# INNOVATIONS IN LABOR MARKET INFORMATION AND THEIR APPLICATION

## APPLICATIONS FOR WORKFORCE PROGRAMS

A GREENWAYS ACTION BRIEF

By Myriam Milfort and Jeremy Kelley

**Green Ways**
A JOBS FOR THE FUTURE INITIATIVE

**CREDENTIALS THAT WORK**
Occupational Training for Today's Jobs

## CREDENTIALS THAT WORK
### Occupational Training for Today's Jobs

**Credentials that Work** is a JFF initiative that seeks to utilize innovations in the collection and use of real-time labor market information to better align investments in education and training with the needs of the economy. Stronger alignment will ensure that education credentials have high value for both workers and employers. This work is funded by Lumina Foundation for Education and the Joyce Foundation.

## Green Ways
### A JOBS FOR THE FUTURE INITIATIVE

The **GreenWays** initiative provides high-quality workforce services to employers and to workers seeking to advance their careers in the green economy. The initiative invests in 20 workforce partnerships across six diverse industry sectors in eight metropolitan labor markets. It builds on JFF's approach of organizing employers and workforce resources into sectoral workforce partnerships to promote career advancement for lower-skilled workers. GreenWays is supported by grants from the U.S. Department of Labor through Pathways Out of Poverty and the Green Jobs Innovation Fund.

**GREENWAYS.JFF.ORG**

## JOBS FOR THE FUTURE

**Jobs for the Future** aligns education with today's high-demand careers. With its partners, JFF develops policy solutions and new pathways leading from college readiness to career advancement for struggling and low-income populations in America.

**WWW.JFF.ORG**

## ABOUT THE AUTHOR

**Myriam Milfort** is a senior project manager in JFF's Building Economic Opportunity Group, where she manages Credentials that Work, JFF's work in the development and application of labor market information and workforce research. Before joining JFF, Ms. Milfort served as a Presidential Management Fellow for two offices within the U.S. Department of Labor where she managed LMI grants for 10 states and oversaw key convenings of state and federal LMI stakeholders. Ms. Milfort previously worked at the Federal Reserve Bank of Boston and J.P. Morgan Chase & Co.

**Jeremy Kelley** is a project manager in JFF's Building Economic Opportunity Group. He coordinates the Adult Completion Policy Project, a JFF policy initiative in Kentucky, Michigan, and North Carolina that seeks to increase occupational program enrollment and completion for adults who previously earned college credit but did not achieve a degree. This work is part of JFF's participation in Lumina Foundation for Education's adult degree completion strategy. He also conducts research and delivers presentations for Credentials that Work and workforce research supported by the Lumina and the Joyce foundations. Before coming to JFF, Mr. Kelley was a project coordinator for the Suffolk County District Attorney's Safe Neighborhood Initiative.

## ACKNOWLEDGMENTS

# TABLE OF CONTENTS

# PREFACE

With funding from the Joyce and Lumina foundations, Jobs for the Future launched Credentials that Work to help postsecondary institutions, regions, and states align their occupational training programs to changing market demands. This initiative incorporates innovations in real-time labor market information in guiding institutions to better align education and training investments with the needs of regional economies. Real-time data draw on current information and signals from the labor market to help improve the understanding of hiring trends and employer demand, including certifications and skill requirements. Through Credentials that Work, JFF and participating community colleges seek to advance the use of a combination of traditional and real-time LMI in institutional decision making.

This action brief draws on "Innovations in Labor Market Information and Their Application," a workshop presented at the GreenWays to Good Jobs Peer Learning Conference, Milwaukee, Wisconsin, February 29, 2012. It provides an overview of Credentials that Work and demonstrates the application of real-time LMI by workforce partnerships supported by GreenWays. Reflecting the green jobs backdrop of the conference, examples and suggestions indicate how job developers can use LMI resources to acquire a more robust understanding of their local green economies.

# INTRODUCTION

Education and training institutions face the formidable challenge of preparing students and workers with the knowledge and skills needed to compete in a global economy. As the U.S. economy slowly recovers, the development of an educated workforce remains one of the most pressing issues today. A 2010 study, *Help Wanted: Projecting Jobs and Education Requirements Through 2018*, predicts that U.S. employers will need 22 million new workers with postsecondary degrees by 2018.[1] The report also predicts a shortfall of three million workers or 300,000 college graduates every year over the same period.

Meanwhile, structural economic issues—particularly the disconnect between the skills workers possess and those that employers need—remain a topic of discussion for policymakers, education and training providers, and other stakeholders in the American workforce. The McKinsey Global Institute reports that without prompt action, by 2020 there could be 85 million too few people with high and medium skills but 90 million too many low-skilled workers.[2]

This brief explores how real-time and traditional labor market information can help workforce development providers prepare workers for and connect them to occupations in high-demand industries. It begins by defining these two types of LMI as well as highlighting the benefits and constraints of the real-time data. The brief then presents three ways that program directors and job developers in job training programs can use real-time LMI to improve outcomes: improving the quality of employer engagement by framing and focusing discussion; gauging demand for specific occupations and skills to match program designs with labor market needs; and exploring skills transferability from job training to a variety of potential career opportunities and job placements for program graduates.

