



South Central Missouri Green Jobs Skills Gap Analysis 2010

South Central Workforce Investment Board

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Executive Summary

The Missouri Economic Research and Information Center (MERIC) and Missouri Department of Economic Development partnered with the South Central Workforce Investment Board (South Central WIB) to complete a local green skills gap analysis. This report, *South Central Missouri Green Jobs Skills Gap Analysis 2010*, was developed by South Central Ozark Council of Governments (SCOCOG) for South Central WIB with the help of Ozark Foothills Regional Planning Commission.

The ultimate goal of this report is to obtain employment and training information so the South Central workforce is able to fulfill current and future green employment demands. The survey results are expected to provide a wealth of information to a variety of stakeholders including Missouri businesses, workforce development professionals, and state and local government officials. This analysis will mirror the State of Missouri's Green Jobs Report and will highlight the existing green jobs and industries in the 12 counties in South Central Missouri.

Key Survey Findings

Both the South Central Ozark region and the Ozark Foothills region are low income regions with many jobs being entry level positions with minimal training. A large number of jobs require on the job training rather than extensive training from an outside agency. Surveys revealed that "green" jobs in the region have similar training requirements to any other "non-green" job in the region. They require "soft" skills and basic skills. The "green" knowledge is more important for managers and small business owners who establish "green" procedures and provide on the job training for their employees.

Introduction

As businesses search for more environmentally friendly methods of operation and new “green” business opportunities, and schools look at providing additional training with emphasis on the environment, business leaders are looking for ways to merge current businesses with new green practices. In order to build a business environment which is more aware of our “green” environment, “green” jobs need to be matched with “green” education. Missouri is promoting the combination of “green” jobs and “green” education by examining the gap between available “green” education and the employees needed for “green” jobs – both current jobs and expected jobs in the future.

Defining Green Industry Sectors

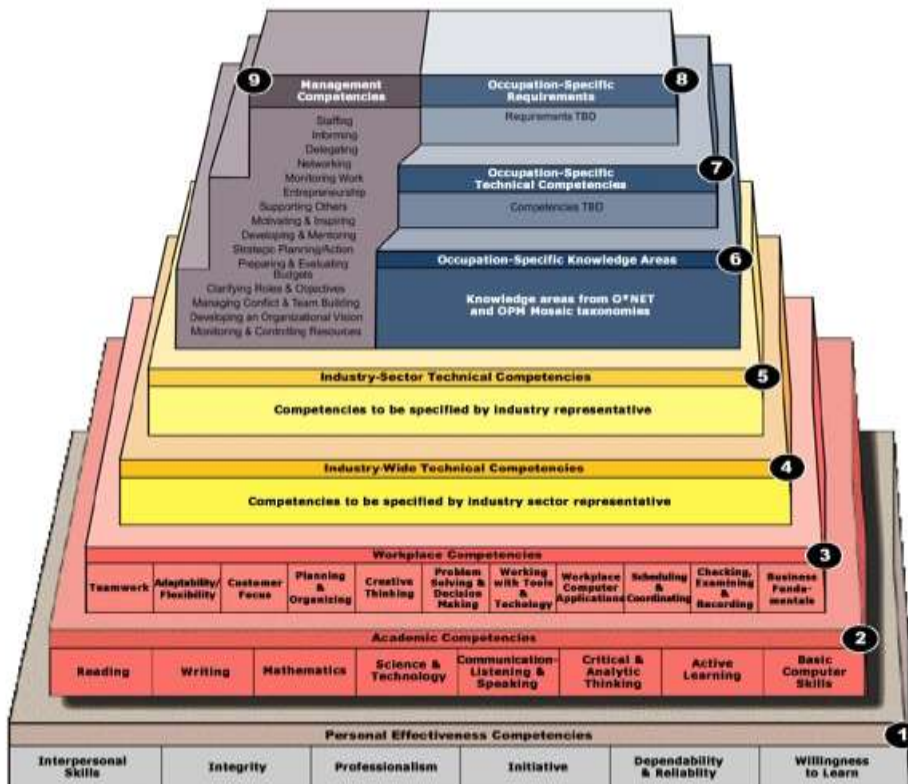
According to MERIC, green jobs are defined as jobs that directly support a business’ green products or services.

There are six green economy sectors identified by the Missouri Green Jobs Report of 2010:

- Building
- Energy Production
- Farming
- Manufacturing
- Public Administration
- Salvage/Remediation

Missouri Green Competency Model

Missouri uses a Green Competency Model based on a model developed for the US Department of Labor.



