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“Strategies for Data-Driven Labor Market
Responsiveness”

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and

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Introduction

Colleges, and in particular community colleges and technical schools, are vital to the development of a region's workforce, especially when colleges tailor their programs to support demand from the local community. Labor market research is fundamental to understanding this demand in order to review and develop programs oriented to workforce development. This paper outlines research tools and partnerships that will enhance the efficiency and accuracy of this process.

Too Much Information? Or Not Enough?

In a time of tight budgets and extensive accountability, colleges are increasingly called upon to prove and optimize their value as producers of a skilled and educated workforce, and consequently, as drivers of economic prosperity. The U.S. Department of Education recently launched a Community College Labor Market Responsiveness Initiative and a corresponding report titled *The 21st-Century Community College: A Strategic Guide to Maximizing Labor Market Responsiveness*. And in today's technology-driven global economy, these suggestions are not just for community colleges. As the report states, "The traditional hard lines—between academic education and vocational training, between credit and noncredit courses—are increasingly blurred." Every college can benefit from increased labor market responsiveness.

One of the key requirements of a responsive college is quick access to detailed data. But what kinds of data should a college track? Which data sources should be used? How much time, effort, and money does it require to collect and integrate this information on a regular basis? In our information age, colleges are faced with a confusing abundance of data, and a correspondingly difficult process of gathering appropriate and useful data at the right geographic scale—no more and no less.

A minimum baseline of usable data for a typical college includes:

- Local employment trends (past, current and projected) and earnings information by industry type (NAICS or North American Industry Classification System codes). Example data sources: Quarterly Census of Employment and Wages (QCEW, formerly ES-202), Regional Economic

Information System (REIS), Nonemployer Statistics (NES), County Business Patterns (federal), as well as state departments of commerce/labor.

- Local employment trends, earnings information, and educational requirements for various occupation types (SOC or Standard Occupational Classification codes). Example data sources: OES (federal), states' occupational statistics.
- Data about the college's programs (by CIP codes)—collected by IRs and provided to IPEDS.
- A crosswalk to convert programs (CIPs) to occupations served (SOC). Source: National Center for Education Statistics.
- Basic demographic data. Example source: U.S. Census.

Researchers must also account for the strengths and weaknesses of each data source. Some offer more types of information, but are available only at the state or MSA level; others leave out certain types of workers, such as proprietors or the self-employed. All sources for employment information suppress much of the data at small scales—usually the county level—because of government disclosure policies. (Although difficult, it is possible to provide hard estimates for these suppressed numbers by combining several sources.) Finally, researchers need to manually aggregate the data for their region of impact using data from individual counties in the region.

The task of integrating all these sources and selecting usable information is daunting and resource-intensive for a college's overworked research department. Consider the additional necessary task of surveying students, graduates, and regional employers, and costs can quickly become unreasonable. Ironically, the over-abundance of information usually leads to a compromise that leaves the college with incomplete data.

So, in order to utilize data effectively, colleges need to aggregate, unsuppress, select, and present usable data. This will help a college avoid the making decisions based on incomplete information derived from only two or three sources. Selection and presentation of data are crucial in order for the college to avoid "data overload," which only distracts decision makers who are trying to make the college responsive to its community's needs. Fortunately, tools exist to make this task easier. The following case study outlines one college's solution.

Data Solutions: A Case Study

Several years ago, Central Arizona College (CAC) had inadequate data and policies for incorporating data into the college's decision making process, and these points were specifically noted in its accreditation review. The college lacked a sufficient understanding of local industries, occupations, and demographics, along with their relationship to the college's current program offerings. These problems were highlighted and aggravated even more by skyrocketing demand for educated workers in neighboring Maricopa county—one of the fastest growing counties in the nation.

Bill Brown, Executive Director of Planning and Research at CAC, began to look for ways to solve CAC's data problems. In 2006, CAC adopted the Community College Strategic Planner (CCSP) to help guide the college's data collection and analysis processes.

The CCSP automatically collects, integrates, unsuppresses, and presents several types of data that a college needs to stay abreast of changes in the local economy. The CCSP uses a web-based front-end that makes the data and reports instantly accessible from any computer.

The CCSP utilizes information from more than 70 public databases to include:

- Current and projected employment in regional industries and occupations
- Current and projected local demographics
- Projected demand for various college courses based on occupation growth
- Curricular changes needed to serve direct and indirect workforce needs of new industries entering the area (using a regional input-output model).

The implementation of the CCSP has given Bill Brown and CAC a cost-effective solution for selecting usable data without having to wade through multiple databases, surveys, and websites. CAC uses the CCSP data to support its strategies for serving students, business partners, and area communities more effectively, from strategic planning, quality and accreditation initiatives, and Advisory Council discussions to program review and development. In addition, the city of Maricopa has purchased a CCSP license for its own planning needs, opening the doors for collaboration between the city and college.

Data as a Starting Point for Collaboration

Every data source—even a massively integrated source such as the CCSP—has limitations. Projections can be invalidated by unexpected events, whether national and regional (September 11th, hurricane Katrina), or local (the arrival or departure of a large employer). Still, the data can form a foundation for the college to create strategic plans and strengthen collaborations with other regional stakeholders, such as the city, the chamber of commerce, the workforce investment board, and the local economic development council.

For example, responsive college leaders may see projected employment growth in an advanced manufacturing industry. They can confirm this by surveying a few local employers in that industry. They then take this information to the local EDC, which adds that it is currently courting a business in a related sector that could lead to growth 25% higher than the projections indicate. Armed with this, the college discusses a partnership with the city and the regional WIB, and they apply for a grant to serve the projected demand and ultimately secure the new employer.

Numbers are not infallible, nor do they speak for themselves. But they are a crucial strategic foundation for tomorrow's competitive and responsive colleges. And, as we have seen, labor market responsiveness does not imply passivity. It implies colleges with forward-thinking, adaptive leaders who use information to make their colleges a foundation of regional prosperity.