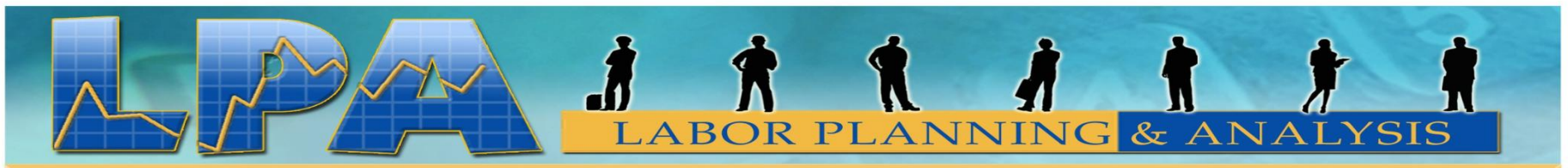


New Jersey Going Green

*New Jersey State Data Center
Annual Network Meeting*
New Brunswick, NJ
June 9, 2011

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New Jersey Department of Labor and
Workforce Development



Overview

- Context
- Defining green
- Green in New Jersey
- Snapshots of current green demand
- Snapshots of education programs
- Tools



Context: New Jersey's Green LMI Improvement Grant Scope

- Project assesses employer demand and supply responses (training / education) in green / sustainable programs
- Deliverables include inventory of education / training programs, analysis of program completer data, career information, sophisticated online tool for job matching, Web Site for dissemination

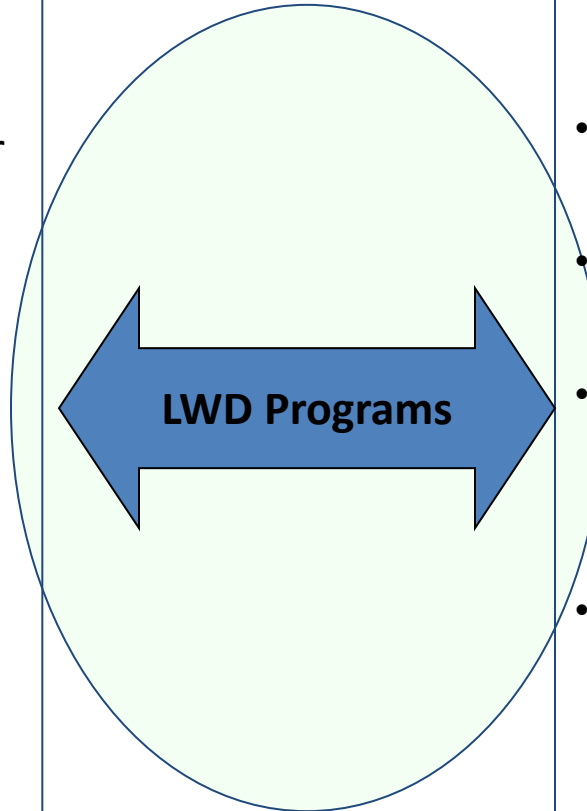


Context: Sector Strategy to Connect Demand and Supply

Demand:

Employer Needs

- Analysis of traditional labor market information (LMI) data
- Analysis of online job postings for indications of current hiring needs
- Employer interviews to determine medium-term workforce education and training needs



Supply: Education and training responses

- Database of green / sustainable training and education programs
- Analysis of training / education program completion in green programs
- Analysis of the capacity of state's education and training providers to meet the needs of the green economy (interviews and data review)
- Creation of career materials providing an overview of labor market, high demand occupations, skills and credentials in green / sustainable industries

Defining green jobs (BLS)

- U.S. Bureau of Labor Statistics (BLS) defines green jobs as either
 - Jobs in businesses that produce goods or provide services that benefit the environment or conserve natural resources.
 - Jobs in which workers' duties involve making their establishment's production processes more environmentally friendly or use fewer natural resources.
- BLS has developed a list of 300 industries
 - Surveys to measure the green work of firms are in development



Source: U.S. Bureau of Labor Statistics
<http://www.bls.gov/green/>

Defining green jobs (O*NET)

