

North Central Iowa Alliance Skillshed Analysis



Executive Summary

*A study of occupational clusters, skills, & gap analysis
in the North Central Iowa Alliance Region*

Released August 2010

Introduction

A Skillshed is the geographic area from which a region pulls its workforce and the skills, education, and experience that the workforce possesses. Traditionally, labor markets have been studied in terms of the products produced by a region to understand what industries are relatively strong. A Skillshed helps to understand not only where the region's competitive strengths currently lie by detailing the current workforce mix, but also in which occupations or industries the region could grow into by understanding the difference between the current skill set and that skill set needed by emerging markets. The outcome of the Skillshed helps to analyze four key findings:

- Identification of the current skills possessed by the supply of workers.
- Projected employment growth, and median wages, skills, and knowledge needed by employers.
- The demand for workers considering the factors affecting supply and demand
- Gap analysis between the current set of skills and education and that set needed by current and prospective employers.

The Skillshed analysis integrated and analyzed information from three different sources; the North Central Iowa Alliance Laborshed Study, the Regional Workforce Needs Assessment (Job Vacancy) Survey, and information from the Occupational Information Network (O*NET). These three sources were used to present the supply and demand for labor within the region and the examples of gap analysis from current to emerging or high growth occupations.

The Laborshed survey was conducted and analyzed using 807 telephone survey responses from a random sample of 18-64 year olds within the region. Respondents were asked a wide range of demographic and employment-related questions. Areas of interest from the Laborshed survey:

- Work experience within the region
- Population by occupational category
- Unemployment and commuting patterns

The second annual Workforce Needs Assessment was conducted from September 2008 through January 2009. There were 356 employer responses from the North Central Iowa Alliance Region, yielding an 18.4 percent response rate. In addition to vacancy and retirement data, this year's survey included questions pertaining to average hourly starting wage. Analysis of the survey illustrates the demand for workers and skills required in the vacant positions. Areas analyzed using the Iowa Workforce Needs Assessment were:

- Vacancies by occupation
- Vacancies across industries
- Work activities, skills, and knowledge areas most needed by employers
- Starting wages offered and experience required

The Occupational Information Network (O*NET) is a joint effort between the US Department of Labor and the North Carolina Employment Security Commission. It provides a database of standardized and occupation-specific descriptions that help determine which factors are critical in the performance of an occupation. Data used for these analyses were:

- Work activities
- Knowledge
- Skills
- Job Description



Supply of Workers

Through use of the Laborshed study, the current occupations and skills of the region were identified. **Table 1** (below) shows the top occupational experience reported in the region by percentage of total and compares the regional Laborshed percent of occupations to that of the state. This comparison helps to identify those categories of occupations in which the region may have a higher concentration of workers and, therefore, may have a competitive advantage.

The table also includes the statewide projected annual growth rate in employment¹. The average projected growth rate for all jobs in the region is .79 percent with Trucking and Healthcare occupations exceeding the average.

