



Spring
2015

IUPUI

A magazine for alumni and friends worldwide.

A photograph of a middle-aged man with glasses, wearing a dark pinstriped suit, a light blue shirt, and a patterned tie. He is smiling and standing in front of a brick building with windows. The background is a clear blue sky.

Learning
the **Business**
of **Medicine**



IUPUI Magazine

IUPUI Magazine is published two times per year — spring and fall — for alumni and friends of Indiana University–Purdue University Indianapolis.

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The Bantz Era

Last November, Chancellor Charles R. Bantz announced his intention to step down from his position in August 2015. He has served as Chancellor since June 2003, through a period of tremendous growth and unprecedented student success. Below are just some of the highlights of his impressive tenure.

IUPUI's graduation figures have increased by 25 percent, research funding has grown by 27 percent, and the number of students participating in service learning programs has risen by nearly 400 percent.

Under Bantz, IUPUI has become significantly more diverse. In keeping with Indianapolis's growing international profile, international student enrollment has doubled. Minority students now comprise nearly 20 percent of the student population, and IUPUI has created the Office of Diversity, Equity and Inclusion and opened the IUPUI Multicultural Center.

The chancellor has focused on expanding student life on campus, including opening the hub of life at IUPUI, the Campus Center.

The number of students living on campus has grown by more than 250 percent and nearly 40 percent of freshmen now live on campus. The number of student organizations has more than tripled (now including 450 groups), and the premier campus event, the

IUPUI Regatta, was born in 2009 and quickly has become one of the city's most significant downtown events each September.

IUPUI has enjoyed a growing academic profile during the Bantz era: Honors College, the Lilly Family School of Philanthropy — the first school of philanthropic studies in the country — and the Richard M. Fairbanks School of Public Health all have been founded during his tenure and fulfill vital needs. And the campus has responded to changing public demands by starting such vibrant degree programs as biomedical engineering, museum studies, philanthropic studies and epidemiology, to name but a few.

The campus has seen steady growth in six-year graduation rates (up from 34 to 42 percent over a four-year period), and the percentage of incoming freshmen ranking in the top quartile of their high school classes has risen by 10 percent.

Bantz has been a strong advocate of research outcomes. The Center for Translating Research Into Practice and the Bantz-Petronio Translating Research Into Practice Award both focus on excellence in scientific inquiry, and IUPUI's growing number of signature centers take full advantage of the campus's interdisciplinary expertise.

The campus has undergone extraordinary physical changes during his years. University Place Conference Center and Hotel was converted to student housing and includes IUPUI's first student dining hall. Campus life also is bolstered by the Campus Center, the Riverwalk Apartments and two parking garages to fulfill campus and public needs, all facilities opened during the Bantz era.



IUPUI has new academic buildings that expand IUPUI's reach in the arts (Eskenazi Hall for the Herron School of Art & Design), information technology (the Informatics and Communication Technology Complex), research (Walther Hall, the Health Information and Translational Sciences, the Science and Engineering Lab Building, and the Glick Eye Institute), and healthcare (the Simon Family Tower at Riley Hospital for Children and the Simon Cancer Center).

The land swap between IUPUI and Wishard Hospital paved the way for a new state-of-the-art medical facility (Eskenazi Hospital) and provided room for future growth of the School of Medicine campus.

He oversaw two record-setting fundraising campaigns, including the IUPUI Impact Campaign that closed in 2014 with \$1.39 billion in outside support. His tenure also saw school endowments for the Robert H. McKinney School of Law, the Fairbanks School of Public Health and the Lilly Family School of Philanthropy, and steady growth in the number of endowed chairs to recognize and support faculty excellence.

The chancellor also served as chair of the Urban Serving Universities Coalition, and on the boards of such organizations as: United Way of Central Indiana; Indianapolis Downtown, Inc.; Greater Indianapolis Chamber of Commerce; Greater Indianapolis Progress

Committee; Indiana Sports Corporation; Indiana Campus Compact; and the Economic Club of Indiana.

