

## **Using Real-Time Labor Market Information to Achieve Better Labor Market Outcomes**

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### ***Executive Summary***

Understanding complex labor markets, including the demand for skills, is key to guiding investments in education and training, especially for community colleges responsible for preparing a significant portion of the nation's workers. These institutions are increasingly challenged to better align their programs of study with entire economies undergoing restructuring and with workplaces escalating their skill requirements. Proposals for outcomes-based budgeting and for the adoption of performance measures focused on employment and earnings will intensify in the years ahead. More than ever, community colleges will need to ensure that programs of study align with labor market demands and produce graduates with the skills and qualifications that employers need.

Effective use of labor market information and research is one of the means that community colleges have to achieve better employment outcomes for their graduates. Yet traditional sources of labor market information from state and federal agencies, which are intended for macroeconomic analysis, too often are not timely and are lacking in specifics needed to guide microanalysis, such as program development. However, the growing digitization of labor markets — including Internet job postings and resumes, social media sites and social networks — offers a constant source of current data that are increasingly mined through private-sector data-aggregator analytic tools.

These new sources of real-time labor market information capture more timely details of occupational demand including skills and certifications sought, and the characteristics and qualifications of available labor supply. From this data and the accompanying analytics, community colleges can shape strategies, guide resource allocation and enrich the evaluation of programs. By strengthening these functions, community colleges will be able to more tightly align curricula with the requirements of dynamic economies. In doing so, they will become more responsive to the needs of students and employers and thus achieve better outcomes.

### **Real-Time Labor Market Information: Limitations and Benefits**

Real-time data are generated by private providers with proprietary interests, but with minimal regulation and uneven monitoring. These providers protect their sources and methods of data gathering and manipulation, which results in a lack of transparency. This is in stark contrast to public providers of labor market information, who must explain data-gathering and estimating methods. However, as the use of real-time labor market information grows, users will likely seek greater transparency.

Aggregating digital information generated by Internet users as by-products of market transactions can often be superior to traditional methods of data collection, which are more expensive and less timely. This is particularly true of market research, consumer behavior and other economic exchanges where timeliness of the data is critical to capturing current market trends and conditions. New developments are often missed by traditional sources of labor market information. Additionally, technological advances in reading and analyzing real-time data have added a new dimension to labor market analysis. For example, most of the Internet-generated data — such as job postings and resumes — is in text formats as opposed to numerical codes. In order to make this data into meaningful labor market intelligence, words and phrases must be carefully analyzed to discern important factors such as skill requirements and performance traits associated with job postings.

## Lessons from Early Adopters

Jobs for the Future, with funding from Lumina Foundation and the Joyce Foundation, has been leading a major national effort to introduce tools and data systems for real-time labor market information to a select group of community colleges. The aim was not simply to transfer this technology, but to explore ways that it could be applied to advance the community college mission of aligning services and outcomes with regional economies.

Among the significant accomplishments of the project were several illustrations of how real-time labor market information assisted community colleges with difficult challenges. These examples offer other community colleges important guidance as they consider applying new technology and data analysis to the labor markets in which they operate:

- LaGuardia Community College in New York used real-time labor market information to target program offerings and curriculum design in response to requests for “green” jobs training programs.
- The Texas State Technical College system is leveraging multiple real-time tools to improve curriculum alignment and job placement in response to the state’s move to outcomes-based funding.
- Los Angeles County’s Cerritos College uncovered hidden demand in niche areas of manufacturing by analyzing real-time labor market information.
- The Kentucky Community College and Technical System launched the Dynamic Skills Audit, which required every college to: 1) determine the key growth occupations that make up employment in the targeted economic sectors; 2) extract the knowledge and skills required for these jobs using Internet job-postings data; 3) conduct the same analysis at the program level; and 4) use the results to improve course content and learning objectives within those programs of study linked with targeted occupations.
- San Francisco’s Bay Area Workforce Funding Collaborative used real-time labor market information on the health care and life sciences industry to identify program duplication, an excess of graduates in relation to employer hiring patterns and the emergence of new certification requirements not captured by local training programs.