[1] Carnevale, Anthony P., Nicole Smith, & Jeff Strohl. 2010. *Help Wanted: Projecting Jobs and Education Requirements Through 2018*. Washington, DC: Georgetown University Center on Education and the Workforce.

[2] Manyika, James, Susan Lund, Byron August, & Sreenivas Ramas. 2012. Help Wanted: The Future of Work in Advanced Economies. n.p.: McKinsey Global Institute.

# REAL-TIME AND TRADITIONAL LABOR MARKET INFORMATION DEFINED

Definitions of traditional and real-time labor market information are often confused and conflated. They both involve the collecting, analyzing, reporting, and publishing of data on economic activities to describe and forecast the relationship between labor demand and supply. Both can include the number of people employed, their wages and their occupations, the location of their workplaces in relation to where they live, the number of people available to work in a given geographic area, and forecasts of the occupations that will be in demand in the future.

Each state produces traditional employment and economic statistics in cooperation with the U.S. Department of Labor's Bureau of Labor Statistics. Other traditional labor market information sources include the Census Bureau, and O*NET, a database, sponsored by the U.S. Department of Labor, Employment and Training Administration.

Real-time labor market information includes similar types of data as well as new types based on aggregated online job postings. There are millions of online job postings in various formats and on various websites such as Craigslist or Monster.com. Several real-time LMI vendors, both for-profit and nonprofit, have created technologies and systems that spider and aggregate job ads, then parse them to extract industry, occupational, skills, certification, wage, and geographic information. These data are collected regularly and de-duplicated so that a posting is only counted once even if it appears on more than one website.

## PROS AND CONS OF TRADITIONAL AND REAL-TIME LABOR MARKET INFORMATION

Because online job postings are continuously updated, they can reveal new and emerging trends that traditional occupational definitions may overlook. Real-time LMI offers insights into the skills and certifications sought by regional employers. When supplemented with data from employer advisor groups, student labor market outcomes, and traditional labor market resources, it enhances data-driven decision making based on a more robust picture of regional occupational and industry sectors.
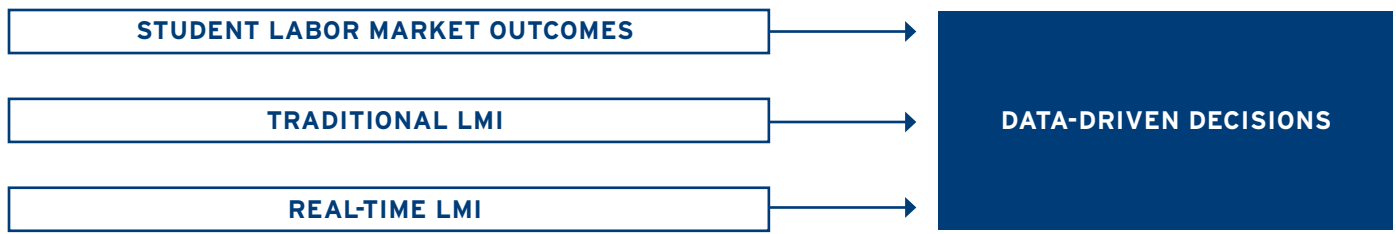
Every data source has its flaws, especially with emerging tools that are still being field tested and validated by users. Common limitations of real-time LMI include duplication errors, although vendor de-duplication algorithms are

### A CONSUMER'S GUIDE TO REAL-TIME LABOR MARKET INFORMATION



To create transparency in the real-time LMI arena, Jobs for the Future published *A Consumer's Guide to Real-time Labor Market Information*, based on a survey of and interviews with six of the largest real-time LMI data vendors. The publication explores a brief history and improvements that have been made in real-time data, products and data elements offered, sources of the data, quality assurance efforts, and the range of fees charged. The report is available at: http://www.jff.org/publications/education/vendor-product-review-consumers-guide-re/1417.

| STUDENT LABOR MARKET OUTCOMES | | |
|---|---|---|
| TRADITIONAL LMI | → | DATA-DRIVEN DECISIONS |
| REAL-TIME LMI | | |

| SUPPLY | DEMAND | STRATEGIC ALIGNMENT |
|---|---|---|
| > Education enrollees<br>> Education completers<br>> Unemployed<br>> Employed | > New hires<br>> Replacement hires | > Qualified job referrals<br>> Improved placements<br>> Improved employer relationships<br>> Improved counseling tools<br>> Sector Strategy Alignment |

increasing in sophistication, dramatically overcoming this difficulty. Additionally, certain trades (e.g., construction and manufacturing) do not necessarily use online job postings to advertise openings and consequently are not well represented in the data set. Job ads can also be vague, which affects whether the information can be accurately spidered. Furthermore, employers may post job openings as a means of gathering resumes for future consideration; not every posting represents an actual vacancy.

