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# Occupations by Educational Attainment and Classification



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**Acknowledgements:**

The *Occupations by Educational Attainment and Classification: Central Pennsylvania Workforce Investment Area* was prepared by the Central Pennsylvania Workforce Development Corporation (CPWDC) for the Central (Pennsylvania) Workforce Investment Area (WIA). Employment estimates and projections and educational attainment levels are provided by Economic Modeling Specialists, Incorporated (EMSI). Classifications of professional, skilled, and unskilled occupations with corresponding employment estimates and projections are provided by the Center for Workforce Information and Analysis (CWIA). The analysis presented in this report was conducted by the CPWDC on behalf of the Central WIA as part of the Research Partnership.

**Disclaimer:**

The Central Pennsylvania Workforce Development Corporation (CPWDC) cannot guarantee the accuracy of the employment estimates and projections provided by EMSI and CWIA, nor the respective educational attainment levels and occupational classifications. Educational attainment levels represent the most common level of education acquired by workers in each occupation. Classifications of occupations (i.e., professional, skilled, and unskilled) are based mainly on these educational requirements. This report merely identifies the most prevalent occupations in each level of education and occupational classification according to current estimates, future projections, and changes in the number of jobs within that time period in the Central WIA.

**Introduction:**

The *Occupations by Educational Attainment and Classification* report identifies the most widespread occupations in the Central WIA within each educational level. This report also identifies the most common professional, skilled, and unskilled occupations. Education levels, which are provided by Economic Modeling Specialists, Incorporated (EMSI), are determined by the average requirements necessary for each occupation based on all workers in the occupation. Some jobs require degrees and others require on-the-job training. Of course, not all workers in an occupation will have earned the same level of education (i.e., bachelor's degree, master's degree, et cetera) or received the same amount of training (i.e., short-term, long-term, et cetera). Furthermore, while the Center for Workforce Information and Analysis (CWIA) determined its classification of occupations using each occupation's respective educational attainment level, several exceptions were selected individually by CWIA's discretion for placement into varying categories (e.g., all jobs requiring bachelor's degrees were classified as professional, except recreation workers who were classified as skilled).

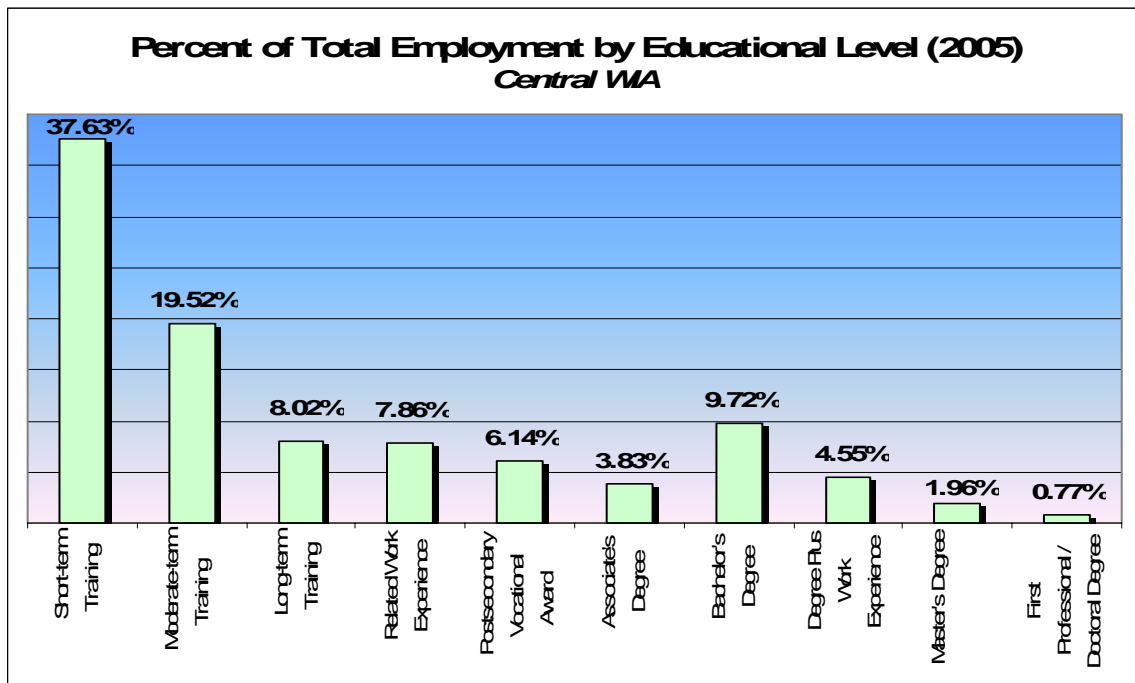
**Educational Levels:**

A total of 11 educational levels are identified by EMSI for all occupations in the Central WIA. These include the following: (descriptions provided by America's Career InfoNet)

- **Short-term on-the-job training** (a brief demonstration of job duties or up to one month of paid on-the-job experience or instruction)
- **Moderate-term on-the-job training** (one to twelve months of combined paid on-the-job experience and informal training)
- **Long-term on-the-job training** (instruction for more than one year while employed in an occupation)
- **Work experience in a related field**
- **Postsecondary vocational award** (vocational/occupation-based school training above and beyond the high school level and passing an examination)
- **Associate's degree**
- **Bachelor's degree**
- **Degree plus work experience** (bachelor's degree or higher)
- **Master's degree**
- **First professional degree**
- **Doctoral degree**

Due to the limited number of occupations that require first professional or doctoral degrees, these two educational levels are combined. Therefore, a total of 10 different educational levels will be examined to determine the most prevalent occupations.