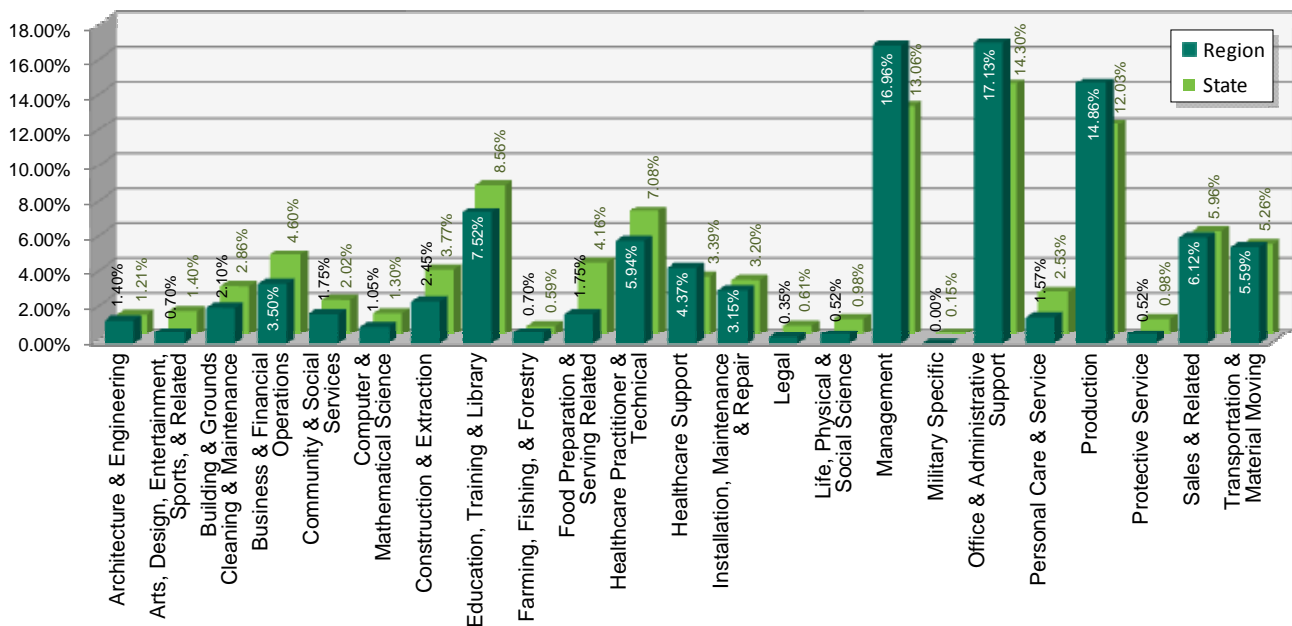
Table 1
Occupational Experience in Region

Occupation	Percent of Region	Percent of State	Regional Projected Annual Growth Rate ¹
General & Operations Managers	6.12%	0.34%	-0.40%
Chief Executives	5.24%	5.14%	*
Secondary School Teachers, Except Special & Vocational Education	5.07%	0.24%	*
Production, Helpers	4.37%	0.16%	*
First-Line Supervisors/Managers of Production & Operating Workers	3.15%	1.50%	0.71%
Customer Service Reps	2.97%	1.81%	2.08%
Retail Salespersons	2.45%	0.46%	1.09%
Office Clerks, General	2.45%	0.83%	1.24%
Registered Nurses	2.27%	2.48%	2.46%
First-Line Supervisors/Managers of Office & Administrative Support Workers	2.10%	1.61%	*
Executive Secretaries & Administrative Assistants	1.92%	1.35%	1.56%
First-Line Supervisors/Managers of Retail Sales Workers	1.92%	1.27%	0.81%
Truck Drivers, Heavy & Tractor-Trailer	1.75%	1.85%	1.06%
Medical Assistants	1.75%	0.36%	*
Operations Research Analyst	1.57%	0.02%	*
Multiple Machine Tool Setters, Operators, & Tenders	1.57%	1.41%	*

* Insufficient data reported

The occupations listed above can also be analyzed by overall occupational category. **Chart 1** presents the occupational categories for the region. The region has a high relative concentration of workers in the Management, Office & Administrative Support, and Production occupational categories which is similar to that of the state with Office & Administrative Support (14.30%), Management (13.06%), and Production (12.03%).

Chart 1
Population by Occupational Category



¹ <http://iwin.iwd.state.ia.us/pubs/region02/region02occproj.pdf>

Commuting and Willingness to Change/Accept Employment

The Laborshed Study also presents data on the commuting patterns and the willingness to change and/or accept employment. On average, workers within the region currently commute 9 miles each way to work for an average median wage of \$13.08 per hour but would be willing to commute up to 12 miles for a desired average wage of \$13.00 per hour.

One-fourth (26.96%) of the employed are willing to change employment and over three-fifths (63.81%) of those reporting to be unemployed are willing/able to accept employment within the region. Commuting ranges and the willingness to change and/or accept employment could have an impact on economic development as the region covers a relatively large area and the majority are rural communities.