- *Greening the World of Work* Report (2009)
- Three types of green jobs
 - Increased demand: Increase in employment demand; no major changes in work requirements
 - Architectural drafters, chemical technicians, electricians, natural science managers, team assemblers, welders
 - Enhanced skills: significant change to the work and worker requirements
 - Civil engineers, construction laborers, farmers and ranchers, machinists, plumbers, roofers, sheet metal workers
 - New and emerging: need for unique work and worker requirements, which results in the generation of a new occupation
 - Air quality control specialists, chief sustainability officers, energy auditors, fuel cell technicians, recycling coordinators, solar energy installation managers



Source: Occupational Information Network
<http://www.onetcenter.org/green.html>

New Jersey's Green Industries

- Green Energy Production / Renewable Energy
 - Companies producing electricity, heat, or fuel generated from renewable sources ; products in the Green Energy supply chain
- Energy Efficiency – Green Building / Construction / Design
 - Producers of products and services that improve the energy efficiency of buildings and the efficiency of energy storage and distribution
- Environmental Remediation / Waste Management
 - Firms involved with the reduction or elimination of waste materials



New Jersey's Green Increased Demand Occupations

Job Title	2009 Employment	Education/Training Requirements	2008-2018 Average Annual Job Openings
Laborers and Freight, Stock, and Material Movers, Hand	73,700	Short-term on-the-job training	2,560
Customer Service Representatives	5,6250	Moderate-term on-the-job training	2,440
Carpenters	26,200	Long-term on-the-job training	390
First-Line Supervisors/Managers of Production and Operating Workers	16,250	Work experience in a related occupation	240
Industrial Truck and Tractor Operators	14,850	Short-term on-the-job training	480
Electricians	14,000	Long-term on-the-job training	390
Computer Software Engineers, Systems Software	13,050	Bachelor's degree	210



New Jersey's Green Enhanced Skills Occupations

Job Title	2009 Employment	Education/Training Requirements	2008-2018 Average Annual Job Openings
Truck Drivers, Heavy and Tractor-Trailer	43,050	Moderate-term on-the-job training	1,050
General and Operations Managers	39,300	Bachelor's or higher degree, plus work experience	1,210
Maintenance and Repair Workers, General	32,000	Moderate-term on-the-job training	670
Shipping, Receiving, and Traffic Clerks	22,100	Short-term on-the-job training	590
Construction Laborers	21,250	Moderate-term on-the-job training	370
Automotive Service Technicians and Mechanics	20,400	Postsecondary vocational training	520
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	13,100	Work experience in a related occupation	330