The following chart identifies the proportion of all jobs in the Central WIA that demonstrate each educational requirement level based on 2005 employment estimates: (Note: These values are based on the number of individuals in each occupation)

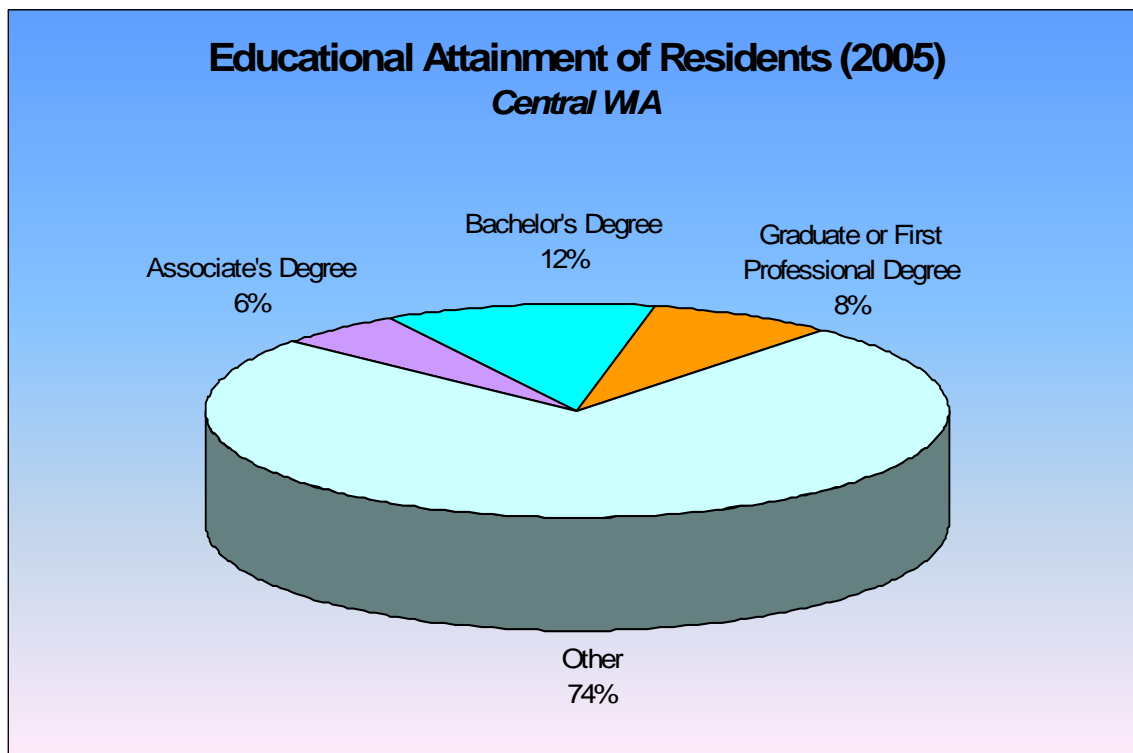


Source: Economic Modeling Specialists, Incorporated

As of 2005, approximately sixty-five percent (65%) of all jobs in the Central WIA require some sort of on-the-job training, with a majority being only short-term. This indicates that a large portion of jobs do not necessarily require any type of postsecondary education. However, individuals with higher levels of educational attainment may work in those jobs, earn higher wages, or have opportunities for advancement. Focusing on 2- and 4-year college programs, associate's and bachelor's degrees are common in only fourteen percent (14%) of all jobs.

Comparisons can be made between what types of jobs are offered in the Central WIA in terms of education levels (see *the Percent of Total Employment by Education Level chart*) and the levels of education that individuals living in the area have earned. Educational attainment levels, which are provided by DemographicsNow based on U.S. Census data, identify the population of individuals in the region over the age of 24 who have earned associate's degrees, bachelor's degrees, graduate or first professional degrees, and "other" levels of education (including less than 9<sup>th</sup> grade, 9<sup>th</sup> to 12<sup>th</sup> grade no diploma, high school graduates, and some college but no degree).

The following chart demonstrates the percent of individuals over the age of 24 in the Central WIA who have achieved each educational attainment level as of 2005:



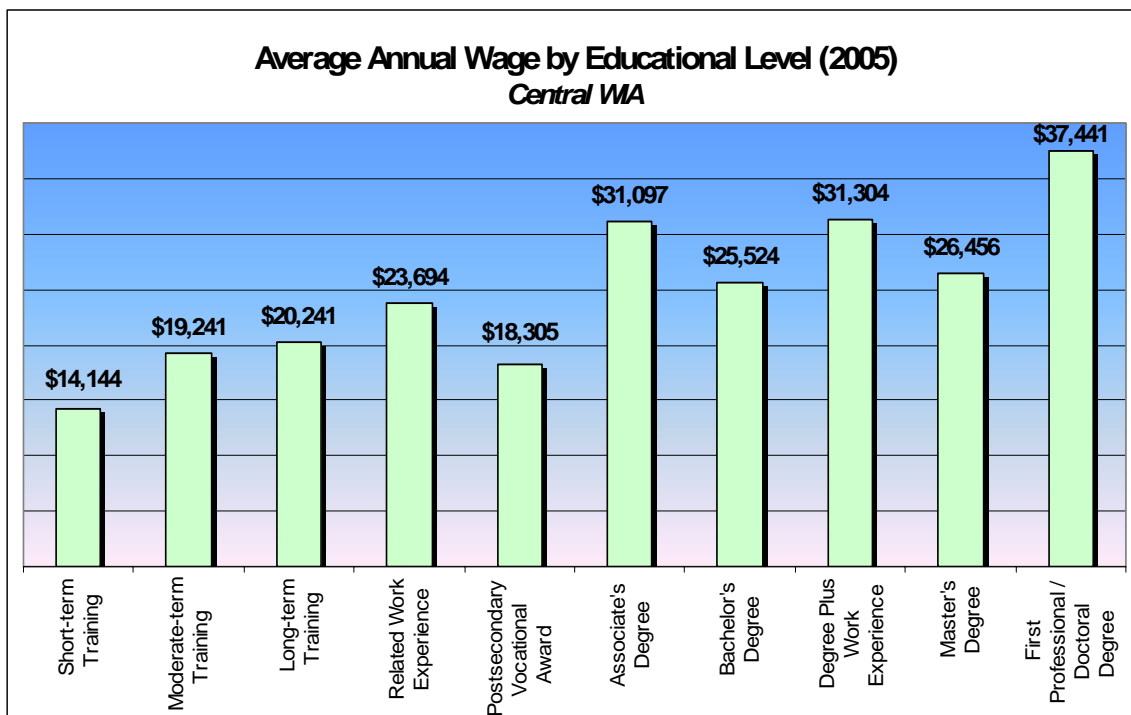
Source: DemographicsNow, based on U.S. Census Data

