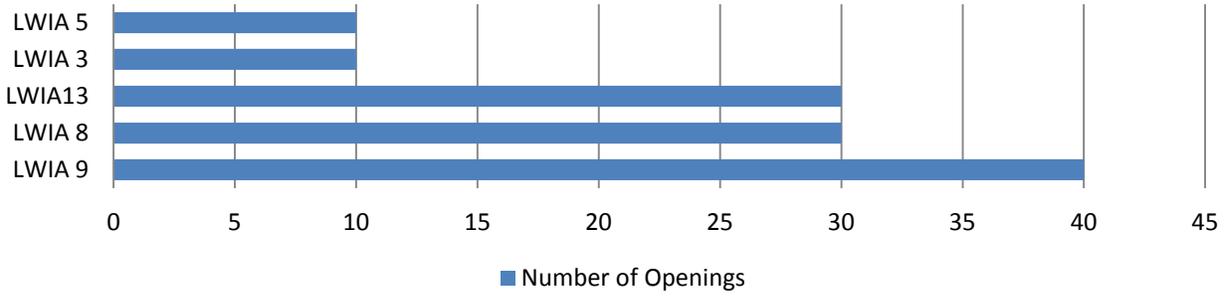
Related Occupations	Number Moved into New Occupation	% Moved
Machinists	72	31.86%
Computer-Controlled Machine Tool Operators, Metal and Plastic	71	31.42%
Milling and Planning Machine Setters, Operators, and Tenders, Metal and Plastic	17	7.52%
Production Workers, All Other	13	5.75%
Inspectors, Testers, Sorters, Samplers, and Weighers	11	4.87%
Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	9	3.98%
Tool and Die Makers	9	3.98%
Laborers and Freight, Stock, and Material Movers, Hand	9	3.98%
Manufacturing Engineers	8	3.54%
First-Line Supervisors of Production and Operating Workers	7	3.10%

Financial Analysts

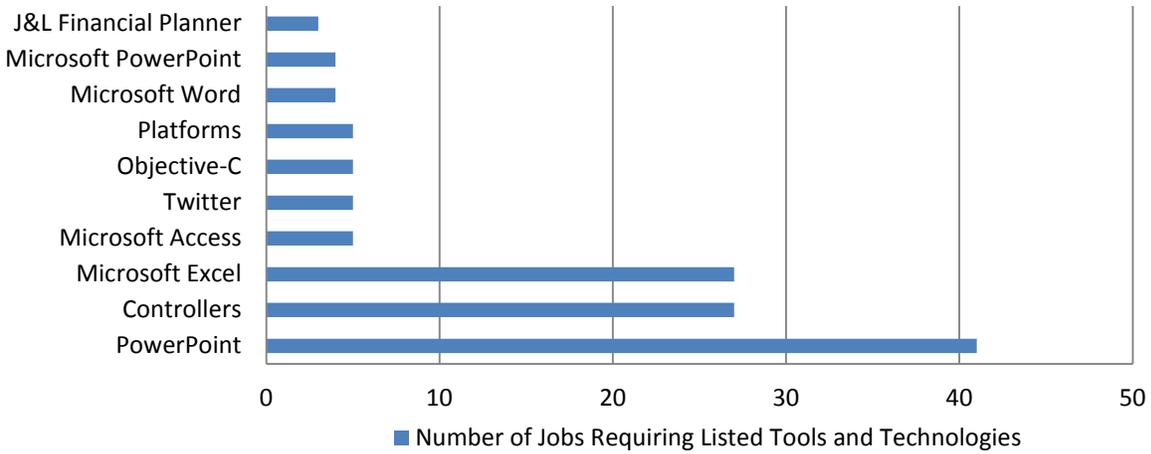
Financial analysts provide guidance to businesses and individuals making investment decisions. They assess the performance of stocks, bonds, and other types of investments. Financial analysts, a banking and finance occupation, is expected to have annual openings of 120 and a growth rate of 2.3 percent. The median wage for this occupation is \$69,955.



LWIA Openings

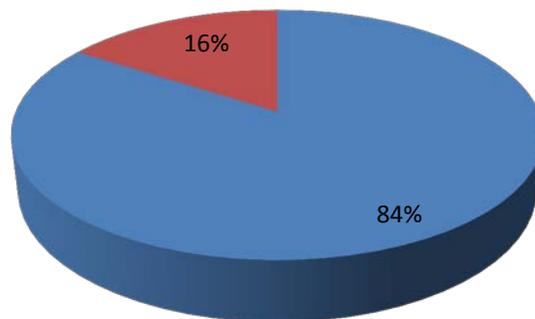


Required Tools/Technology

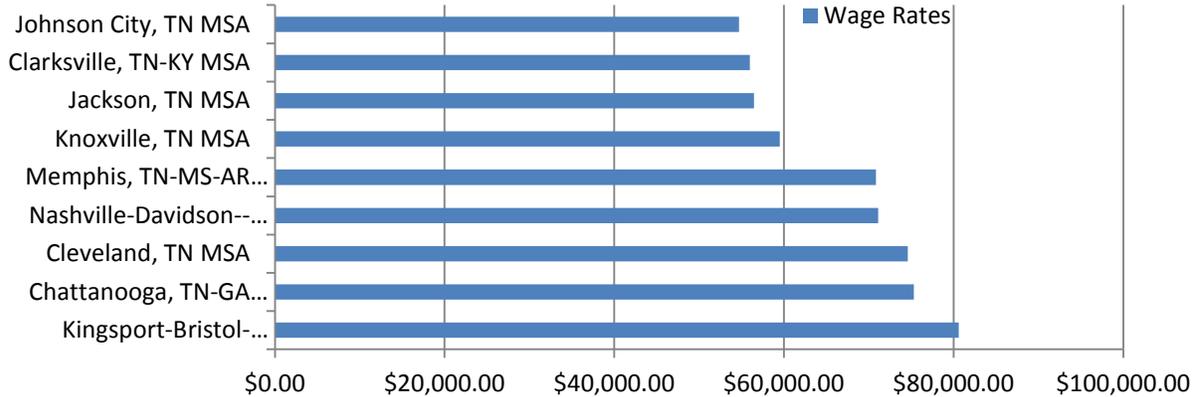


Required Education

■ Bachelor's Degree ■ Master's Degree



Median Annual Wages



Career Ladder Opportunities

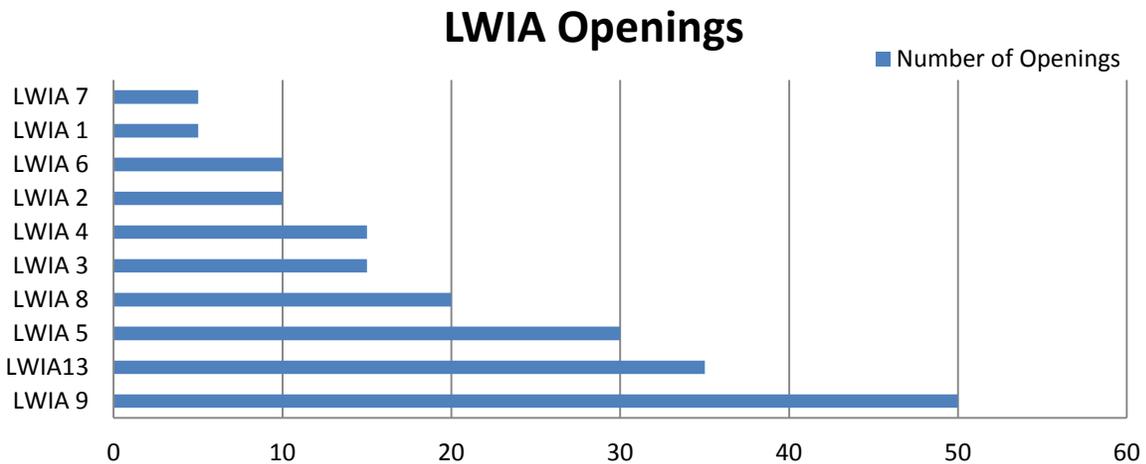
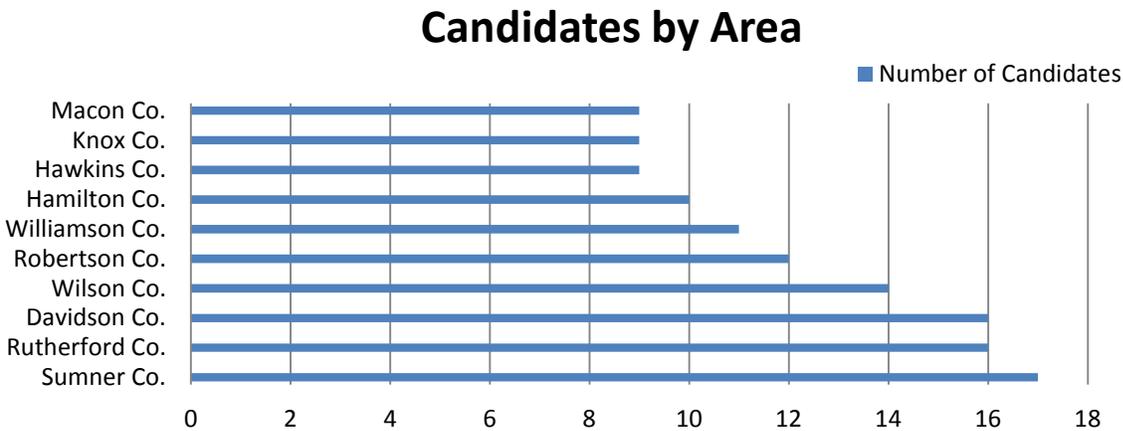
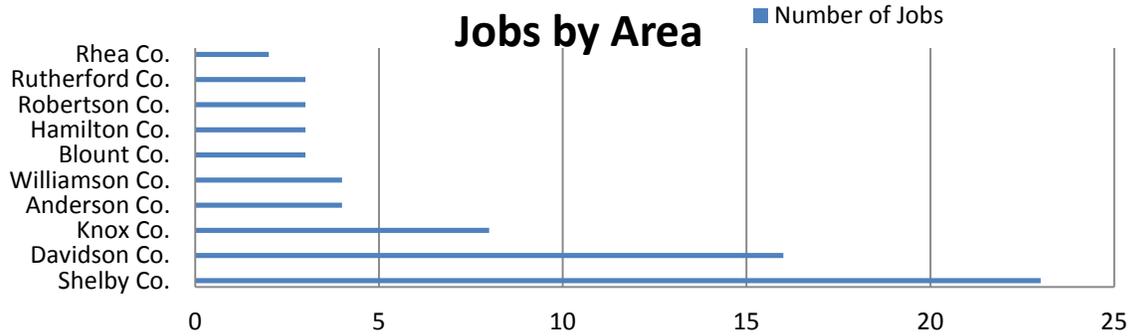
Related Occupations	Number Moved into New Occupation	% Moved
Accountants	641	31.47%
Customer Service Representatives	233	11.44%
Financial Managers, Branch or Department	217	10.65%
Financial Specialists, All Other	178	8.74%
Management Analysts	166	8.15%
Bookkeeping, Accounting, and Auditing Clerks	159	7.81%
Managers, All Other	145	7.12%
Administrative Services Managers	115	5.65%
Treasurers and Controllers	98	4.81%
General and Operations Managers	85	4.17%

More than 250 health care companies have operations in Nashville and work on a multistate, national or international basis. Nashville is also home to more than 300 professional service firms (e.g., accounting, architecture, finance, legal) that provide expertise in the health care industry.

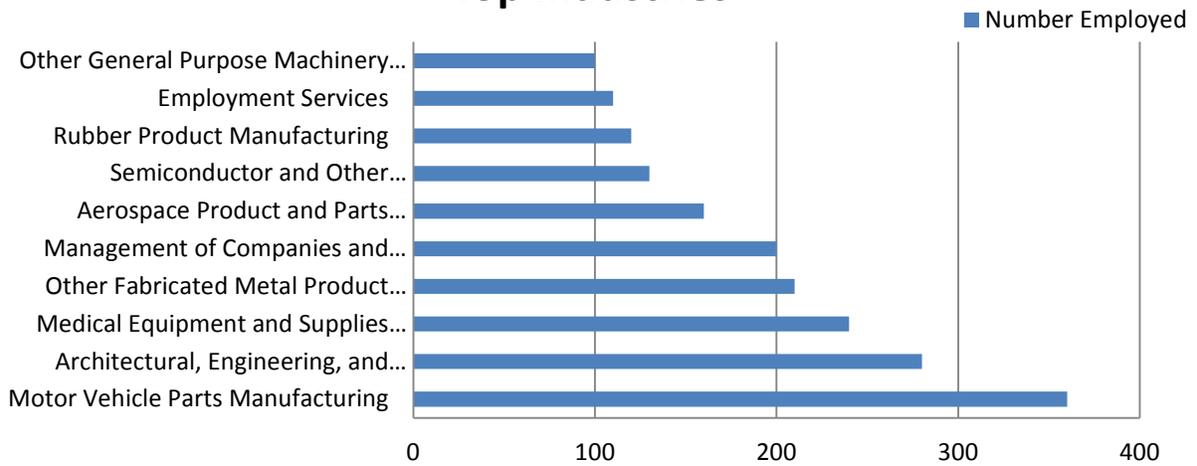
Nashville Healthcare Council. Nashville: The Health Care Industry Capital. 2015. Retrieved on April 27, 2015.
http://www.healthcarecouncil.com/home/nashville_health_care_industry/industry_profile.aspx

Industrial Engineers

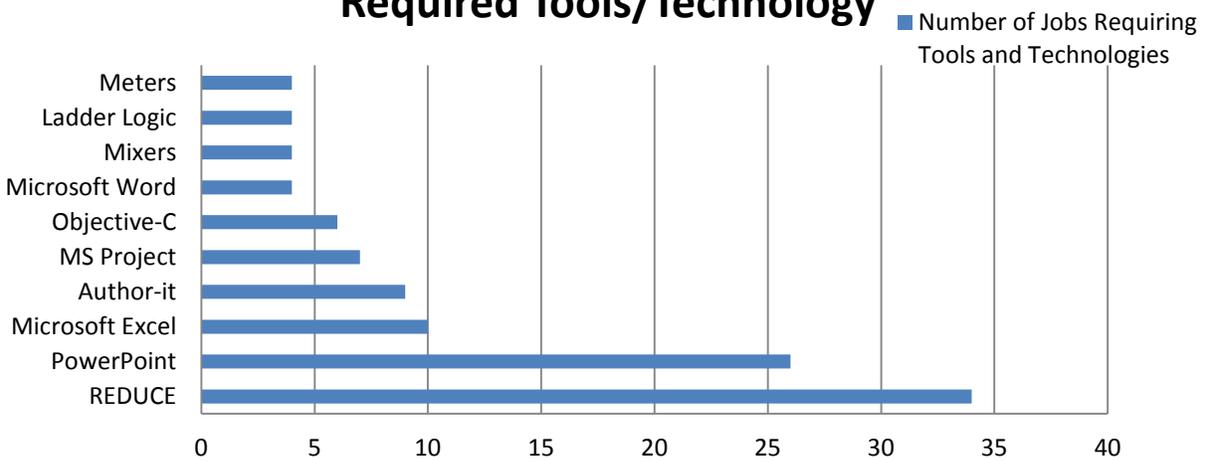
Industrial engineers find ways to eliminate wastefulness in production processes. They devise efficient ways to use workers, machines, materials, information, and energy to make a product or provide a service. Industrial engineers have a projection of 20 annual average openings and a growth rate of 1.2 percent. The median wage is \$80,257 for this occupation.



