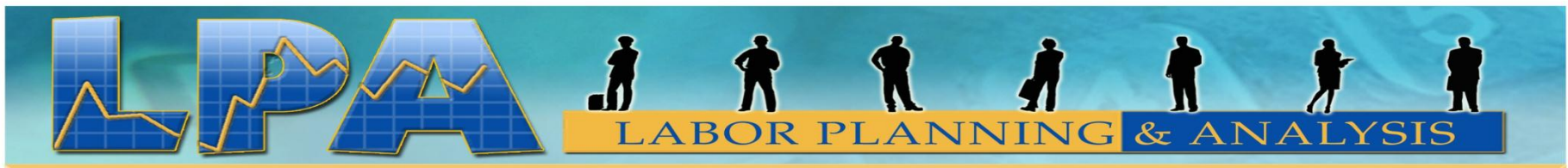


New Jersey's Green Workforce: Demand, Training, and Education

July 28, 2011

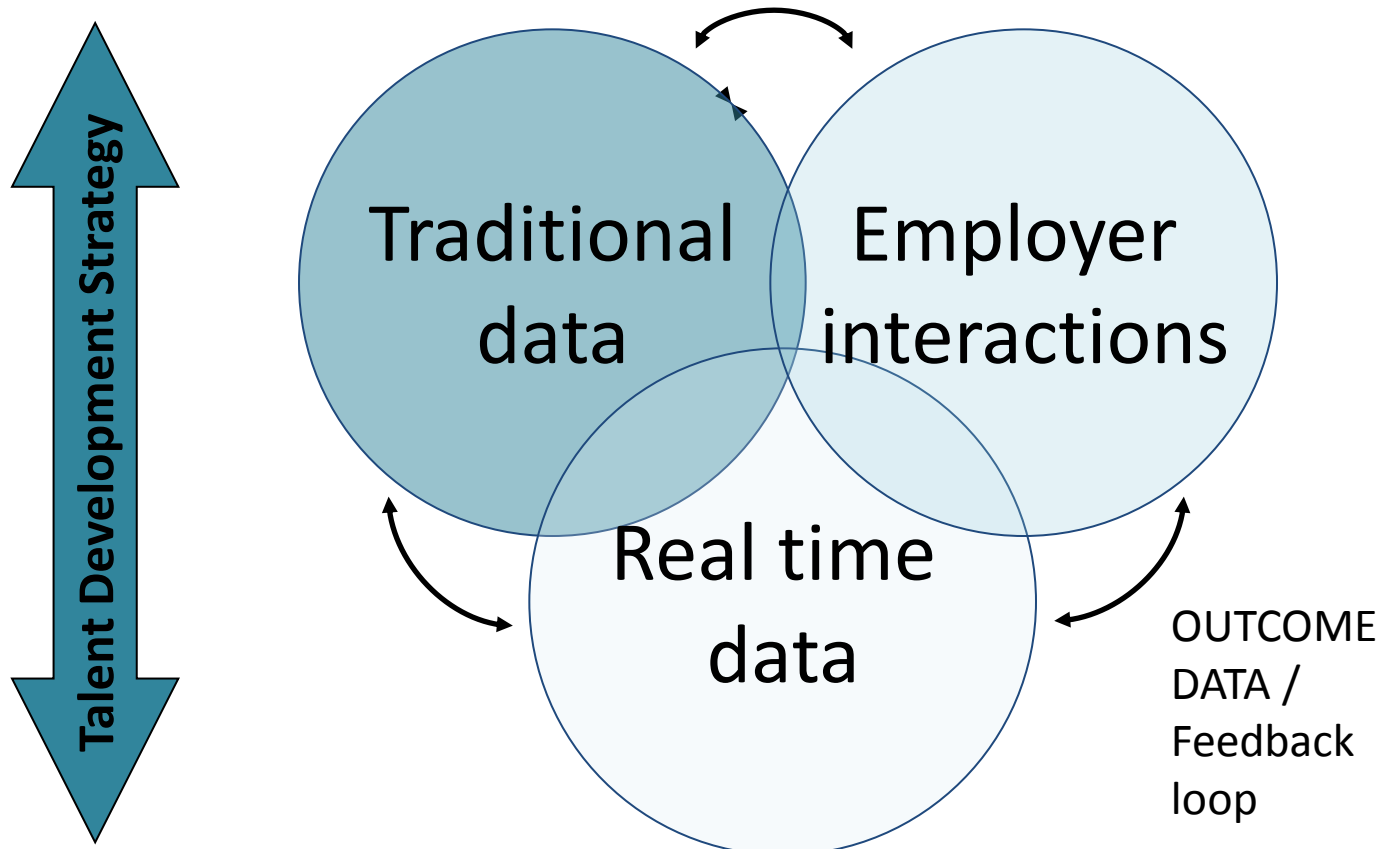
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Workforce Development