***It is important to note that this chart considers the entire population over the age of 24. It does not distinguish between those involved in the labor force and those not actively seeking employment.*** In the Central WIA, seventy-four percent (74%) of all individuals over the age of 24 have achieved an education level of less than a postsecondary degree as of 2005. It appears that based solely on these numbers, there is a gap between educational attainment and job demand. However, it is unclear as to

whether the degrees earned are in subject areas that relate to job demand. This is evident by the fact that six percent (6%) of the 25+ population has earned an associate's degree, but only about four percent (4%) of all jobs need this degree. Furthermore, while twelve percent (12%) of the 25+ population has earned a bachelor's degree, only ten percent (10%) of jobs demand this education level. The greatest disparity is present for graduate or first professional degrees: of the 25+ population, eight percent (8%) has earned this level of education, but only three percent (3%) of all jobs in the Central WIA require a master's degree or first professional/doctoral degree. Some of the differences in educational attainment levels of the 25+ population and the educational requirements of jobs are accounted for by the five percent (5%) of jobs that require a degree plus work experience.

The assertion that there may be a significant number of individuals who have achieved a higher level of education than what is typically required for the job in which they are employed suggests that there may be a pool of individuals in the Central WIA who are underemployed. These are workers who possess the skills, experience, and/or education necessary to justify higher wage rates. Underemployment can be defined as the employment of high skill workers in jobs that do not require those skills and/or a low market demand for higher level skills. Of course, as described in the introduction, not all employees in a specific occupation have earned the same degree or possess the same skill sets. The determination of the educational requirement for each job is based on the average level achieved by all workers in each occupation.

The following chart identifies the average annual wage for all workers in each educational level as of 2005 in the Central WIA: **(Note: These values do not include benefits)**

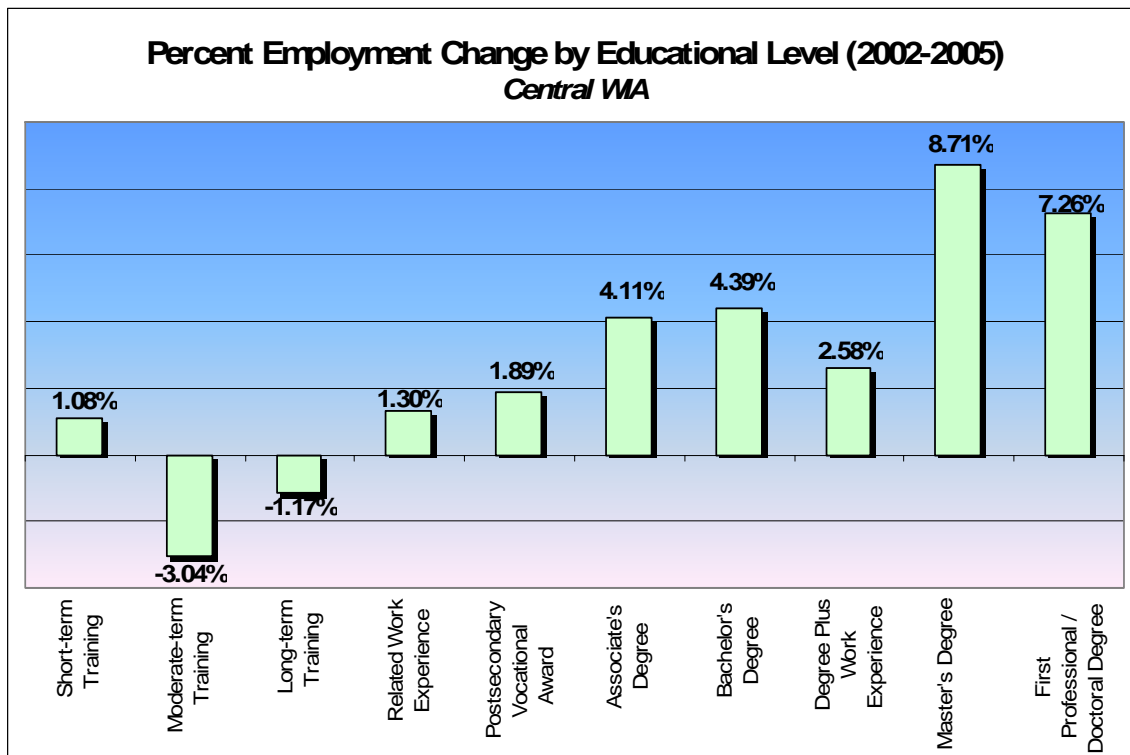


Source: Economic Modeling Specialists, Incorporated

Clearly, varying levels of education impact the wages earned by employees in the Central Region. There is a direct relationship between these two variables, where a higher level of education demonstrates a higher average annual wage. The average annual wage for a job requiring a two-year associate's degree is about fifty percent (50%) higher than a job that demands long-term on-the-job training (i.e., over a year of training). Furthermore, occupations that necessitate long-term training receive about forty percent (40%) more in earnings than positions that only need short-term training (i.e., a month or less of training).

Interestingly, occupations that require bachelor's degrees or master's degrees demonstrate lower average annual wages than those that require associate's degrees. Jobs requiring associate's degrees are typically high skilled and therefore may offer relatively higher wages. Conversely, lower wages may result from the abundance of entry level jobs available in the region for individuals possessing bachelor's or master's degrees, thus causing the average wages for these types of jobs to be relatively lower. It is expected, however, for wages to increase as workers remain in the same occupation over an extended period of time, especially jobs that demand bachelor's or master's degrees because there may be more opportunities for career advancement.