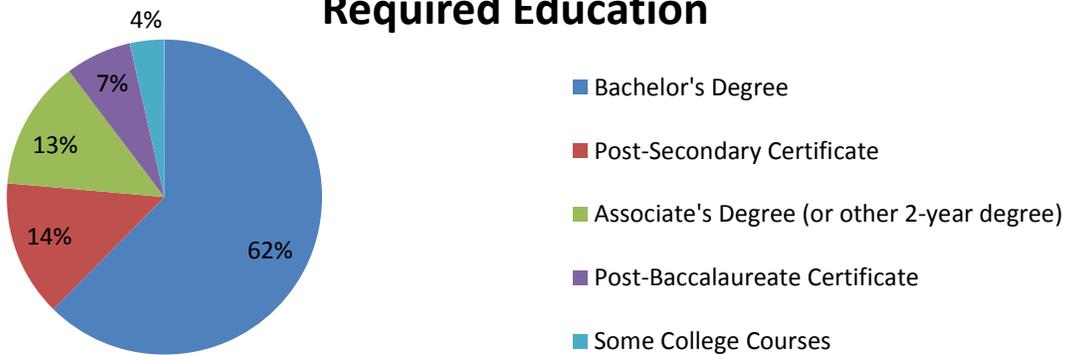
Top Industries



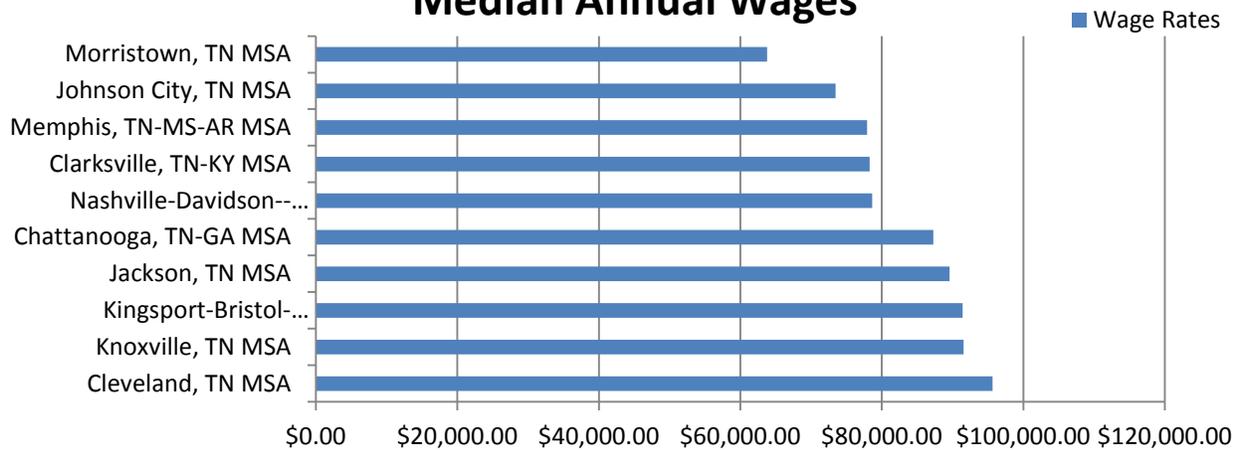
Required Tools/Technology



Required Education



Median Annual Wages



Career Ladder Opportunities

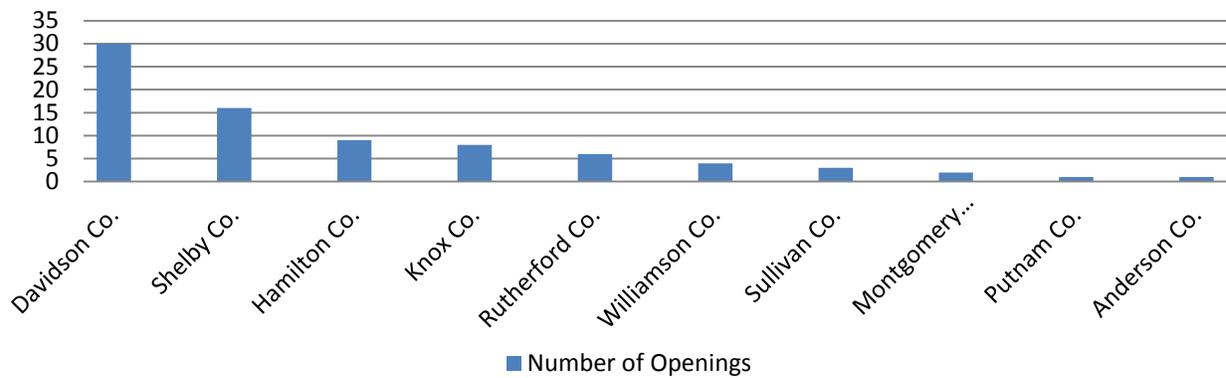
Related Occupations	Number Moved into New Occupation	% Moved
Managers, All Other	76	17.00%
Engineers, All Other	75	16.78%
Manufacturing Engineers	66	14.77%
Customer Service Representatives	45	10.07%
First-Line Supervisors of Production and Operating Workers	38	8.50%
General and Operations Managers	35	7.83%
Inspectors, Testers, Sorters, Samplers, and Weighers	32	7.16%
Quality Control Systems Managers	29	6.49%
Laborers and Freight, Stock, and Material Movers, Hand	26	5.82%
Mechanical Engineers	25	5.59%

Construction Managers

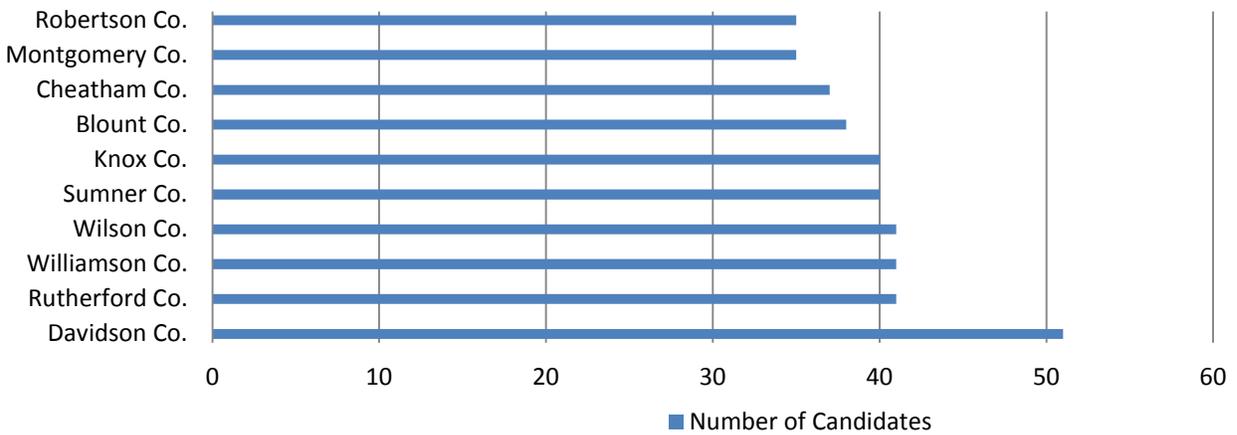
Construction managers plan, coordinate, budget, and supervise construction projects from development to completion.

Part of the technical and preconstruction cluster, construction managers are expected to have annual openings of 270 and a modest growth of 0.8 percent. The construction industry has experienced a pattern of rapid growth which is expected to continue. The growth rate for this occupation is somewhat low but the number of openings is significant.

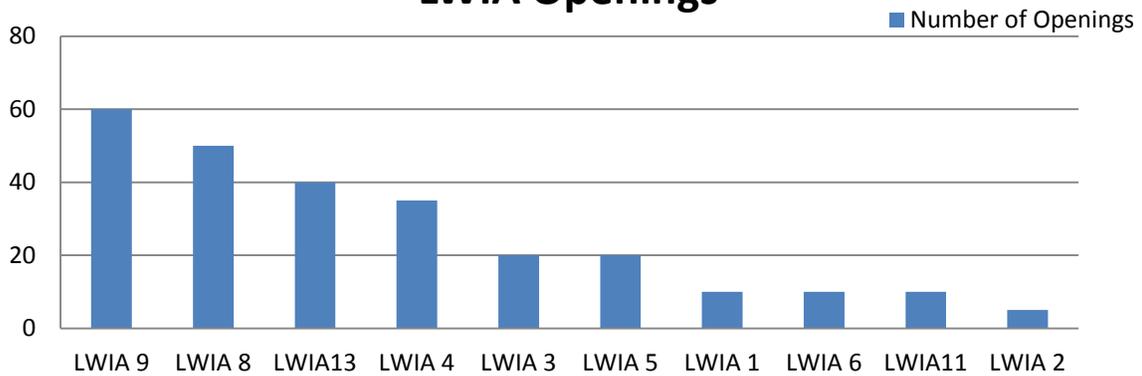
Jobs by Area



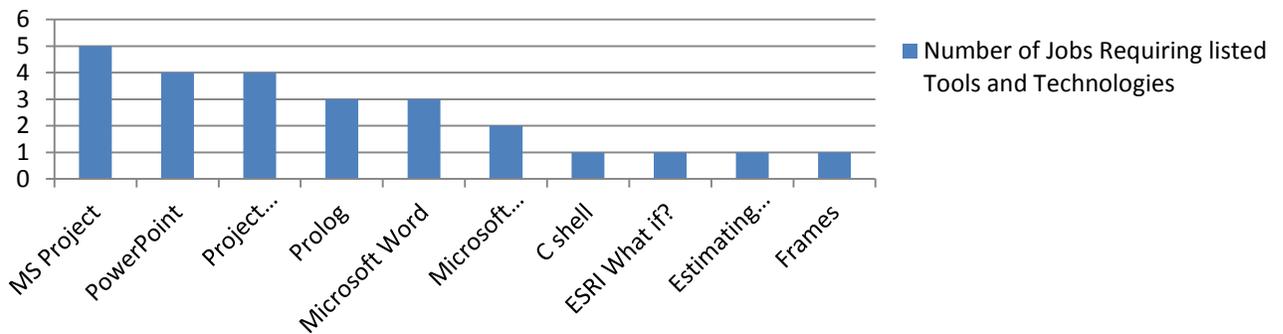
Candidates by Area



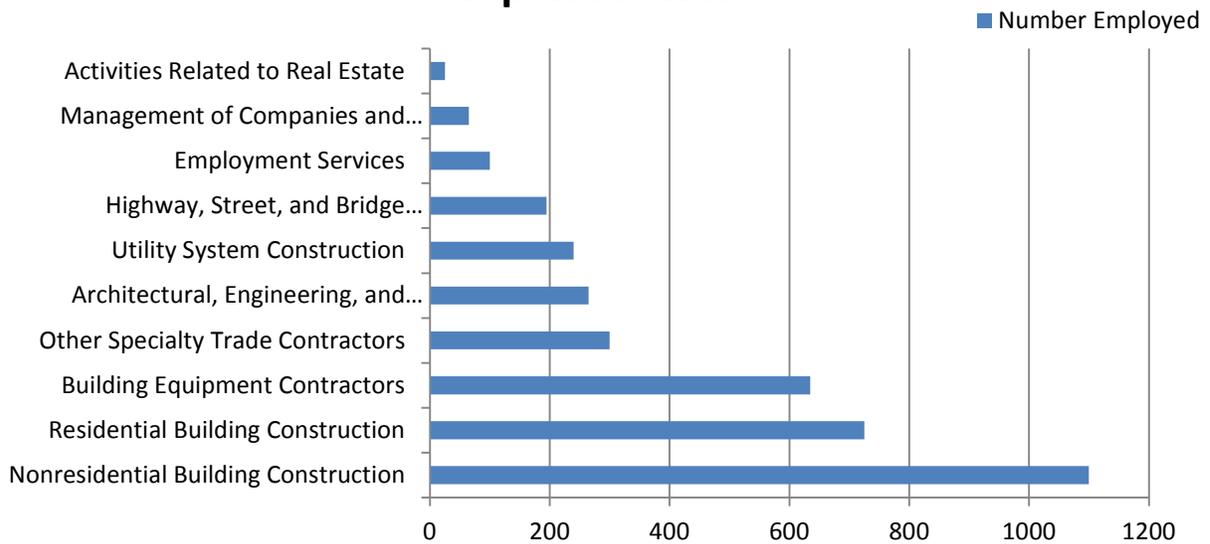
LWIA Openings



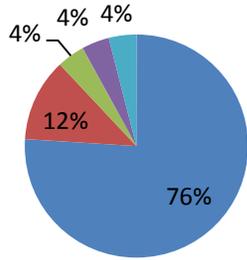
Required Tools and Technologies



Top Industries

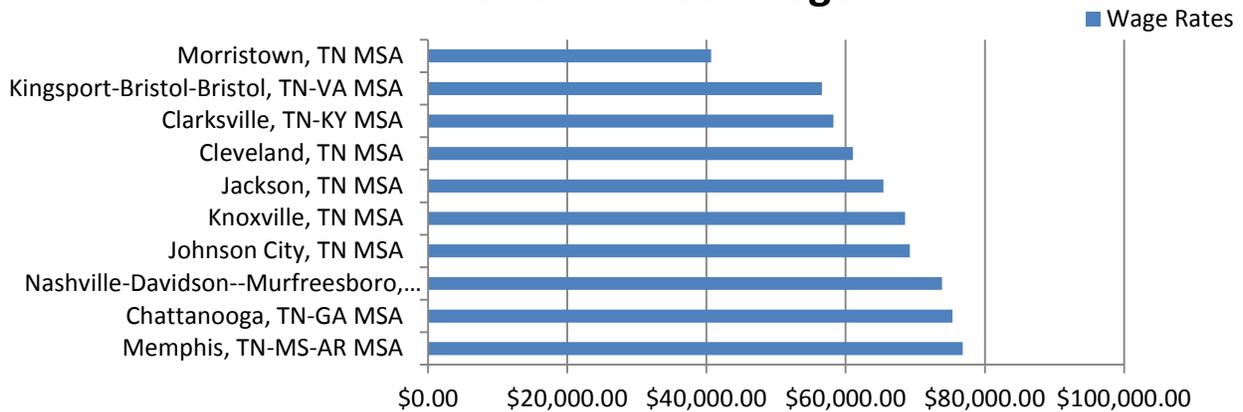


Required Education



- Bachelor's Degree
- Some College Courses
- Associate's Degree (or other 2-year degree)
- Master's Degree
- Post-Secondary Certificate