Current Demand

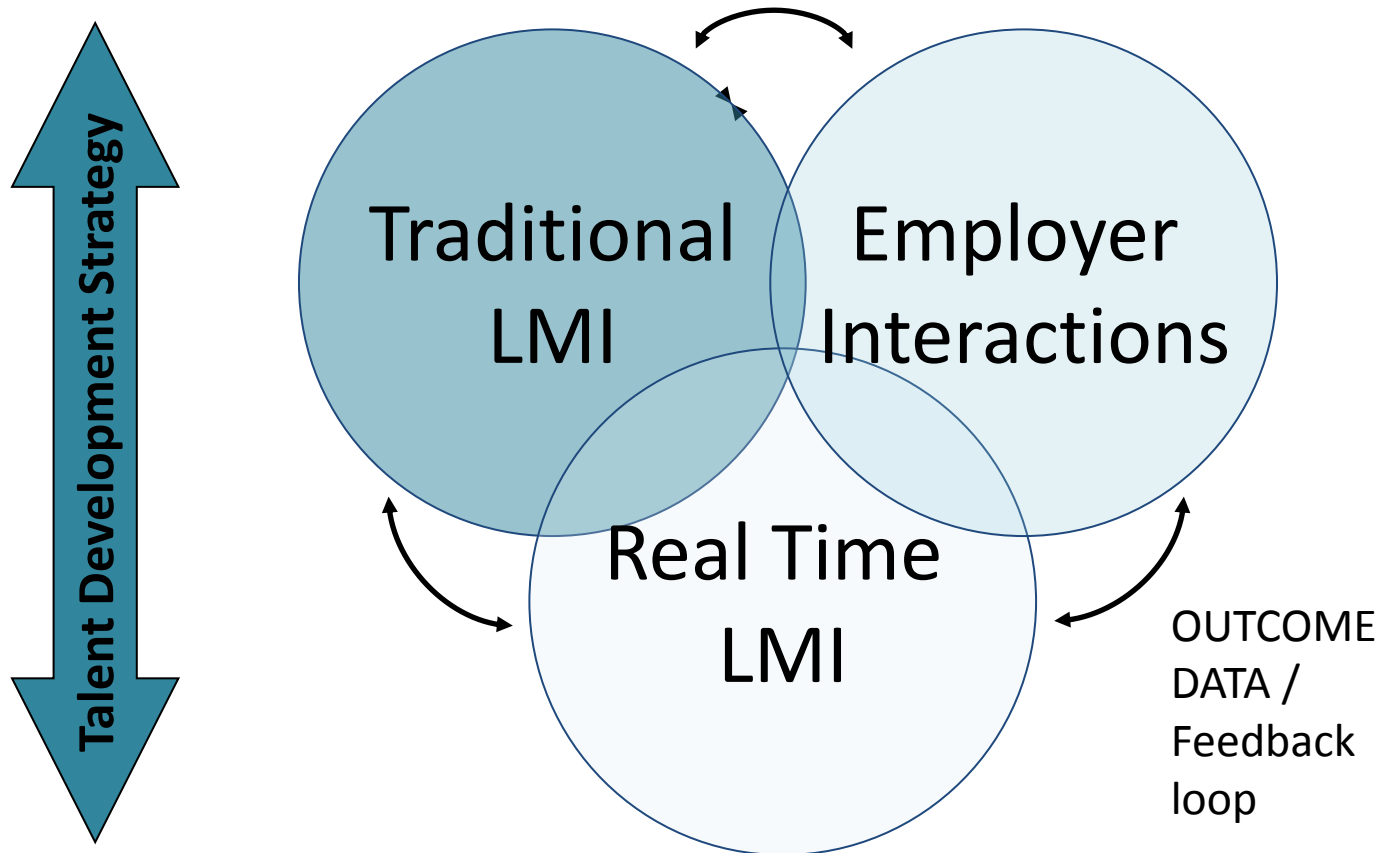


Demand Snapshot: Preliminary Findings from Employer Interviews

- Green training or credentials are often seen as necessary but not sufficient for firms, especially those in Energy Efficiency.
- Employers recognize their dependence on government policy to drive demand.
- Firms have diversified their portfolio of services in response to market slowdowns.



Labor Market Information as a Tool to Inform Sector Strategies



Strengths / Weaknesses

Source	Strengths	Weaknesses
Traditional LMI	<ul style="list-style-type: none"> • Rigorous collection methodology • Representative samples 	<ul style="list-style-type: none"> • Time lag • Hiring data not available by state • Difficult to discover emerging skills / occupations
Job Postings Data	<ul style="list-style-type: none"> • “Real time” • Proxy for demand • Substantive characteristics about each listing 	<ul style="list-style-type: none"> • Postings ≠ hiring • Changes in methodologies limit trend analysis • Not all openings are posted
Employer interactions	<ul style="list-style-type: none"> • Provides context • Hiring challenges • Insight into future demand 	<ul style="list-style-type: none"> • Not necessarily representative • Can requires additional resources



Background: Job Postings Data Analysis

- Used in analysis since 2007
- Data provider: Burning Glass Technologies
- Incorporated data into special projects, typically comparing job listings to unemployment claims in the same occupation
- Incorporated into new and existing tools for people seeking jobs and training
 - Real Time Jobs in Demand online tool
 - Demand Occupations list
- 2009 *New Jersey Going Green* report: “Where the Jobs Are” analysis
 - First use of text analysis of job titles within job postings
 - Created keywords and taxonomy of occupational groups



Green Job Postings: Preliminary Analysis, First quarter 2011

- Over 130,000 jobs posted in first three months
- In first quarter 2011, 17 percent of New Jersey online job postings were in one of the three O*NET green categories
 - Most of the postings (62 percent) were in the Enhanced Skills category
 - About 33 percent of green postings were Increased Demand positions
 - The remaining 5 percent were New and Emerging occupations