Defining Green

- The 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 currently has two survey initiatives to separately measure each type of green job; results are expected next year and annually thereafter
 - Green Good and Services (GGS) and Green Technologies and Practices (GTP) surveys
- New Jersey's definition relies on this framework, but has targeted about 70 industries, compared to BLS's 300

Methodology: Labor Market Data as a Tool to Inform Sector Strategies



Two Major Sectors in New Jersey's Green Economy

- Green Energy Production / Renewable Energy
 - Companies producing electricity, heat, or fuel generated from renewable sources ; products in the Green Energy supply chain
 - 25 percent of employment; 33 percent of wages
- 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
 - 68 percent of employment; 62 percent of wages
- These two sectors employ over 180,000 workers

Green Firms Make Up a Small but Significant Proportion of the NJ Economy

- Employment in firms in green industries was seven percent of all state employment in 2009
 - Over half of the workers are in Construction (43 percent) or Manufacturing (13 percent), two industries that have experienced dramatic declines in recent years
 - Construction employment has declined by 12 percent since 1990; the decline since 2007 is 24 percent
 - Manufacturing employment is half what it was in 1990 and declined 14 percent from 2007 to 2009
 - Two-fifths of green industry workers (41 percent) are employed in Professional Services industries

Not all green products are produced through green processes and not all green processes produce green products

Green
products /
services firms
(7%)

Firms producing non-green
products / services
(93%)