No list of accomplishments would be complete without mention of the public recognition that has come to IUPUI during his years, including:

- Named a top 200 National University by *U.S. News and World Report*
- ‘Up and Coming National University’ by *U.S. News and World Report* for five years
- ‘8th Best Public University in the Midwest’ — *Forbes Magazine*
- President’s Higher Education Community Service Award six times, twice with distinction
- Heiskell Award for Innovation in International Partnerships
- Among Top 30 Best U.S. Non-HBCU Schools for Minorities — *Diverse: Issues in Higher Education*
- Received the 2014 Higher Education Excellence in Diversity Award from *Insight Into Diversity* magazine, the third straight year for that recognition
- Reclassification by the Carnegie Foundation for the Advancement of Teaching as a Community Engaged Campus
- Top five ‘Best Neighbor’ college or university based on survey findings by the Netter Center for Community Partnerships
- Ranked as the “Best for Vets: Colleges 2014” by The Military Times
- Designated a 2014 Military Friendly School by Victory Media Inc.

In August 2015, Bantz will begin a one-year leave before returning to IUPUI as a member of the faculty.



Campus News



Law School Leading Pipeline to Congress

The Robert H. McKinney School of Law ranks among the top 20 law schools in the U.S. in terms of alumni serving in the 114th Congress, ranking seventh of the top 20 law schools.

The IU McKinney graduates include one senator (**DAN COATS**, '71) and three representatives (**SUSAN BROOKS**, '85; **TODD ROKITA**, '95; and **TODD YOUNG**, '06), a group that represents more than one-third of Indiana’s Washington delegation. Harvard Law School ranks first with 18 graduates.



↑ The new Think It Make It Lab at Herron will include equipment and projects like these and more (clockwise): Art work from Herron's 2013 Undergraduate Student exhibition, printed with a 3-D printer; A Stratasys Objet 30 3-D printer; detail from a bench created by then Herron graduate student Vincent Edwards using a CNC router; an EZ Router CNC router. (Images: Herron staff, Michelle Pemberton, Stratasys and EZ router)



PROGRAM FOCUSING ON LEADERSHIP, DEVELOPMENT

IUPUI Executive Vice Chancellor Nasser Paydar has announced the launch of Next Generation 2.0, a new leadership and professional development initiative for campus faculty and staff. The program, a part of the IUPUI strategic plan, is designed to help the campus retain and develop a diverse pool of talent to lead it into the future.

Technology Merging With Creative Processes

Technology and traditional creative processes are merging in Herron School of Art and Design's Think It Make It Lab, a new space that will help students become better informed about the broad applications of design, production and fabrication in a variety of fields.

"We are so excited at the prospect of providing a collaborative environment for research and experimentation at the intersection of art, design, technology and culture," Herron Dean Valerie Eickmeier said. "Centers like this are common in Silicon Valley, but there are few housed in schools of art and design and they are scarce in the Midwest."

The new lab promotes the creative use of new technologies in a collaborative environment for research and experimentation. It expands Herron's ability to educate students on concept design and prototyping using a variety of digital fabrication methods.



NEW OFFICE SERVING RETURNING STUDENTS

The new Division of Undergraduate Education is helping current IUPUI students pursue their dreams of a college degree, but the Degree Completion Office has its eyes on the dreams of a different group: returning students whose goal is to finish a path they began long ago.

Alison Bell, director of the Degree Completion Office, said the goal is to attract and support people who have completed some college, but have not earned their degree. The office will focus on 14 academic programs that fit the clusters identified by state officials and by IUPUI as keys to economic growth and success.

To check out the programs involved, visit the website: due.iupui.edu/Degree-Completion.



Student Pitch Competition Tackles ‘Challenges’

A shopping budget app, a machine and system to reward campus recycling, a deal-of-the-week website and micro-grid kits for the developing world are just three of the innovative ideas that have been honored during IUPUI’s “Ideas Solving Social and Economic Challenges” student idea pitch competition.

