Developing diversity

As demand grows for STEM workers, recruiting minorities, women proves critical

BY MALIA SPENCER

Right now, there is a war over talent.

More precisely, it’s a contest for the limited number of people in the workforce with skills in science, technology, engineering and math (STEM) fields.

And for corporate America to win the battle of recruitment and retention of these employees, companies say the war chest must include opening the fields to a more diverse population.

Aluminum maker Alcoa Inc. is just one local company looking at how to best attract minority employees across the board, but particularly in STEM fields.

"All major companies — and even the smaller companies — want the best and the brightest, and we are not unlike them," said Gena Lovett, chief diversity officer at Alcoa Inc. "We recognize we can do better in terms of female and minority representation.

"It's a business imperative because we recognize that every untapped talent pocket represents a potential loss of profitability for us," Lovett said.

However, finding those diverse candidates isn't easy.

LIMITED SUPPLY

According to a pair of 2011 studies by the Department of Commerce's Economics and Statistics Administration, 70 percent of STEM workers are non-Hispanic whites and less than 26 percent are held by women, even though they make up half the overall workforce.

Non-Hispanic blacks make up 6 percent of STEM workers but 11 percent of the total workforce and Hispanics make up 6 percent of STEM workers but 14 percent of all employees.

However, government data shows employment in STEM jobs is expected to grow faster than non-STEM jobs between 2010 and 2029, at 17 percent and 14 percent, respectively. To fill the gap, the nation will need STEM employees from all backgrounds.

With a limited supply of diverse candidates, companies such as Alcoa are creating programs to grab the existing candidates but also to reach out to encourage new generations of girls and minorities to pursue careers in STEM fields.

Lovett assumed her role as chief diversity...
Passion, support system guided CMU's Wing through school

BY MARIA SPENCER

In the mid-1970s, electrical engineering student Jeannette Wing was asking herself and her father a very important question — is this computer science thing just a fad?

Wing, an electrical engineering freshman at Massachusetts Institute of Technology, was intrigued by the emerging field of computer science and the new ideas it was exploring. So much so, she was considering changing her major.

"My wish is that there would be more girls in the math pipeline going into college and that we maintain and grow it in the college level. As you go down the pipeline, the numbers shrink," Jeannette Wing, head of computer science department at CMU.

"There was lambda calculus. When we studied it, I... had dreams about it," she said.

"This was such cool stuff." She was hooked and her passion for the field hasn't let up. And neither has the field.

She now heads one of the top computer science departments in the country — recently returning to the post after a three-year stint as assistant director of the computer and information science and engineering department at the National Science Foundation. In that role, she helped dole out millions in federal research dollars.

Wing's father, who was a professor of electrical engineering, influenced her decision to pursue an engineering and academic career, she said, but not her love of mathematics.

While an undergraduate student at MIT, she was one of about a dozen women out of hundreds of students to graduate with a computer science and engineering degree in the class of 1979.

"We were really an oddity," she said. "Adding the gender divide never felt like a big deal.

"I know others did and others still do," she said.

When she received her Ph.D. in computer science, she was one of five women that year. Two others were in computer science and two were in artificial intelligence. According to MIT, women were returning to the post after a three-year stint as assistant director of the computer and information science and engineering department at the National Science Foundation.

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**Back to work**

Pittsburgh metro area is approaching peak employment levels set more than a decade ago.

1.65 (million)

**Highest employment:** Feb 2001, 1,163,380

**Lowest employment:** Jan 2010, 1,111,200

The March 2012 figure was 1,001,000 in seasonally adjusted nonfarm jobs for the Pittsburgh MSA.

**By Patty Tascarella**

While much of the country has been mired in the throes of job loss, Pittsburgh is on the verge of attaining record employment levels even as the full effects of the boom fueled by Marcellus Shale remain several years off.

"Pittsburgh is actually closing in on its all-time employment peak, set in the early part of the last decade at 1,463,000," PNC Financial Services Group Inc. Economist Kurt Rankin said. "We should see that peak not only re-enter in the near future but push above that in the next two to three years."

That peak is seasonally adjusted nonfarm employment came in February 2001, the first month of George W. Bush's presidency. It has taken 134 months to inch to the verge of topping that number. The March 2012 figure was 1,001,000 in seasonally adjusted nonfarm jobs for the Pittsburgh MSA.

Jay Bryson, global economist at Wells Fargo Securities, not only concurs but believes Pittsburgh could hit a record employment number by year-end.

To understand how the region is pushing forward requires taking a look back. Over the past decade, the number of unemployed workers in Pennsylvania rose 37.65 percent, 31st among the 50 states, according to the U.S. Bureau of Labor Statistics. But the rate in the Pittsburgh region was 17.45 percent.

"The difference came down to the recession. From 2002 to 2008, both numbers actually fell at the state and Pittsburgh level," Rankin said.

**Bulk buying proper Protopto for Highmark**

A new medical supply chain outfit is emerging in Pittsburgh, offering discounted goods to hospitals eager to cut costs — and more important — a forum for future collaboration among independent health care providers.

Health insurer Highmark Inc. has hired supply-chain guru William O'Connor to oversee a bulk purchasing effort for West

**By Kasi R. Manuel**

**Highmark, UPMC in accord through 2014, Feb 31**

Penn Allegheny Health System and a growing number of independent hospitals. O'Connor, former director of supply chain management at the University of Pittsburgh Medical Center, is senior vice president of Protoco FPI LLC, a Highmark organization created last fall to offer discounts to independent hospitals.