

Trying to build on engineering gains

A half-dozen firms moved to Fort Wayne last year

By DOUG LEDUC

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PearlDiver, Knight Mechanical Testing, Sierra Nevada Corp., Tri-Co Solutions, American Axle & Manufacturing and Engineering Solutions are companies all tied to engineering and all represent new jobs for northeast Indiana.

Fort Wayne gained at least a half-dozen engineering-related businesses last year, and economic-development officials say there is good reason for the area to expect continued engineering employment growth.



Dave Atkins, a printed circuit board designer, and Sandy Preston, a printed circuit board librarian, collaborate on a project at ITT. (Contributed photo)

“I think the potential certainly is there,” said Rob Young, president of the Fort Wayne-Allen County Economic Development Alliance.

With well-established clusters of vehicle, medical and defense electronics engineering employment, the area has an advantage when it comes to attracting and growing businesses that want to be near an excellent talent pool and support structure.

To make the most of that advantage, “engineering and technical jobs are a focus of ours,” Young said.

“It’s a terrific way to broaden and deepen the employment base so it’s not so dependent on a particular industry cluster and to play to the historic strengths of the community.”

Engineering jobs are prized because they tend to pay higher wages and help diversify an employment base heavy on automotive-related manufacturing.

The disproportionate amount of employment tied to manufacturing has caused northeast Indiana to feel the impact of past recessions earlier and more intensely than the nation as a whole.

Data from a report on wage variance in Indiana published last summer by the Indiana Business Research Center at Indiana University’s Kelley School of Business show how engineering jobs boost an area’s average personal income.

It showed the median wage for architects and engineers in Indiana at \$54,530, about twice the median wage of \$27,670 for all occupational groups in the state.

An important part of the effort to grow engineering employment in the area is to continually improve the support structure, such as broadband Internet service. And business and community leaders have collaborated with the area's academic community to develop new engineering-related programs and generally strengthen science, technology, engineering and math education at all levels.

Tending to the support structure for engineering employment is important for the region because it "positions our future for stability and growth," said Mike Landram, vice president for work-force development at the Greater Fort Wayne Chamber of Commerce.

"It helps the quality of these companies, and the importance of their work helps put northeast Indiana on the map," he said.

Promoting science, technology, engineering and math education helps develop critical thinking and problem-solving skills, he added.

"We need to start early because young people don't wake up in 10th grade and say I want to be a mathematician," Landram said.

Engineering students have benefited from a number of program upgrades at Indiana Tech and Indiana University-Purdue University Fort Wayne.

Indiana Tech launched a biomedical engineering program in 2005, a software engineering program in 2006 and recently started offering its industrial manufacturing engineering program at night.

The night courses have been getting "many midcareer people who need engineering education," said Arthur Snyder, president at Indiana Tech's Fort Wayne campus.

"We're a professional degree-oriented institution. Virtually every one of our degrees leads to a profession. We tend to focus very intently on what the needs of the local companies are."

Collaboration with area executives and city and economic-development officials happens informally now, and could take place on a more frequent and larger scale, Snyder said.

"I think we can better organize it," he said.

IPFW considers supporting economic development in the area as part of its mission, said Chancellor Michael Wartell.

The university has expanded its engineering master's-degree offerings and put in a technology degree to provide continuing education for engineers who locate to the area.

“If bachelor's-degree engineers don't see a road to bettering themselves, there's not as great a reason to come,” Wartell said.

IPFW is seeking a professor of wireless communications and applied research to head a new Center of Excellence in Wireless Communications. In recent years it also has established a Center of Excellence in Systems Engineering and a Center for Industrial Innovation and Design.

Renee Rogers, a spokeswoman for American Axle, said the company decided to locate at the Northeast Indiana Innovation Center “because it's in close proximity to some engineering expertise at Purdue and IPFW and we can leverage some synergies there.”

International Truck and Engine has scheduled an announcement for Feb. 13 at IPFW on a nonfinancial donation it is making to strengthen ties to the university, said spokesman Jeff Benzing.

The company's truck engineering center has benefited from the development of IPFW's Systems Engineering program, he said.

The speed of broadband connections available at home also is important to engineers moving to the area, and with northeast Indiana's relatively low cost of living, “you can bring engineers in and pay them a good salary, and their dollars are going to go a lot farther,” Benzing said.

Several defense-related engineering operations in the area collaborated with IPFW on the creation of its systems engineering center and helped fund it.

Gregg Norris, human-resources manager at BAE Systems Electronics & Integrated Solutions in Fort Wayne, said the area needs to continue investment in its higher-education system.

“We do have good engineering programs at our local universities, but I don't know that they're considered in the same league as, say, Purdue (West) Lafayette, or one of the other big-name engineering schools.”

Northrop Grumman Electronic Systems donated \$32,000 last summer to fund six full-tuition scholarships at IPFW. The university will match the gift to create 12 Northrop Grumman scholars.

“The value of this is not only do we have the scholarships, but we also have summer internships at Northrop Grumman,” said Gerard Volland, dean of the College of Engineering, Technology and Computer Science at IPFW.

The internships “are going to help our students master that knowledge we’re trying to convey to them,” he said. “They’ll also be motivational, because (students) will see some wonderful applications, some very creative, very challenging applications, of the engineering techniques and principles we’re trying to familiarize them with.”

Work the interns do at Northrop Grumman’s Information and Cyberwarfare Technology Center on Constitution Drive could lead to employment there.

“The way it’s been this year, we’re poised potentially for some explosive growth,” said Scott Maddox, site manager.