Traditional LMI has its own benefits and constraints. Traditional data are the best resource for wage expectations, unlike real-time LMI sources. Salaries are typically negotiated; therefore, the figures in job ads are unreliable.

One challenge with traditional LMI is that standard occupational codes (SOCs), which the Bureau of Labor Statistic selects for its studies and data reports, can be static, insufficient, or misleading in light of the dynamic nature of certain occupations. Consider desktop publishing, an occupation projected to boom when it first emerged. Since then however, traditional labor market resources have indicated that this is a constantly declining occupation, even though desktop publishing skills are often a prerequisite for many jobs (e.g., administrative assistant). Job training programs using SOC codes would determine desktop publishing to be a dying occupation rather than an in-demand skill to prepare their clients. A potentially key advantage of real-time LMI data is that it gives training programs better

insight into the design of an effective curriculum and then an innovative way to demonstrate its value to potential funders, clients, and employers.

In a similar vein, real-time LMI can help explore the specific ways in which traditional occupational definitions are shifting. Employers looking for someone with knowledge of environmental regulations may also want that individual to possess sales and marketing skills as well as proficiency in certain computer software. Most job postings identify the skills and the certifications required to perform the position, even if those specifications are not always complete.

Job postings also can reveal specific nontraditional occupational requirements (see box, Parsing for "Green" Skills and Certifications). As an example, one would expect being accredited with LEED Professional certifications to be one of the most commonly advertised requirements for green occupations, and real-time postings support that expectation. But a valid commercial driver's license also appears as a common requirement in many of those job postings, as does project management certification. Neither of those are traditionally thought of as "green" certifications, but if a person applying for green-related work lacks a driver's license, he or she may not be considered for the position. In this respect, real-time LMI is employer specific: the research can target a particular employer and ask, "What skills and certifications are they looking for?

## PARSING FOR "GREEN" SKILLS AND CERTIFICATIONS

| TOP 10 SKILLS, UNITED STATES, 2011 | TOP 10 CERTIFICATIONS, UNITED STATES, 2011 |
|---|---|
| > Environmental science | > Leadership in Energy and Environmental Design (LEED) |
| > Environmental health | > Professional engineer |
| > Water treatment | > Commercial driver's license |
| > Leadership in Energy and Environmental Design (LEED) | > Certified Energy Manager |
| > Energy management | > Project management certification (e.g., PMP) |
| > Natural gas | > Certified Safety Professional (CSP) |
| > Environmental regulations | > American Registry of Radiologic Technologists (ARRT) Certification |
| > Environmental management | > Six Sigma |
| > Energy efficiency | > Certified Industrial Hygienist |
| > Natural resources | > Engineer in Training Certification |

SOURCE: Burning Glass Labor Insight

The aggregated real-time skills and certifications data also serve as valuable supplements to traditional measures of educational demand. The Bureau of Labor Statistics is the primary source for projecting education and job requirements, but its estimates of postsecondary education demand between 1998 and 2008 fell short of the actual postsecondary education demand in 2008 by 47 percent. According to the Georgetown University Center on Education and the Workforce, the reason is that the BLS holds educational demand constant; therefore, educational demand in its numbers changes only as a result of fluctuations in the mix of occupations in the economy, not when the requirements of an occupation change.[3]

To balance the advantages and limitations of each data source, job postings data should be consulted in conjunction with additional labor market indicators, using a mix of data sets when making education and training decisions. While numerous traditional and real-time sources provide national and state labor market information, job developers and counselors should continue to work with local employers, chambers of commerce, and professional organizations to help identify where the jobs are.

[3] See http://cew.georgetown.edu/jobs2018.

## ANALYZING THE LABOR MARKET

### Types of Information

> **Demographics:** Information about the characteristics of the population, such as where people live, education attainment, commuting patterns

> **Industry, Occupation, Wage:** Information about industries and occupations that are projected to grow or decline, staffing patterns, wages

> **Skills:** Information about the skills and certification requirements by occupation