The competition is part of IUPUI’s new strategic plan to strengthen the impact through education, supporting students as entrepreneurs. The student idea pitch goal is to increase the number of graduates equipped for entrepreneurial thinking and action, whether through new businesses and job creation or as employees in existing organizations.

SCIENCE GENETICIST EARNS DNA GRANT

Susan Walsh, a forensic geneticist in the School of Science at IUPUI, has been awarded a \$1.1 million grant from the U.S. Department of Justice’s National Institute of Justice to develop and improve “DNA intelligence” tools that may help identify unknown suspects, perpetrators and missing persons.



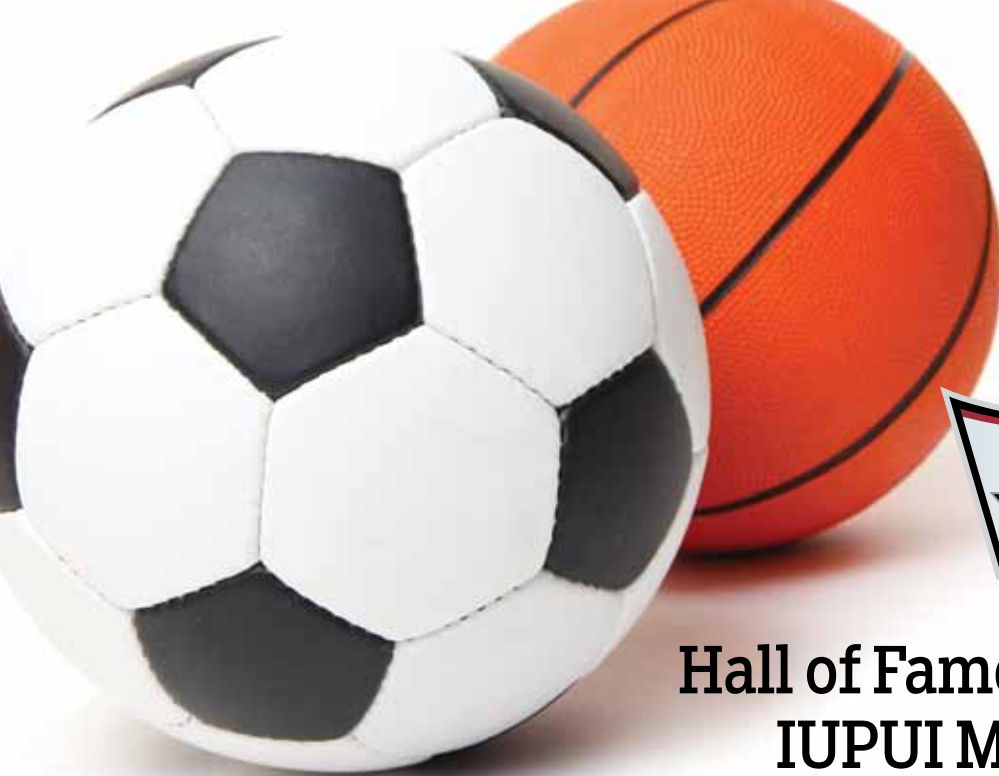
ENGAGEMENT EARNS IUPUI CARNEGIE RECLASSIFICATION

IUPUI's community connections have earned the campus the Carnegie Community Engagement Classification again this year. The recognition acknowledges the ongoing involvement of college students, staff, faculty and community partners to improve the quality of life in the city and throughout Central Indiana. IUPUI first received the Carnegie Classification in 2006, and was re-classified this year because of its deepened commitment to programs supporting community partnerships and engaged student learning.

SHUTTLE SYSTEM CONNECTS CAMPUSES

Indiana University and GO Express Travel have launched a new service called Campus Commute, an environmentally responsible, safe, convenient and low-cost travel option for faculty, staff, students and the general public between Bloomington and Indianapolis.

The intercampus shuttle offers Wi-Fi, wheelchair accessibility, reclining seats, electrical outlets, DirecTV, lavatory and DoubleMap (a real-time bus tracking interactive map), and will provide non-stop service Monday through Friday, making four trips each weekday.