The following chart illustrates the percent change in employment for all occupations in each educational level in the Central WIA from 2002 to 2005:

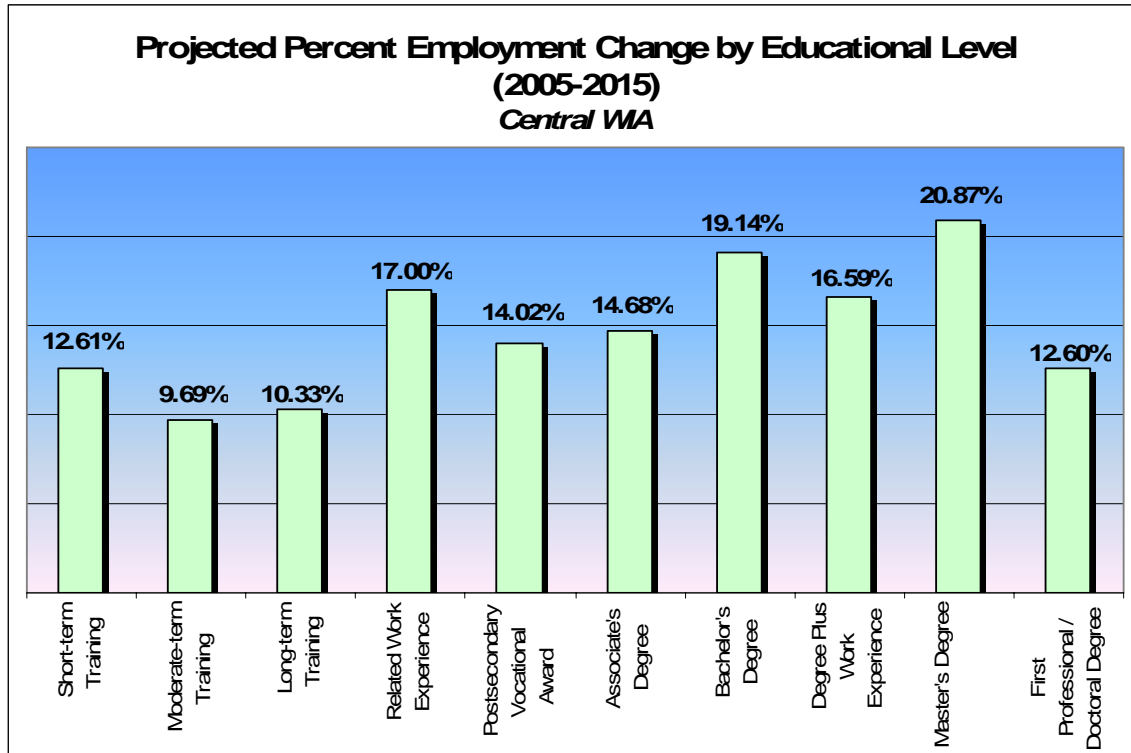


Source: Economic Modeling Specialists, Incorporated

This chart suggests that the importance of post-secondary education has risen in the Central WIA, especially for new jobs. Between 2002 and 2005, there was a nine percent (9%) increase in jobs that require a master's degree, and four percent (4%) for those needing associate's or bachelor's degrees. Jobs that typically need moderate- and long-

term training, however, decreased over the same time period. Overall, employment increased by approximately 2,600 jobs (or about 1%). The largest net increases in employment were present for occupations that typically require associate's degrees, bachelor's degrees, and master's degrees. Together, these three (3) types of jobs accounted for almost 2,400 job creations in this time period. Conversely, jobs calling for moderate- and long-term on-the-job training experienced a reduction of over 2,300 jobs. There was, however, a large increase for jobs involving short-term on-the-job training.

The following chart identifies the projected percent change in employment for all jobs within each educational attainment level from 2005 to 2015 in the Central WIA:



Source: Economic Modeling Specialists, Incorporated

Jobs in all education levels are expected to increase in the next decade in the Central Region. The greatest percent increases are evident in those that require bachelor's degrees (19%) and master's degrees (21%), which together may account for 7,500 new openings. This further emphasizes the importance of post-secondary education. Nevertheless, projections do suggest the significance of on-the-job training programs to the local economy. Nearly 25,000 new employment opportunities (over 50% of all increases in employment) will require some form of on-the-job training (i.e., short-term, moderate-term, or long-term).

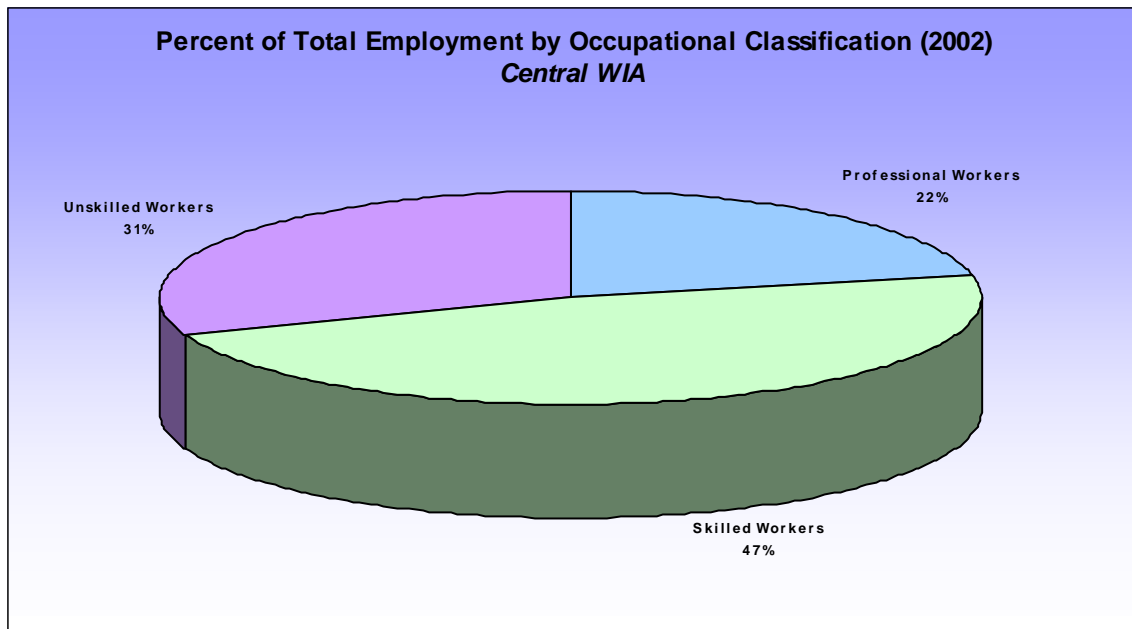
### Occupational Classifications:

The Center for Workforce Information and Analysis (CWIA) classifies all occupations into three distinct categories: **professional**, **skilled**, and **unskilled**. It is important to note that these classifications do not directly correspond with the educational levels described previously in this report. Occupations can be grouped by educational level or

occupational classification. However, classifying jobs as professional, skilled, or unskilled is based largely on the average educational requirements for each occupation.

