

The Great Recession presents challenges most of all for the 14 million Americans who are unemployed and the 9 million who are underemployed.1 It also presents challenges for policymakers and government agencies that must craft job-creation strategies, address student-loan default rates, and implement the new federal requirement that colleges' career programs do a better job of preparing students for good jobs. (See "U.S. Employment, 2011.")

Underlying all the issues is a basic fact: education beyond high school is essential to achieving economic success. Accordingly, education and training institutions and workforce-development programs face their own challenges. They must equip their students with the knowledge and skills needed to compete in a global economy. To facilitate this objective, Jobs for the Future launched Credentials that Work to help regions, states, and postsecondary institutions align their investments in occupational training programs with the skills that employers currently demand.2

## **Tapping Information**

With funding by the Joyce and Lumina foundations, Credentials that Work is surveying and assessing the potential of sophisticated real-time labor-market information technologies as a tool for ensuring that education credentials have high value for both workers and employers. Institutions of postsecondary learning have long needed a way to measure productivity, by which we mean the percentage of students who enter a program and complete a credential within a reasonable period of time, preparing them to succeed in today's labor market. Labormarket information technologies have the potential to transform the way institutions measure the productivity of their associate's degrees, occupational certificates, and other subbaccalaureate programs.

Real-time labor-market information comes from analyzing job postings by occupation, available on public and private labor exchanges (Internet job boards, company websites, and newspapers). New spidering software programs travel the web to aggregate and analyze online job ads and provide a more comprehensive, up-to-date source of information about the hiring and skill needs of local employers than has been available to date.

Using artificial-intelligence technologies, it is possible to collect ads from the Internet daily. After duplicates have been removed and the data analyzed, they provide valuable indications of labor supply and demand trends, emerging occupations, current and emerging skill requirements, and market-based demand for specific education credentials.

A few companies have developed tools to aggregate job postings accurately on the basis of the Standard Occupational Classification (SOC) codes developed by the Bureau of Labor Statistics and the Occupational Information Network (O\*NET), a comprehensive database of worker attributes and job characteristics developed by the U.S. Department of Labor, Employment, and Training Administration. The firms are licensing their real-time databases for analysis to state governments, colleges, and other organizations that seek to enhance their understanding of local labor markets and to support programmatic decisions and investments.3

In the pilot phase of Credentials that Work, 10 community colleges are participating in the Real-time Labor Market Information Innovators Network. 4 They are as follows:

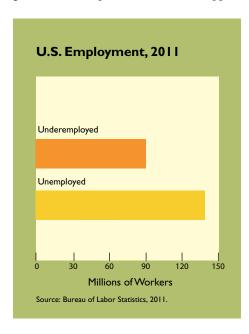
- Cabrillo College (Aptos, California)
- Cerritos College (Norwalk, California)
- · Gateway Community and Technical College (Covington, Kentucky)
- Harper College (Palatine, Illinois)
- Kentucky Community and Technical College System Office (Versailles, Ken-
- LaGuardia Community College (New York)

- · Owensboro Community and Technical College (Owensboro, Kentucky)
- · Southeast Kentucky Community and Technical College (Harlan, Kentucky)
- Southern Maine Community College (Portland, Maine)
- Texas State Technical College (Waco, Marshall, West Texas, and Harlingen)

The goal is to give colleges and other training institutions the capacity to build systems, cultures, and capabilities for basing planning and decision making on the best available data. The colleges will test real-time labor-market information tools in the context of their strategic planning, data-driven decision making, curriculum design, and student career guidance. At the same time, the initiative encourages the institutions to examine both traditional and real-time labormarket information data sources. The use of the latter is an important, emergent innovation, but in itself it is a limited input.

## The Context

The context for Credentials that Work is in part the recession, but just as important is the so-called skills gap. In today's rapidly evolving economy, appropriate matching of skills to jobs is crucial for sustaining productivity and competitiveness. In May 2011, in the midst of the recession, a survey by job-placement company ManpowerGroup found that "52 percent of U.S. employers are experiencing difficulty filling mission-critical positions within their organizations."5 According to the survey, the jobs that are most difficult to fill include skilled trades, sales representatives, and engineers. The respondents identified appli-



cants' lack of technical skills and experience as the main reasons jobs remained vacant. And in August 2011, even as the Bureau of Labor Statistics reported that millions of Americans were unemployed or underemployed, it estimated that there were 3 million job openings nationwide.

