



Manufacturing in the Classroom



New programs are popping up to help plug the skills gap.

By [Jonathan Katz](#)

Sept. 1, 2008 -- As Joe Loughrey, president and COO of Tier 1 automotive supplier Cummins Inc. tells it, his company is struggling to find skilled workers in every one of its manufacturing operations in nearly every operations-level position. The Columbus, Ind., manufacturer of large diesel engines is trying to address the shortage by partnering with local technical colleges and becoming involved in a southeastern Indiana workforce development initiative called Economic Opportunities 2015 (EcO 2015). Loughrey was a speaker at the recent Great Lakes Manufacturing Council Forum in Cleveland.

The industrywide call for a more educated manufacturing workforce already has shown results with several new programs and university/industrial alliances forming in recent months. In June, for instance, Ohio State University introduced its partnership with Tooling U, an online manufacturing training program. Ohio State's Center for Corporate and Community Education will award one continuing education unit for every seven Tooling U classes a student completes. The program is designed to help workers gain the necessary skills to advance their careers.

"Knowledge is being lost at an alarming rate as manufacturing employees retire," notes Gretchen Schultz, grant coordinator at Tooling U. "Continuous training opens many doors for manufacturers, as the learning curve is eliminated on a daily basis."



Welding students at Indiana's Ivy Tech Community College, one of several schools that has partnered with

manufacturers to develop skilled labor.

Similarly, the Chicago Mayor's Office of Workforce Development is working with Wright College, a two-year school in the city, to offer manufacturing internships. The program, being offered through the college's Humboldt Park Vocational Education Center and Instituto del Progreso Latino, helps connect students studying for manufacturing careers in CNC machining and industrial maintenance with local companies. Representatives from 20 Chicago-area companies serve on the ManufacturingWorks steering committee.



Other programs are addressing the need for workers skilled in alternative energy. In 2009 Hocking College in southeastern Ohio will unveil its new Energy Institute campus, which has already partnered with local employers to place students in relevant fields. In June, the Oregon Institute of Technology said it had graduated North America's first bachelor of science in renewable energy systems degree. The program prepares students for fields involving solar, wind, biomass, hydropower and geothermal energy. Over the past year and a half, six solar energy companies have announced plans to locate major manufacturing facilities in Oregon, according to the Oregon Economic Development Association.

But these collaborative efforts need to encompass more than just the manufacturing/university levels, says Loughrey. The EcO 2015 program is being funded by a \$38 million grant provided by the Lilly Endowment in Indianapolis. (Among EcO 2015's plans is the establishment of an Advanced Manufacturing Center of Excellence in Columbus, Ind., where students can take manufacturing and business-related classes from Ivy Tech Community College, Purdue University and Indiana University.)

"These are challenging jobs that require skills beyond those traditionally taught in high school, and which can offer significant rewards," Loughrey says. "Getting that message out -- and then providing current and future workers with the tools to be successful in a more advanced manufacturing environment -- requires a broad-based collaborative effort among business, government, community leaders and educational institutions."