Essentially, the Competency Model is a pyramid divided into three levels- Foundational, Industry Related, and Occupational Related. Each of these levels is further divided into levels. Beginning at the bottom, the Foundational Level is composed of a base level of Personal Effectiveness Competencies, followed by Academic Competencies, and Workplace Competencies. The next level, Industry Related, is made up of

Industry-Wide Technical Competencies and Industry-Sector Technical Competencies. The top level, Occupational Related, is made up of Occupation-Specific Knowledge Areas, Occupation-Specific Technical Competencies, Occupation-Specific Requirements, and Management Competencies.

Missouri Economic Research and Information Center (MERIC) has applied “green” elements to the Competency Model to assist in understanding the growth of “green” jobs in the Missouri economy. Details on these Green Competency Models can be found at www.missourieconomy.org.

South Central Workforce Investment Board

The South Central Workforce Investment Board represents the twelve counties of Butler, Carter, Douglas, Howell, Oregon, Ozark, Reynolds, Ripley, Shannon, Texas, Wayne, and Wright. The Board is made up of members appointed by the chief elected official of each county, and its mission is to support a system that will provide employers with a skilled workforce and will provide job seekers with access to jobs with increased earnings potential.



Map Courtesy of MERIC

South Central Ozark Council of Governments

South Central Ozark Council of Governments represents the seven counties of Douglas, Howell, Oregon, Ozark, Shannon, Texas, and Wright, and was formed to enhance the quality of life for area citizens through economic development.

The South Central Ozark region is a rural region in which the largest city, West Plains, had a population of 10,886 in 2000. The remaining cities have populations of less than 5,000. The median household income was under \$33,500 for Howell County, while the median household income for the other counties was less than \$30,000.

Ozark Foothills Regional Planning Commission

The Ozark Foothills Regional Planning Commission represents the five counties of Butler, Carter, Reynolds, Ripley, and Wayne, and was formed to work with member counties and governments to resolve problems and utilize the resources of the area for the benefit of the region.

The Ozark Foothills Region is a rural region and encompasses extremely poverty stricken areas. The largest city in the region is Poplar Bluff and has a population of 16,651. The remaining cities have populations of less than 2,500 and most are less than 500. The median income for Butler County is less than \$32,500, while the median household income for the other counties was less than \$30,500.

South Central Missouri Green Jobs Survey Results

South Central WIB contracted with SCOCOG and Ozark Foothills RPC to survey local schools and employers about green training and green jobs in the area. Both regions are made up of small towns and vast rural areas with small populations. Employers in the area are made up of service industries, farms, and a few manufacturers. Of these employers, 638 had previously reported that they were “green” or had “green” components within their business. These “green” employers were contacted and provided with a survey asking the following:

- What “green” demand occupations are there in your business and what are the required skills for that occupation?
- What education and training are required for your business’s available “green” occupations?
- What do you see as potential training that will be needed that is not currently provided?
- What do you, as a “green” employer, foresee as new and emerging “green” occupations you do not currently have?
- What workforce supply do we have or not have in these areas?

Of the employers surveyed, 69 responded – 50 from the South Central Ozark Region and 19 from the Ozark Foothills Region. These survey results are discussed in Appendix A: South Central Ozark Region and Appendix B: Ozark Foothills Region.

The South Central Ozark Region found that most “green” jobs require on the job training but do not necessarily require advanced “green” knowledge. The Ozark Foothills Region found that the vast majority of “green” employers required on the job training and/or a high school diploma. Slightly more than one-third of the employers in the Ozark Foothills Region require one or two year certificates or vocational training; an associate’s degree is required by 10.5% of employers surveyed and a bachelor’s degree is required by 21.1% of employers surveyed.

Employers in the Ozark Foothills Region indicated that “green” jobs are very similar to the jobs currently available but “green” jobs focus more on completing tasks in “an environmentally friendly manner.” In a similar vein, the taskforce in the South Central Ozark Region found that most “green” jobs required the same skills as “non-green” jobs because these jobs are entry-level jobs and require on the job training. Managers and/or owners of “green” businesses in the area tend to establish the “green” portion of the job and then teach the necessary tasks to the employees. The “green” elements of the job are thought through by the higher level management or owner. The employees might not realize that they are completing “green” jobs – they are simply completing the jobs assigned by employers.