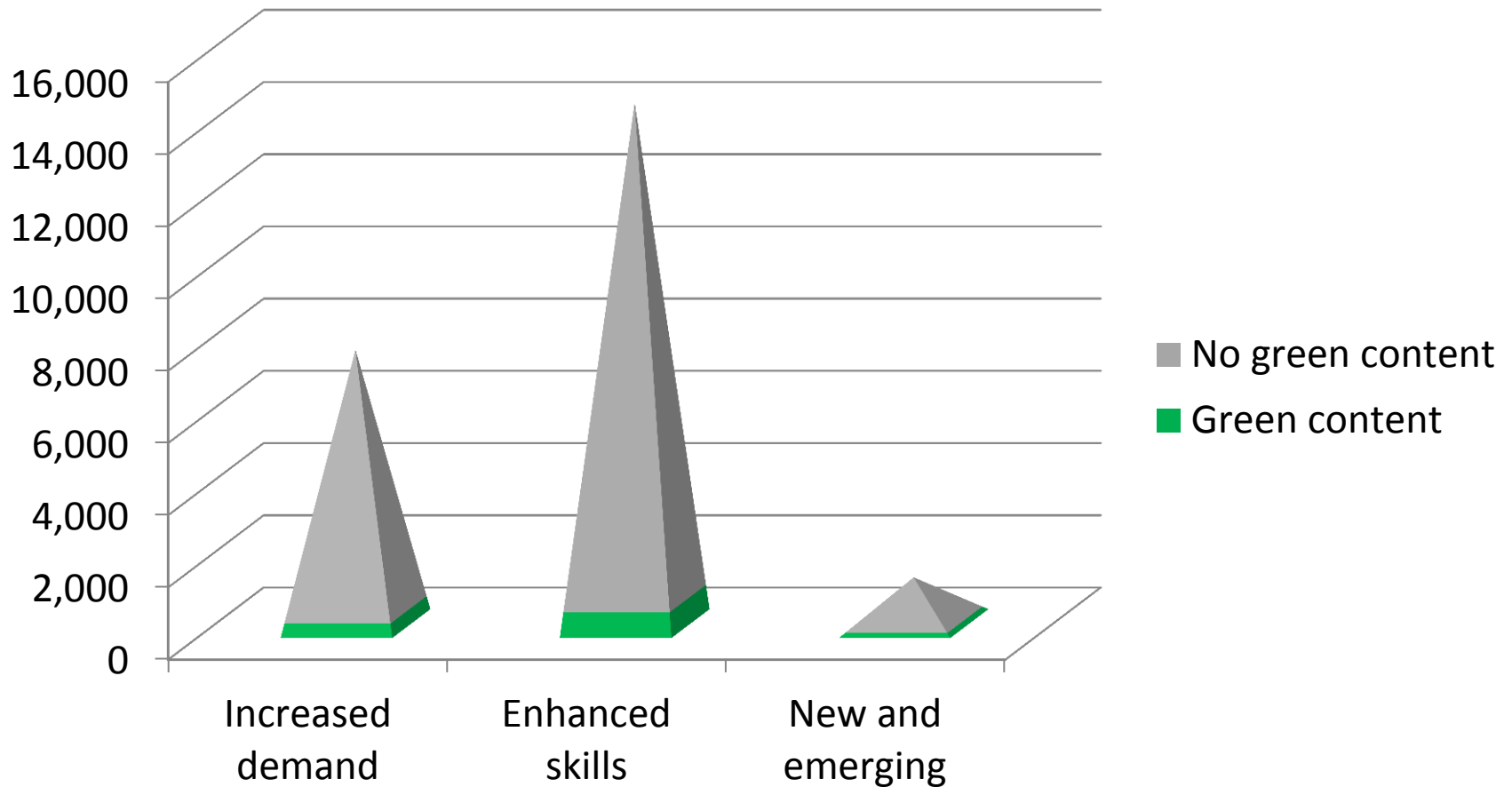


Green Job Postings: Preliminary Analysis, First quarter 2011

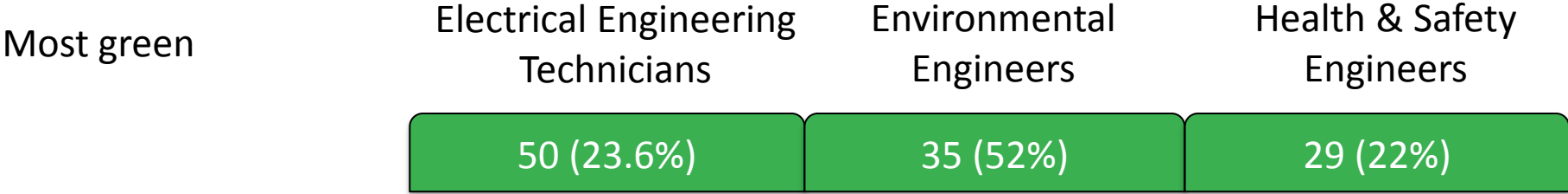
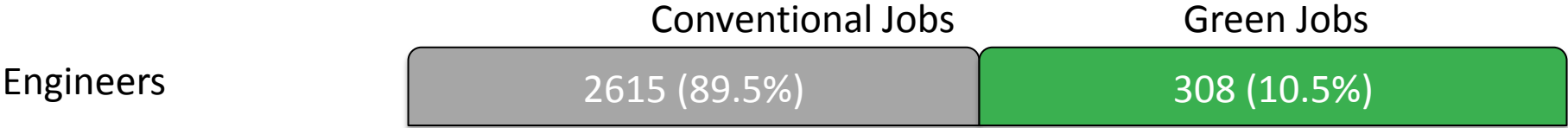
- Two percent of online job postings had one or more green skills included in their content.
- Sixty percent of occupations with green content were defined as green by O*NET
 - Both Increased Demand and Enhanced Skills occupations had a similar share of green content (five percent).
 - Less than 10 percent online postings for New and Emerging occupations specifically mentioned green skills.



Occupations defined as green by O*NET had little green content in their online job postings.