Hall of Fame Adds New IUPUI Members

Former women's soccer standout Jamie Farrell and the 1972-73 men's basketball team joined illustrious company as new members of the IUPUI Hall of Fame. Farrell led the Jaguars to a school-record 17 victories in her senior season, including the first-ever NCAA Tournament berth. She was named to the All-Summit League honor team three times.



The '72-73 basketball team became the second Hall of Fame team induction, and was credited with playing the first full season of any sport in IUPUI history.

IBJ HONORS IUPUI FACULTY

Two professors on the IUPUI campus are among the young professionals recognized as the Indianapolis Business Journal's Class of 2015 Forty Under 40. Genevieve Shaker of the IU School of Liberal Arts and Daniel Vreeman of the IU School of Medicine were listed among rising stars in their respective professions who were recognized for their early professional success and for their accomplishments in the greater Indianapolis community.

COMMUNITY ENGAGEMENT OFFICE TAKES FLIGHT

IUPUI's traditional focus on engagement with the city of Indianapolis, the state of Indiana, and beyond is taking a new shape: the Office of Community Engagement.

The new office, led by Vice Chancellor for Community Engagement Amy Conrad Warner, will connect the campus with individuals, businesses, nonprofits, schools, health care providers and neighborhood organizations in exciting and effective ways to handle the challenges that lie ahead.

The Community Engagement Offices's goals are to develop more civic-minded graduates, to attract and retain the highest quality faculty and staff, to leverage campus resources to address local and global problems and to contribute to improving the economic and educational development of the community.

The new office will include the former Office of External Affairs, the Community Learning Network, the Solution Center, the Center for Service and Learning and IUPUI Alumni Relations. Community Engagement will be fully integrated by July 1. To learn more about the office,

visit the website (engage.iupui.edu), or contact it by telephone (317-274-7400) or email (engage@iupui.edu). The office will offer engagement news and updates via Twitter @engageiupui.

PROFESSIONAL DEVELOPMENT PROGRAM GETS NEW LEADER

As the new executive director for Professional Development and Corporate Education, Teresa Bennett is tackling an exciting new opportunity: to connect IUPUI's knowledge network to the professional development needs of the state's business, industry, nonprofit and government sectors. The goal is to



strengthen the skills and knowledge of Indiana's workforce to help advance the state's economy.

The program will help embed IUPUI's education and training abilities into the fabric of economic, social, governmental and workforce life in Indianapolis, a goal of the new Office of Community Engagement.

Professional Development and Corporate Education's efforts will focus on continuing education, professional development, corporate education and contract training.

To learn more about the program, visit the website (engage.iupui.edu/professionaldevelopment).

SHOW YOUR PRIDE ALL YEAR

Support IUPUI campus scholarships by purchasing or renewing your IUPUI license plate at www.in.gov/bmv/2733.htm.







Learning the Business of Medicine

Veteran surgeon Dr. David Hormuth already boasts an impressive list of professional achievements, from a grab bag of advanced degrees to articles in professional journals. But a recent addition to his resumé – his soon-to-be-completed Business of Medicine MBA from the Kelley School of Business in Indianapolis – has earned him even more notice.

“It’s a very impressive part of my portfolio,” said the cardiothoracic surgeon with more than 6,000 thoracic procedures (including 500 heart, lung and ventricular assist device transplants) to his credit. “When I’ve interviewed for other positions, it raises lots of eyebrows. Not only can I perform operations, I also understand the financial side of medicine.”

Hormuth, who consults with healthcare providers in such areas as heart transplant, artificial heart technology, heart failure and cardiothoracic surgery, thinks his hard-won business savvy helps make him as comfortable in the boardroom as he is in the operating room.

“With my MBA at this phase in my career as a very senior surgeon, it is an opportunity to become an interpreter,” he said. “Sometimes you have physicians on one side of the table and businesspeople on the other. I see myself as sitting at

the middle of the table, helping to interpret and solve clinical problems by understanding the financial implications.”