The South Central Ozark Region taskforce determined that “green” jobs can be promoted by training owners and managers of small area businesses in “green” skills and “green” opportunities, thus increasing the possibility of future “green” entry level jobs.

The South Central Ozark Region taskforce noted that “soft skills” are desperately needed. “Soft skills” include skills such as dependability and reliability, initiative, and interpersonal skills – all skills considered foundational in the Green Competency Model. Because a large portion of jobs in the South Central

Ozark Region are entry level jobs, additional “green” training is not as important as “soft skills” training. The Ozark Foothills Region found that 57.9% of employers indicated some outside agency training will be needed for future “green” jobs. However, 42.1% of employers indicated that future training needs include a high school diploma or on the job training. They indicated there is a sufficient supply of future employees but insufficient training for those employees. As both of these regions indicate a need for high school diplomas or entry level “soft skills,” additional attention needs to be given to future, basic skills in the elementary, middle, and high schools – for both traditional jobs and “green” jobs. However, “green” jobs can still benefit local employees. Because most employers in the area are small businesses, the greatest impact can be had through influencing small business owners and managers. These individuals are the ones thinking through the job ideas and creating jobs in the area. To grow green jobs, these individuals must see the benefits of “green” jobs and the possibility of business growth by catering to “green” needs and opportunities and the “green” market. In turn, these employers can turn to their employees and provide the necessary hands-on training on the job so that “green” products and services can be produced and provided.

Vision, Goals and Action Plans for the South Central WIB Region

The South Central WIB region is an underserved, rural region with few jobs available. Jobs in the South Central region have lower rates of pay than other areas of Missouri and the country. Because of the limited number of jobs in the region, all future job opportunities are extremely important to the area. “Green” jobs provide the potential for additional jobs and greater advancement for employees in the region; therefore, the South Central WIB region wants to promote “green” jobs in every possible way. “Green” elements can be applied to many existing businesses in the area, building upon already established companies. In addition, opportunities exist to establish new “green” businesses by assisting local entrepreneurs in taking advantage of “green” options to create additional businesses in the area.

The primary goal is to provide jobs in the South Central region. This is, of course, a primary focus of the South Central Workforce Investment Board as well as an important concern for South Central Ozark Council of Governments and Ozark Foothills Regional Planning Commission. As “green” jobs are a growing area of the economy, they provide an excellent opportunity for new jobs in the South Central area. Therefore, “green” business is an important way to build opportunities for new jobs in the region.

In order to promote “green” business – both new “green” businesses and additional “green” aspects of current businesses – the South Central WIB is committed to providing resources for “green” training. The South Central WIB will research funding for incumbent workers. Additionally, staff from South Central Ozark Council of Governments and Ozark Foothills Regional Planning Commission will continue to research opportunities for grants to assist in the growth of new “green” business and new “green” opportunities for growth within businesses already in the area. South Central WIB, South Central Ozark Council of Governments, and Ozark Foothills Regional Planning Commission continue to look for ways to build foundational competencies for employees in the region.

Appendix A: South Central Ozark Region “Green” Jobs Survey – Summary and Analysis

In 2010, South Central Ozark Council of Governments surveyed local businesses from a list of 300 “green” employers provided by the Missouri Department of Economic Development. South Central Ozark Council of Governments published notices of the survey, called each employer on the list, and if the employer was willing to respond, gave them the option of completing the survey online or answering the questions by phone. There were 50 surveys completed. Of those 50, 18 employers indicated their business did not have “green” jobs or left the section for their “green” jobs blank, leaving 32 surveys completed by “green” employers.

The five survey questions and responses to them are as follows:

1. What “green” demand occupations are there in your business and what are the required skills for that occupation?

Of the 50 surveys returned, 18 employers either stated that they did not have “green” jobs or did not fill in the section listing the “green” jobs they have. This leaves 32 employers answering the survey. The jobs included selling environmentally friendly supplies/equipment, installing HVAC, concrete work and erosion control, hazardous waste disposal, recapping tires, plumbing, and insulation installation.

2. What education and training are required for your business’s available “green” occupations?

Twenty-two of the remaining 32 employers stated that they provided on the job training or no specialized training was needed. Ten of the 32 employers stated that some jobs required specialized training or certification and one of those jobs required a master’s degree. The employers indicated this specialized training and/or certification ranged from DNR certification to service schools like Lennox to hazardous waste training to installation classes provided by manufacturers to engineering training.