Median Annual Wages



Career Ladder Opportunities

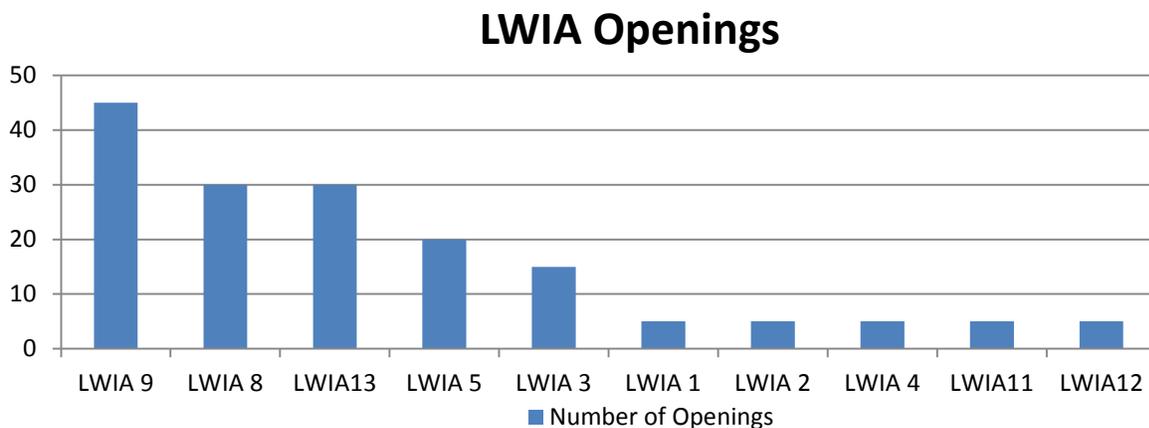
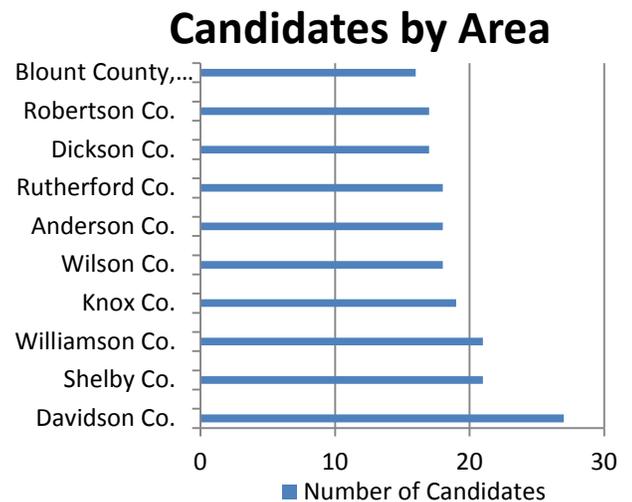
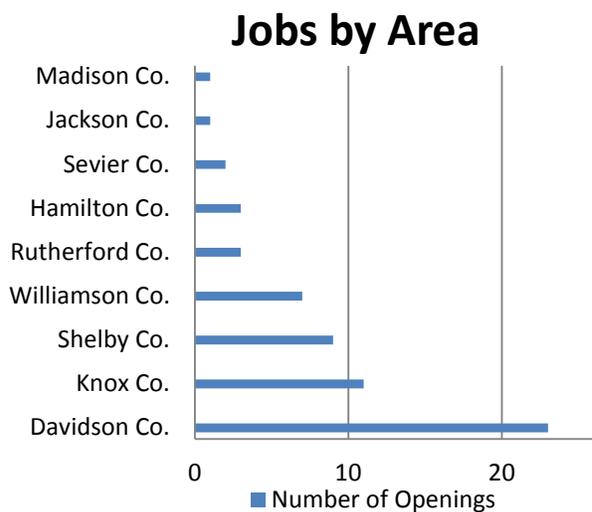
Related Occupations	Number Moved into New Occupation	% Moved
First-Line Supervisors of Construction Trades and Extraction Workers	624	15.94%
Construction Carpenters	588	15.02%
Managers, All Other	483	12.34%
Maintenance and Repair Workers, General	424	10.83%
Construction Laborers	396	10.12%
General and Operations Managers	351	8.97%
Construction and Related Workers, All Other	310	7.92%
Heavy and Tractor-Trailer Truck Drivers	306	7.82%
Retail Salespersons	223	5.70%
Customer Service Representatives	209	5.34%

“Sixty-eight projects in downtown Nashville have been completed since 2011, and 47 are currently under construction.”

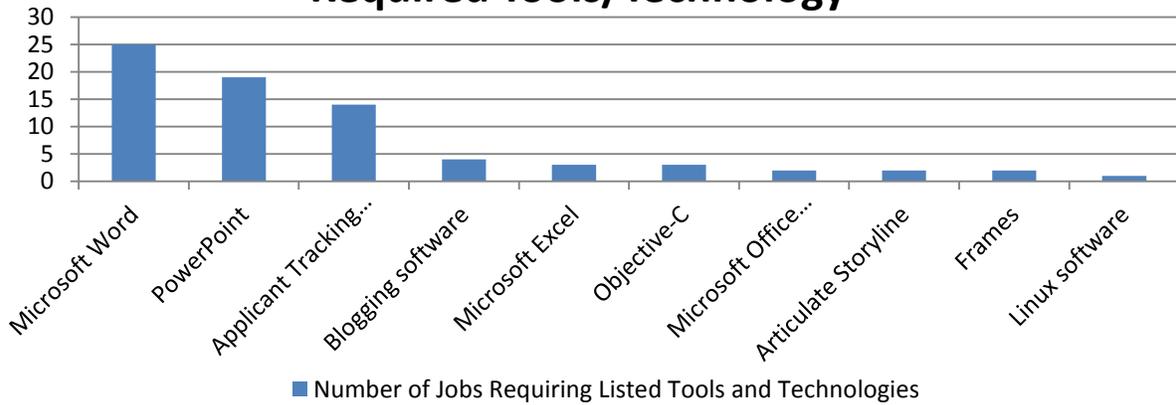
JLL Capital Markets. Building Design and Construction. “Construction Boom Lures New Lure New Class or Lenders, Says JLL.” April 19, 2014.

Training and Development Specialists

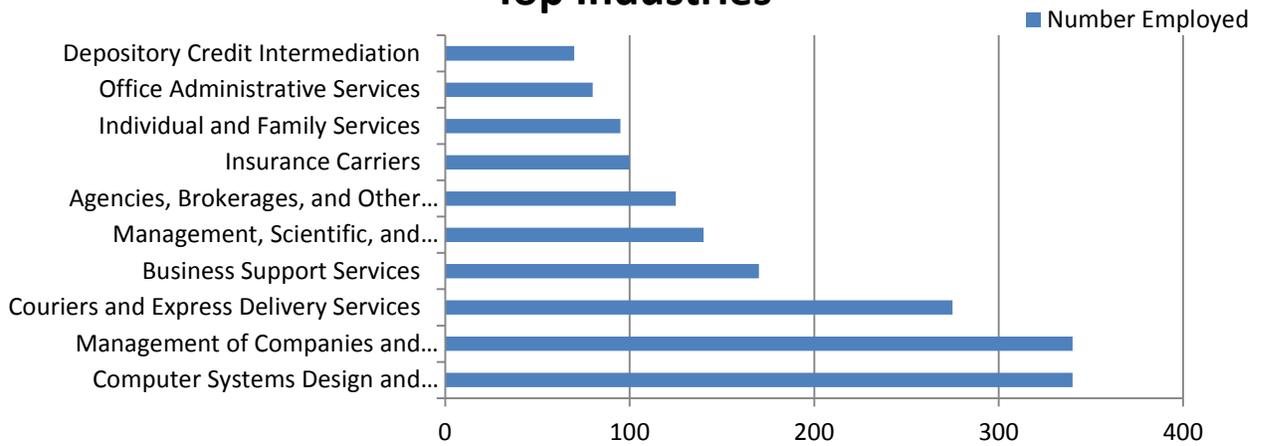
Training and development specialists help plan, conduct, and administer programs that train employees to improve their skills and knowledge. Part of the human resources cluster, this occupation is expected to have 170 annual openings and a growth rate of 1.7 percent. Several of the top industries employing training and development specialists are those with rapid technological and/or systems change, including computer systems design firms, management of companies, and scientific and technical firms. Nearly 100 percent of employers require a bachelor’s degree or more in jobs posted online. More than 4 out of 10 individuals in this field moved into management.



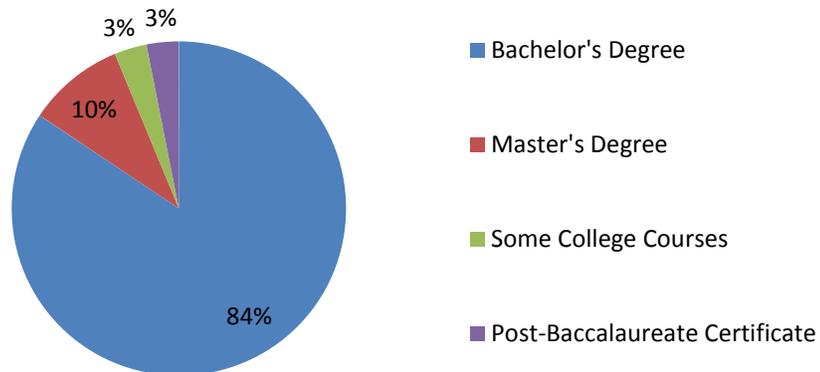
Required Tools/Technology



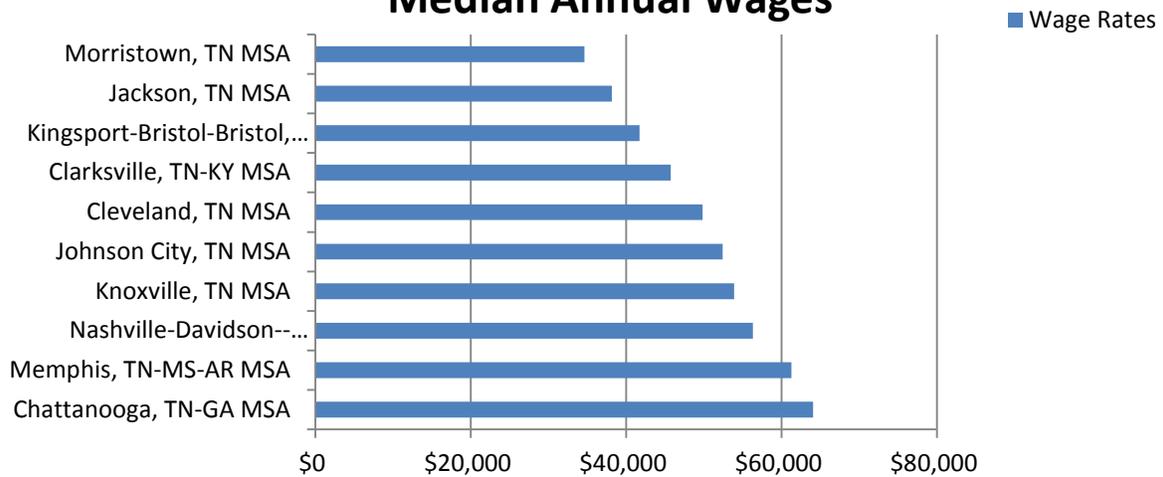
Top Industries



Required Education



Median Annual Wages

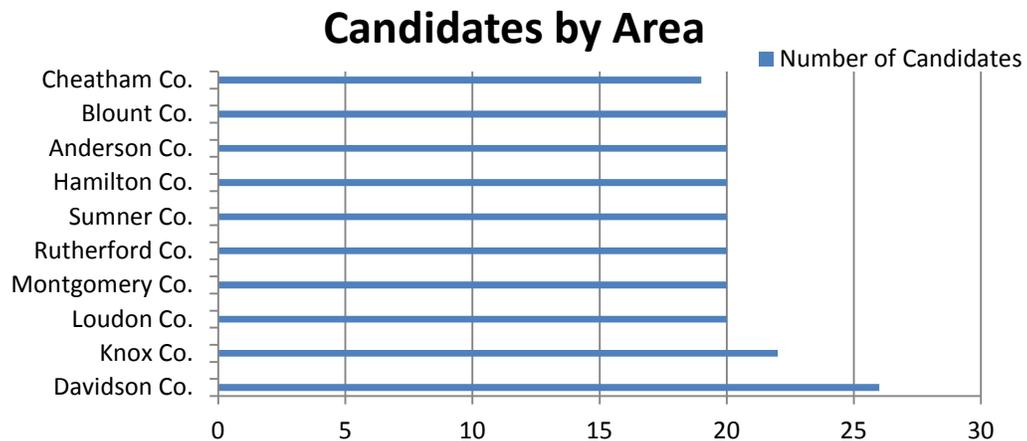
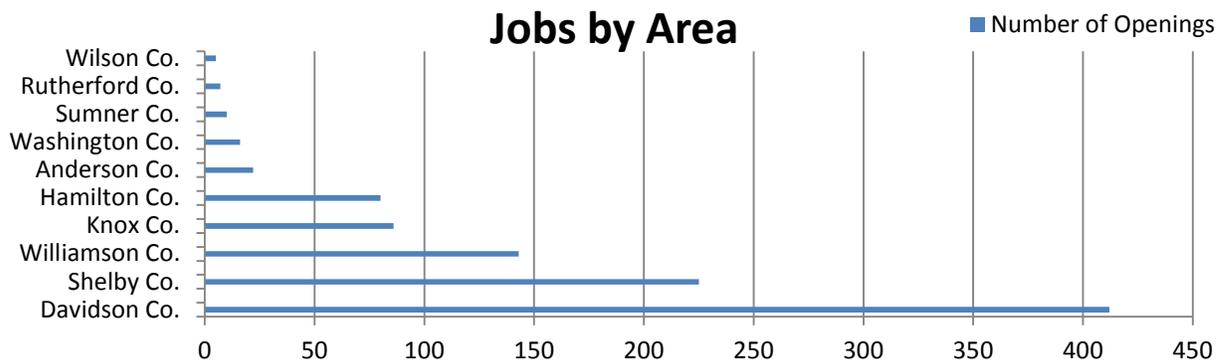