With so much of the American health delivery system in flux these days, that expertise has never been more important – or in greater demand. And one of the very few places to achieve this sort of insight is from Kelley’s Business of Medicine MBA Program. Begun in 2013, the program each year takes in a class of approximately 35 physicians with at least three years of post-residency experience. Though relatively new (its first cohort of graduates, Hormuth among them, completes the program this August), it has already attracted doctors from as far afield as California.

“What we’ve noticed during our recruiting for our third class, which will begin classes in September, is that our geographic range is expanding,” says Anthony Cox, Professor of Marketing and Chair of the Business of Medicine MBA Program at the Kelley School of Business. “At least a dozen states are represented. Our goal is to be a national program, and that’s how it’s evolving.”

Kelley faculty had long contemplated creating a specialized MBA that combined business and medicine. Its usefulness

both to physicians who wanted to move into administrative positions and to private practitioners struggling to navigate a labyrinth of new healthcare laws seemed obvious. The proximity of the IU School of Medicine only added to its allure.

“They say geography is destiny,” Cox said. “Years ago I and some colleagues thought this was sort of a natural area for the Kelley School of Business, because we have the second-biggest medical school in the country literally across the street from us.”

However getting the program off the ground proved a complex operation. There are a fair number of schools offering run-of-the-mill MBAs to physicians, but the Kelley School (with several of its MBA programs already ranked among the world’s best) wanted to raise the bar by tailoring its offering to the business of medicine.

“The typical executive MBA tends to take a 30,000-foot view of business and doesn’t really get into a lot of depth, because it can’t in the allotted time,” said Susannah Gawor, Director of Graduate Business Programs in Medicine at the Kelley School of Business. “But we decided we wanted a high-quality Kelley MBA.”

The Business of Medicine MBA encompasses 51 credit hours – the same as for Kelley’s full-time, online and evening MBAs. But it caters strongly to the busy schedules of working physicians, emphasizing weekly online coursework plus a once-a-month IUPUI campus session from 8 a.m. to 5 p.m. Friday and Saturday. Students spend most of their first year studying conventional business topics such as accounting, finance and marketing, and their second delving into nearly a dozen medicine-centric courses, including “Healthcare Revenue & Delivery Models” and “Understanding Consumer Health Behavior,” which Cox teaches himself.

“There are several courses that are very specific to health care that you wouldn’t find in any other MBA program,” he says.

Indeed, one would be hard pressed to find a program like Kelley’s anywhere else in the world. Though a couple of US schools offer MBAs for working physicians, the Kelley program is uniquely tailored to physicians’ needs – and is the only physician-only MBA program offered by a top-ranked business school.

“The reason we’re truly the first of our kind is that we’ve developed a curriculum that looks at the intersection of business and medicine and asks, what do physicians need to know?” Gawor said.

Apparently quite a bit, judging from the herculean commitment doctors are willing to make to the program. While the typical executive MBA class meets twice a month, this one meets only once, because physicians – especially the sorts of highly placed, senior doctors the program attracts – manage notoriously tight schedules. Out-of-town participants have to fly or drive to Indianapolis for the once-a-month in-person sessions.

Cox describes Business of Medicine MBA candidates as having “a lot of cognitive stamina” and near-superhuman time-management skills. One physician who flies in for the class from Los Angeles uses his time on the plane to catch up on course reading. Another who drives from Pennsylvania uses voice simulation software to create audio files of his readings, then listens to them during the long, long car trip.

Hormuth says support from the Kelley staff helps ease the workload and the time crunch.

“I would like to say that I keep up with the coursework via my efficiency and great time management, but the real truth is that I study late at night and on weekends,” he says. “The Kelley School of Business places most if not all of the lectures and required readings on iTunes, so I’m able to read them from anywhere I choose. They really go out of their way to support the student.”

At least Hormuth, who lives in the Indianapolis area, doesn’t have to deal with a continent-spanning commute to get to class. Not surprisingly most of the program’s first cohort of students hailed from central Indiana, but the number of long-distance learners increases with each new class as word of the program spreads.