3. What do you see as potential training that will be needed that is not currently provided?

Half of the employers did not foresee potential future training needs other than that provided on the job. The other half indicated that they could use training to provide awareness of additional environmentally friendly options, affordable service schools with hands-on training, E-waste deconstruction, forestry, training for customers on recycling, “green” housing alternatives, classes on HVAC updated laws and requirements, sustainability programs, state certification for septic systems, basic work skills, EPA water sense program and plumbing standards, and training on new guidelines, especially related to lead based paints.

4. What do you, as a “green” employer, foresee as new and emerging “green” occupations you do not currently have?

Twenty-one of the 32 employers did not foresee new “green” occupations emerging. The remaining 11 employers foresaw future “green” occupations including HVAC changes, especially with solar and wind energy, “green” manufacturing, improved foundation insulation, consulting with end users on energy efficiency and sustainability, removal of lead and other hazardous building materials, installation of energy efficient windows, heat, air, and geothermal systems.

5. What workforce supply do we have or not have in these areas?

Eighteen of the 32 employers did not have answers to this question as it was a follow up question to question 4. The remaining employers stated that it is difficult to find qualified employees (especially when the work is hard and dirty), find employees already trained in systems such as HVAC, and bear the cost of training employees. One employer felt there is a need for plumbing schools. An employer who is far from a local town stated that it is expensive and almost cost prohibitive for the employees to travel to work. Several employers stated that employees need to learn better values and responsibility. One employer found that part-time employees are not as difficult to find as full time employees.

Taskforce Review

The survey results were reviewed by a taskforce. The taskforce acknowledged that employers in the South Central Ozark Region frequently express a need for “soft skills” – basic work skills such as being at work every day on time and math and English skills. In addition to the information shown in the survey results, the taskforce suggested that the majority of the jobs in the South Central Ozark Region are entry level jobs which only require on the job training. Most of the industries in this rural area are small companies begun by entrepreneurs and there are only a small number of “green” industries. These “green” jobs do not take any more specialized employee training than “non-green” jobs, but they do take additional “green” knowledge on the part of the employer. The taskforce suggested that more “green” jobs could be created if small companies were more aware of “green” job possibilities and if entrepreneurs created new “green” jobs. Employers could then train employees on the necessary tasks for “green” jobs. As an example of such a business, the taskforce considered a local business that grows organic mushrooms. This business trains employees to do individual tasks such as planting, watering, and fertilizing. The actual “green” knowledge is held by the management team, who determines and assigns the necessary tasks.

Skills Gap Analysis Taskforce Recommendations

The taskforce also met to provide recommendations for filling the gap between “green” jobs available and the education needed for these jobs. Again, the taskforce recognized that for the region, the majority of the jobs require entry level skills. There is a strong need for “soft skills” such proper behavior at work, consistent work attendance, and math and reading skills. However, this is an issue faced throughout the region, whether in “green” jobs or not. The taskforce recognized that area “green” jobs do not require any different skills from non-“green” jobs; “green” jobs can best be developed by influencing managers, supervisors, and small business owners. Taskforce members felt that the most effective growth of “green” jobs can be implemented by current industries that have been trained in awareness of “green” levels, whether in recycling, sustainability, or “green” design. Members of the taskforce who run “green” businesses suggested that even if employees have no knowledge or understanding of “green” practices, when they are trained within the business, they must follow company procedures which include issues such as recycling. This results in “green” habits being established which the employee eventually implements on a personal level. Essentially, “green” habits trickle down from the workplace to the home. The “green” thought process is part of the culture of the business and is established by management and business owners. Although the employees might not have any awareness of “green” thinking, they are trained to put “green” behavior into practice along with other work skills. This can also affect other businesses when the employee changes jobs.

The taskforce recognized that in the current economy, businesses are simply trying to survive. They have little additional resources or time to devote to “green” practices, in spite of the desire of many of them to do so. The taskforce suggested that a better approach to introducing and developing “green” practices would be to focus on the ways that “green” practices can reduce business costs, increase

efficiency, and open new opportunities for business. Because business owners are facing an economic downturn and are so concerned with being able to meet their expenses and pay their employees, they are more open to any method for cutting costs. The decision makers in the industries need to be influenced. As they look at ways to cut costs which also benefit the environment, they will be more likely to adopt “green” practices. These “green” practices will then trickle down to the entry level employees.