Demand for Workers

The Workforce Needs Assessment reveals the vacant jobs employers reported in the region. **Table 2** shows the occupations with the most reported vacancies, the average starting wage, statewide median wage, and the statewide starting wage. The relationship between the regional starting wage and statewide wages can help us analyze the demand for workers within an occupation. For the most part, starting wages for jobs within the region are between the statewide starting wage and the statewide median wage. Regional starting wages greater than the statewide median wage may indicate an occupation highly in-demand. These workers are so highly needed that a significantly higher wage is still not enough to satisfy employer demand.

A regional starting wage below the statewide starting wage does not necessarily mean that workers from within the region will be lost to higher-paying regions. The regional starting wage across all occupations was \$11.00 while the starting wage across all occupations statewide was \$12.00.

Table 2
Occupations with Most Vacancies

Job Title	Regional Average Starting Wage ¹	Statewide Median Wage ²	Statewide Entry Level Wage ²
Nursing Aides, Orderlies, & Attendants	\$ 9.48	\$ 11.21	\$ 9.44
Installation, Maintenance, & Repair Workers, All Other	\$ 12.05	\$ 15.64	\$ 10.71
Production Workers, All Other	\$ 10.88	\$ 12.75	\$ 9.04
Registered Nurses	\$ 18.11	\$ 23.80	\$ 18.78
Waiters & Waitresses	\$ 6.07	\$ 7.31	\$ 7.07
Welding, Soldering, & Brazing Machine Setters	\$ 12.32	\$ 16.25	\$ 12.54
Laborers & Freight, Stock, & Material Movers, H&	\$ 12.80	\$ 10.81	\$ 7.99
Order Clerks	\$ 10.25	\$ 14.02	\$ 9.94
Construction Laborers	\$ 11.17	\$ 14.62	\$ 10.76
Truck Drivers, Light or Delivery Services	\$ 7.25	\$ 11.62	\$ 8.37
Coaches & Scouts	\$ 10.81	\$ 8.89	\$ 7.11
Licensed Practical & Licensed Vocational Nurses	\$ 16.00	\$ 17.01	\$ 14.08
Farmworkers, Farm & Ranch Animals	\$ 11.46	\$ 11.77	\$ 8.81
Automotive Service Technicians & Mechanics	\$ 11.60	\$ 15.16	\$ 9.95
Maintenance & Repair, General	\$ 14.52	\$ 15.93	\$ 10.71

* Insufficient data reported

Table 3 (next page) shows the largest industries in the region (by employment), and the vacancies most reported by those industries. The wholesale and retail trade industries have been combined due to the similarity in occupational mix.

In some instances, employers may have difficulty filling a vacancy in one industry but can fill the same occupation in another industry quite easily. Aside from differences in starting wages, these cases can occur because work duties and educational requirements may be similar across industries, but the work environment may be different and applicants may need some industry specific knowledge. Other occupations may be equally difficult to fill across industries. By examining the occupations demanded across industries, we can begin to see a demand picture for occupational categories.

¹ North Central Iowa Workforce Needs Assessment (2008)

² Iowa Wage Survey 2007, Iowa Workforce Development: Iowa Trends

Employers in the region reported requiring less experience and fewer years of formal education for their vacancies than those levels generally reported on O*NET or other occupational planning sources. This indicates that employers are willing to work with applicants to develop the skills and knowledge for the job rather than demanding that an applicant possess all skills at the outset.

