

# Grants to Indiana Colleges Offer Grads New Vision



**Strongly rooted in its evangelical Christian faith** and surrounded by farmland, Taylor University, a liberal arts college with just 2,000 students in tiny Upland, Ind., may seem like an unlikely place to grow future entrepreneurs. But that's just the vision Taylor has focused on, based on months of painstaking introspection, a thoughtful look at the dreams of students and alumni, and the realities of today's job market.

"We concluded that our efforts to help create more meaningful employment in Indiana would be best spent by nurturing the seeds of entrepreneurship," says Ben Sells, Taylor's vice president for university advancement.

In 2014, with the help of a \$1 million grant, Taylor will launch Promising Ventures: Creating Homegrown Opportunities, a new strategic initiative designed to steer large numbers of Taylor grads away from simply finding a job in Indiana and toward something bigger. Taylor officials hope that creating a richer entrepreneurial culture will inspire dozens of students and young alumni to launch or join startups.

(ABOVE) Taylor University undergrads Kelly Hosford and Alyrica Hecos study in the atrium of the Euler Science Complex, a state-of-the-art building for biology, chemistry, computer science, engineering, physics, math and environmental science students.

"We've got an opportunity to lift the whole state of Indiana by doing good," says Taylor President Eugene B. Habecker. "We think there will be a lot more fruit from the seeds we are planting now—and we're not even sure what that will be, exactly. But we do know it will be a rich harvest."

The Taylor plan is just one among a broad range of proposals funded by Round III of the Endowment's Initiative to Promote Opportunities Through Educational Collaborations, through which \$62.7 million in grants was awarded to Indiana's 39 accredited colleges and universities in 2013. The grants range from \$1 million at smaller institutions to up to \$5 million at Indiana's largest higher education institutions.

The initiative's aim, which dates back to Round I in 2003, is to help Indiana colleges and universities expand opportunities for their graduates to find meaningful employment in the state.

Before making the latest round of grants, the Endowment urged the colleges and universities to think imaginatively and develop school-specific strategies to





Taylor undergraduate and entrepreneur Will Sevens (ABOVE AND PREVIOUS PAGE) shares an update on his startup, Membands, and solicits business advice from fellow student entrepreneurs. Membands sells silicone wristbands with scripture verses imprinted on them.



address the initiative's aim. To kick-start their thinking, in 2012 the Endowment awarded each of the 39 colleges and universities planning grants in amounts ranging from \$50,000 to \$150,000, based on enrollment, and totaling \$2.55 million.

### A persistent problem

ENACTUS (Entrepreneurship in Action), a club for Taylor students with entrepreneurial interests, created and runs Marketplace, a website where students can order groceries online and have them delivered. Meghann Bowman, vice president of ENACTUS, demonstrates how Marketplace works.



Despite a steady supply of four-year college graduates emerging from Indiana campuses, Indiana ranks very low among the states in the percentage of its adult working-age population that has a bachelor's degree. Just as troubling: Indiana's average per capita income has declined over the past several decades. In 2011 Indiana ranked 40th among the states in per capita income, with the average resident bringing in \$36,342 from all income sources, which is 86 percent of the national average of \$42,298. Indiana ranked 30th among the states in 1980, which itself was a decline from 21st in 1950.

Since Round I of the initiative more than a decade ago, the Endowment has been helping Indiana colleges and universities collaborate with organizations in other sectors to create ambitious, strategic solutions to these persistent problems. Reports from the colleges and universities showed that, in many cases, activities from the initiative's first round had a significant and positive impact on both students and employers in their communities. Many institutions reported making lasting improvements to their internships and placement programs. To help colleges and universities secure those gains, the Endowment funded Round II of the initiative in 2008.

**Still, reports persisted that college graduates struggle** to find jobs within the state that are suitable to individuals holding a bachelor's degree. So in 2011 the Endowment provided a grant to the Central Indiana Corporate Partnership (CICP) Foundation to commission a research study from Battelle Technology Partnership Practice to find out why.

The study looked at the quality and quantity of employment opportunities available in Indiana, the education and skills needed to qualify for them, and how employers communicate job opportunities to those seeking jobs.

Among the findings: Indiana lags the nation in the availability of high-skilled jobs. With a few key exceptions, Indiana's economy is adding these jobs at a slower pace than the rest of the country. Moreover, many graduates do not have the required majors or other credentials for the high-skilled jobs that are available.

### From research to proposals

During the planning phase, colleges and universities were asked to ponder the lessons they had learned from the Endowment's prior grants, as well as the current effectiveness and impact of their internships and placement programs. They were asked to consider the experiences of their alumni in seeking employment in Indiana, changes in education, the economy, and expectations, as well as what their institutions could do, given their capacity, mission and constituencies.