> **Career Exploration:** Information about career pathways

### Resources

*Real-time LMI Software*

These fee-based services provide aggregated job postings and parsing capabilities. They are particularly valuable for conducting dynamic regional and sector-focused labor market analyses.
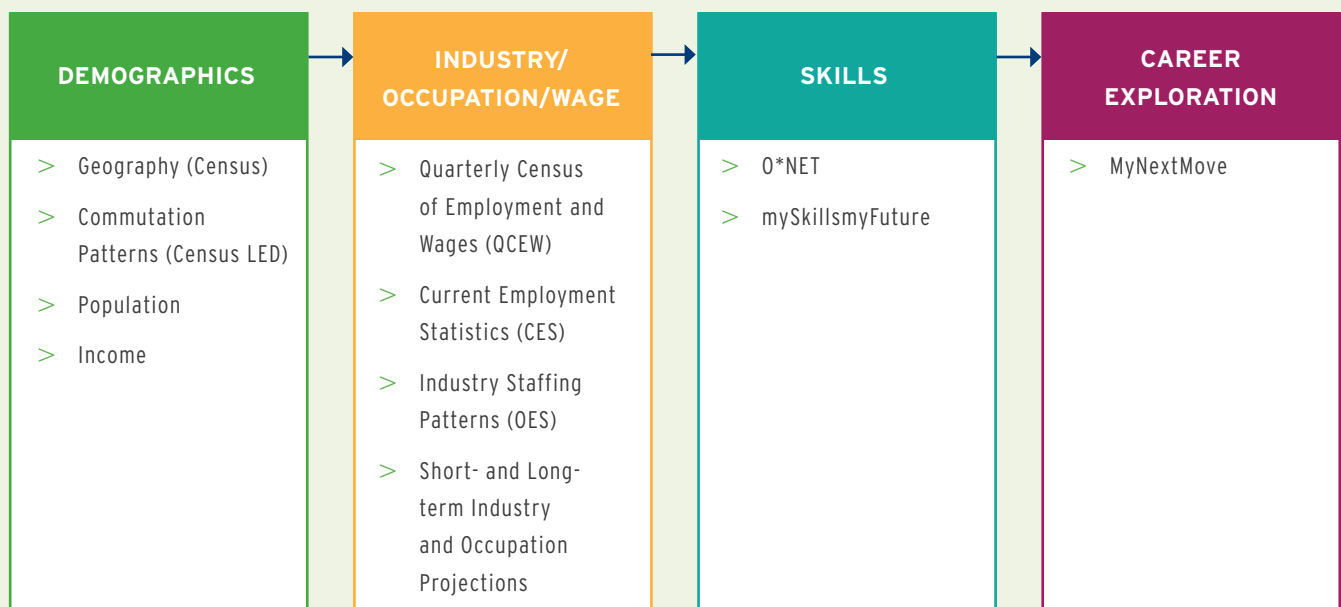
> **Wanted Analytics:** www.wantedanalytics.com/

> **The Conference Board, Help Wanted Online:** http:// www.conference-board.org/data/helpwantedonline.cfm

> **Burning Glass, Labor Insight:** www.burning-glass.com

> **Geographic Solutions:** www.geographicsolutions.com/ index.asp

> **EMSI:** http://www.economicmodeling.com

> **Career Builder/Supply and Demand Portal:** www. careerbuilder.com/JobPoster/Products/page. aspx?pagever=SupplyDemandPortal

*Skills Matching Software*

These resources are structured to help individuals match their existing job experience, skills, certifications, and competencies to other potential occupations and careers. These resources feature user-friendly interfaces and can be a valuable resource for jobseekers.

> **mySkills myFuture:** www.myskillsmyfuture.org (free)

> **EMSI Career Coach:** www.economicmodeling.com

> **Transferable Occupation Relationship Quotient (TORQ):** www.torqworks.com

> **My Next Move:** www.mynextmove.org (free)

> **CareerOneStop:** www.careeronestop.org (free)

| **DEMOGRAPHICS** | **INDUSTRY/ OCCUPATION/WAGE** | **SKILLS** | **CAREER EXPLORATION** |
|---|---|---|---|
| > Geography (Census)<br>> Commutation Patterns (Census LED)<br>> Population<br>> Income | > Quarterly Census of Employment and Wages (QCEW)<br>> Current Employment Statistics (CES)<br>> Industry Staffing Patterns (OES)<br>> Short- and Long-term Industry and Occupation Projections | > O*NET<br>> mySkillsmyFuture | > MyNextMove |

# APPLYING REAL-TIME LABOR MARKET INFORMATION: EMPLOYER ENGAGEMENT

Successful workforce programs often rely on employer partners not only to hire program graduates but also to provide input and feedback on training design to ensure it meets local needs. These discussions are most useful when they are effectively framed by the workforce program. Success stories from real-time LMI users indicate that statistical data alone are insufficient for making sound education and training decisions. Instead, a rigorous analysis of the multiple data sources must be informed by understanding the preferences of local employers in the industry sector and the needs of participants to create useful information for employers, students, workers, counselor, and policymakers in the workforce and education arenas. Real-time LMI provides a critical source for program directors to draw questions from the data and raise them to employers, ultimately leading to or strengthening working relationships with them.