**Table 3
Top Jobs Within Region's Largest Industries**

Industry	Occupation	Average Education Requirement	Average Experience Requirement	Average Starting Wage ³
Manufacturing	Production Workers, All Other	High School Diploma/GED	Less than 1 year	\$ 10.71
	Order Clerks	High School Diploma/GED	Less than 1 year	\$ 10.25
	Welding, Soldering, & Brazing Machine Setters	High School Diploma/GED	Less than 1 year	\$ 11.87
	Machinists	No Education Required	None	\$ 10.50
	Assemblers & Fabricators, All Other	No Education Required	None	\$ 12.44
	Installation, Maintenance, & Repair Workers, All Other	Technical Training/Certification	3-5 years	\$ 15.10
Healthcare	Nursing Aides, Orderlies, & Attendants	Associate Degree	None	\$ 9.48
	Registered Nurses	Technical Training/Certification	3-5 years	\$ 18.13
	Licensed Practical & Licensed Vocational Nurses	Vocational Training	Less than 1 year	\$ 16.00
Wholesale & Retail Trade	Graders & Sorters, Agricultural Products	No Education Required	None	\$ 10.00
	Automotive Service Technician & Mechanics	Vocational Training	1-2 years	*
	Retail Salespersons	High School Diploma/GED	None	\$ 7.37
	Sales Representatives, Wholesale & Manufacturing, Technical & Scientific Products	Bachelor's Degree	1-2 years	\$ 15.00
Educational Services	Coaches & Scouts	Technical Training/Certification	Less than 1 year	\$ 10.81
	Postsecondary Teachers, All Other	Undergraduate Degree	Less than 1 year	\$ 10.00
	Managers, All Other	Undergraduate Degree	3-5 years	\$ 14.45
	Janitors & Cleaners, Except Maids & Housekeepers	No Education Required	1-2 years	\$ 10.00
	Cashiers	No Education Required	None	\$ 9.72
Construction	Construction Laborers	High School Diploma/GED	Less than 1 year	\$ 11.17
	Administrative Services Managers	Associate Degree	More than 5 years	\$ 24.04
	Construction & Related Workers, All Other	High School Diploma/GED	1-2 years	\$ 13.00
	Electricians	Technical Training/Certification	1-2 years	\$ 14.50
	Architects, Except Landscape & Naval	Advanced Degree	More than 5 years	\$ 33.65
	Installation Maintenance, & Repair	High School Diploma/GED	Less than 1 year	\$ 12.00
	Welding, Soldering, & Brazing Machine Setters	High School Diploma/GED	3-5 years	\$ 15.00
	Plumbers, Pipefitters, & Steamfitters	Vocational Training	1-2 years	\$ 11.00

* Insufficient data reported

Table 4 and **Table 5** show the top work activities, the top skills, and the top knowledge required by employers to fill current positions and those critical to the three occupational clusters of Information Technology, Agricultural Business & Food Technology, and Advanced Manufacturing. Overwhelmingly, employers reported their need for workers that could interact and communicate with others inside and outside the organization.

**Table 4
Work Activities by Employer Needs**

Work Activities
Assisting and Caring for Others
Communicating with Persons Inside Organization
Communication with Supervisors, Peers, or Subordinates
Documenting & Recording Information
Establishing & Maintaining Interpersonal Relationships
Getting Information
Identifying Objects, Actions, or Events
Inspecting Equipment, Structures, or Material
Making Decisions & Problem Solving
Monitor Processes, Materials, or Surroundings
Organizing, Planning, and Prioritizing Work
Updating & Using Relevant Information

**Table 5
Knowledge by Employer Needs**

Knowledge
Administration and Management
Biology
Customer Service
Design
Education & Training
Engineering & Technology
English Language
Mathematics
Mechanical
Medicine & Dentistry
Psychology

³ Iowa Workforce Needs Assessment Survey, Iowa Workforce Development: Regional Research & Analysis Bureau

Table 6 presents a sample of high growth occupations, their projected annual growth rates, and median wages. These data (projected employment 2006-2016) represent the occupations that are most likely to experience growth throughout the region based on current employment. The industry projections for the same time period show growth by percent employment change in Amusement, Gambling, & Recreation (35.17%); Securities, Commodity Contracts, & Other Investments (28.57%); Professional, Scientific, & Technical Services (27.05%); and Social Assistance (23.71%)³.