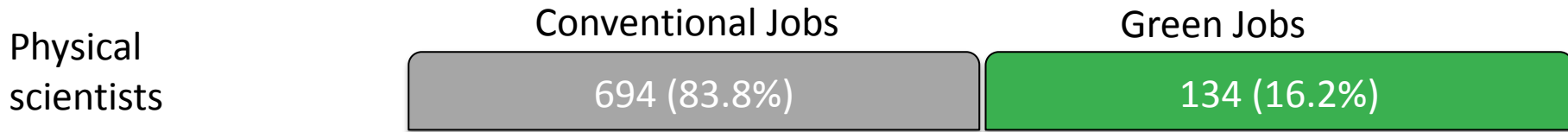
Sample Occupation Profile: Engineers



Green skills in occupation	leadership in energy and environmental design, energy efficiency, photovoltaic energy , retrofitting, natural gas, energy modeling	environmental health, environmental stewardship, air pollution control, water treatment, remediation systems	environmental protection, iso 14001 standards, environmental management, environmental regulations
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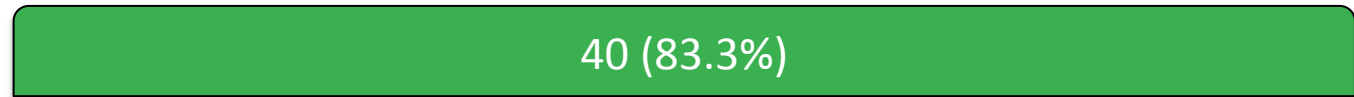


Sample Occupation Profile: Physical Scientists



Most green

Geoscientists (except Hydrologists and Geographers)