Career Ladder Opportunities

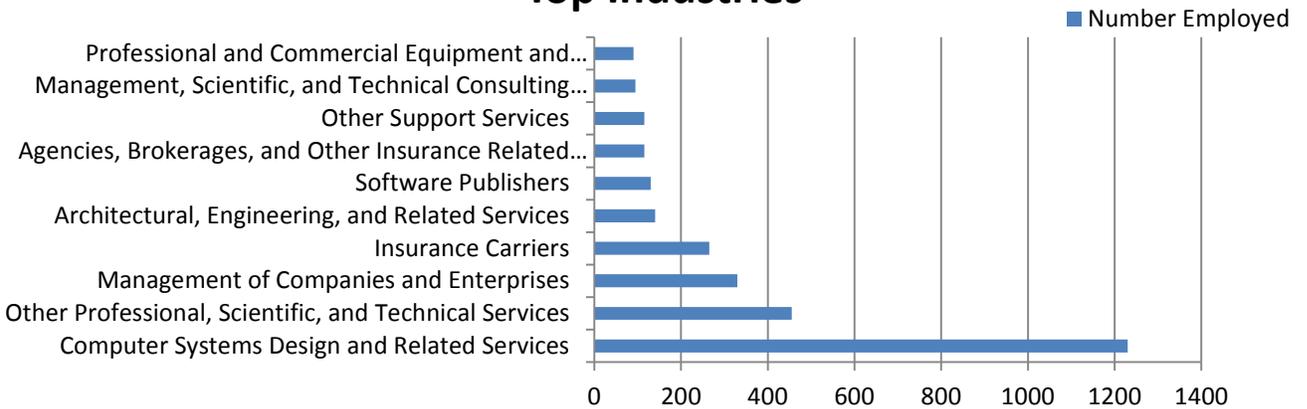
Related Occupations	Number Moved into New Occupation	% Moved
Customer Service Representatives	403	20.53%
Managers, All Other	281	14.31%
Training and Development Managers	248	12.63%
Administrative Services Managers	170	8.66%
Retail Salespersons	155	7.90%
General and Operations Managers	150	7.64%
Executive Secretaries and Executive Administrative Assistants	145	7.39%
Human Resources Specialists	143	7.28%
Sales Representatives, Services, All Other	143	7.28%
Teachers and Instructors, All Other	125	6.37%

Computer Programmers

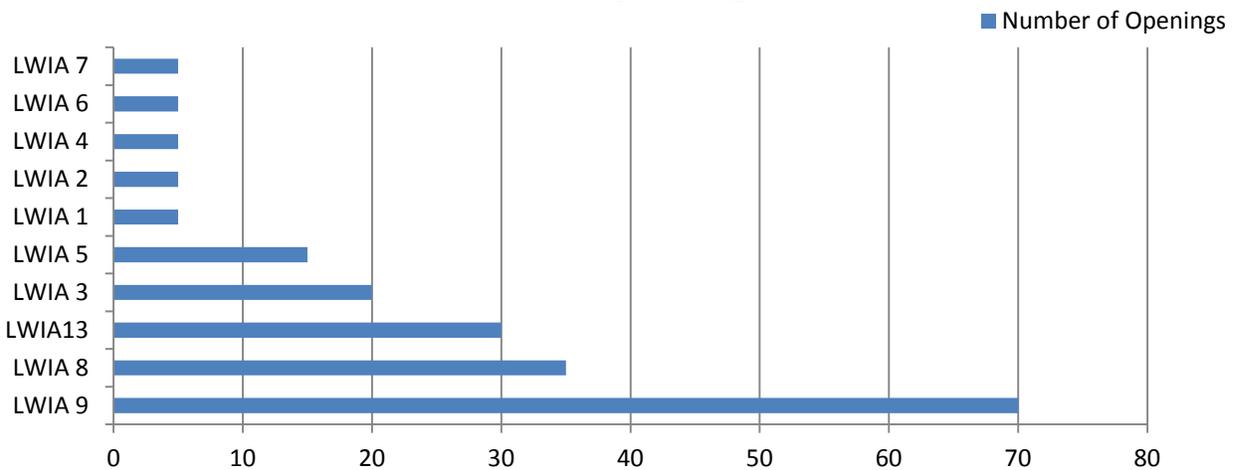
Computer programmers write code to create software programs. They turn the program designs created by software developers and engineers into instructions that a computer can follow. Programmers must debug the programs—that is, test them to ensure that they produce the expected results. Computer programmers, categorized under the web and multimedia management programming cluster, are expected to have 180 annual openings and a growth rate of 1.0 percent. The number of jobs in the major metropolitan areas of the state was considerably greater than the number of candidates available to take the jobs, especially in Davidson and Shelby counties. More than three out of four employers required a candidate with a bachelor’s degree.



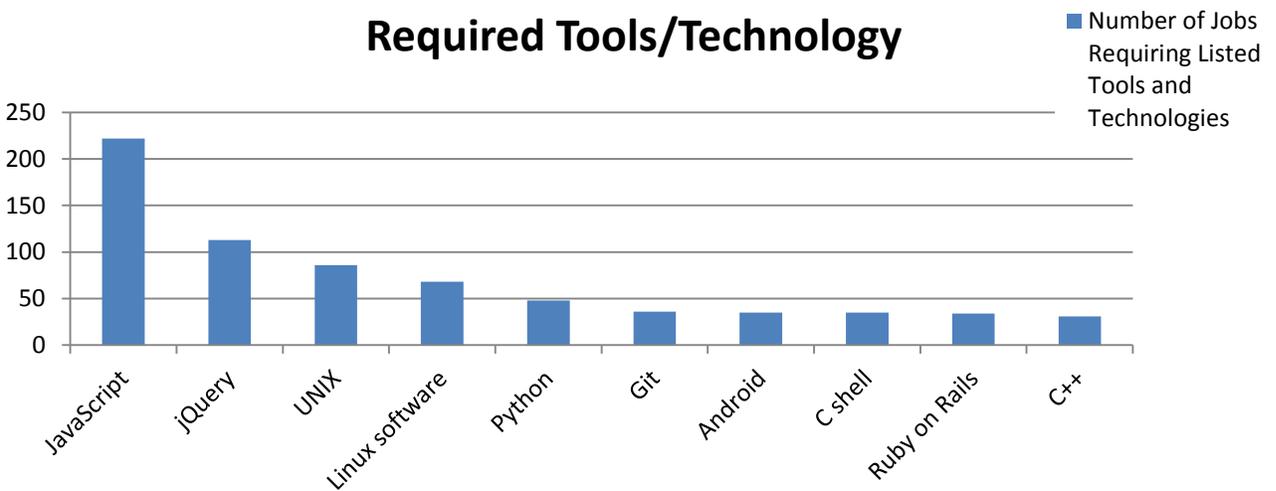
Top Industries



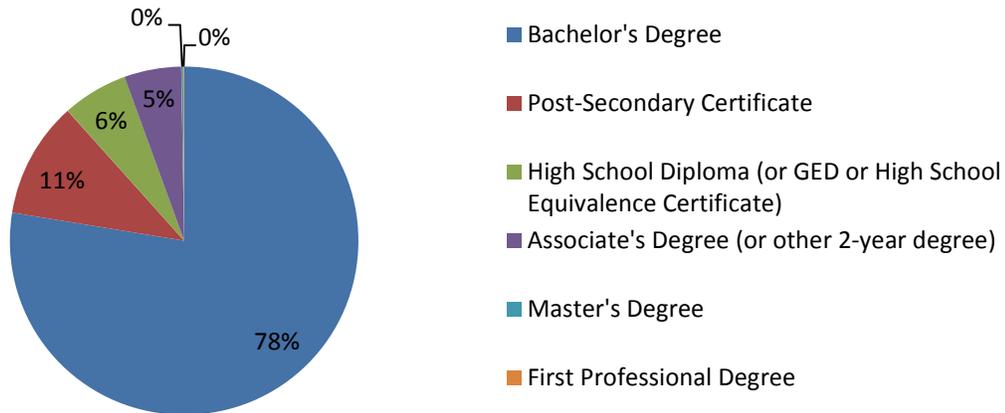
LWIA Openings



Required Tools/Technology



Required Education



Median Annual Wages

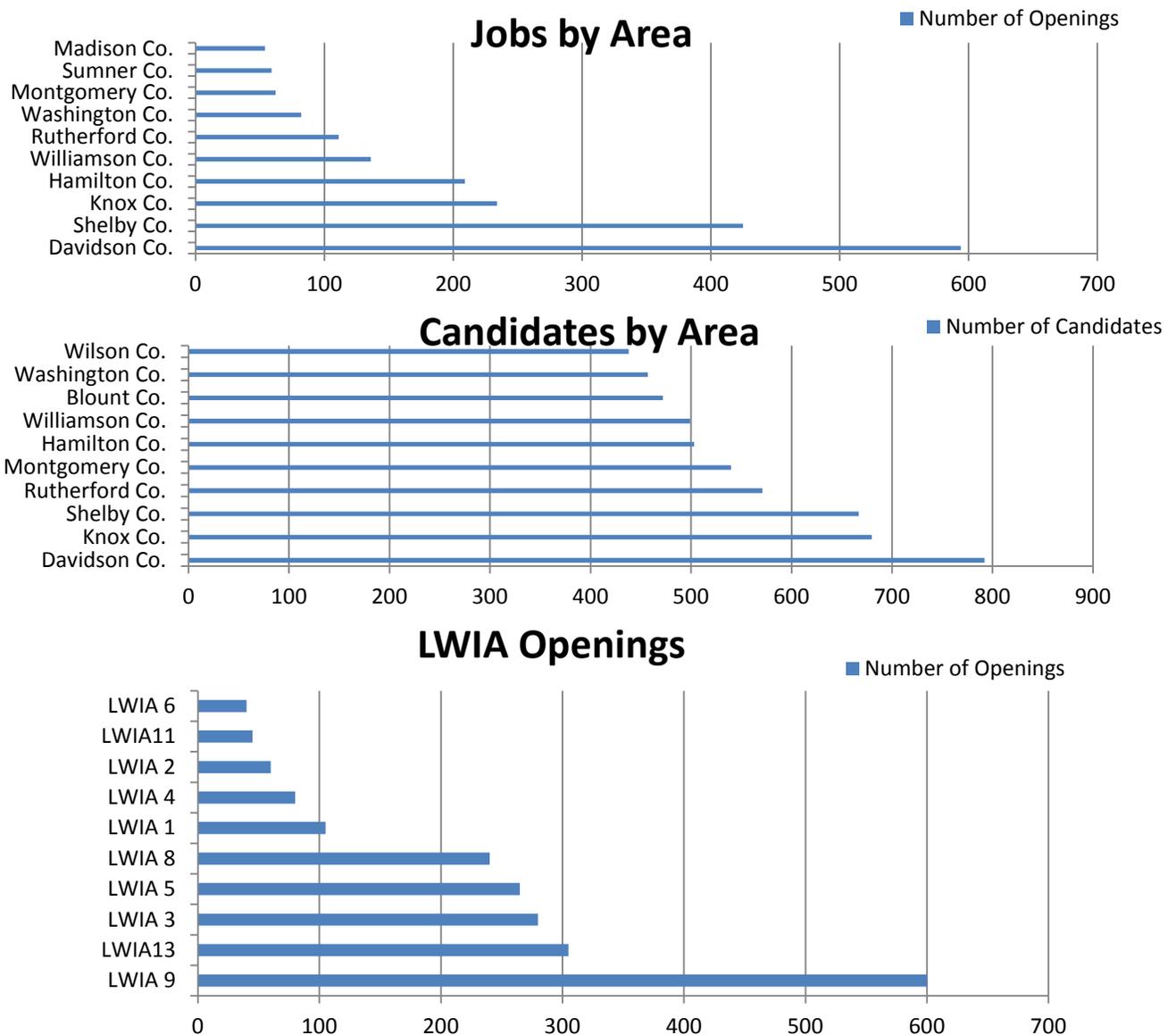


Career Ladder Opportunities

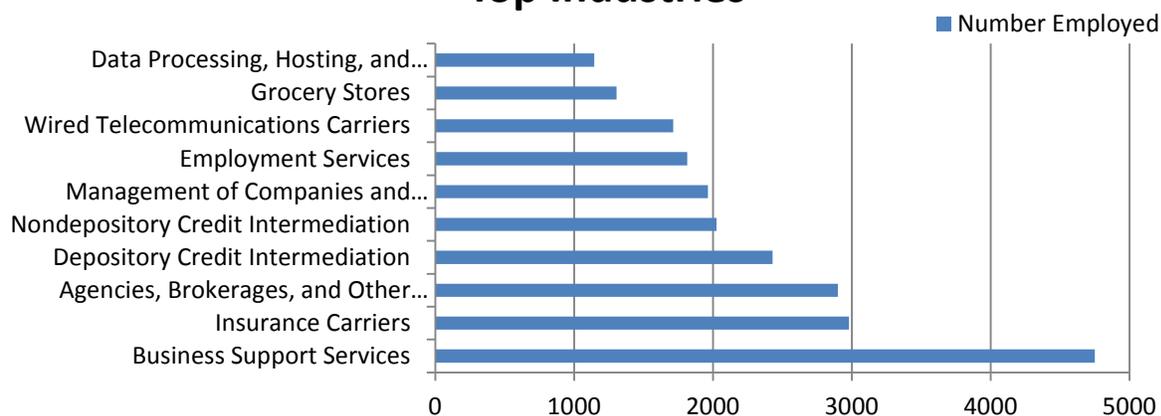
Related Occupations	Number Moved into New Occupation	% Moved
Software Developers, Applications	410	22.96%
Computer Systems Analysts	304	17.02%
Computer User Support Specialists	207	11.59%
Web Developers	148	8.29%
Information Technology Project Managers	147	8.23%
Computer and Information Systems Managers	141	7.89%
Software Developers, Systems Software	121	6.77%
Customer Service Representatives	119	6.66%
Computer Occupations, All Other	111	6.22%
Computer Systems Engineers/Architects	78	4.37%

Customer Service Representatives

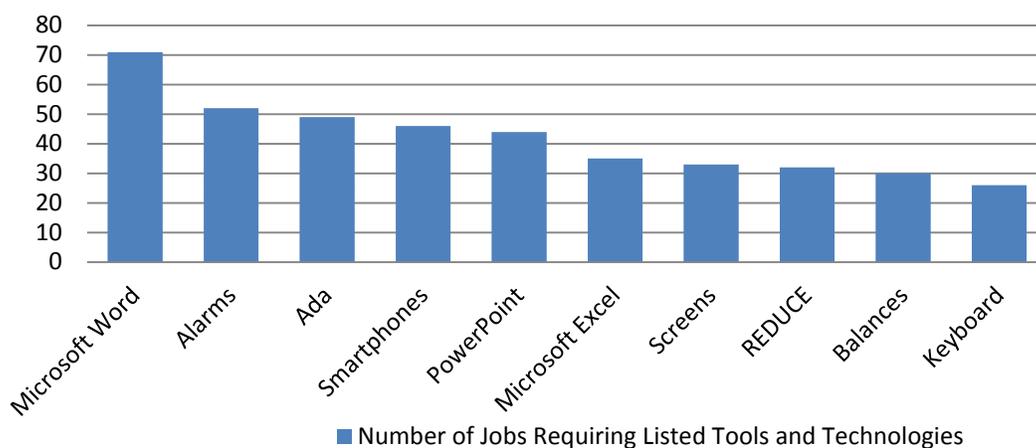
Customer service representatives handle customer complaints, process orders, and provide information about an organization’s products and services. The occupation of customer service representatives, part of the communications development cluster, is projected to have healthy growth with a rate of 1.6 percent and annual openings of 2140. Top industries employing these workers included business support services, insurance carriers, and other financial services employers. Minimum educational requirements for two out of three employers were a high school diploma or GED. Salaries in the Memphis MSA are the highest in the state.