**Table 6
Regional High Growth Occupations**

Occupation	Projected Annual Growth Rate ²	Statewide Median Wage ²
Social & Human Service Assistants	3.41%	\$ 9.69
Registered Nurses	2.46%	\$ 24.53
Customer Service Reps	2.08%	\$ 13.81
Welders, Cutters, Solderers, & Brazers	2.08%	*
Medical Secretaries	1.82%	\$ 11.02
Food Preparation Workers	1.75%	\$ 7.06
Child Care Workers	1.68%	\$ 7.00
Receptionists & Information Clerks	1.56%	\$ 10.60
Executive Secretaries & Administrative Assistants	1.56%	\$ 15.72
Maids & Housekeeping Cleaners	1.55%	\$ 8.70
Counter & Rental Clerks	1.46%	\$ 8.42
Combined Food Preparation & Serving Workers, Including Fast Food	1.42%	*
Bartenders	1.32%	\$ 7.12

* Insufficient data reported

The average projected annual job growth projections for the region is .79 percent versus an annual projected growth for all jobs statewide of 1.08 percent. Jobs with a negative annual projected employment growth should be studied to see which skills or training would be necessary to move workers in the occupations that show more growth and opportunities in the future.

Table 7 presents a sample of occupations with negative or low growth by projected annual growth rates (projected employment 2006-2016) and median wages throughout the state based on current employment. The industry projections for the same time period, show a negative growth by percent employment change in Machinery Manufacturing (-14.38%); Apparel Manufacturing (-12.50%); Printing & Related Support Activities (-10.96%). All reported Manufacturing industries have an average projected growth of only -.75 percent. This is well below the average for all industries of 8.46 percent over the ten year period, further emphasizing the need for making the transition into Advanced Manufacturing.

**Table 7
Regional Declining and Low Growth Occupations**

Occupation	Projected Annual Growth Rate ¹	Regional Median Wage ¹
Farmers & Ranchers	-0.83%	*
Stock Clerks & Order Fillers	-0.63%	\$ 9.26
Industrial Truck & Tractor Operators	-0.56%	\$ 13.55
General & Operations Managers	-0.42%	\$ 30.12
Laborers & Freight, Stock, & Material Movers, Hand	0.06%	\$ 11.71
Teacher Assistants	0.14%	*
Secretaries, Except Legal, Medical, & Executive	0.26%	\$ 10.94
Team Assemblers	0.45%	\$ 12.78
Cashiers	0.50%	\$ 6.80
Middle School Teachers, Except Special & Vocational Education	0.51%	*
Sales Reps, Wholesale & Manufacturing, Except Technical & Scientific Products	0.56%	\$ 20.54
Tellers	0.65%	\$ 10.94
Counter Attendants, Cafeteria, Food Concession, & Coffee Shop	0.65%	\$ 6.93
Truck Drivers, Light or Delivery Services	0.68%	\$ 14.79

* Insufficient data reported

¹ <http://iwin.iwd.state.ia.us/iowa/ArticleReader?itemid=00003928>

² <http://www.iowaworkforce.org/lmi/occupations/wages/index.htm>

³ <http://iwin.iwd.state.ia.us/pubs/indproja/indprojregion02.xls>

Factors Affecting Supply & Demand

Starting wages that are below the required wage a worker would need to consider employment could present a problem for employers trying to fill a vacant position. Aside from increasing starting wages, possible solutions are those that decrease the cost of transportation for employees, increasing benefits, flexible hours, or providing training opportunities for employed people with income constraints.

Employee turnover has an affect on the job market in the North Central Iowa Alliance Region just as it does everywhere else. The Workforce Needs Survey showed high levels of vacancies for jobs in the food preparation & serving, sales & related, and the personal care & services occupational categories. High turnover in these occupations does not necessarily indicate high demand for employees. There is little economic developers can do to decrease turnover within occupational categories or the job market as a whole.

Mismatch in skills between workers and job vacancies can be identified by examining individuals that are employed in positions that do not maximize their previous experience, skills and education, or that do not adequately compensate them based on their qualifications.

