NEW THINKING FOR NEW TALENT

GREAT JOB OPPORTUNITIES ARE AVAILABLE IN MANUFACTURING.
WHERE'S THE QUALIFIED TALENT?

According to the 2011 Lloyd's Risk Index, despite high levels of unemployment across the United States, one of the biggest risks business leaders say they're facing is a talent and skills shortage. As the economy recovers, finding the right people for the right job — and then keeping them — is an area in which business leaders often feel that they are "insufficiently prepared," Lloyd's reports.

Employers can cope with the mismatch in labor supply and demand with a variety of strategies, but they can overcome the human capital hurdle more quickly by looking beyond traditional incentives and actively contributing to new forms of education and training. All across the country, such public-private partnerships are developing sector-specific training initiatives and even literally breaking new ground to build 21st-century talent pools. Two of the key ingredients to success, they're finding, is working with ever-younger students and changing the perception of today's manufacturing environment.

NEW TRAINING FOR NEW TECH

In New York, state and local institutions are targeting several up-and-coming industry sectors. "What's critical to our area is to attract the kind of innovative jobs that are going to lead us into the future, so we have to make sure that we're meeting the needs of the current manufacturing base," says Shelby Schneider, director of marketing and economic development specialist, Saratoga Economic Development Corp. "Sure we've got power, water and land, but ultimately, we're working on developing the workforce pipeline early in K-12 and beyond."

A major area effort is TEC-SMART (Training and Education Center for Semiconductor Manufacturing and Alternative and Renewable Technologies), a joint initiative...
between Hudson Valley Community College (HVCC) and the New York State Energy Research and Development Authority (NYSERDA). Located at the Saratoga Technology and Energy Park (STEP), the center trains the workforce in semiconductor manufacturing green technologies, including photovoltaics, home energy efficiency, geothermal, alternative fuels and wind energy. Graduates are qualified to work for major employers such as GlobalFoundries, General Electric, SunPower and Alteris Renewables.

NYSERDA's partnership with HVCC is an extension of their workforce development training efforts and shows their investment in the future of clean energy jobs, notes Robert Callender, NYSERDA's vice president for operations and energy services. "You need the workforce to grow these new areas, so by encouraging people to study these fields, we're helping to create a new generation of workers ready to fill clean-energy jobs in the state."

HITTING THE ROAD

Direct engagement with young students is an approach used in Oklahoma, home to the Manufacturing Education Training System (METS) whose mobile manufacturing lab features hands-on training and simulations in high-tech machine tools and techniques. Behind the effort — which also provides job shadowing and paid internship opportunities — are local manufacturers, Pioneer Technology Center, and the Ponca City Development Authority all working to promote and develop careers in the manufacturing industry.

"When we created the METS mobile skills lab, this became a program that really touched the future workforce and was able to show industry that we're serious about workforce education," says Laurence Beliel, director of business expansion and retention, Ponca City (Okla.) Development Authority. "Ever since the mobile lab's first event in 2008, manufacturers who've been normally apathetic or complacent regarding education are becoming re-energized and excited about a tool that helps them recruit future employees." They are realizing that somebody finally understands what they need to help them market job opportunities, so the mobile lab is giving them the hope of a future workforce, he adds.

TAPPING EMERGING GROWTH

Farther north, in Kansas, the desire to stay ahead in an emerging high-tech industry is bringing together private companies and local stakeholders to provide cutting-edge training while expanding local talent.

"When you walk into a progressive factory today, you really won't see much hard automation featuring belts and pulleys anymore, you're going to see flexible automation featuring robots in all shapes and sizes," says Douglas Schenker, vice president for customer satisfaction,
Yaskawa Motoman Robotics. "They're being integrated and embedded into all the factories of the future. So there's a lot of growth and great jobs in the industry right now, yet what seems to be missing are well-trained, hands-on factory workers."

The good news, however, Schenher explains, is that although many willing workers have to be trained from scratch, these new technologies can be learned in very short order. To stay competitive, the company has teamed up with GO Topeka Entrepreneurial and Minority Business Development (EMBD) program and Topeka Public Schools Unified School District to offer Topeka/Shawnee County the nation's first secondary education course in industrial robotics. Additional training will be offered in a post-secondary format by Washburn Institute of Technology to all Topeka/Shawnee County citizens pursuing automation robotic skills.

"From a community and workforce development standpoint," Schenher notes, "it's been a great program for us and a key part of our long-term strategy in securing a well-trained, experienced workforce."

Moving south to San Antonio, local manufacturing companies, educational institutions and workforce agencies are coordinating efforts to identify and train new workers for industry.

"To make a product and sell it, you've got to have a skilled workforce," says Gene Bowman, executive director, Alamo Area Academies. "So to develop the talent pipeline for companies, we've got a unique collaborative where everybody has skin in the game."

Their industry-driven "manufacturing academy" actually consists of four academies, including Aerospace, Information Technology and Security, Advanced Technology and Manufacturing and Health Professions. The program has been recognized by the National Association of Manufacturers and The Manufacturing Institute as a national model and the first to endorse a national certification curriculum.

Qualified students receive training in high-wage demand occupations and participate in a paid internship introducing them to careers in key local industries. Participating employers such as Lockheed Martin, Boeing and Toyota benefit from access to a continuous and cost-effective pipeline of skilled entry-level workers trained to their specifications.

In North Carolina, the first-of-its-kind Northeast Regional High School of Biotechnology and Agriscience in Plymouth is a showcase of how leaders from K-12 school systems, higher education, business, agriculture and government are working in sync to build creative responses to regional opportunities.

"We have a long farming tradition and some of the richest soil in the U.S., but we're also a commercialization partner for new patented plant technologies," says Vann Rogerson, president and CEO, North Carolinas April 2012 19
Northeast Commission. "To make that grow, you’ve got to have students strong enough to deal with the sophistication of crops and farming techniques of the future. So the school is a key component in developing a globally competitive niche in agriculture-based biotechnology."

The effort fits neatly with a new certification program for farmers cultivating biotech-related crops in the region. "We see our certified farmers growing new, high-value specialty crops," Rogerson says. "Then, as more and more acres are grown, processing and packaging jobs will follow in what will be a natural fit for our rural region."

Though shortages in technical skills are likely to persist for years to come, employers don’t have to wait for the labor market to catch up on its own. Just as smart companies harness innovation and collaboration to gain competitive advantage, they can tap into new forms of education and community partnerships that are using the same forces to create a modern, skills-based workforce.

"I think the new paradigm is that industry follows people and the bar is rising for everyone," Schneider says. "You can grow from within, yet world-class talent is a really important way to define your community and company. I see a lot more industry attracted to this area as we ensure that employers know they have great opportunities to get the training they need."

"A lot of kids have been told by their parents or grandparents that industry is not where you want to be, but they don’t really understand that today’s manufacturing is high tech and takes a lot of skills," Believ says. "We’re helping them see that the technology they enjoy — computers and software — are used every day in industry and that it’s a great place to be. For employers, we’re giving them the hope of having a future workforce they can count on."

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Alamo Area Academies
www.alamo.edu/academies

GO Topeka (Kan.)
www.getopeka.com

New York State Energy Research and Development Authority
www.nyserda.ny.gov

North Carolina’s Northeast Commission
www.nncnortheast.info

Ponca City (Okla.)
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