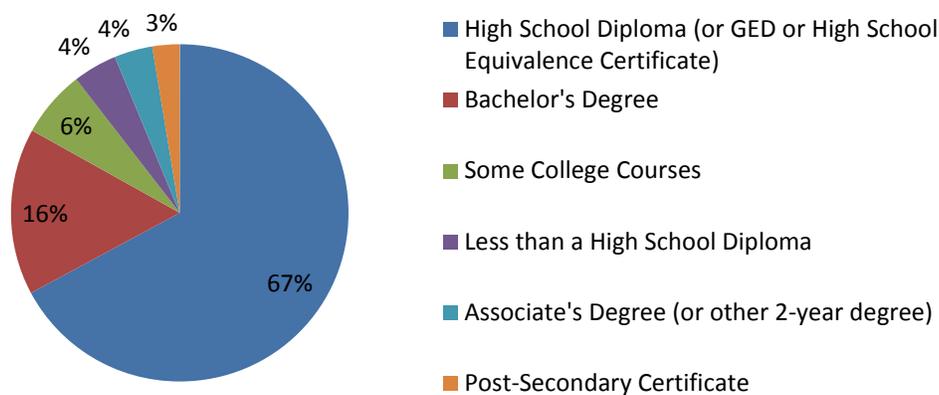
Top Industries



Required Tools/Technology



Required Education



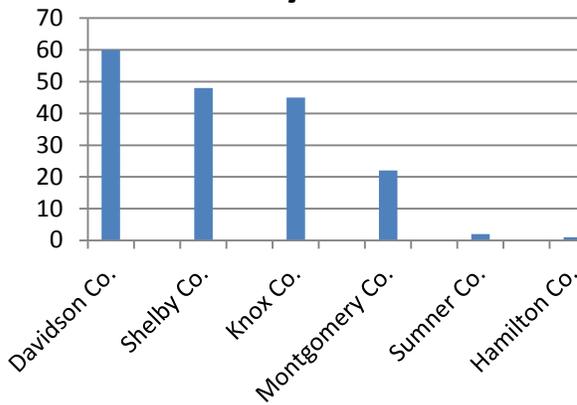
Career Ladder Opportunities

Related Occupations	Number Moved into New Occupation	% Moved
Cashiers	9,426	21.81%
Retail Salespersons	6,679	15.45%
Office Clerks, General	4,695	10.86%
Receptionists and Information Clerks	4,361	10.09%
Sales Representatives, Services, All Other	3,799	8.79%
Administrative Services Managers	3,336	7.72%
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	2,898	6.71%
Managers, All Other	2,788	6.45%
Nursing Assistants	2,620	6.06%
Laborers and Freight, Stock, and Material Movers, Hand	2,619	6.06%

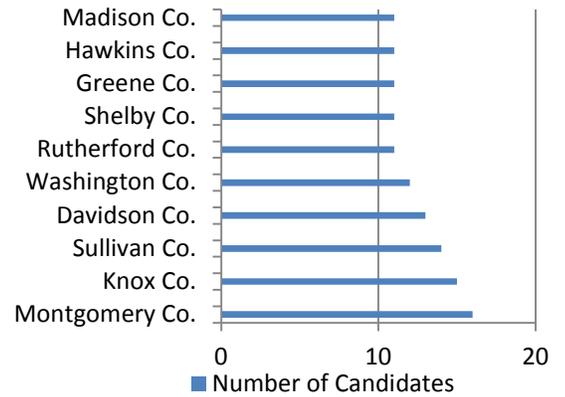
Elementary School Teachers, Except Special Education

Elementary school teachers prepare younger students for future schooling by teaching them basic subjects such as math and reading and social and other formative skills in public or private schools. This occupation is expected to have annual openings of 1190 and a growth rate of 1.9 percent. The Clarksville and Chattanooga MSAs had the highest median annual wages. About 10 percent moved up to secondary school or postsecondary teaching.

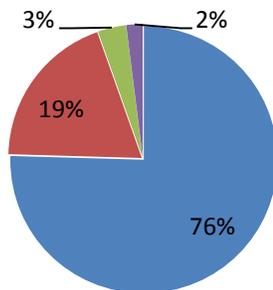
Jobs by Area



Candidates by Area



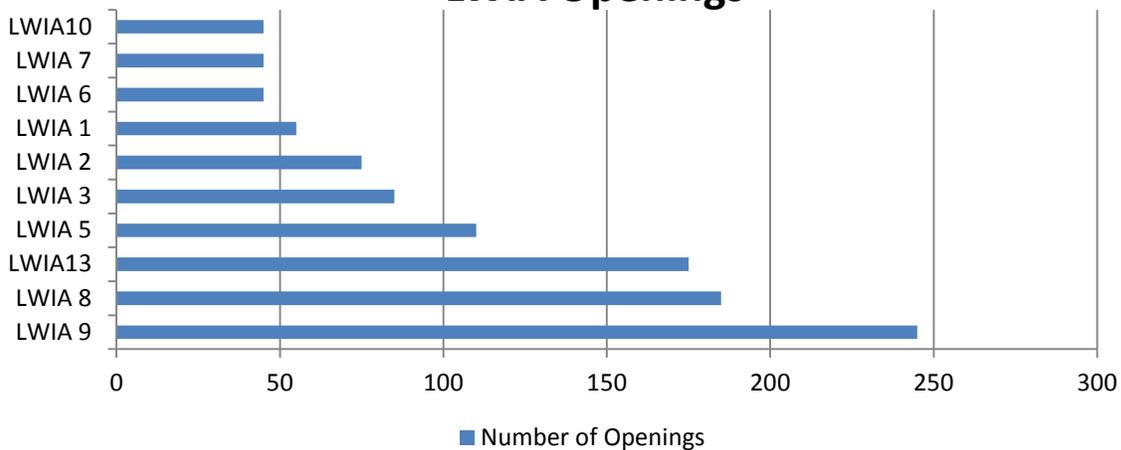
■ Number of openings



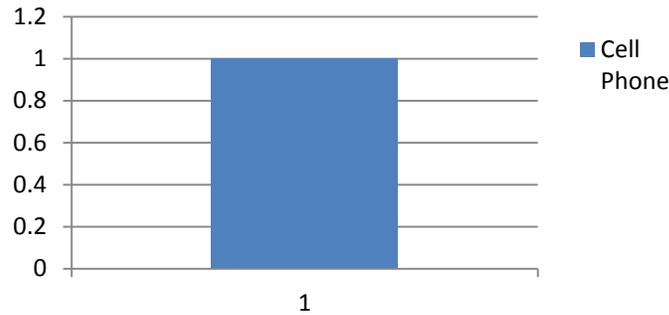
Required Education

- Bachelor's Degree
- Master's Degree
- Post-Master's Certificate
- Post-Baccalaureate Certificate

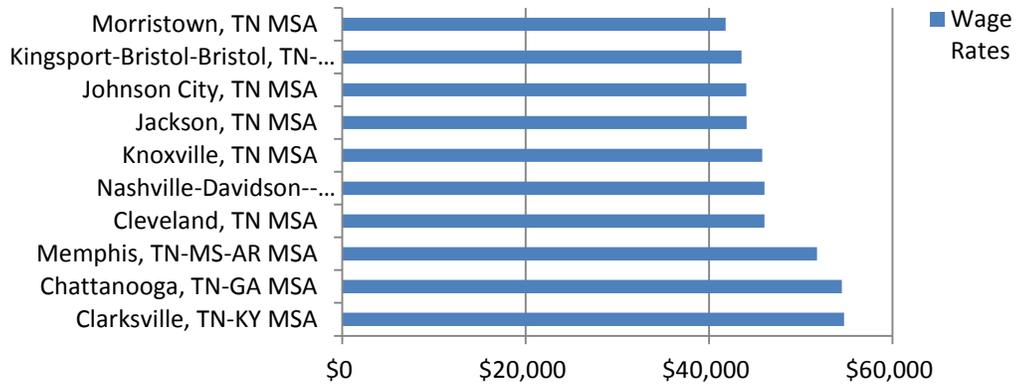
LWIA Openings



Tools/Technology



Median Annual Wages

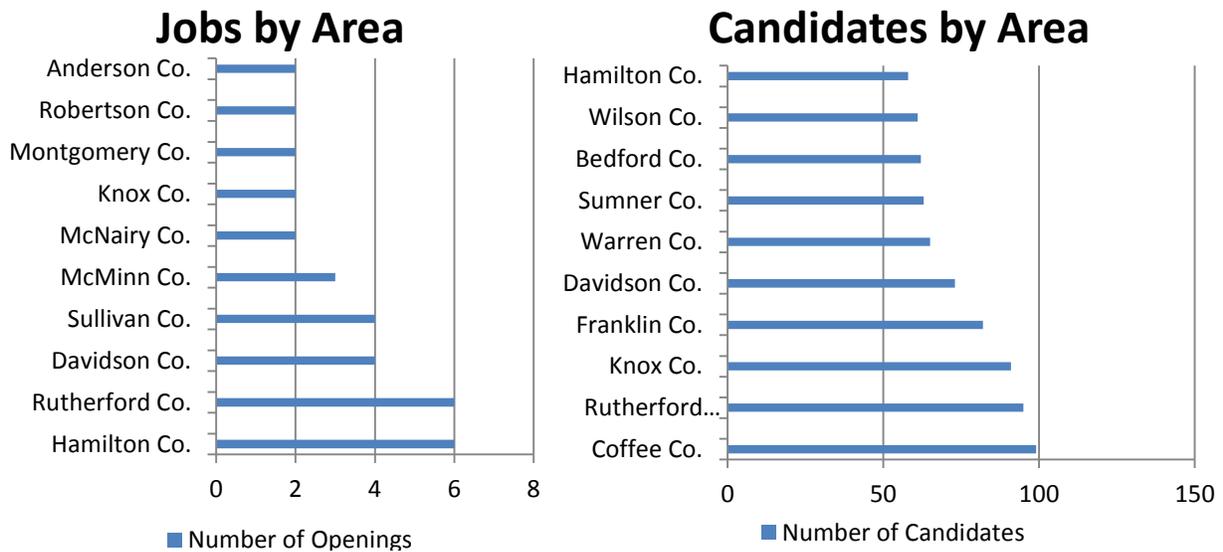


Career Ladder Opportunities

Related Occupations	Number Moved into New Occupation	% Moved
Teachers and Instructors, All Other	551	29.34%
Teacher Assistants	287	15.28%
Customer Service Representatives	191	10.17%
Preschool Teachers, Except Special Education	168	8.95%
Special Education Teachers, Preschool	143	7.61%
Retail Salespersons	131	6.98%
Middle School Teachers, Except Special and Career/Technical Education	115	6.12%
Cashiers	104	5.54%
Education Teachers, Postsecondary	96	5.11%
Secondary School Teachers, Except Special and Career/Technical Education	92	4.90%

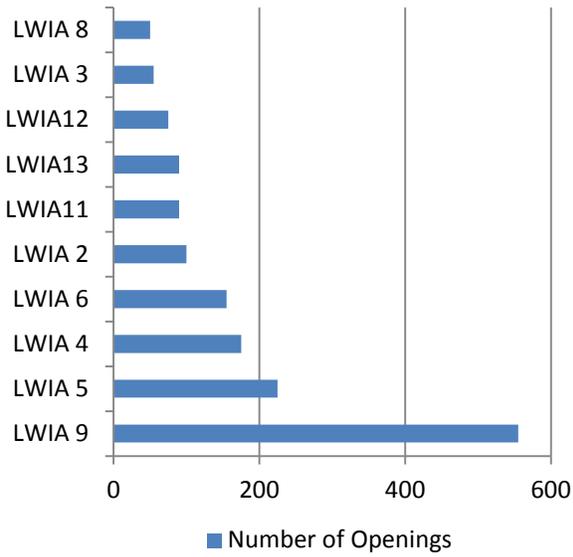
Team Assemblers

Assemblers and fabricators assemble finished products and the parts that go into them. They use tools, machines, and their hands to make engines, computers, aircraft, ships, boats, toys, electronic devices, control panels, and more. This occupation is projected to have annual openings of 1,430 and a growth rate of 1.9 percent. Almost 9 of 10 jobs require only a high school education. Among the top industries for employment were motor vehicle parts and motor vehicle body manufacturing.