Worker/Employer connection is another factor affecting the relationship between the supply of workers in the region and the demand for those workers. The most likely cause of this imbalance in the labor market is a lack of information shared between people that have necessary skills to those seeking employees. Counseling services, consolidated region-wide job banks, and other services promoting the dissemination of information are those most likely to assist with closing this gap.

The media most used by job seekers in the region, as reported by the Laborshed Analysis, are: the internet (48.82%), local/regional newspapers (44.73%), local Iowa Workforce Development Centers (27.63%), and networking with family, friends, or acquaintances (22.43%). The most visited internet sites for worker job search are: www.monster.com, www.iowaworkforce.org, and www.google.com. The top four media used by employers to find applicants, as reported by the Workforce Needs Assessment Survey, are local/regional newspapers (86.13%), local Iowa Workforce Development Centers (63.53%), the internet (62.61%), and college/university career centers (47.75%). The most used internet sites for employers are: company specific websites, www.iowaworkforce.org, www.masoncityglobegazette.com, and www.monster.com.

Gap Analysis

Three occupational clusters have been selected for gap analysis based on strength of the workforce and targeted industries identified by the Laborshed and Workforce Needs Assessment. The clusters are Advanced Manufacturing, Agricultural Business & Food Technology, and Healthcare. They were selected for their projected employment growth, high average wages, and the proximity between required skills for the occupations and the current skill set of the workforce. For these reasons, the workforce will be able to transfer into these occupations easily and with the most value added to the regional economy. **Tables 8-10** provide examples of the occupations within the workforce that are most related to the emerging occupations. The tables also include those skills shared by the occupations and those in which more training will be needed to transition from the occupation currently in great supply within the regional workforce to an emerging occupation.

Within the Healthcare cluster of occupations, the regional workforce fell short with respect to education in Medicine & Dentistry, Education & Training, and Psychology. On average, the occupations within the cluster demand an associate degree level of understanding in the core areas. With respect to experience, the current workforce requires training in Assisting & Caring for Others.

It is important to note the difference between the results of the gap analysis for the population on average and that displayed in the figures. The following tables display the shared and additional skills or education needed to transition a worker from a related occupation into one of the emerging occupations. The gap analysis for the population on average showed that there were certain areas of skills and education that were needed to transition a group of the population into the group of emerging occupations. For example, Table 8 shows that an Athletic Trainer will need training in education in Personnel & Human Resources, Sociology, Updating & Using Relevant Information, and Assisting & Caring for Others. The portion of the population that was well suited for careers in the Healthcare group; however, needs training and education in Medicine & Dentistry, Assisting & Caring for Others, Education & Training, Psychology, and Making Decisions & Problem Solving. Further analysis of the skills differences between specific occupations is available through the O*NET system. The analysis of the overall skills and educational differences between the population and the groups of emerging occupations is provided in this report and in the Skillshed Technical Report.

From the table below, we also see that some of the most common skills needed to transition the workforce are: Medicine & Dentistry; Biology; Psychology; Organizing, Planning, & Prioritizing Work; Assisting & Caring for Others; and Communicating with Persons Outside the Organization.

**Table 8
Related Occupations to Healthcare**

Related Occupations		Median Wages ⁷	Overlapping Skills & Education	Required Areas for Improvement
Emerging Occupation: Registered Nurse		\$ 23.80		
Career Pathways	Nursing Aides, Orderlies, & Attendants	\$ 11.21	Customer and Personal Service; Handling and Moving Objects	Biology; Therapy & Counseling; Provide Consultation & Advice to Others; Communicating with Persons Outside Organization
	Medical Assistants	\$ 13.50	Medicine & Dentistry; Assisting & Caring for Others	Psychology; Education & Training; Therapy & Counseling; Provide Consultation & Advice to Others
	Psychiatric Aides	*	Therapy & Counseling; Assisting & Caring for Others	Medicine & Dentistry; Psychology; Monitor Processes, Materials, or Surroundings; Identifying Objects, Actions, & Events
Emerging Occupation: Physical Therapists		\$ 32.06		
Career Pathways	Child, Family, & School Social Workers	\$ 17.47	Customer & Personal Service; Documenting/Recording Information	Medicine & Dentistry; Biology; Organizing, Planning, & Prioritizing Work; Handling & Moving Objects
	Respiratory Therapists	\$ 21.52	Medicine & Dentistry; Documenting/Recording	Personnel & Human Resources; Clerical; Making Decisions & Solving Problems; Handling & Moving Objects
	Athletic Trainers	*	Education & Training; Handling & Moving Objects	Personnel & Human Resources; Sociology; Updating & Using Relevant Knowledge; Assisting & Caring for Others