In addressing the mismatch of skills and needs in the economy, real-time technologies enable institutions to be proactive. They can improve organizations' ability to anticipate the needs of employers and match those to the occupational-skills training they offer to their students. They can do a better job of meshing with regional job-creation strategies as they partner with local businesses, workforce and economic development agencies, and other community organizations to address the skill needs of critical industries.

Additionally, real-time labor-market information has implications for default rates on education loans. In September 2011, the U.S. Department of Education released the official Fiscal Year (FY) 2009 national student loan cohort default rate, which increased to 8.8 percent from the 7 percent of FY2008. The report reveals that 15 percent of borrowers in FY2009 defaulted in the first two years of repayment.6 U.S. Secretary of Education Arne Duncan said in a press release, "We need to ensure that all students are able to access and enroll in quality programs that prepare them for wellpaying jobs so they can enter the workforce and compete in our global marketplace."7 By using real-time labor-market information, postsecondary institutions and workforce training providers will have the ability to measure their curricula and program development against market demands, thereby making it more likely that their students will find good employment and be able to repay their student loans.

Educational institutions can gain the same potential benefits in connection with the U.S. Department of Education's new "gainful employment" rule.8 Aimed at forprofit institutions and colleges that offer nondegree certificate programs, the rule requires college-level career programs to meet certain standards for preparing students for jobs-or risk losing access to federal student aid. Its purpose is to address abuses that leave students with high debt and few prospects for employment.

## **Improving Decisions**

All participants in the labor market face complex questions regarding occupational paths. To make effective decisions, individuals and institutions need access to current and accurate labor-market information. Although the availability of real-time information is a recent development—and its use in the context of occupational training programs is just emerging—its potential is significant.

Armed with both traditional and real-time labor-market information, governments and schools can tailor workforce programs and subbaccalaureate occupational programs to meet the needs of both employers and job seekers. These tools make it possible to analyze what occupational skills and certifications are required for specific jobs. The availability of such information promises to be valuable to leaders in postsecondary education, workforce development, and policymaking and should help prepare our workforce for the economy of the future.

John Dorrer, a project director at Jobs for the Future, heads up Credentials that Work. Jeremy Kelley, project manager, and Myriam Milfort, senior project manager, are also on the team. All three are based in Boston.

## **Endnotes**

- <sup>1</sup> See http://www.bls.gov/news.release/empsit.nr0. htm. Underemployed (or involuntary part-time workers) refers to people employed part-time for economic reasons. The number rose from 8.4 million to 8.8 million in August 2011. Individuals were working part time because their hours had been cut back or because they were unable to find full-time jobs.
- <sup>2</sup> See http://www.jff.org/projects/current/workforce/ credentials-work/1222.
- <sup>3</sup> David Altstadt, "Aligning Community Colleges to Their Local Labor Market" (report, Jobs for the Future, Boston, 2011), http://www.jff.org/ publications/workforce/aligning-communitycolleges-their-local-/1303.
- <sup>4</sup> See http://www.jff.org/media/news-releases/2011/ real-time-labor-market-data-help-college/1304.
- See http://press.manpower.com/press/2011/man powergroup-annual-survey-shows-more-thanhalf-of-u-s-employers-cannot-find-the-righttalent-for-open-positions/. See also http://www. washingtonpost.com/blogs/ezra-klein/post/ can-job-training-help-solve-the-jobs-crisis/  $2011/08/30/gIQAK9COqJ\_blog.html.$
- <sup>6</sup> See http://www.ed.gov/news/press-releases/defaultrates-rise-federal-student-loans.
- See http://www.ed.gov/news/press-releases/defaultrates-rise-federal-student-loans.
- 8 See http://www.ed.gov/news/press-releases/gainfulemployment-regulations.
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