"Giving birth to an idea is hard," says Steven Broad, assistant professor of mathematics and computer science at St. Mary's College in South Bend.

At St. Mary's, the college used the Endowment's planning grant of \$50,000 to fund several faculty groups who pursued in-depth—but very different—ideas about how to increase

Housed in the college's Department of Mathematics and Computer Science, the data science program focuses on creating jobs in the

"big data" field. Supported by a \$1 million grant, the new program will produce graduates who are capable of helping companies find solutions for the vast amount of data in businesses ranging from healthcare to manufacturing and higher education.

As part of their research, Broad and his colleagues met with Indiana business leaders in the field who discussed the dearth of qualified candidates. They looked at industry estimates of 4.4 million jobs worldwide by 2014—including up to 1.9 million in the United States—with as many as one-third unfilled due to lack of people trained in the kinds of mathematical and computing skills needed for careers in big data. Snaring a share of those jobs for Indiana could make a difference, Broad says.

**Broad found the Battelle report sobering.** "We are losing talented folks," he says. "It's the perception of



students that there are no opportunities here. There are interesting things happening in northern Indiana, but if students don't know about the opportunities, or understand the opportunities, we will continue to lose them to

opportunity for students. In the end, the group led by Broad was chosen to put forward its proposal to direct funds toward a new master's degree program in data science.

the East and West Coasts. And if we lose them, we won't see them again."

St. Mary's Provost and Senior Vice President for Academic Affairs Patricia Fleming says taking the time to think through what fit the needs of St. Mary's—and Indiana—made all the difference, especially at the small liberal arts school where faculty typically carry a heavy teaching load that leaves little time for creating new initiatives.

"The planning phase of the grant process allowed us to pause and figure out what's right for us and right for Indiana," Fleming says.

Purdue graduate student Fumitaka Ohno works on a power grid system that bundles energy from multiple sources and efficiently distributes it to communities.

(RIGHT) A professor and his students build an electric recumbent tricycle. Purdue students hope to commercialize their research and bring new products to market.

(ABOVE RIGHT) The planning phase was a "valuable exercise" that led departments at Purdue to work together more collaboratively, says Suresh Garimella, Purdue's chief global affairs officer and the Goodson Distinguished Professor of Mechanical Engineering.



“Throughout the process, what I saw was increasing clarity,” Bennett says. “The planning grant process allowed us a moment of reflection, to think through not just what would be possible but what would be sustainable.”

At Purdue University, a major research university in West Lafayette, the plans are big and ambitious: to transform Indiana, with the help of a \$5 million grant,

During the University of Southern Indiana’s Technology Commercialization Academy, business and engineering students work with faculty members to develop ideas and strategies using Naval Surface Warfare Center Crane patents.

At the University of Southern Indiana (USI) in Evansville, the planning grant allowed USI leadership to reflect on past successes and challenges associated with the earlier Endowment grants and seek new information from the Battelle report, as well as surveys and interviews with community leaders, students, faculty, the employed and unemployed.

**“The planning grant process allowed us a moment of reflection, to think through not just what would be possible but what would be sustainable.”**

The resulting plan includes the establishment of an undergraduate Career Readiness Program and creation of the Eagle Innovations Accelerator, a new entity designed to commercialize innovations as a means to expand job creation and growth. USI also will use its \$3 million Endowment grant to expand its existing cooperative education and internship programs and enhance an existing partnership with the Technology Commercialization Academy, a USI-Naval Surface Warfare Center Crane partnership initiative.

**Having the time and funding** to analyze the current employment landscape for college students was a luxury that is all too rare in the grant application process, says USI President Linda L. M. Bennett.

into a magnet for high-tech jobs.

That large-scale goal required some equally large-scale preparation, including mining and analyzing data and gathering input from numerous sources, according to Suresh V. Garimella, Purdue’s chief global affairs officer and the Goodson Distinguished Professor of Mechanical Engineering.

**During the planning phase, Purdue sought input** from more than 20 entities on and off campus, from its own Krannert School of Management to regional campuses in Fort Wayne and northwest Indiana and major employers such as Dow AgroSciences and Chrysler Group.

Purdue found that second-stage and larger companies offer tantalizing job prospects for its graduates and the greatest potential for growth, so the planning team focused on helping those companies create jobs in higher paying hi-tech and STEAM fields—the highly touted STEM (science, technology, engineering and math) fields plus Purdue’s own addition of “A” for agriculture.

Research and discussions during the planning phase have had a lasting impact at Purdue, changing Purdue’s culture when it comes to entrepreneurship, commercialization and innovation, Garimella says.

“Departments that had not collaborated in the past were brought together in the planning phase and are now working together on the grant as well as seeking other collaborative opportunities,” he says. “It was indeed a valuable exercise.”