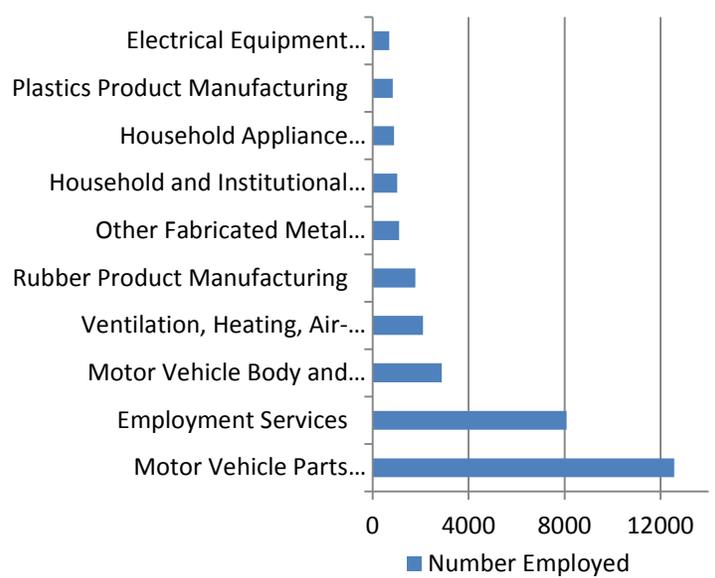


“Tennessee is today the seventh-ranked state for car exports, accounting for about 4.5 percent of the value of American auto exports” *Steven G. Livingston in Global Commerce: Tennessee and the National Economy.* <http://issuu.com/mtsuberc/docs/spr15>

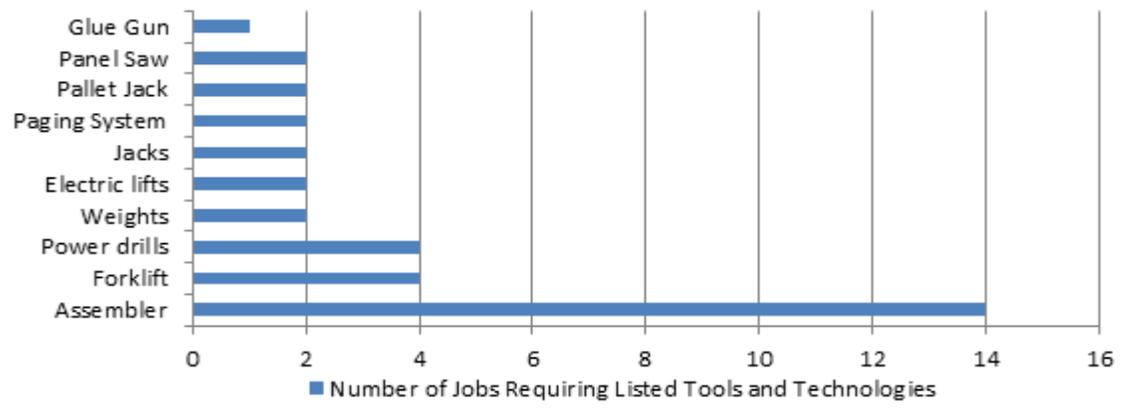
LWIA Openings



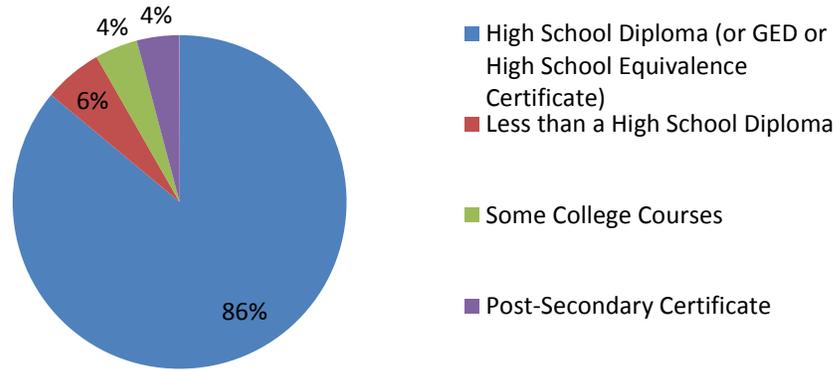
Top Industries



Required Tools and Technologies



Required Education



Median Annual Wages



Career Ladder Opportunities

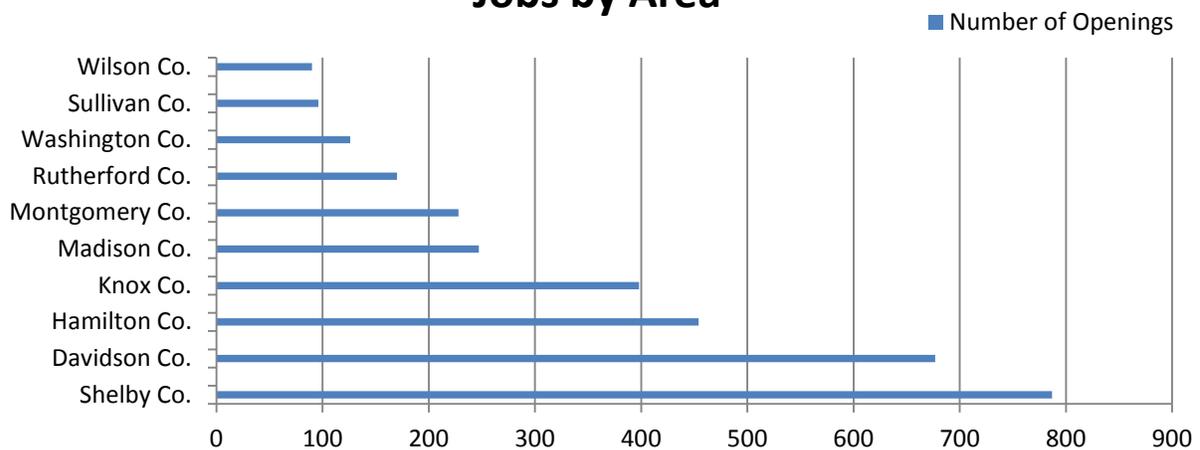
Related Occupations	Number Moved into New Occupation	% Moved
Production Workers, All Other	1,266	14.01%
Laborers and Freight, Stock, and Material Movers, Hand	1,182	13.08%
Helpers--Production Workers	1,121	12.41%
Cashiers	1,054	11.67%
Assemblers and Fabricators, All Other	948	10.49%
Packers and Packagers, Hand	893	9.88%
Inspectors, Testers, Sorters, Samplers, and Weighers	755	8.36%
Customer Service Representatives	682	7.55%
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	608	6.73%
Retail Salespersons	526	5.82%

Heavy and Tractor-Trailer Truck Drivers

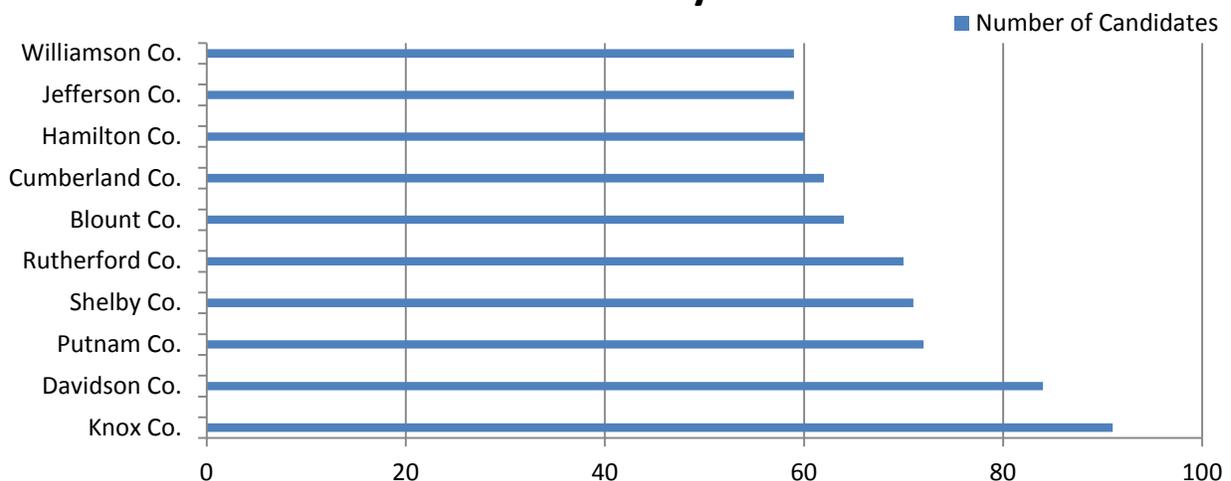
Heavy and tractor-trailer truck drivers transport goods from one location to another. Most tractor-trailer drivers are long-haul drivers and operate trucks with a gross vehicle weight (GVW) capacity of more than 26,000 pounds. These drivers deliver goods over intercity routes, sometimes spanning several states. This occupation, included in the Truck, Bus, Rail, Water Transportation, and Heavy Equipment cluster, is expected to have annual openings of 1,790 and a growth rate of 1.4 percent.

Nearly one in four employers said they would accept candidates with less than a high school education and five out of ten a high school degree or GED. About one in three long haul drivers later moved to driver/sales worker jobs or to delivery in light trucks.

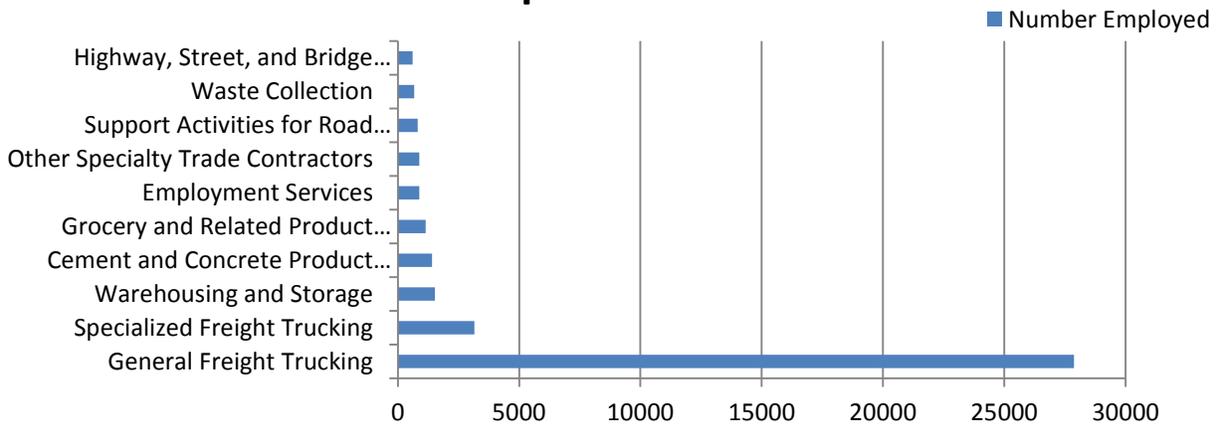
Jobs by Area



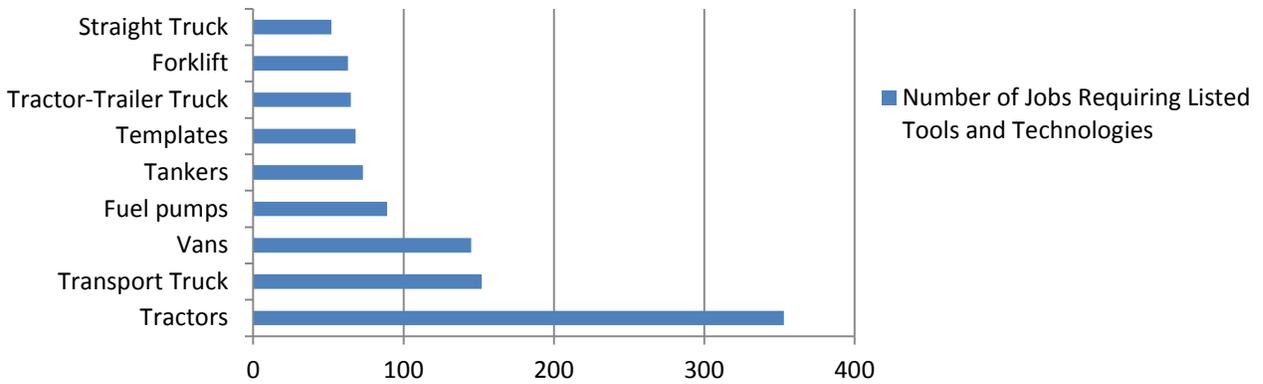
Candidates by Area



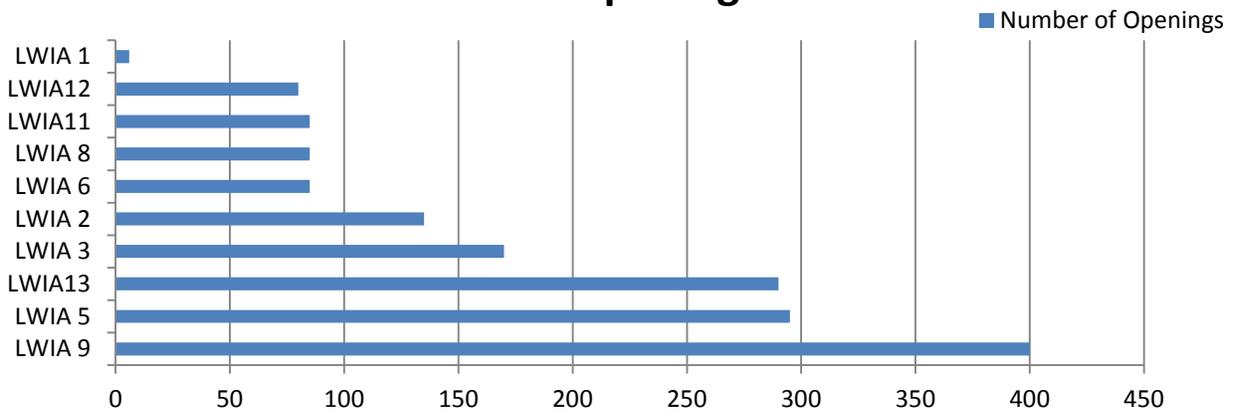
Top Industries



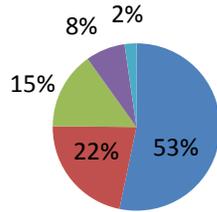
Required Tools and Technologies



LWIA Openings

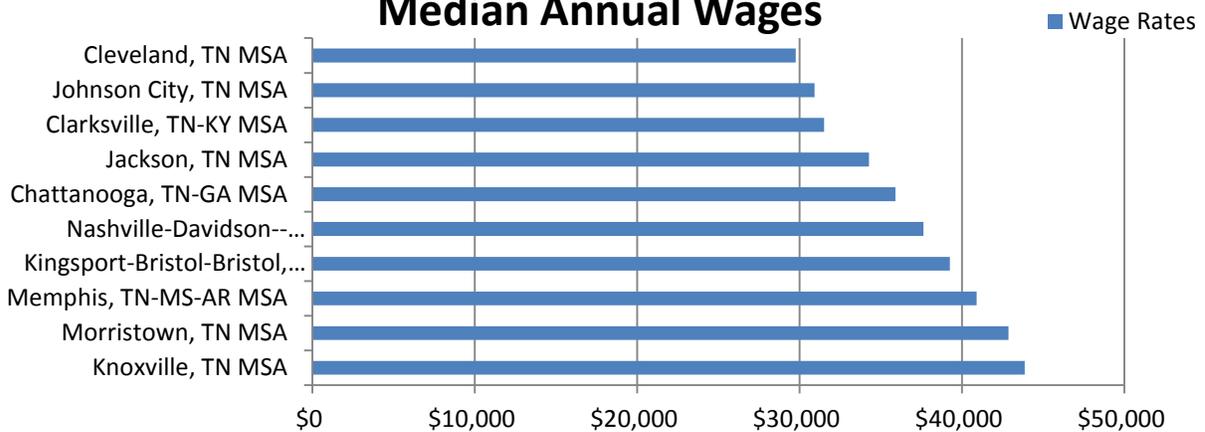


Required Education



- High School Diploma (or GED or High School Equivalence Certificate)
- Less than a High School Diploma
- Post-Secondary Certificate
- Some College Courses
- Post-Doctoral Training