For example, an employer may advertise something in a job posting that is inconsistent with advice they have given to a provider of occupational training. Or an employer may post an ad for a position that is just what colleges in their advisory networks are training workers for. In either case, the training provider now has a good reason to pick up the telephone, call the employer, and open a conversation. In the long-term, the resulting collaborative discussion between trainer and employer can lead to direct or indirect placements of program clients and an ongoing job-referral pipeline.

Real-time LMI can also enhance the value of existing employer advisory groups by revealing information that employers included in their job ads but may not have brought to the attention of the program operator. As an example, JFF's Credential's that Work initiative studied employer advisory groups for an agency interested in conducting occupational training for a state's health care industry. Hospitals were the biggest employers in the region covered in the study, and most of the members of the employer advisory board were hospital representatives. Their input was consistent: people with certification as licensed practical nurses or certified nursing assistants did not always have the skills needed for those jobs at hospitals. Their message to community colleges was to stop offering certificates that did not reflect the type of worker needed. That could have been the end of the story, but an analysis of job postings through real-time labor market information software and student exit surveys found that many of the state's community health centers were hiring people with CNAs and LPNs and satisfied with them, but these employers were not represented on that particular advisory board. The real-time LMI provided information from outside the advisory group and also sparked substantive discussions at its meetings.

In another instance, the Clean Energy Council, a trade association, asked its real-time LMI provider to generate a report aggregating information from job postings and then convene about 50 employers to review the report. The employers were asked, "Does this sound real and relevant? Is this the current demand, and for the correct job titles? Are these the appropriate skills and certifications?" The answers provided input that training programs added to funding request, which were stronger because they reflected employer need. The employers also appreciated both the report and the opportunity to verify the ways it was right and wrong.

# APPLYING REAL-TIME LABOR MARKET INFORMTION: GAUGING DEMAND

For occupational trainers, it is critical to demonstrate need for their program graduates as documented in real job openings. Some workforce programs rely on traditional labor market information to demonstrate market demand, while others collect less comprehensive, anecdotal data as their main reference. By reviewing millions of online employer ads, real-time LMI can help achieve a more complete understanding of labor and skill demand on a national or regional basis.

Table 1 illustrates how real-time and traditional LMI data can be used together to gauge occupational demand. The table shows the ten occupations with the most job postings in the United States for 2011, according to real-time LMI software. It also shows the 10-year growth, average annual openings, median hourly wages, and degree completions for those occupations captured through traditional resources. In this case, registered nurse jobs are projected to grow nationally by 19 percent over the next decade, with 98,640 annual projected openings. Over the last year, employers placed 496,794 job ads for RNs. While ads do not directly translate to hires, the real-time data support the demand projections. The reported regional degree completions also show a potential need to train more nurses. More research and analysis are required before making any recommendations, but this chart serves as an example of how to interpret both data sets together.

In addition to analyzing market demand for occupations, it is important for training providers to remain attuned

