California Centers of Excellence use data-driven approach to identify and assess green jobs

With California community colleges seeking to understand how the growth of green jobs will affect workforce education and training, the state’s 10 Centers of Excellence came together to discuss how best to approach the issue. One of the outcomes for Michelle Marquez, director of the Central Valley Region Center of Excellence, was to dive into a study to identify emerging green industries in the Central Valley.

Situation

Formed as part of the California Community Colleges Economic and Workforce Development Program, the Centers of Excellence’s mission is to target emerging labor market trends on a regional level, confirm what’s happening through environmental scans, and share their research with community colleges for program development. Their expertise in compiling regional economic and workforce intelligence made the Centers an ideal fit to lead a study on California’s emerging green economy and how the state’s community colleges can meet the associated workforce needs.

To begin the process, Marquez generated a green workforce study in 2008 for the expansive Central Valley region, which stretches north of Stockton to south of Bakersfield. She quickly discovered there was very little data—whether primary or secondary—on potential green industries and employers, so she set out to identify Central Valley industries connected to green issues and link them to specific occupations. Marquez also began to survey companies to gauge if they identified themselves as green, and if so, to what degree.

Challenges

By the time the Central Valley environmental scan was launched, many different descriptions of “green firms” and “green jobs” were circulating—yet there was far from a standard definition for the two categories. For her purposes, Marquez settled on green firms as those “making money by providing products or services that use resources more efficiently, provide alternative sources of energy, or lower or minimize greenhouse gas emissions.”

With the definition in place, Marquez focused in on an estimated 10,980 green firms in the region that fell into five possible green industries—engineering and environmental services, building and design services, public administration agencies, agriculture, and energy production and utilities. The next step was to match those industries with occupations related to green projects and tie them to existing training programs to see where the state’s community colleges stood. Marquez also built on primary data collection with EMSI projections to see the most in-demand green occupations.

Outcome

The study found that a third of the firms surveyed in the Central Valley labeled themselves green. And within the five targeted green industries, 80% of the firms were situated in building and design services, which is made up largely of construction jobs. “Construction and manufacturing—those are two huge parts of our economy,” Marquez says. “Everyone is so focused on renewable energy, which is important of course, but that’s not where the jobs are yet. And when they are there, they’re most likely not going to be the massive number everybody’s saying.”

Marquez also concluded from her research that “just because it’s called green doesn’t mean you need to start a new program for it.” An existing program can be used for green training by adding a few new courses or tweaking courses already offered. Meanwhile, jobs...
that require specific programs are typically at the technician level (i.e. wind, solar, geothermal).

Instead of getting caught up in the “bandwagon approach to addressing the workforce that goes with green,” as Marquez puts it, the study was rooted in data at every possible turn. “We’re really trying to give our colleges realistic views,” she says. “We’re trying to take not a conservative but realistic (approach). I think there’s a difference between those, so that’s what we’re trying to do.”

After the regional report was released, the state chancellor’s office commissioned a similar study for the state. The ongoing project includes projections for targeted occupations using EMSI’s web-based tool and a comprehensive crosswalk between green clusters, industries, occupations, and college programs. It’s expected to be released later in 2009.

References and further reading

For a preview of the California Centers of Excellence statewide report:

The COE Central Valley environmental scan: http://www.coeccc.net/Environmental_Scans/GreenEcon_Scan.CV_08.pdf

“‘Green’ Workforce Study Predicts Hot Growth,” Reuters, January 29, 2009,

About EMSI

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