The taskforce considered possibilities for paying for specific training for employees currently in businesses but recognized problems because businesses have cut back on the number of employees and their employees have no extra time. Additionally, the small businesses in the area generally hire one employee at a time and so conduct individual, one-on-one training based on the employee’s skill ability. As a result, employee training by an outside agency does not fit into many businesses’ structure.

Taskforce members suggested that “green” training for independent “handymen” might also be useful as they often are not employed by a local business, but offer their services through local ads. They may be willing to expand their skills to improve their income even though they are not technically a business but are simply doing odd jobs on the side.

Members suggested a number of ways to encourage business decision makers to increase “green” jobs. This might be done through the local Chambers of Commerce, funds for “green” opportunities (which help small businesses survive by expanding their business options), and awareness of “green” options. Members suggested seminars or programs for business leaders. These seminars would need to have dynamic speakers. If the focus was on greater efficiency through environmentally friendly options, businesses would see greater benefit to their bottom line and would be more willing to attend and bring back ideas for their businesses.

Members also suggested that awareness is needed. By making other companies in the area aware of “green” choices businesses are making and seeing how this helped their bottom line, businesses will be more willing to experiment with “green” practices. By seeing how “green” products hit a niche market or develop a new line, businesses will be more interested in “green” innovation.

Summary

More than half of the employers who responded did not see an immediate need for “green” training for their employees. The “green” taskforce agreed with this and suggested this is because the “green” jobs in the area do not require highly skilled labor. In fact, most jobs in the region, whether they are “green” or not, do not require skilled labor. Instead, the taskforce suggested that additional entry level “green” jobs can be developed if “green” education is provided to local employers – primarily small business entrepreneurs. With knowledge of “green” business options, local employers can create new possibilities and provide new jobs in the “green” arena, thereby increasing “green” entry level jobs in the area. Employers need to be provided with seminars and training on how “green” practices improve efficiency and decrease costs and need to see how this has benefited other business in the region. By encouraging “green” practices and “green” jobs through small businesses, “green” jobs can grow in the South Central Ozark area.

Appendix B: Ozark Foothills Region Skills Gap Analysis

Demographics

- The total population of the Ozark Foothills Region that include Butler, Reynolds, Ripley, Carter, and Wayne counties according to 2000 US Census data is 80,265.
- By 2014, the population in the entire South Central Region, which include Butler, Reynolds, Ripley, Carter, Wayne, Shannon, Oregon, Texas, Howell, Wright and Douglas Counties is expected to increase 0.5%.
- By 2014, 19.7% of the population is expected to be 65 or older, resulting in an 8.0% increase since 2009 data.
- The projected breakdown between males and females by 2014 is projected to be 48.9% male and 51.1% female.

Educational Levels

- Of the 25 and older population in the Ozark Foothills Region, 33.4% have less than a high school diploma, 52.3% have a high school diploma or equivalent, 10.2% have a college degree, and 4.1% have a graduate degree according to 2000 US Census data.

Regional Industries

- Industries most critical to the local economy that employ the highest percentage of civilian workers in the Ozark Foothills Region include:
 - Education, Health, and Social Services Industry – 24.1%
 - Manufacturing – 20.6%
 - Retail – 11.3%
- Industries projected to experience the highest growth in new jobs over the next five years in the South Central Region include:
 - Education, Health and Social Services Industry – over 1,200 new jobs with average projected gross earnings of \$50,733
 - Marketing Sales and Service – over 500 new jobs with average projected annual earnings of \$35,415
 - Business, Management and Administration – over 370 new jobs with average projected annual earnings of \$59,149
- Throughout the State of Missouri, the top 10 largest growth industries from 2008-2018, according to the Missouri Department of Economic Development data, closely mirror South Central Region data.
 - Education industry will see the largest job growth with a 19.8% increase in jobs
 - General Medical industry will realize a 13.5% growth
 - Individual and Family Services industry will see a 12.5% growth
- Industries projected to show a decline in growth statewide include:
 - Motor Vehicle Parts, Body and Trailer and Paper Product Manufacturing with a projected loss of 8,684 jobs
 - Printing, Newspaper, Periodical, Book and Directory Publishers with a projected loss of 4,754 jobs
 - Residential Construction and Building Contractors with a projected loss of 3,187 jobs
 - Wired Telecommunications Carriers with a projected loss of 1,917 jobs
 - Department Stores with a projected loss of 1,810 jobs

Occupations By Industry

- Occupations within the growing and critical industries in the South Central Region that are expected to show the greatest increase over the next five years include:
 - Registered Nurses with a potential increase of 360 jobs
 - Customer Service Representatives with a potential increase of nearly 300 jobs
 - Elementary School Teachers with a potential increase of over 200 jobs
- The skill and educational levels required for employment in these occupations range from a high school diploma with moderate on the job training to a Bachelor's degree. Obtaining a minimum of a high school diploma will be necessary to gain employment in at least one of these critical industries.
- In the declining occupations, the skill and educational levels range from less than a high school diploma with only short term on the job training required to a high school diploma.

