

## Education data key as CEWD takes steps to tackle energy workforce shortage

*With nearly 40% of the nation's energy workforce due for retirement over the next five years, recruiting and training new workers for these jobs is essential. To respond, the Center for Energy Workforce Development, a non-profit consortium of utilities, performed an analysis of the number of students projected to graduate in energy-related college programs over the next few years to evaluate the next generation of energy workers.*

### Situation

According to estimates from the Center for Energy Workforce Development (CEWD) and other sources, 40 to 50% of the nation's energy workers will be retiring or leaving the workforce by 2013.<sup>1</sup> There is also a tremendous lack of qualified replacement workers, and the shortage is expected to stretch across all sectors of the energy industry—electric, nuclear, fossil, and gas. Furthermore, the increased demand for clean and efficient energy sources only exacerbates the problem. This leaves the nation's utilities with a major and immediate hurdle.

An important part of the solution to this workforce crisis is the formation of partnerships between utilities and professional and technical educational institutions to train jobseekers for these in-demand and high-paying occupations, and to ensure that programs and curricula are up-to-date and effective for training workers to replenish the labor supply.

### Challenges

When Ann Randazzo, director of CEWD, first took on the task of addressing energy workforce issues, she discovered that the utilities generally didn't know how many energy-related postsecondary programs there currently were and how many students were graduating from the programs. In essence, they had no idea of the potential "supply" of new energy workers. As a result, CEWD created a database of training programs that were being offered across the nation. The problem with the database was that it was far from comprehensive, and information on the number of graduates in energy fields was not very complete (i.e. some colleges were reporting completers to the utilities, but a good portion were not).

Without accurate and thorough education information, it was difficult to know what specific occupations to focus on and where to target training efforts. In short, CEWD needed the necessary figures to take a good first step in developing a strategy.

### Solution

Randazzo's need for accurate and up-to-date information, regionally and nationally, led her to EMSI. To help her understand what was going on, EMSI produced reports for all 50 states. These reports:

- Examined graduates trained in the fossil, nuclear, gas, and general energy fields, and
- Provided an overview of the nation's total supply of energy graduates broken down by:
  - occupations,

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<sup>1</sup> [http://www.cewd.org/mem\\_resources/PowerMagazine.pdf](http://www.cewd.org/mem_resources/PowerMagazine.pdf);  
<http://www.bizjournals.com/albuquerque/stories/2007/11/05/daily18.html>

- how each state ranks for particular sectors, and
- where the highest concentration of specific occupations were located.

Randazzo found the reports very useful and comments, “When I saw the reports I said, ‘Wow, this is going to cut through a lot of it.’ We knew we had a good head start on where the existing programs are. Now we can start to address the gaps.”

CEWD’s next goal is to analyze the demand in the major energy sectors to pinpoint where gaps exist and where jobs are being filled. Once again, the center contracted with EMSI for this task. The firm’s consultants have been asked to break down annual openings—which take into account new and replacement jobs—in the different fields for seven regions across the U.S. The latest leg of project should be finished by February 2009.

## Outcome

EMSI’s initial report was “absolutely a success,” Randazzo says. It included thousands more programs than the CEWD database showed, many of which will be marked for retraining efforts. One of the organization’s goals is to help bridge the gap between utilities and educational institutions so students are learning needed skills and offerings are being fine-tuned to maximize their effectiveness. It plans on doing this by:

- Complementing EMSI’s data with surveys that companies can use to evaluate the courses being offered in their areas
- Making sure its partners across the country are aware of the data and how many graduates are coming out of regional programs. An important step in that process has been overlaying the education data with the actual geographic territory of each respective utility company. This allows stakeholders to see where the programs are clustered and what areas need more attention.

Furthermore, CEWD is focusing its efforts on filling the gaps in four occupations—line workers, power plant operators, technicians, and pipefitters/pipelayers. The need for more of these workers is glaring. “They’re the hardest to fill, longest to train, and unique to the industry,” Randazzo says.

## References and links

The Center for Energy Workforce Development. <http://www.cewd.org/>

“U.S. energy industry is hampered by labor shortage.” International Herald Tribune. <http://www.iht.com/articles/2008/05/01/business/energy.php>.

“Oil industry grapples with labor shortage.” Business Insurance. <http://www.businessinsurance.com/cgi-bin/article.pl?articleId=24938>.

## About EMSI

Economic Modeling Specialists Inc. (EMSI) is a professional services firm that offers integrated regional data, web-based analysis tools, data-driven reports, and custom consulting services. EMSI has served thousands of workforce, education, economic development, and other policy professionals in the U.S., Canada, and the United Kingdom, and the company’s web-based **Strategic Advantage** research and analysis suite is used by over 2,500 professionals across the U.S. For more information, call (866) 999-3674 or visit [www.economicmodeling.com](http://www.economicmodeling.com).