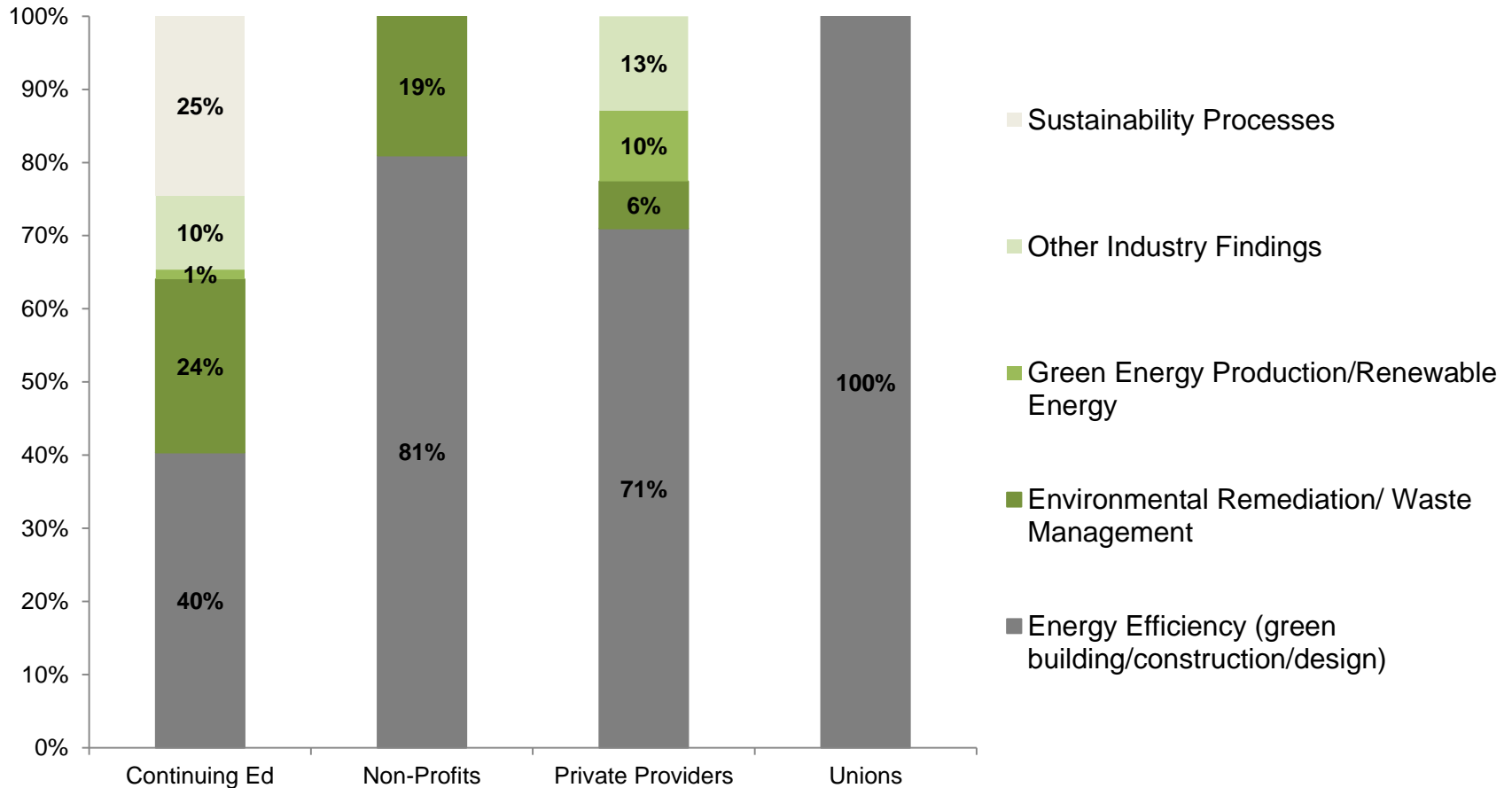
Green skills in occupation

site remediation environmental protection, environmental science, environmental regulations, soil collection, hydrogeology, soil logging, site remediation

