

**Feature:** O Captain! My Captain! I Know Not How to Build an App for That

## O Captain! My Captain! I Know Not How to Build an App for That

Some industries are having difficulty bridging skill gaps, so sector partnerships are being created.

**By John Koegel**

**F**or years, boat makers have required the skills of carpenters, mechanics and electricians. Now they need workers with computer technology know-how, as well.

Recently, Sean Tarpey, owner of Rumery's Boat Yard, in Biddeford, Maine, was talking with a customer who wants to control all of his boat's systems from his iPad and iPhone. "Some of the functions he's looking for are available as apps, but others aren't commercially developed yet," Tarpey says. "But we're researching it."



Navigating a boat using a smartphone or tablet computer is a long way from sailing by star and compass, but it reflects the impact that advanced technologies are having on even the oldest of industries.

Finding employees who have the training and experience to work with new technologies can prove difficult for companies such as Rumery's Boat Yard. Although the unemployment rate remains high, many jobless people don't have the skills that are most in demand.

According to *Across the Great Divide*, a recent study by Corporate Voices for Working Families and Civic Enterprises, a Washington, D.C.-based not-for-profit, recruiting nonmanagerial employees with the skills, training and education their companies need is a major challenge for 53 percent of employers. Another 31 percent said it is "somewhat" of a challenge; only 16 reported that it is either a minor challenge or not a challenge.

"Emerging from the recession, companies are now shifting their focus, with growth being top of mind these days and executives repositioning their companies for the long term," says Ken Esch, a partner in PricewaterhouseCoopers' Private Company Services practice. Its recent *Trendsetter Barometer* quarterly survey of 243 privately held businesses released in March found that training and development is the No. 1 area of focus for attracting and retaining employees in 2011 (see ["Special Report on Employee Engagement: Losing Lifeblood"](#)).

One way employed and jobless workers are acquiring skills for the 21st century workplace is through "sector partnerships"—regional alliances of government, business, academia and labor that focus on the

workforce needs of local industries.

Typically convened by government agencies, industry trade groups or similar organizations, sector partnerships identify the skills that local employers require and work with community colleges, universities and other institutions to provide qualified workers. An estimated 1,000 sector partnerships have been established across the country.

“They’re a win-win for everybody involved,” says Larry Good, chairman of the Corporation for a Skilled Workforce, an Ann Arbor, Michigan-based public-interest agency that works with government, business and higher education to help create jobs. Sector partnerships “are one of the most effective things I’ve seen in my 15 years in workforce development,” adds Eric Seleznow, state policy director for the National Skills Coalition, a Washington, D.C., policy organization.

While many sector partnerships focus on “middle skill” jobs—positions that require more than a high school diploma, but less than a four-year degree—some also address skills gaps among professional workers, such as engineers who are now receiving training to design and build electric and hybrid vehicles.

Many sector partnerships begin with federal funds channeled through state and local government. But as the federal government faces enormous fiscal constraints, the future of such funding is uncertain. Legislation to provide additional funding—the Strengthening Employment Clusters to Organize Regional Success Act, or SECTORS Act—is pending in Congress.

The act is one of more than two dozen bills included in the Make It in America agenda for the 112th Congress. If adopted, it would add a new stream of government resources to supplement existing federal funds for sector partnerships.

In 2006, the federal government gave Maine \$14.4 million to establish its North Star Alliance Initiative, a partnership designed to provide workforce and economic development to boat building.

“When the grant started, the biggest problem was being able to find qualified workers,” says Tarpey, whose company builds, maintains and repairs yachts and other recreational boats. “When the recession hit, our focus changed to expanding our employees’ skill sets so that we could do more of the work ourselves, rather than hiring contractors.”

The Maine Marine Trades Association in Portland helped organize and promote a series of industry-focused training programs that continue today, even though the grant has expired.

As part of the sector partnership, Tarpey sent a mechanic to study electronics at the Landing School, a post-secondary vocational school in nearby Arundel. Other employees completed certificate programs in hydraulics and other subjects.

“Certification tells me people not only know how to get something done, but they know the right way to do it,” Tarpey says. “When you’re 10 miles out at sea, you want to make sure your hoses below the water line are double-clamped so there’s no danger of them coming apart. There’s a little more at stake in this business.”

The aging workforce is also creating skill gaps for some industries, including manufacturers of precision optical components. That’s why Mike Mandina is on a mission to find tomorrow’s skilled workers for industrial companies in upstate New York.

“This region has a plethora of very skilled instrument and machinery companies,” says Mandina, president of Optimax Systems Inc., an Ontario, New York, maker of precision optical components, and a master optician himself.

The problem, as Mandina sees it, is that the baby boomers in the optics industry are heading toward retirement and there aren’t enough potential replacements. As a result, midsize manufacturers such as Optimax are competing with other industries for the same young talent.

To try to expand the talent pool, Mandina helped organize the Finger Lakes Advanced Manufacturers' Enterprise in Geneva, New York, a sector partnership serving some 1,500 industrial companies in a nine-county region centered in Rochester.

As chairman of the partnership's executive committee, Mandina spends a lot of time talking with high school teachers, students and parents about career opportunities in photonics—the study of photons and telecommunications—and machining industries. “Green jobs” represent another area with skill gaps. So the Michigan Energy, Labor & Economic Growth Department launched the Michigan Academy for Green Mobility Alliance to help jump-start skill development in the state's burgeoning electric vehicle industry. The alliance brings together university researchers, auto manufacturers and key suppliers to develop training programs the auto industry needs to speed up hybrid and electric vehicle production.

“This is a much more efficient model than we've used in the past,” says Sean Newell, dean of Ford Motor Co.'s College of Engineering and chairman of the alliance's governance board. “By joining forces, we are able to meet workforce needs faster and more effectively than individual employers could do on their own.”

Much of the initial training focuses on electric batteries and the advanced electronic systems that they power. Both employed and jobless workers are eligible to participate, with the state picking up a portion of the tuition costs. Some programs lead to certificates in “green mobility,” others to bachelor or master's degrees.

“Three years ago, when we started out, we thought the industry might hire or promote 1,000 engineers into new green jobs,” Newell says. “Now we're looking at somewhere between 4,000 and 5,000 positions over the next three years.”

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