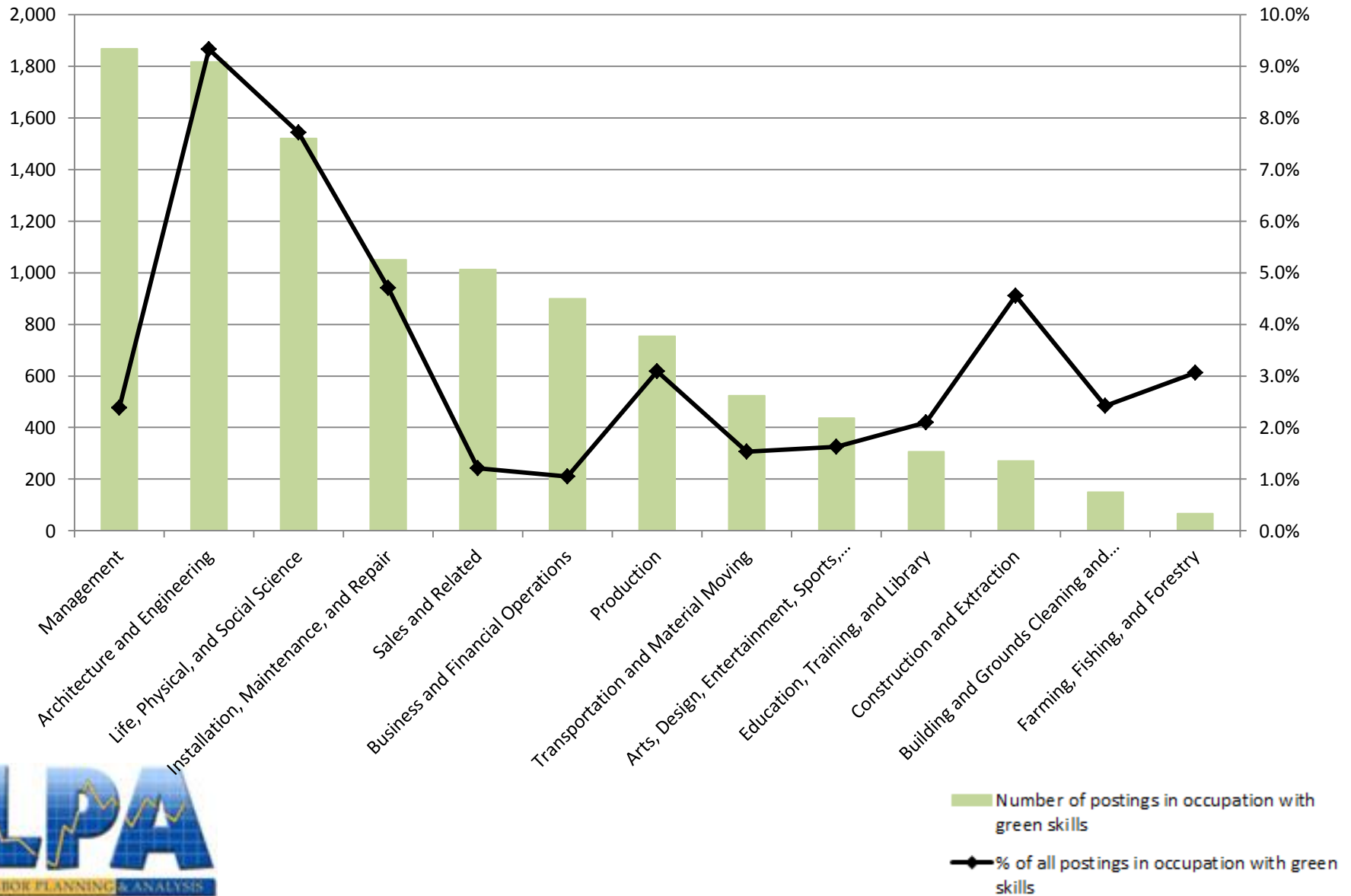
Firms using green processes

Although a small proportion of online postings include green skills, the skills are concentrated in specific occupational groups