According to the Center for Workforce Information and Analysis, all occupations requiring doctoral degrees, first professional degrees, master's degrees, and degrees plus work experience and a majority of those requiring bachelor's degrees were classified as professional. Most jobs demanding all other educational attainment levels (i.e., short-term on-the-job training, moderate-term on-the-job training, long-term on-the-job training, postsecondary vocational awards, associate's degrees, and work experience in a related field) were classified as skilled. Exceptions, however, were present in each of these levels of education for skilled occupations. Most notably, about half of all jobs that entail short-term on-the-job training were classified as skilled, but the remainder were classified as unskilled, depending on the nature of the job.

The following table identifies the proportion of employment in the Central WIA by occupational classification based on 2002 employment estimates: **(Note: CWIA differs from EMSI in that it provided employment estimates for 2002 rather than 2005- CWIA produces long-term occupational employment projections every two years covering a time period of ten years. This indicates that CWIA classified occupations using the employment projections that are currently available for 2002 to 2012. Updated employment projections, which will look at employment values from 2004 to 2014, were not yet available for the Central Region when CWIA performed its classification of occupations.)**



Source: Center for Workforce Information and Analysis

**These values are based on the number of individuals in each occupation.** This chart demonstrates that only twenty-two percent (22%) of jobs in the Central WIA are professional, while forty-seven percent (47%) are skilled, which reflects what has already been shown with occupations according to educational attainment levels. Because most jobs require on-the-job training, it is expected that most jobs will be classified as skilled.

Typically, higher education levels equate to jobs that require higher skill sets (e.g., an individual with a doctoral degree will typically find employment in an occupation classified as professional). Certainly, education does not always correlate to specific occupations for obvious reasons.

### **Results:**

The following tables identify the most common occupations in each education level as well as each occupational classification. As noted earlier, these are two unique ways of categorizing all jobs. For each educational attainment level, occupations are presented for those that demonstrate the highest overall number of jobs in 2005 and 2015 and for those which are projected to have the highest increase in jobs during this time period. Similarly, for the professional, skilled, and unskilled groupings, occupations are identified in each classification for those that have the greatest number of jobs in 2002 and 2012 and those that are projected to have the greatest increase over the time period. The difference in the base year and projected year is strictly a result of how EMSI and CWIA present their respective employment estimates and projections.

<b>Education Level: Short-term On-the-job Training</b>					
<i>Top Occupations According To:</i>					
<b>Number of Jobs in 2005</b>		<b>Number of Jobs in 2015</b>		<b>Increase in Jobs from 2005-2015</b>	
<b>SOC</b>	<b>Occupation</b>	<b>SOC</b>	<b>Occupation</b>	<b>SOC</b>	<b>Occupation</b>
43-9061	Office clerks, general	41-2031	Retail salespersons	41-2031	Retail salespersons
41-2031	Retail salespersons	43-9061	Office clerks, general	37-2011	Janitors and cleaners, except maids and housekeeping cleaners
41-2011	Cashiers, except gaming	41-2011	Cashiers, except gaming	35-3031	Waiters and waitresses
35-3031	Waiters and waitresses	37-2011	Janitors and cleaners, except maids and housekeeping cleaners	41-9091	Door-to-door sales workers, news and street vendors, and related workers
37-2011	Janitors and cleaners, except maids and housekeeping cleaners	35-3031	Waiters and waitresses	39-9011	Child care workers
35-3021	Combined food preparation and serving workers, including fast food	35-3021	Combined food preparation and serving workers, including fast food	31-1011	Home health aides
53-7062	Laborers and freight, stock, and material movers, hand	53-7062	Laborers and freight, stock, and material movers, hand	35-3021	Combined food preparation and serving workers, including fast food
43-5081	Stock clerks and order fillers	41-9091	Door-to-door sales workers, news and street vendors, and related workers	39-9021	Personal and home care aides
41-9091	Door-to-door sales workers, news and street vendors, and related workers	53-3033	Truck drivers, light or delivery services	53-3033	Truck drivers, light or delivery services
25-9041	Teacher assistants	25-9041	Teacher assistants	43-9061	Office clerks, general

Source: Economic Modeling Specialists, Incorporated

<b>Education Level: Moderate-Term On-the-job Training</b>					
<i>Top Occupations According To:</i>					
<b>Number of Jobs in 2005</b>		<b>Number of Jobs in 2015</b>		<b>Increase in Jobs from 2005-2015</b>	
<b>SOC</b>	<b>Occupation</b>	<b>SOC</b>	<b>Occupation</b>	<b>SOC</b>	<b>Occupation</b>
53-3032	Truck drivers, heavy and tractor-trailer	53-3032	Truck drivers, heavy and tractor-trailer	53-3032	Truck drivers, heavy and tractor-trailer
43-6014	Secretaries, except legal, medical, and executive	49-9042	Maintenance and repair workers, general	43-4051	Customer service representatives
49-9042	Maintenance and repair workers, general	43-6014	Secretaries, except legal, medical, and executive	49-9042	Maintenance and repair workers, general
43-3031	Bookkeeping, accounting, and auditing clerks	43-3031	Bookkeeping, accounting, and auditing clerks	43-3031	Bookkeeping, accounting, and auditing clerks
51-2092	Team assemblers	51-2092	Team assemblers	51-2092	Team assemblers
43-4051	Customer service representatives	43-4051	Customer service representatives	21-1093	Social and human service assistants
43-6011	Executive secretaries and administrative assistants	43-6011	Executive secretaries and administrative assistants	41-4012	Sales representatives, wholesale and manufacturing, except technical and scientific products
47-2061	Construction laborers	47-2061	Construction laborers	47-2061	Construction laborers
41-4012	Sales representatives, wholesale and manufacturing, except technical and scientific products	41-4012	Sales representatives, wholesale and manufacturing, except technical and scientific products	43-6011	Executive secretaries and administrative assistants
51-9061	Inspectors, testers, sorters, samplers, and weighers	21-1093	Social and human service assistants	31-9092	Medical assistants