Median Annual Wages



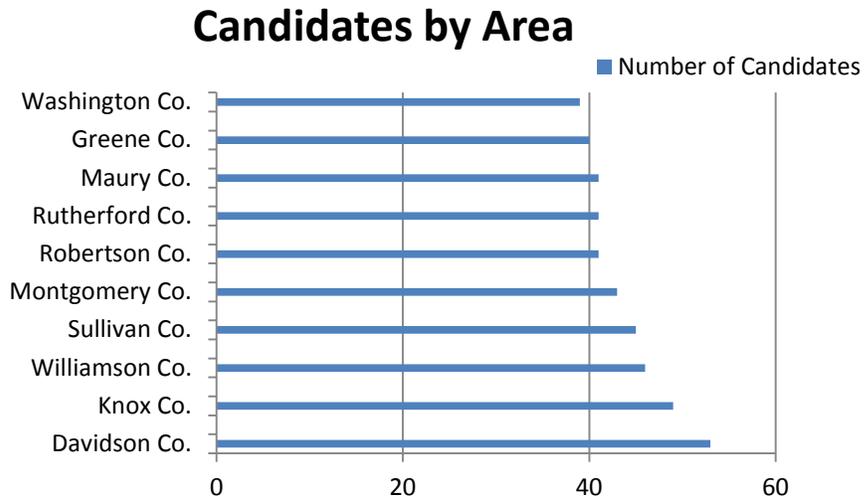
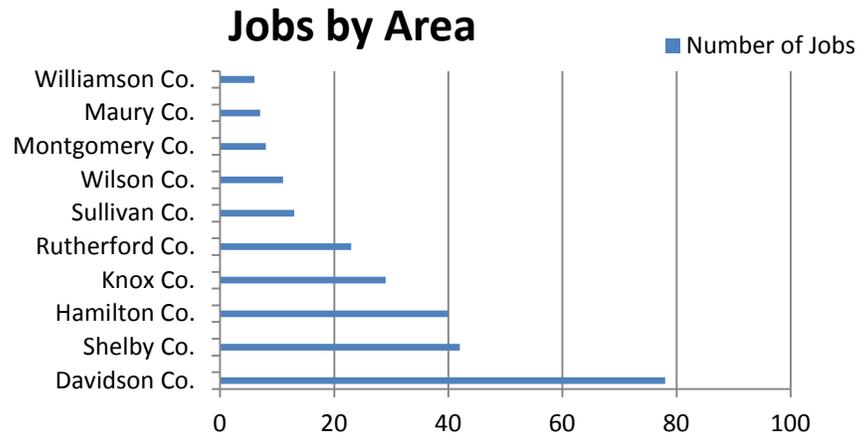
Career Ladder Opportunities

Related Occupations	Number Moved into New Occupation	% Moved
Driver/Sales Workers	2,267	19.15%
Light Truck or Delivery Services Drivers	1,835	15.50%
Laborers and Freight, Stock, and Material Movers, Hand	1,560	13.18%
Industrial Truck and Tractor Operators	1,448	12.23%
Transportation Workers, All Other	1,298	10.96%
Construction Laborers	813	6.87%
Security Guards	738	6.23%
Maintenance and Repair Workers, General	678	5.73%
Operating Engineers and Other Construction Equipment Operators	655	5.53%
Helpers--Production Workers	547	4.62%

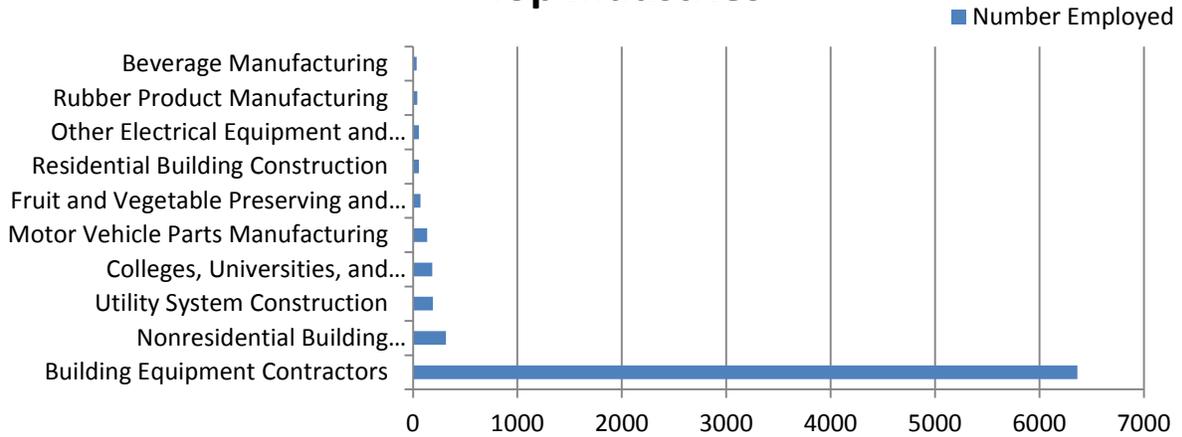
Electricians

Electricians install and maintain electrical power, communications, lighting, and control systems in homes, businesses, and factories. The occupation of electricians is expected to have an increase in projected jobs by 450 by the year 2016 and a growth rate of close to 2.0 percent.

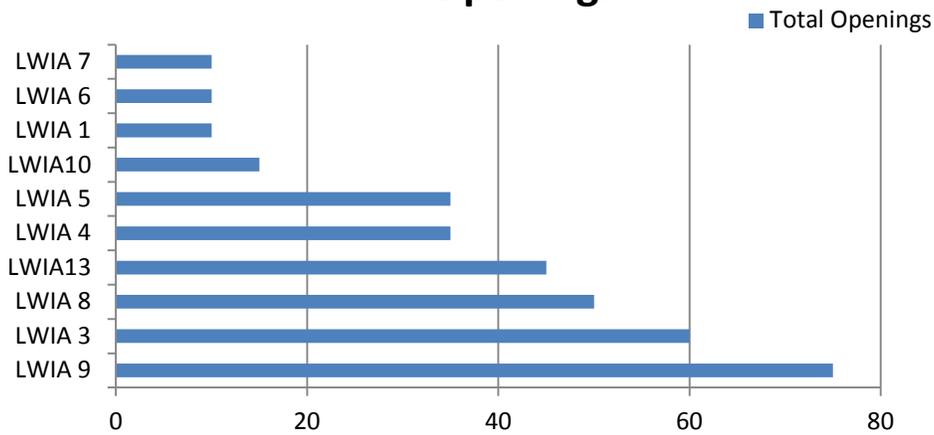
Most electricians worked for building equipment contractors. Although Shelby and Hamilton counties had 40 or so job openings, no candidates were available in those areas. Employers preferred candidates with post-secondary certificates. Median annual wages ranged from \$40,000 to \$50,000.



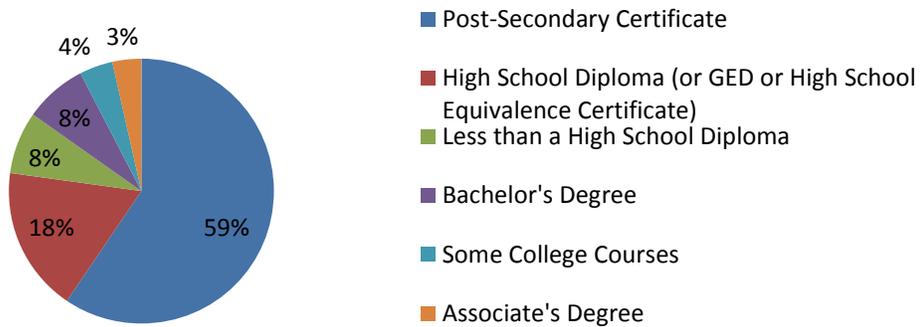
Top Industries



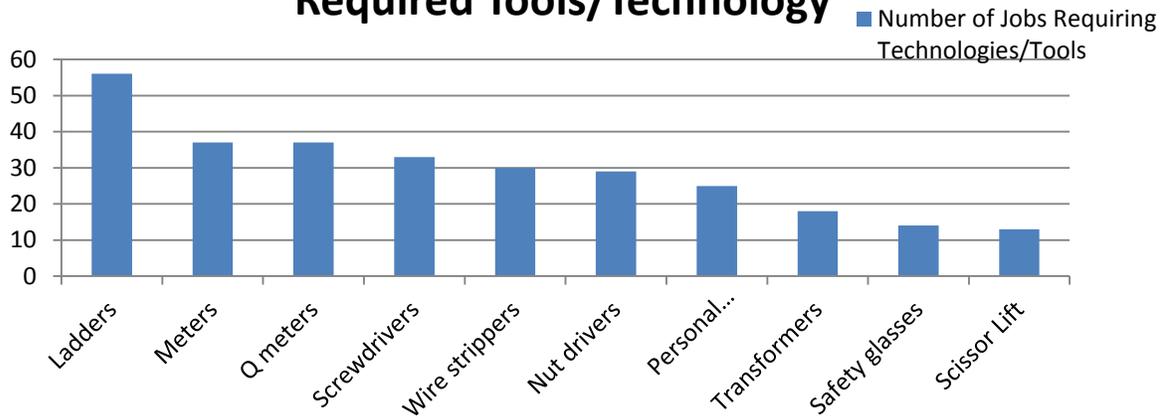
LWIA Openings



Required Education



Required Tools/Technology



Median Annual Wages

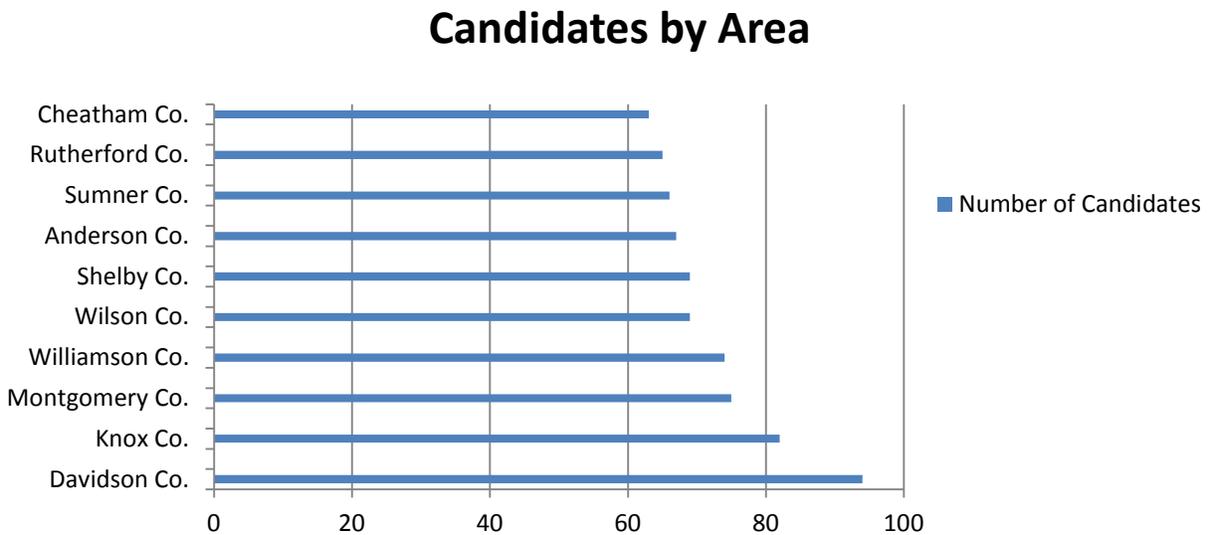
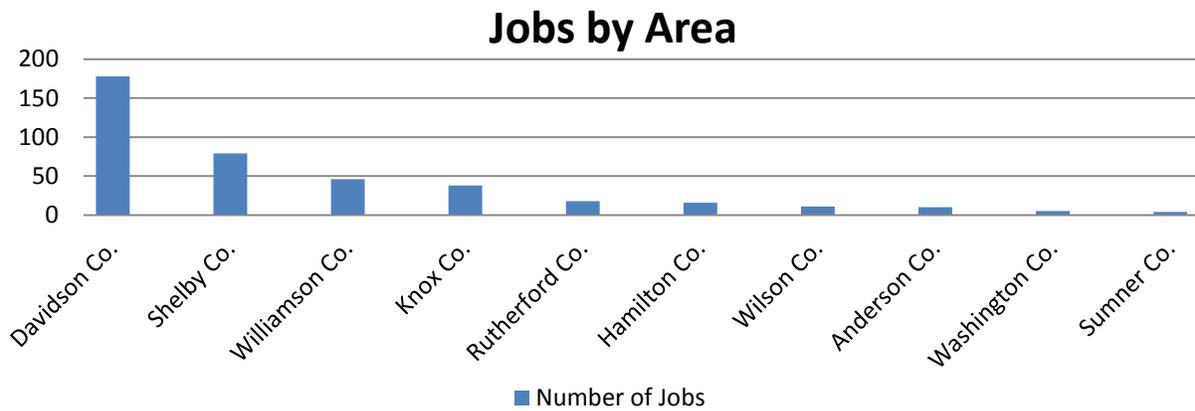