Education Programs



Many providers are focusing on Energy Efficiency/Green Construction



A Closer Look: Green Training at NJ Community Colleges

114 Non-Credit Program Offerings

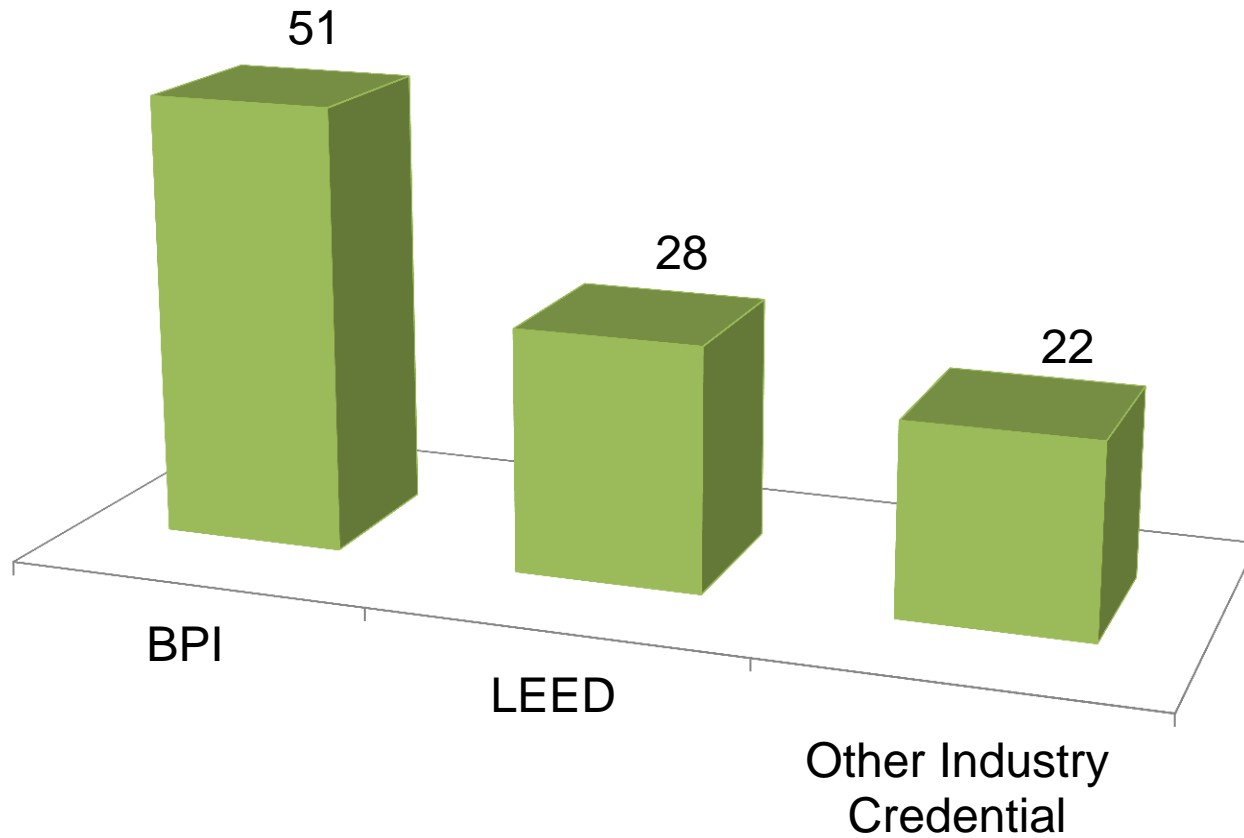
	71% (81) Energy Efficiency: Green Building/Construction
	2% (2) Environmental Remediation/Waste Management
	13% (15) Sustainability Processes
	1% (1) Green Energy Production/Renewable Energy
	13% (15) Other Industry Findings

36 For-Credit Offerings

	11% (4) Energy Efficiency: Green Building/Construction
	3% (1) Environmental Remediation/Waste Management
	17% (6) Sustainability Processes
	14% (5) Green Energy Production/Renewable Energy
	53% (19) Other Industry Findings



BPI is the most offered “green” credential training in NJ.



Tools

- Innovative software for resume matching/job search
- New Talent Network website: greenjobsnj.com
- Green training search for the Eligible Training Provider List (ETPL)





green jobs

nj talent network

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Sample Headline Here

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Additional drop down menu for industry-based searches

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Search Recap
 Search Type: Occupation or Training
 Keyword: LEED
 Keyword Search By: exact phrase
 Number of Results: 63

Your search found the following providers and programs Go to results page:

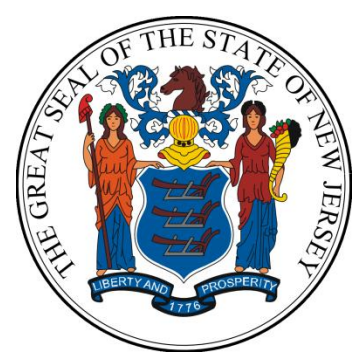
Results For Training Programs Search

Your search found the following programs. To obtain additional information, click on the program name.

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Program Name	Average Program Rating(1-6):	Total Clock Hours	Total Cost of Program
Advanced Green Contractor Training Course - LEED GA, LEED AP, and EPA Lead Green Education Services, LLC - PVS New York, Out of State Add Your Comments	N/A (0)	24	\$1,999.00
Advanced Green Jobs Training - LEED GA, LEED AP, and BPI Building Analyst Green Education Services, LLC - PVS New York, Out of State Add Your Comments	N/A (0)	56	\$2,899.00
Advanced Sustainability Training Package: LEED GA+AP and BPI BA+Envelope CleanEdison, LLC Randolph (Morristown) , Morris Add Your Comments	N/A (0)	68	\$4,885.00
BPI Certification for Energy Auditors Rutgers University Advanced Technology Extension (RATE) Piscataway, Middlesex Add Your Comments	N/A (0)	28	\$1,595.00

Search results for Green Training



New Jersey Going Green

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