Source: Economic Modeling Specialists, Incorporated

Education Level: Long-term On-the-job Training					
Top Occupations According To:					
Number of Jobs in 2005		Number of Jobs in 2015		Increase in Jobs from 2005-2015	
SOC	Occupation	SOC	Occupation	SOC	Occupation
47-2031	Carpenters	47-2031	Carpenters	47-2031	Carpenters
11-9012	Farmers and ranchers	11-9012	Farmers and ranchers	51-3011	Bakers
51-3011	Bakers	51-3011	Bakers	49-9021	Heating, air conditioning, and refrigeration mechanics and installers
35-2014	Cooks, restaurant	35-2014	Cooks, restaurant	35-2014	Cooks, restaurant
33-3051	Police and sheriff's patrol officers	33-3051	Police and sheriff's patrol officers	47-2152	Plumbers, pipefitters, and steamfitters
47-2111	Electricians	49-9021	Heating, air conditioning, and refrigeration mechanics and installers	27-2022	Coaches and scouts
51-4121	Welders, cutters, solderers, and brazers	47-2111	Electricians	33-3051	Police and sheriff's patrol officers
49-9021	Heating, air conditioning, and refrigeration mechanics and installers	51-7011	Cabinetmakers and bench carpenters	47-2111	Electricians
51-7011	Cabinetmakers and bench carpenters	51-4121	Welders, cutters, solderers, and brazers	13-1041	Compliance officers, except agriculture, construction, health and safety, and transportation
51-4041	Machinists	27-2022	Coaches and scouts	49-9031	Home appliance repairers

Source: Economic Modeling Specialists, Incorporated

<b>Education Level: Work Experience</b>					
<i>Top Occupations According To:</i>					
<b>Number of Jobs in 2005</b>		<b>Number of Jobs in 2015</b>		<b>Increase in Jobs from 2005-2015</b>	
<b>SOC</b>	<b>Occupation</b>	<b>SOC</b>	<b>Occupation</b>	<b>SOC</b>	<b>Occupation</b>
41-1011	First-line supervisors/managers of retail sales workers	41-1011	First-line supervisors/managers of retail sales workers	41-1011	First-line supervisors/managers of retail sales workers
11-9199	Managers, all other	11-9199	Managers, all other	11-9199	Managers, all other
43-1011	First-line supervisors/managers of office and administrative support workers	43-1011	First-line supervisors/managers of office and administrative support workers	47-1011	First-line supervisors/managers of construction trades and extraction workers
51-1011	First-line supervisors/managers of production and operating workers	51-1011	First-line supervisors/managers of production and operating workers	11-9051	Food service managers
35-1012	First-line supervisors/managers of food preparation and serving workers	35-1012	First-line supervisors/managers of food preparation and serving workers	35-1012	First-line supervisors/managers of food preparation and serving workers
47-1011	First-line supervisors/managers of construction trades and extraction workers	47-1011	First-line supervisors/managers of construction trades and extraction workers	43-1011	First-line supervisors/managers of office and administrative support workers
41-1012	First-line supervisors/managers of non-retail sales workers	11-9051	Food service managers	39-1021	First-line supervisors/managers of personal service workers
49-1011	First-line supervisors/managers of mechanics, installers, and repairers	41-1012	First-line supervisors/managers of non-retail sales workers	37-1012	First-line supervisors/managers of landscaping, lawn service, and groundskeeping workers
11-9051	Food service managers	49-1011	First-line supervisors/managers of mechanics, installers, and repairers	37-1011	First-line supervisors/managers of housekeeping and janitorial workers
13-1023	Purchasing agents, except wholesale, retail, and farm products	37-1011	First-line supervisors/managers of housekeeping and janitorial workers	53-1031	First-line supervisors/managers of transportation and material-moving machine and vehicle operators

Source: Economic Modeling Specialists, Incorporated

<b>Education Level: Postsecondary Vocational Award</b>					
<b>Top Occupations According To:</b>					
<b>Number of Jobs in 2005</b>		<b>Number of Jobs in 2015</b>		<b>Increase in Jobs from 2005-2015</b>	
<b>SOC</b>	<b>Occupation</b>	<b>SOC</b>	<b>Occupation</b>	<b>SOC</b>	<b>Occupation</b>
31-1012	Nursing aides, orderlies, and attendants	31-1012	Nursing aides, orderlies, and attendants	31-1012	Nursing aides, orderlies, and attendants
49-3023	Automotive service technicians and mechanics	49-3023	Automotive service technicians and mechanics	39-9031	Fitness trainers and aerobics instructors
29-2061	Licensed practical and licensed vocational nurses	29-2061	Licensed practical and licensed vocational nurses	25-2011	Preschool teachers, except special education
39-5012	Hairdressers, hairstylists, and cosmetologists	39-5012	Hairdressers, hairstylists, and cosmetologists	49-3023	Automotive service technicians and mechanics
25-2011	Preschool teachers, except special education	25-2011	Preschool teachers, except special education	29-2061	Licensed practical and licensed vocational nurses
39-9031	Fitness trainers and aerobics instructors	39-9031	Fitness trainers and aerobics instructors	49-3031	Bus and truck mechanics and diesel engine specialists
49-3031	Bus and truck mechanics and diesel engine specialists	49-3031	Bus and truck mechanics and diesel engine specialists	39-5012	Hairdressers, hairstylists, and cosmetologists
43-6013	Medical secretaries	41-9022	Real estate sales agents	41-9022	Real estate sales agents
41-9022	Real estate sales agents	43-6013	Medical secretaries	43-6013	Medical secretaries
29-2041	Emergency medical technicians and paramedics	29-2041	Emergency medical technicians and paramedics	43-6012	Legal secretaries