Career Ladder Opportunities

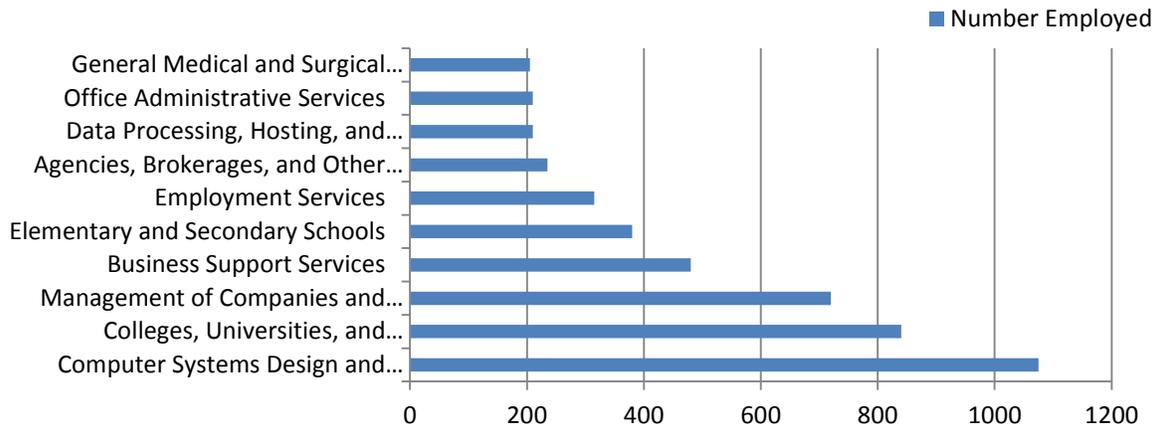
Related Occupations	Number Moved into New Occupation	% Moved
Helpers--Electricians	728	18.81%
Electrical and Electronics Repairers, Commercial and Industrial Equipment	727	18.79%
Maintenance and Repair Workers, General	716	18.50%
Construction Laborers	344	8.89%
Laborers and Freight, Stock, and Material Movers, Hand	302	7.80%
First-Line Supervisors of Construction Trades and Extraction Workers	289	7.47%
Heavy and Tractor-Trailer Truck Drivers	257	6.64%
Helpers--Installation, Maintenance, and Repair Workers	180	4.65%
First-Line Supervisors of Mechanics, Installers, and Repairers	166	4.29%
Construction and Related Workers, All Other	161	4.16%

Computer User Support Specialists

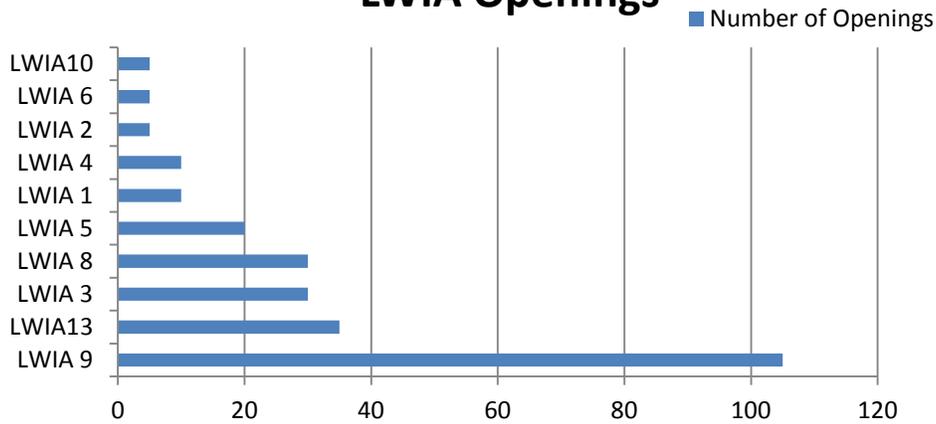
Computer support specialists provide help and advice to people and organizations using computer software or equipment. Some, called computer network support specialists, support information technology (IT) employees within their organization. Others, called computer user support specialists, assist non-IT users who are having computer problems. As the technology industry continues to grow and boom in Nashville, the computer user support specialists occupation is expected to have a growth rate of 2.8 percent and an increase in jobs of 480 by 2016. The most common employing industries include computer systems design and colleges and universities. A majority of employers specified either some college courses, an associate’s degree, or a post-secondary certificate as the minimum requirement for hiring an employee in this occupation. About 13 percent later moved into management.



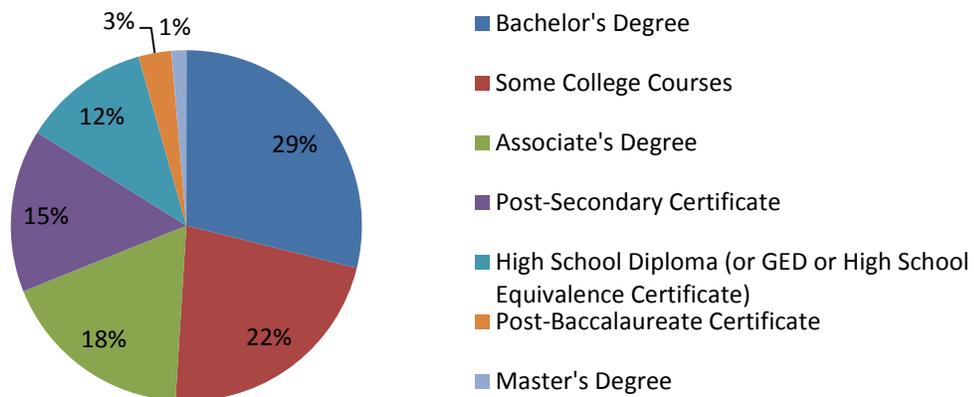
Top Industries

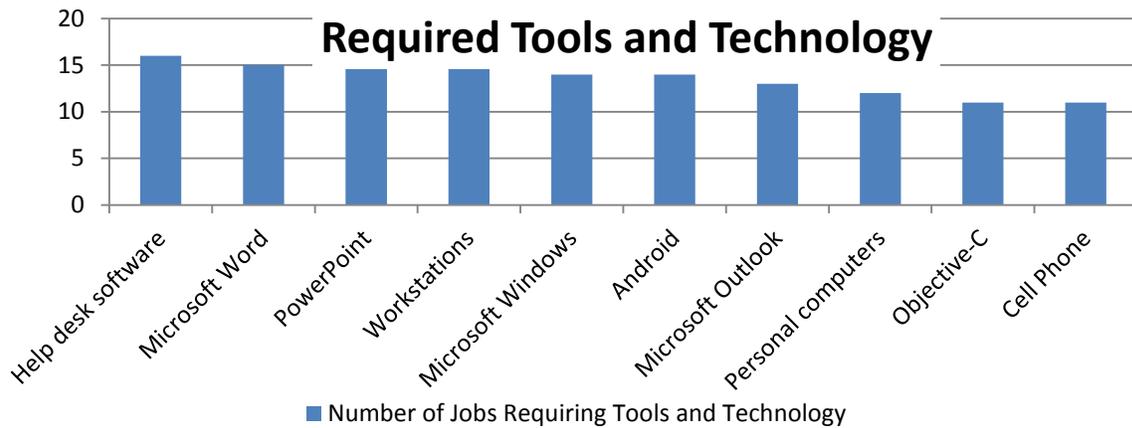


LWIA Openings



Required Education





Career Ladder Opportunities

Related Occupations	Number Moved into New Occupation	% Moved
Customer Service Representatives	1,891	25.62%
Network and Computer Systems Administrators	1,260	17.07%
Computer Systems Analysts	806	10.92%
Computer Occupations, All Other	728	9.86%
Retail Salespersons	544	7.37%
Computer and Information Systems Managers	522	7.07%
Computer Network Support Specialists	505	6.84%
Information Technology Project Managers	460	6.23%
Cashiers	358	4.85%
Sales Representatives, Services, All Other	306	4.15%

Bright Occupations Long Term Projections Summary

Occupational Title	Cluster Grade	2012 Employment	2022 Employment	Annual Average Openings	Annual Growth Rate	Median Wage (2013)
Computer Systems Analysts	A	8810	10890	345	2.1	75,431
Fiberglass Laminators and Fabricators	B	1010	1290	45	2.5	32,429
Computer-Controlled Machine Tool Operators, Metal	B	2620	3470	160	2.8	33,104
Painters, Transportation Equipment	B	960	1190	40	2.2	34,979
Medical Equipment Repairers	B	1030	1370	60	2.9	40,254
Brickmasons and Blockmasons	A	930	1260	45	3.1	42,440
Market Research Analysts & Marketing Specialists	B	5560	7620	280	3.2	49,737
Paralegals and Legal Assistants	A	4820	7170	315	4.0	42,807
Computer Numerically Controlled Machine Tool Programming	B	490	740	40	4.1	41,980
Financial Analysts	B	2470	3110	125	2.3	69,955
Industrial Engineers	B	4900	5510	205	1.2	80,257
Construction Managers	A	11040	11960	265	0.8	71,911
Computer Programmers	A	4900	5400	180	1.0	75,120
Customer Service Representatives	A	48050	56410	2145	1.6	28,590
Elementary School Teachers, Except Special Education	A	27740	33520	1190	1.9	46,344
Team Assemblers	B	39680	47700	1430	1.9	30,358
Heavy and Tractor-Trailer Truck Drivers	A	58100	66710	1790	1.4	38,130
Training and Development Specialists	B	4520	5350	165	1.7	56,269
Electricians	A	11330	11770	445	1.9	46,784
Computer User Support Specialists	A	8390	8870	485	2.8	42,340

Source: TN Department of Labor and Workforce Development, Labor Market Information Section, Long Term Projections to 2022 and Occupational Employment and Wages Survey.

Related Occupations and Wages Comparison

Hot Occupations	Hot Occupation Wage	Wage Comparison	Related Occupations
Computer Systems Analysts	\$75,431		
		\$75,655	Computer Programmers
		\$81,170	Software Development Applications
Construction Managers	\$71,911		
		\$79,810	General and Operations Managers
		\$105,690	Architectural and Engineering Managers
Computer Programmers	\$75,120		
		\$65,289	Computer Systems Engineers and Architects
		\$53,697	Web Developers
Fiberglass Laminators and Fabricators	\$32,429		
		\$31,909	Team Assemblers
		\$31,805	Electromechanical Equipment Assemblers
Computer-Controlled Machine Tool Operators, Metal and Plastic	\$33,104		
		\$40,432	Machinists
		\$32,431	Cutting, Punching, and Press Machine Setters, Operators, and Tenders of Metal and Plastic
Painters, Transportation Equipment	\$34,979		
		\$35,671	Welders, Cutters, and Welder Fitters
		\$28,210	Print Binding and Finishing Workers
Medical Equipment Repairers	\$40,254		
		\$36,581	Maintenance and Repair Workers, General
		\$58,545	Robotics Technicians
Customer Service Representatives	\$28,590		
		\$25,027	Receptionists and Information Clerks
		\$28,590	Patient Representatives
Brickmasons and Blockmasons	\$42,440		
		\$26,294	Stonemasons
		\$35,331	Pile-driver Operators
Elementary School Teachers, Except Special Education	\$46,344		
		\$56,269	Training and Development Specialists
		\$45,195	Healthcare Social Workers

Team Assemblers	\$30,385	
		\$28,755
		Molding and Casting Workers
		\$37,941
		Telecommunications Line Installers and Repairers
Market Research Analysts & Marketing Specialists	\$49,737	
		\$51,096
		Public Relations Specialists
		\$100,285
		Marketing Managers
Heavy and Tractor-Trailer Truck Drivers	\$38,130	
		\$25,627
		Driver/Sales Workers
		\$28,704
		Light Truck or Delivery Service Drivers
Paralegals and Legal Assistants	\$42,807	
		\$42,910
		Legal Support Workers, All Other
		\$41,551
		Legal Secretaries
Computer Numerically Controlled Machine Tool Programmers	\$41,980	
		\$56,930
		Electronics Engineering Technologist
		\$55,446
		Industrial Engineering Technician
Financial Analysts	\$69,955	
		\$63,883
		Accountants
		\$113,364
		Personal Financial Advisors
Industrial Engineers	\$80,257	
		\$110,400
		Architectural and Engineering Managers
		\$75,680
		Industrial Safety and Health Engineers
Training and Development Specialists	\$56,269	
		\$88,225
		Marketing Managers
		\$50,324
		Human Resources Specialists
Electricians	\$46,784	
		\$35,019
		Automotive Master Mechanics
		\$35,737
		Maintenance and Repair Workers, General
Computer User Support Specialists	\$42,340	
		\$38,078
		Computer Operators
		\$67,282
		Web Administrators

The program areas listed below had considerably more program completers across the state than annual average job openings.

Oversupplied Programs of Study

Cluster Title	Projected Annual Openings (Demand)	Program Completers 2012 (Supply)	Demand Lag
Cosmetology and Barbering	480	3,486	-3,006
Support Services- Instructional Coordinators	40	1,530	-1,490
Postsecondary Teachers-English Education	40	1,484	-1,444
Journalism and Broadcasting Pathway	290	1,626	-1,336
Construction Pathway - Construction HVAC/R	220	1,039	-819
Postsecondary Teachers- Teacher Education	45	729	-684
Engineering Technology	70	619	-549
Marketing Management	185	698	-513
Surgical Technologist	115	560	-445
Fine Arts	105	526	-421

Source: TN Department of Labor and Workforce Development, Labor Market Information Section, Long Term Projections to 2022 and Supply-Demand Analysis.

Resources

ONET Website: <http://www.onetonline.org/>

Tennessee Workforce Main Site: <http://www.tn.gov/workforce>

Jobs4tn: <https://www.jobs4tn.gov/vosnet/Default.aspx>

Short-Term Projections: http://www.tn.gov/assets/entities/labor/attachments/2014-2016_SHORT-TERM_PROJECTIONS_REPORT.pdf

Hot Jobs Search Function: <http://www.tn.gov/workforce/topic/occupations-in-demand>

Contact Information:

**Labor Market Information Section
Employment Security Division
Department of Labor and Workforce Development
220 French Landing Drive Nashville, Tennessee 37243
Phone: (615) 741-2284**