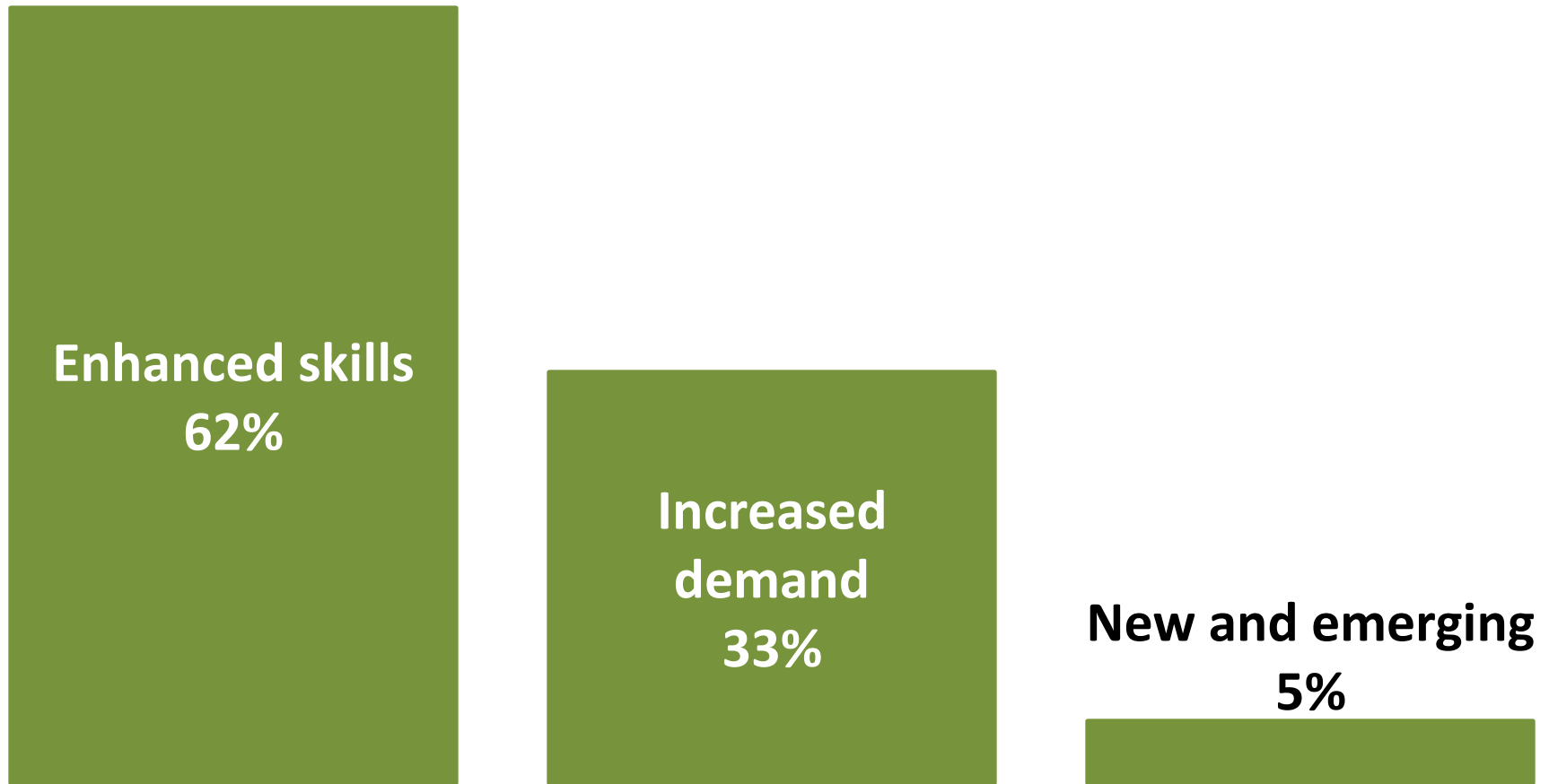
- Between January 2010 and March 2010 just 1.7 percent of New Jersey postings included green skills content
- The occupations with the largest proportion of green skills content were in Architecture and Engineering and Life, Physical and Social Sciences
- Large numbers of occupations with green skills were also found in Management, Installation, Maintenance and Repair, and Sales job postings

Online Job Postings with Green Skills

January 2010 – March 2011



Most green jobs postings are for traditional occupations with a green layer or enhanced skill requirement



Employer interviews support evidence of a green layer, however there is not strong demand

- Demand for green layer skills and credentials may be strongest for incumbent workers
 - Employers transforming skills of current workers to be competitive for green work
- Employers prefer traditional degrees, skills and experiences for new hires, though green education may act as a bonus
- Employers also noted that relatively few jobs required specific green jobs or credentials, or a green layer for new employees