Skills data available through O*Net (www.onetcenter.org)

The Agricultural Business & Food Technology occupational cluster was the most closely related to the set of skills and experiences held by the regional workforce. The most critical gap in education required fell within biology and mathematics. The gap between the current knowledge of these subjects within the regional workforce and the level of knowledge required was between the high school level and the associate degree level, or less than one year of coursework.

From the table below, we also see that some of the most common skills needed to transition the workforce are: Biology, Computers & Electronics, Analyzing Data or Information, and Interacting with Computers. Many of the skills needed in emerging occupations, like food production and documenting/recording information are already found within the labor force.

**Table 9
Related Occupations to Agricultural Business & Food Technology**

Related Occupations		Median Wages	Overlapping Skills & Education	Required Areas for Improvement
Emerging Occupation: Food Scientists & Technologists		\$ 23.25		
Career Pathways	Agricultural Inspectors	*	Chemistry; Getting Information	Production & Processing; Mathematics; Communicating with Supervisors, Peers, or Subordinates; Thinking Creatively
	Nursery & Greenhouse Managers	*	Customer & Personal Service; Communicating with Supervisors,	Chemistry; Physics; Getting Information; Processing Information
	Medical & Clinical Laboratory Technicians	\$ 17.69	Biology; Documenting/Recording Information	Food Production, Production & Processing, Thinking Creatively, Getting Information
Emerging Occupation: Biological Technicians		\$ 25.25		
Career Pathways	Soil & Water Conservationists	*	Mathematics; Processing Information	Education & Training; Computers & Electronics; Documenting/Recording Information; Identifying Objects, Actions, & Events
	Dietitians & Nutritionists	\$ 22.50	English Language; Identifying Objects, Actions, & Events	Chemistry; Mathematics; Processing Information; Documenting/Recording Information
	Medical & Clinical Laboratory Technologists	\$ 23.59	Chemistry; Documenting/Recording Information	Education & Training; Production & Processing; Identifying Objects, Actions, & Events; Organizing, Planning, & Prioritizing Work

Skills data available through O*Net (www.onetcenter.org)

The requirements of the Advanced Manufacturing occupational cluster are close to the current skill set of the region. There is a wide overlap of skills between the current labor force and those needed by the emerging occupations of the group. Skills and knowledge areas found within the current workforce like: Building & Construction, Production & Processing, and Controlling Machines & Processes will be an asset within the Advanced Manufacturing group of jobs. The current workforce lacked some of the formal education required for the occupations within the cluster. The regional workforce showed a need for coursework in the areas of Computers & Electronics, Mathematics, and Mechanical Design. Most of the occupations within Advanced Manufacturing required between a high school diploma and an associate's degree.

From the figure below, we also see that some of the most common skills needed to transition the workforce are: Communication within the Organization; Drafting, Laying Out, & Specifying Technical Devices; Repairing & Maintaining Electronic Equipment, and Maintaining Mechanical Equipment.