## TABLE 1.
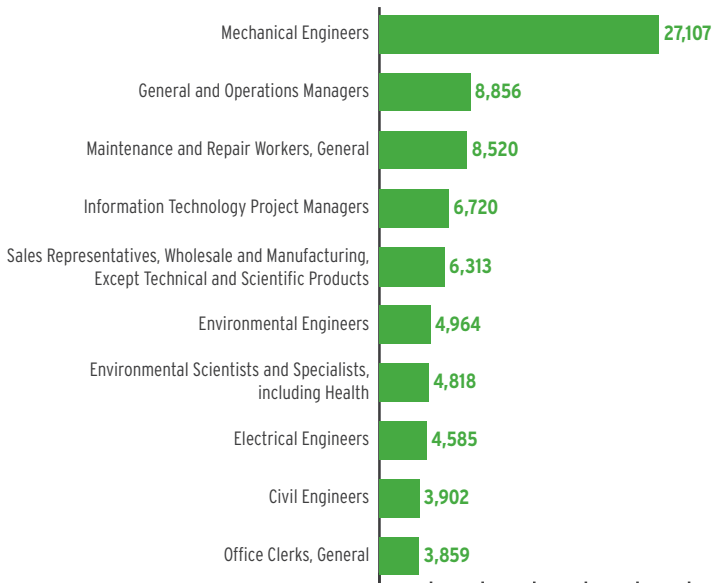## TOP OCCUPATIONS BY NUMBER OF JOB ADS, UNITED STATES, 2011

| SOC CODE | DESCRIPTION | 2011 JOB POSTINGS | PROJECTED GROWTH 2011-2021 | PROJECTED ANNUAL OPENINGS | 2011 MEDIAN HOURLY WAGE | DEGREE COMPLETIONS 2010 |
|---|---|---|---|---|---|---|
| 29-111 | Registered nurses | 496,794 | 19% | 98,640 | $30.38 | 206,829 |
| 41-2031 | Retail salespersons | 421,008 | 9% | 172,910 | $9.69 | 6,127 |
| 41-4012 | Sales representatives, wholesale and manufacturing, except technical and scientific products | 398,385 | 8% | 48,541 | $24.49 | 17,391 |
| 41-1011 | First-line supervisors/managers of retail sales workers | 372,016 | 5% | 64,083 | $14.81 | 11,450 |
| 15-1031 | Computer software engineers, applications | 363,359 | 25% | 18,711 | $39.72 | 37,023 |
| 15-1032 | Computer software engineers, systems software | 351,196 | 23% | 13,902 | $42.28 | 46,090 |
| 53-3032 | Truck drivers, heavy and tractor-trailer | 282,880 | 133% | 64,961 | $17.95 | 16,615 |
| 43-4051 | Computer service representatives | 253,739 | 18% | 111,656 | $14.53 | 2,156 |
| 15-1051 | Computer systems analysts | 248,061 | 14% | 22,095 | $33.77 | 37,943 |
| 43-6011 | Executive secretaries and administrative assistants | 200,712 | 11% | 36,903 | $19.15 | 30,623 |

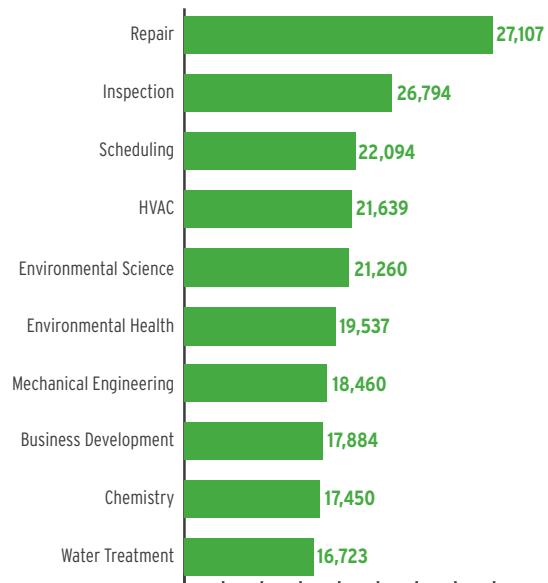SOURCE: EMSI Complete Employment 2011.4 and Burning Glass Labor Insight

to the market demand for a particular skill, so that they can ensure that their curricula remain relevant to the respective professions. Skill demand knowledge also helps job developers to steer jobseekers with a specific skill set into a new occupation that might not have been included in the original goals of a training program. For green job developers, in particular, information about skill demand is critical in identifying the skills that jobseekers should acquire in order to apply for a green job. The ability to conduct an analysis of current, dynamic skills is another key value of real-time LMI technologies. Traditionally, this type of skills information is obtained from employer advisory boards or the fairly static lists of occupational "knowledge, skills, and abilities."

Figures 1 and 2 contain additional examples of how real-time LMI can supplement the traditional collection of skills information. Figure 1 shows the top occupations requesting green skills nationally in 2011, while Figure 2 shows the top green skills advertised in job postings. Since such information also can be pulled regionally, occupational trainers and green job developers can conduct searches for the types of green skills being requested in their local areas, then crosswalk that information with what their employer advisory boards say, thus helping jobseekers acquire necessary skill sets.

**FIGURE 1.**
**TOP OCCUPATIONS REQUESTING GREEN SKILLS, UNITED STATES, 2011**



| Occupation | Value |
|---|---|
| Mechanical Engineers | 27,107 |
| General and Operations Managers | 8,856 |
| Maintenance and Repair Workers, General | 8,520 |
| Information Technology Project Managers | 6,720 |
| Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products | 6,313 |
| Environmental Engineers | 4,964 |
| Environmental Scientists and Specialists, including Health | 4,818 |
| Electrical Engineers | 4,585 |
| Civil Engineers | 3,902 |
| Office Clerks, General | 3,859 |

**FIGURE 2.**
**TOP GREEN SKILLS REQUESTED, UNITED STATES, 2011**



| Skill | Value |
|---|---|
| Repair | 27,107 |
| Inspection | 26,794 |
| Scheduling | 22,094 |
| HVAC | 21,639 |
| Environmental Science | 21,260 |
| Environmental Health | 19,537 |
| Mechanical Engineering | 18,460 |
| Business Development | 17,884 |
| Chemistry | 17,450 |
| Water Treatment | 16,723 |