Source: Economic Modeling Specialists, Incorporated

Education Level: Associate's Degree					
Top Occupations According To:					
Number of Jobs in 2005		Number of Jobs in 2015		Increase in Jobs from 2005-2015	
SOC	Occupation	SOC	Occupation	SOC	Occupation
29-1111	Registered nurses	29-1111	Registered nurses	29-1111	Registered nurses
15-1041	Computer support specialists	15-1041	Computer support specialists	15-1041	Computer support specialists
29-1126	Respiratory therapists	29-2071	Medical records and health information technicians	29-2071	Medical records and health information technicians
29-2071	Medical records and health information technicians	29-1126	Respiratory therapists	29-2021	Dental hygienists
29-2034	Radiologic technologists and technicians	29-2034	Radiologic technologists and technicians	23-2011	Paralegals and legal assistants
19-4099	Life, physical, and social science technicians, all other	19-4099	Life, physical, and social science technicians, all other	29-2056	Veterinary technologists and technicians
29-2012	Medical and clinical laboratory technicians	29-2021	Dental hygienists	19-4099	Life, physical, and social science technicians, all other
29-2021	Dental hygienists	29-2012	Medical and clinical laboratory technicians	29-2012	Medical and clinical laboratory technicians
23-2011	Paralegals and legal assistants	23-2011	Paralegals and legal assistants	29-2034	Radiologic technologists and technicians
17-3023	Electrical and electronic engineering technicians	17-3023	Electrical and electronic engineering technicians	31-2021	Physical therapist assistants

Source: Economic Modeling Specialists, Incorporated

Education Level: Bachelor's Degree					
Top Occupations According To:					
Number of Jobs in 2005		Number of Jobs in 2015		Increase in Jobs from 2005-2015	
SOC	Occupation	SOC	Occupation	SOC	Occupation
13-1199	Business operation specialists, all other	13-1199	Business operation specialists, all other	13-1199	Business operation specialists, all other
25-2021	Elementary school teachers, except special education	25-2021	Elementary school teachers, except special education	13-2011	Accountants and auditors
13-2011	Accountants and auditors	13-2011	Accountants and auditors	25-2021	Elementary school teachers, except special education
41-3021	Insurance sales agents	41-3021	Insurance sales agents	41-3021	Insurance sales agents
25-2031	Secondary school teachers, except special and vocational education	25-2031	Secondary school teachers, except special and vocational education	11-9021	Construction managers
21-1021	Child, family, and school social workers	21-1021	Child, family, and school social workers	21-2021	Directors, religious activities and education
25-2022	Middle school teachers, except special and vocational education	25-2022	Middle school teachers, except special and vocational education	21-1021	Child, family, and school social workers
11-9021	Construction managers	11-9021	Construction managers	11-9141	Property, real estate, and community association managers
21-2021	Directors, religious activities and education	21-2021	Directors, religious activities and education	15-1071	Network and computer systems administrators
15-1021	Computer programmers	11-9141	Property, real estate, and community association managers	15-1051	Computer systems analysts

Source: Economic Modeling Specialists, Incorporated

<b>Education Level: Degree plus Work Experience</b>					
<i>Top Occupations According To:</i>					
<b>Number of Jobs in 2005</b>		<b>Number of Jobs in 2015</b>		<b>Increase in Jobs from 2005-2015</b>	
<b>SOC</b>	<b>Occupation</b>	<b>SOC</b>	<b>Occupation</b>	<b>SOC</b>	<b>Occupation</b>
11-1021	General and operations managers	11-1021	General and operations managers	11-1021	General and operations managers
11-1011	Chief executives	11-1011	Chief executives	11-1011	Chief executives
13-1111	Management analysts	13-1111	Management analysts	11-3031	Financial managers
11-3031	Financial managers	11-3031	Financial managers	13-1111	Management analysts
11-9011	Farm, ranch, and other agricultural managers	11-9011	Farm, ranch, and other agricultural managers	11-2022	Sales managers
11-9033	Education administrators, postsecondary	11-9033	Education administrators, postsecondary	11-3021	Computer and information systems managers
11-3011	Administrative services managers	11-2022	Sales managers	11-3011	Administrative services managers
11-2022	Sales managers	11-3011	Administrative services managers	11-9033	Education administrators, postsecondary
11-9111	Medical and health services managers	11-9111	Medical and health services managers	11-2021	Marketing managers
11-3021	Computer and information systems managers	11-3021	Computer and information systems managers	11-9111	Medical and health services managers

Source: Economic Modeling Specialists, Incorporated

<b>Education Level: Master's Degree</b>					
<b>Top Occupations According To:</b>					
<b>Number of Jobs in 2005</b>		<b>Number of Jobs in 2015</b>		<b>Increase in Jobs from 2005-2015</b>	
<b>SOC</b>	<b>Occupation</b>	<b>SOC</b>	<b>Occupation</b>	<b>SOC</b>	<b>Occupation</b>
21-1023	Mental health and substance abuse social workers	21-1023	Mental health and substance abuse social workers	21-1014	Mental health counselors
21-1014	Mental health counselors	21-1014	Mental health counselors	21-1023	Mental health and substance abuse social workers
21-1012	Educational, vocational, and school counselors	21-1011	Substance abuse and behavioral disorder counselors	21-1011	Substance abuse and behavioral disorder counselors
21-1011	Substance abuse and behavioral disorder counselors	21-1012	Educational, vocational, and school counselors	21-1012	Educational, vocational, and school counselors
29-1123	Physical therapists	29-1123	Physical therapists	25-9031	Instructional coordinators
25-9031	Instructional coordinators	25-9031	Instructional coordinators	29-1123	Physical therapists
15-2031	Operations research analysts	15-2031	Operations research analysts	21-1015	Rehabilitation counselors
25-4021	Librarians	25-4021	Librarians	21-1013	Marriage and family therapists
29-1122	Occupational therapists	29-1122	Occupational therapists	15-2031	Operations research analysts
29-1127	Speech-language pathologists	29-1127	Speech-language pathologists	29-1122	Occupational therapists