**Table 10
Related Occupations to Advanced Manufacturing**

Related Occupations		Median Wages	Overlapping Skills & Education	Required Areas for Improvement
Emerging Occupation: Electrical & Electronics Repairers, Commercial & Industrial Equipment		\$ 23.13		
Career Pathways	Electronics Engineering Technicians	*	Mechanical; Repairing & Maintaining Mechanical Equipment	Mathematics; Customer & Personal Service; Monitor Processes, Materials, or Surroundings; Getting Information
	Telecommunications Equipment Installers & Repairers, Except Line Installers	\$ 24.35	Engineering & Technology; Getting Information	Mechanical; Computers & Electronics; Repairing & Maintaining Mechanical Equipment; Interacting with Computers
	Electronic Home Entertainment Equipment Installers & Repairers	*	Computers & Electronics; Making Decisions & Solving Problems	Mechanical; Engineering & Technology; Repairing & Maintaining Mechanical Equipment; Interacting with Computers
Emerging Occupation: Industrial Machinery Mechanics		\$ 18.76		
Career Pathways	Aircraft Mechanics & Service Technicians	*	Mechanical; Repairing & Maintaining Mechanical Equipment	Design; Administration & Management; Establishing & Maintaining Interpersonal Relationships; Communicating with Supervisors, Peers, or Subordinates
	Farm Equipment Mechanics	\$ 15.49	Mechanical; Repairing & Maintaining Mechanical Equipment	Engineering & Technology; Design; Communicating with Supervisors, Peers, or Subordinates; Making Decisions & Solving Problems
	Installation, Maintenance, & Repair	\$ 11.04	Design; Controlling Machines & Processes	Mechanical; Engineering & Technology; Making Decisions & Solving Problems; Establishing & Maintaining Interpersonal Relationships

*Skills data available through O*Net (www.onetcenter.org)*

The average median wages of the occupations within the occupational groups of: Production; Transportation & Material Moving; Installation, Maintenance, & Repair; Construction & Extraction; and Building & Grounds Cleaning & Maintenance was \$15.65. Of the three selected occupational groups, Advanced Manufacturing had the lowest average median wages at \$20.77 compared to \$22.12 and \$27.24 for the occupations within Ag Business & Food Production and Healthcare, respectively. However, this is still well above the average median wages from the occupations related to the Advanced Manufacturing group.

Conclusion

A Skillshed examines the interaction between the current supply of workers and the current demand for their skills by employers; also, it measures the difference between the current set of skills and education held by the regional workforce and that set of skills and education required for emerging occupations.

A region must develop a plan to meet the current needs of the labor market by ensuring that its workforce is prepared with the necessary skills. At the same time, the region must also help its labor market transition into a workforce with the skills and education required by emerging occupations.

An important note is that the data collected and used in this report, other than that from the Workforce Needs Assessment, is from before the collapse of the financial sector and the ensuing governmental response. More data will be available in the coming year to better assess the recession's effect on employment and industrial growth. The Finance, Insurance, & Real Estate industry will certainly not be as highly demanded as was originally thought while employment in Social Services, and possibly, Public Administration will increase.

Key Findings:

- Almost half of the supply of workers in the region (48.95%) currently work in the following occupational categories:
 - Office & Administrative Support
 - Production
 - Management
 - More specifically, more than a quarter of the workforce (26.92%) are working in the following occupations:
 - General & Operations Managers
 - Chief Executives & Self-Employed
 - Secondary School Teachers
 - Production, Helpers
 - First-Line Supervisors of Production & Operating Workers
 - Customer Service Representatives
 - The current education and skills of the workforce most closely resemble the education and skills of three occupational categories designated as knowledge clusters:
 - Healthcare
 - Agricultural Business & Food Production
 - Advanced Manufacturing
 - The occupational categories with the highest projected annualized employment growth (2006-2016) are as follows:
 - Computer and Mathematical (2.07%)
 - Healthcare Support (2.01%)
 - Healthcare Practitioners and Technical (1.94%)
 - Community and Social Services (1.86%)
 - The occupations within the knowledge cluster occupational groups with the highest projected annualized employment growth (2006-2016) within the region are as follows:
 - Registered Nurses (2.46%)
 - Welders, Cutters, Solderers, and Brazers (2.08%)
 - Industrial Machinery Mechanics (1.60%)
 - Agricultural and Food Science Technicians (1.53%)
 - Nursing Aides, Orderlies, and Attendants (1.31%)
 - Biological Technicians (1.13%)
-

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