# APPLYING REAL-TIME LABOR MARKET INFORMATION: SKILLS TRANSFERABILITY

Job developers can take advantage of real-time LMI to maximize the range of job opportunities for their program graduates. Many workers have skills that could be transferred from a previous job to a new occupation. In other cases, skills obtained through a training program may be sought by employers in different sectors than the program expected. The recession of 2007 has restructured the economy, resulting in the need for job developers to increase their knowledge of these opportunities and to counsel jobseekers about them. In fact, as a result of the recession, students may have been trained for occupations that no longer exist but still have skills that can be transferred with minimal additional training. They have acquired job-related knowledge, skills, and abilities through job experience, education, and volunteer work.
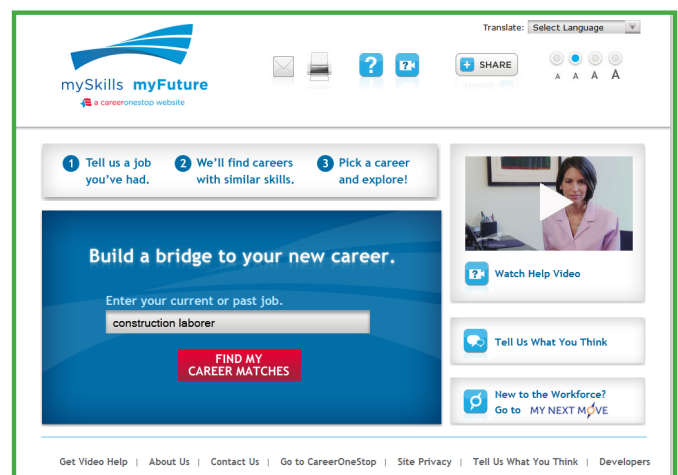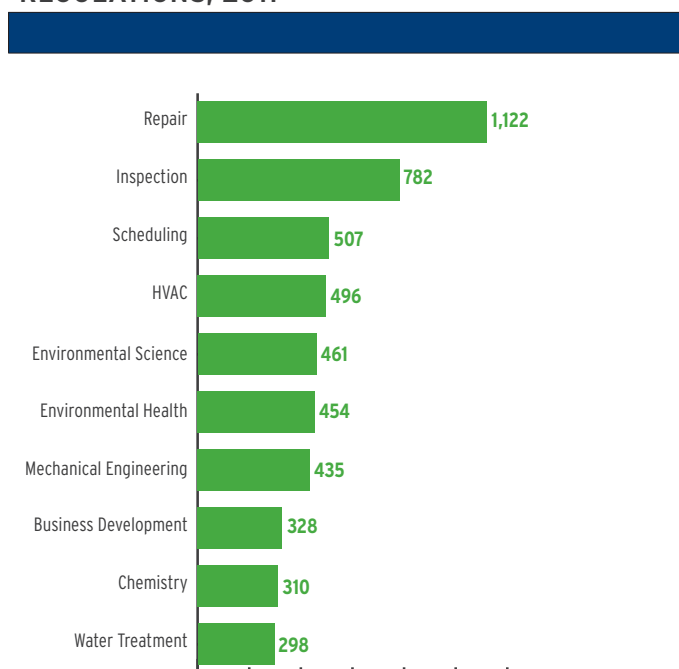
For green job developers, in particular, determining skills transferability is a priority in order to identify potential occupations and employers for individuals possessing a green-related skill set. Several traditional and real-time labor market information resources are available to assist in their efforts. In Figure 3, real-time LMI software uses advertised skill prerequisites as a mechanism for sorting job postings, which can help green job developers supplement their jobseeker referrals. This example lists the top occupations requiring environmental regulations knowledge as a prerequisite. A job developer could run this type of request for regional job postings to determine potential employers and occupations for individuals who have experience working with environmental regulations.

Other web-based skills-transferability tools repackage labor market information in friendly user-interfaces that enable jobseekers and the staff of workforce organizations to match a worker's occupational skills and experience with the skills needed in other occupations. Two examples are the U.S. Department of Labor's mySkills myFuture or EMSI's Career Coach. For a list of these tools, see the box, "Analyzing the Labor Market," on page 5. These tools facilitate upward mobility by:

> Helping identify related careers to explore;

> Providing information about transferable skills;

> Linking to local training opportunities; and

> Providing job listings.

