



Green Jobs: A Growing Part of Illinois' Economy

More specialized skills required for future jobs

by Dave Bieneman and Yolanda Harris

A recent study shows that green jobs currently represent about two percent of all jobs in Illinois and are likely to grow at a fast pace during the next couple of years. And although most green jobs require either a high school diploma or no formal education, future green jobs will require more specialized skills.

The study, called the *Illinois Green Jobs Summary Report*, is based on a survey commissioned by the Illinois Department of Employment Security during the first quarter of 2011.

The purpose of the study was to define the green job market in Illinois, the skills needed for green jobs and to identify areas for future skills training. The study was based on survey responses from 20,342 individual Illinois employers and generated a 70.4 percent response rate.

The green job market in Illinois

A green job is defined as a job in which the work is essential to products or services that improve energy efficiency, expand the use of renewable energy or support environmental

Table 1. Illinois Employment by Green Industry Sector

Industry Sector	Increasing Energy Efficiency	Producing Renewable Energy	Preventing and Reducing Environmental Pollution	Providing Mitigation or Cleanup of Environmental Pollution	None Specified	Total Emp.	% of Total Green Emp.
PRESUMED GREEN	28,888	13,359	23,644	6,423	70	72,429	62.9%
Agriculture and Natural Resources	525	470	3,277	642	*	4,915	4.3%
Architecture and Construction	18,688	10,650	4,811	1,735	*	35,896	31.2%
Energy, Utilities, and Waste Management	349	96	6,344	3,108	*	9,898	8.6%
Manufacturing	8,013	2,121	4,882	854	70	15,940	13.8%
Transportation, Distribution and Logistics	1,101	*	3,659	84	*	4,858	4.2%
Universities, Junior Colleges, and Comm. Colleges	212	21	670	*	*	922	0.8%
PRESUMED NOT GREEN - All Other Industries	10,780	3,471	26,333	2,195	*	42,779	37.1%
Total	39,668	16,829	49,977	8,619	70	115,208	
% of Total Green Employment	34.4%	14.6%	43.4%	7.5%	0.1%		

Source: Illinois Green Jobs Survey

sustainability. The study reveals that the number of green jobs in Illinois total 115,208, and most of those jobs are in the Chicago metropolitan area. More than three-fourths of green jobs in the state are concentrated in two core areas: preventing and reducing environmental pollution and increasing energy efficiency. The green industry sector with the greatest percentage of green jobs in Illinois is architecture and construction, which carries 31.2 percent of all green jobs, followed by manufacturing at 13.8 percent (*see table 1*). The heating, air conditioning and refrigeration mechanics and installers job category leads green employment in Illinois with 5,462

green jobs or 4.7 percent of all green employment. The other green job leaders are plumbers, also with 4.7 percent of all green employment, automotive service technicians and mechanics (4.0 percent) carpenters (4.0 percent), electricians (3.6 percent), and laborers (3.2 percent).

Minimal education requirements

Currently, most green jobs require minimal education. The study shows that 42.4 percent of green jobs require a high school diploma or GED and that 27.8 percent of green jobs have no minimum education requirement.

Only 14.2 percent of green jobs require a bachelor’s degree (*see table 2*). Also noteworthy is the fact that the jobs with the least education requirements have the highest annual growth rates.

Skills required for current green jobs

The top skills that employers identified as requirements for green jobs are communications, mechanical, engineering, environmental and construction. For green jobs requiring more specialized skills, employers identified these top five requirements: a commercial driver’s license, teaching



Table 2. Education Required for Green Employment

Minimum Education Requirement	Green Employment	% of Total Green Employment	Annual Growth Rate
No Requirement	32,001	27.8%	15.3%
High School Diploma (GED)	48,877	42.4%	13.8%
Some College, No Degree	4,687	4.1%	10.0%
Associate/Vocational Degree	9,653	8.4%	13.9%
Bachelor’s Degree	16,387	14.2%	9.9%
Graduate Degree	1,959	1.7%	10.3%
None Specified	1,644	1.4%	-
Total	115,208	100.0%	13.4%

Source: Illinois Green Jobs Survey

During the next two years, green jobs are expected to grow at an annual rate of 13.4 percent in Illinois, according to the green survey responses.

certificate, LEED certification, engineering license and EPA Certification.

The study shows that many of the skills required for green jobs are also required for non-green jobs, just as similar skills deficiencies exist in both types of jobs. Such deficiencies include work ethic and work experience as well as communications,

basic math, team project, reading and writing skills and common sense.

Employers also identified deficiencies in the following skills that are more pertinent to green jobs: mathematics and statistics, LEED certification, computers, engineering, energy efficiency and environmental skills. In addition, employers reported a deficiency in overall education.

The future of green jobs

During the next two years, green jobs are expected to grow at an annual rate of 13.4 percent in Illinois, according to the green survey responses.

Future green jobs are expected to require more specialized skills. The number one green job skill expected to increase in demand within the next two years is energy efficiency, followed by computer and engineering skills, LEED certification and environmental skills.

Educators or training providers interested in preparing people for

jobs in the green economy could start by reinforcing basic work skills in their training programs. In addition, improving people's math, statistical and computer skills and helping them obtain in-demand green skills, such as energy efficiency and LEED certification, are other steps that can prepare people for employment in more specialized green jobs. More information on skills required or lacking for green jobs and the overall structure of the green economy in Illinois is available in the full Illinois Green Jobs Summary Report, which is posted on the Illinois Department of Employment Security website at <http://lmi.ides.state.il.us/greenjobs.htm>.

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Green Job Defined:

A job in which the work is essential to products or services that improve energy efficiency, expand the use of renewable energy or support environmental sustainability.