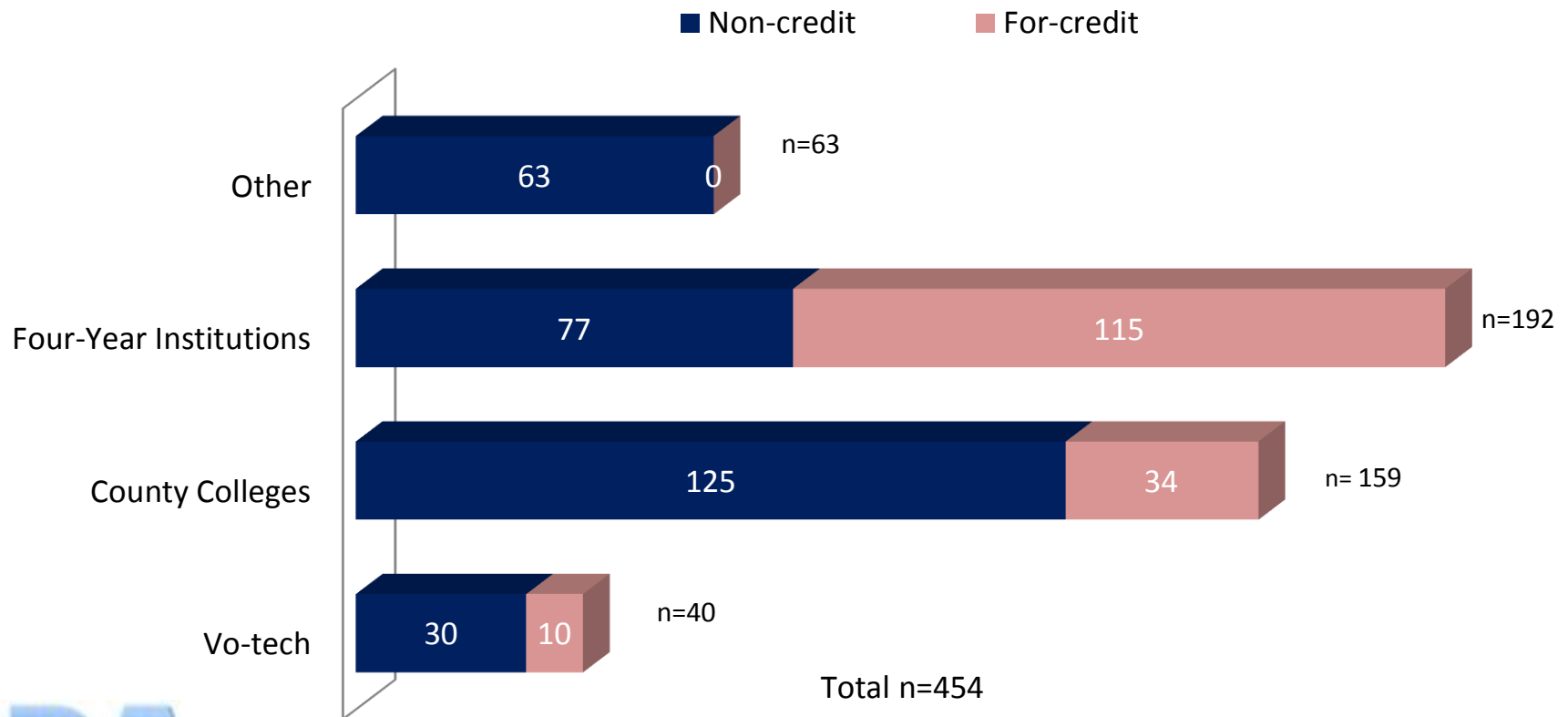
Education and Training Providers Struggle to Understand and Respond Effectively to the Emerging Green Labor Market

Interviews with public higher education institutions show:

- **Few have direct, ongoing, and meaningful input from employers** on curricula and program decisions.
- Many rely on **LMI intermediaries and examples from other education institutions** to make decisions about green training.
- Pressure to increase enrollments and the presence of green training grants creates **incentives for schools to create programs quickly, with or without employer input.**

Four-Year institutions offer the largest number of green programs overall and for-credit programs, but community colleges lead in non-credit programs*

Credit Vs. Non-Credit Green Programs, by Provider Type



* Public education and training institutions formed the primary focus of the green program inventory, so private providers may offer more programs than are shown here.

Next Steps

- Focus green training resources on training for incumbent workers.
- Ensure jobseekers have the core, traditional job skills needed for green jobs.
 - Provide qualified, screened jobseekers with green training (e.g., a green layer or credential) appropriate for their field
 - Discourage providing green training to jobseekers who lack core, traditional job skills required by employers
- Assist the State Employment and Training Commission (SETC) in the development of a Talent Development Strategy to guide future efforts.