Source: Economic Modeling Specialists, Incorporated

Education Level: First Professional/Doctoral Degree					
Top Occupations According To:					
Number of Jobs in 2005		Number of Jobs in 2015		Increase in Jobs from 2005-2015	
SOC	Occupation	SOC	Occupation	SOC	Occupation
23-1011	Lawyers	23-1011	Lawyers	19-3031	Clinical, counseling, and school psychologists
29-1051	Pharmacists	29-1051	Pharmacists	29-1131	Veterinarians
19-3031	Clinical, counseling, and school psychologists	19-3031	Clinical, counseling, and school psychologists	23-1011	Lawyers
29-1131	Veterinarians	29-1131	Veterinarians	29-1051	Pharmacists
29-1021	Dentists, general	29-1021	Dentists, general	29-1021	Dentists, general
15-1011	Computer and information scientists, research	15-1011	Computer and information scientists, research	19-1042	Medical scientists, except epidemiologists
19-2012	Physicists	29-1011	Chiropractors	29-1011	Chiropractors
29-1011	Chiropractors	19-2012	Physicists	19-1021	Biochemists and biophysicists
29-1041	Optometrists	19-1042	Medical scientists, except epidemiologists	29-1081	Podiatrists
19-1042	Medical scientists, except epidemiologists	29-1041	Optometrists	19-2012	Physicists

Source: Economic Modeling Specialists, Incorporated

<b>Professional Jobs</b>					
<i>Top Occupations According To:</i>					
<b>Number of Jobs in 2002</b>		<b>Number of Jobs in 2012</b>		<b>Increase in Jobs from 2002-2012</b>	
<b>SOC</b>	<b>Occupation</b>	<b>SOC</b>	<b>Occupation</b>	<b>SOC</b>	<b>Occupation</b>
29-1111	Registered Nurses	29-1111	Registered Nurses	29-1111	Registered Nurses
11-1021	General & Operations Managers	11-1021	General & Operations Managers	11-1021	General & Operations Managers
25-2021	Elementary School Teachers	25-2021	Elementary School Teachers	13-1199	Business Operations Specialists, Other
13-1199	Business Operations Specialists, Other	13-1199	Business Operations Specialists, Other	25-1199	Postsecondary Teachers, Other
25-2031	Secondary School Teachers	25-2031	Secondary School Teachers	15-1051	Computer Systems Analysts
11-9011	Farm, Ranch & Other Agricultural Managers	11-9011	Farm, Ranch & Other Agricultural Managers	25-1011	Business Teachers, Postsecondary
25-2022	Middle School Teachers	11-3031	Financial Managers	25-1121	Art, Drama & Music Teachers, Postsecondary
11-3031	Financial Managers	13-2011	Accountants & Auditors	13-2011	Accountants & Auditors
13-2011	Accountants & Auditors	25-2022	Middle School Teachers	21-1021	Child, Family & School Social Workers
11-1011	Chief Executives	25-1199	Postsecondary Teachers, Other	21-9099	Counselors, Social & Religious Workers, Other

Source: Center for Workforce Information and Analysis

<b>Skilled Jobs</b>					
<i>Top Occupations According To:</i>					
<b>Number of Jobs in 2002</b>		<b>Number of Jobs in 2012</b>		<b>Increase in Jobs from 2002-2012</b>	
<b>SOC</b>	<b>Occupation</b>	<b>SOC</b>	<b>Occupation</b>	<b>SOC</b>	<b>Occupation</b>
41-2031	Retail Salespersons	41-2031	Retail Salespersons	47-2031	Carpenters
53-3032	Truck Drivers, Heavy & Tractor-Trailer	53-3032	Truck Drivers, Heavy & Tractor-Trailer	31-1012	Nursing Aides, Orderlies & Attendants
51-2092	Team Assemblers	31-1012	Nursing Aides, Orderlies & Attendants	53-3032	Truck Drivers, Heavy & Tractor-Trailer
11-9012	Farmers & Ranchers	47-2031	Carpenters	43-4051	Customer Service Representatives
31-1012	Nursing Aides, Orderlies & Attendants	11-9012	Farmers & Ranchers	11-9199	Managers, Other
43-6011	Executive Secretaries & Administrative Assistants	51-2092	Team Assemblers	33-3012	Correctional Officers & Jailers
47-2031	Carpenters	43-6011	Executive Secretaries & Administrative Assistants	31-9092	Medical Assistants
49-9042	Maintenance & Repair Workers, General	49-9042	Maintenance & Repair Workers, General	49-9042	Maintenance & Repair Workers, General
41-1011	Supervisors - Retail Sales Workers	41-1011	Supervisors - Retail Sales Workers	25-9041	Teacher Assistants
43-3031	Bookkeeping, Accounting & Auditing Clerks	11-9199	Managers, Other	21-1093	Social & Human Service Assistants

Source: Center for Workforce Information and Analysis

<b>Unskilled Jobs</b>					
<i>Top Occupations According To:</i>					
<b>Number of Jobs in 2002</b>		<b>Number of Jobs in 2012</b>		<b>Increase in Jobs from 2005-2012</b>	
<b>SOC</b>	<b>Occupation</b>	<b>SOC</b>	<b>Occupation</b>	<b>SOC</b>	<b>Occupation</b>
41-2011	Cashiers	41-2011	Cashiers	35-3031	Waiters & Waitresses
43-9061	Office Clerks, General	43-9061	Office Clerks, General	35-3021	Combined Food Preparation & Serving Workers
43-6014	Secretaries	35-3031	Waiters & Waitresses	41-2011	Cashiers
35-3031	Waiters & Waitresses	37-2011	Janitors & Cleaners	43-4171	Receptionists & Information Clerks
37-2011	Janitors & Cleaners	35-3021	Combined Food Preparation & Serving Workers	31-1011	Home Health Aides
35-3021	Combined Food Preparation & Serving Workers	43-6014	Secretaries	37-2011	Janitors & Cleaners
53-7062	Laborers & Freight, Stock & Material Movers, Hand	45-2092	Farmworkers & Laborers: Crop, Nursery & Greenhouse	39-9011	Child Care Workers
45-2092	Farmworkers & Laborers: Crop, Nursery & Greenhouse	53-7062	Laborers & Freight, Stock & Material Movers, Hand	53-3033	Truck Drivers, Light or Delivery Services
43-5081	Stock Clerks & Order Fillers	43-5081	Stock Clerks & Order Fillers	37-2012	Maids & Housekeeping Cleaners
53-3033	Truck Drivers, Light or Delivery Services	53-3033	Truck Drivers, Light or Delivery Services	35-2021	Food Preparation Workers

Source: Center for Workforce Information and Analysis