## FIGURE 3.
## OCCUPATIONS REQUIRING ENVIRONMENTAL REGULATIONS, 2011



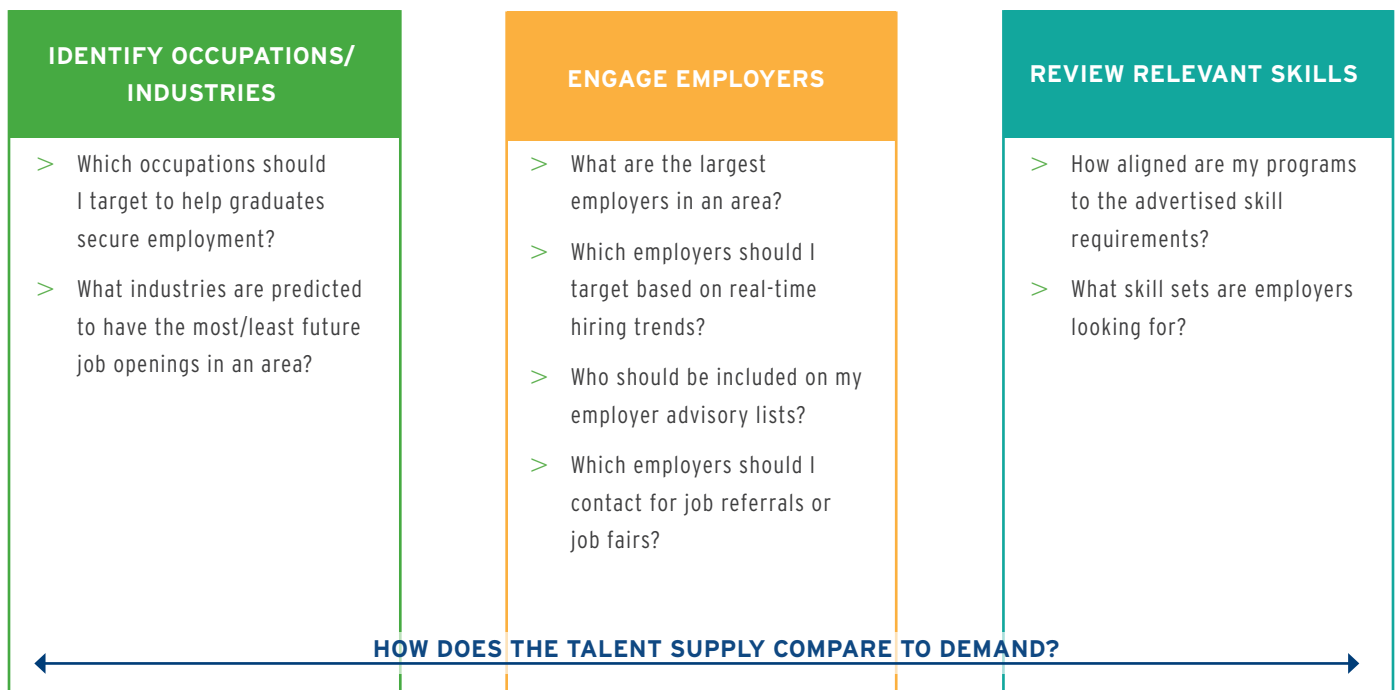| Occupation | Value |
|---|---|
| Repair | 1,122 |
| Inspection | 782 |
| Scheduling | 507 |
| HVAC | 496 |
| Environmental Science | 461 |
| Environmental Health | 454 |
| Mechanical Engineering | 435 |
| Business Development | 328 |
| Chemistry | 310 |
| Water Treatment | 298 |

# TOWARD PRACTICAL APPLICATIONS

Connecting individuals to promising jobs is a difficult, complex task. The ability to access actionable current information is critical to designing and strengthening training programs that lead to employment and for making policy decisions that support the same goal. Data-driven decisions can improve program outcomes and employability, and conducting labor market research or assessments is a step toward reemploying the unemployed worker or student. While it can be easy to get lost in volumes of data and data sources, accessing traditional and real-time LMI will lead to practical solutions.

The following steps can help program designers, job developers, and counselors make data-driven decisions:

> **Problem Identification:** Identify research questions. Once a problem is identified, develop a systematic approach to achieve a solution.

> **Market Demand:** Gauge demand. Use traditional labor market or real-time LMI to determine industries and occupations that are hiring today and that are projected to hire in five to ten years.

> **Tool Selection:** Select the right tools for analysis. For example, use of a real-time data source is recommended to identify demand, while traditional LMI are useful to indicate expected wage outcomes.

> **Identify Gaps:** Create a gap analysis. Use information from tools to create a skills matrix. Identify baseline and required skills and certifications for target occupations. Help students/unemployed conduct an assessment of skills transferability.

> **Placement and Referral:** Use labor market data for skills transferability analysis, job placement, job referral, or employer engagement.

| IDENTIFY OCCUPATIONS/ INDUSTRIES | ENGAGE EMPLOYERS | REVIEW RELEVANT SKILLS |
|---|---|---|
| > Which occupations should I target to help graduates secure employment? <br><br> > What industries are predicted to have the most/least future job openings in an area? | > What are the largest employers in an area? <br><br> > Which employers should I target based on real-time hiring trends? <br><br> > Who should be included on my employer advisory lists? <br><br> > Which employers should I contact for job referrals or job fairs? | > How aligned are my programs to the advertised skill requirements? <br><br> > What skill sets are employers looking for? |

**HOW DOES THE TALENT SUPPLY COMPARE TO DEMAND?**

## JOBS FOR THE FUTURE