Survey Analysis

- According to a survey conducted with employers in the Ozark Foothills Region, most occupations currently only require a high school diploma or less. Employers were able to select more than one educational level to account for multiple occupations within their organization.
 - 84.2% of employers supply on the job training and/or require a high school diploma or less
 - 10.5% of employers require no education or training,
 - 36.8% require vocational training or one to two year certificates,
 - 10.5% require an Associate's degree,
 - 21.1% require a Bachelor's degree,
 - 5.3% require a Master's degree or beyond.
- Region employers identified new and emerging occupations as essentially the same jobs that are currently available but with more emphasis placed on completing tasks in an environmentally friendly manner. Employees will need training on recyclable materials, hazardous waste, hybrid vehicle repair and maintenance, solar energy, and environmental engineering.
- While employers understand that more training will be needed for their employees as occupations move toward environmentally friendly tasks, they identified that they do not have the capacity to provide the training to them. Therefore, outside training will be needed. Employers in the Ozark Foothills Region categorize potential training that will be needed in the future for demand occupations as:
 - No additional training or education – 31.6%
 - High School Diploma or on the job training – 42.1%
 - College Degree – 10.5%
 - Outside agency training – 57.9%
- Employers in the Ozark Foothills Region feel that a supply of workers is available to fill demand occupations but that there are very few options in the South Central Region to train those employees.
- After a survey of training providers in the South Central and Southeast Regions of Missouri, there are 42 training programs available to address the "green" education and skill needs of workers in the South Central, Southeast, and Ozark Regions. A small sampling of those programs include:

- Environmental/Occupational Safety & Health Technology program from Three Rivers Community College. This program provides skills on environmental regulations, health and safety regulations, and application of science and technology to eliminate, minimize or reduce hazards to the environment.
- Environmental Technology program from Three Rivers Community College. This program provides skills on environmental regulations, the reduction, minimization, or elimination of environmental impacts, and assessing environmental impacts from a known source.
- Green Building Practices & Weatherization Concepts and Techniques program offers from Southeast Missouri Carpenters' Joint Apprenticeship Program. This program provides skills on building science theory and identification of building components for weatherization of homes and buildings.
- Lean Process program from Ozarks Technical Community College. This program provides education on waste reduction, increase of a company's return on investment, and increased environmental awareness.

Gap Analysis

After an analysis of the above data, survey results, and training resources three gaps are identified related to general future employment, green job opportunities and education possibilities in the Ozark Foothills Region:

- In general employment terms, two industries most critical to the local economy that employ the highest percentage of civilian workers are in great danger of realizing a decline in growth statewide. The Manufacturing industry employs 20.6% of area workers and the Retail industry employ 11.3%. Those two industries combined are projected to lose a total of 10,494 jobs statewide over the next 7 years according to Missouri Department of Economic Development data.
- Industries projected to see the most growth, Education, Health and Social Services, Marketing Sales and Services, and Business, Management, and Administration are where these employed by the declining industries could realize gainful employment. However, positions in these industries are likely to require education and skills greater than a high school diploma. 85.7% of the current labor supply in the Ozark Foothills Region would likely not qualify for these jobs because they have only a high school diploma or less according to US Census data. A large gap exists between the number of qualified workers and the large number of projected jobs available in the growth industries.
- Employers who have the potential to add green occupations in the future do not feel like training and education is accessible to train the supply of workers available to fill their demand occupations. After a survey of training providers, there are 42 programs that provide "green" skills. 21% of those programs identified that enrollment in the past year was less than 10 students. 100% of the programs have an enrollment capacity that is greater than 10 students and up to over one hundred students. The fact that employers do not know about these training programs and that 21% of programs are grossly under capacity represents a marketing gap that training providers can address. Marketing the green training programs will help the labor supply and employers recognize the training options available so that expansion into environmentally friendly jobs and services can be realized.