“I had a family practitioner out of Illinois who said to me, ‘I am such a better physician than I ever was before because I’m thinking about my entire patient experience, not just my relationship with them as a doctor/patient relationship,’” Gawor recalled.



↑ Cardiovascular surgeon Deon Vigilance MBA'15 and anesthesiologist Dan Fagin MD'04, MBA'15 analyze a revenue delivery model during a Business of Medicine MBA residency.

Such glowing reviews from participants are welcome, because getting the word out about such a new, unique program can be time-consuming. Kelley helps raise the MBA's profile by visiting more than a dozen carefully chosen physician conferences each year, setting up a booth and speaking to interested doctors at length.

"The response has been huge," Gawor said. "Most of our more recent program applicants say that they saw us at a conference."

She describes the typical Business of Medicine MBA prospect as either a physician who's already an administrator in a large healthcare system, or a doctor working outside a major system who wants to more efficiently manage his or her own practice.

"It's kind of all over the map," Cox added. "I think maybe the most common thing is people who are already starting to move into leadership positions or they have aspirations

or ambitions to move into leadership positions, especially within hospital systems."

The program's popularity and profile could snowball soon, with its first class rapidly approaching graduation. Their testimonials – and professional successes – could do a great deal to further boost the Kelley effort.

"We don't have alumni so that we can say, 'Here are ten poster children and this is how the program works,'" Gawor said. "But our second-year students who are graduating this August have already seen promotions and huge responsibilities handed to them and changes in their leadership style."

Recruitment for the 2015 class is already well underway, attracting candidates from across the United States.

"We just got an application today from Connecticut," Gawor said. "We have people joining us from both coasts and everywhere in between." ■

numbers game

The new Master of Science
in Event Tourism degree helps
grads use information to enhance
and improve big events.



Larry Jinkins, Event Tourism graduate student in IUPUI's School of Physical Education and Tourism Management (PETM), doesn't look at festivals, fairs and marquee sporting events in quite the same way as regular folks. Instead of seeing them merely as destinations or entertainment, he visualizes the immense amount of research and data sifting that goes into making such large – and small, for that matter – events successful.

“For me it’s like going to a puppet show after I’ve seen how the puppets work behind the curtain,” Jinkins said. “I’m no longer concerned about the show itself. I’m more concerned about how the puppet master works the strings.”

He’s earned this insight because he’s on the verge of completing his Master of Science in Event Tourism – a rigorous PETM program that leverages Indianapolis’s reputation as a convention, events and sports hotbed to teach highly qualified students how to use information to enhance revenue for events, destination marketing organizations, and companies supporting the \$4 billion central Indiana tourism industry.

“Putting on events like the Super Bowl or the NCAA Final Four requires a lot of different skills,” said Rafael Bahamonde, Associate Dean, School of Physical Education and Tourism Management. “Those are things that this program will provide.”

Using a mix of coursework and hands-on experience, graduates of the program, which began in 2011, gain a practical and theoretical understanding of not just of how to stage an event, but how to gauge its impact on the host community, from its environmental footprint to its long-term financial viability. All by learning how to gather, process and exploit the data necessary to define what “success” actually looks like.

“It’s about looking behind the scenes and seeing what’s going on,” Jinkins said. “I can look at festivals, sports venues and other projects and ask how they’ll sustain themselves over the long haul – not just say ‘That’s cool,’ and move on.”

The layman might be surprised to learn just how much data underpins the travel and tourism industry – and just how much useful information a tourism planning organization can cull from it. The trick is finding the right person for the job.

“There’s a lot of data that comes into these tourist organizations, and right now the big gap is that there’s not someone who understands data analysis and how to use it for decision-making,” said Amanda Cecil, Associate Professor and Program Director for the Department of Tourism, Conventions and Event Management.

The IUPUI program attempts to do just that via a two-year regimen featuring such specialized classes as Foundations of Event Tourism, Cultural Tourism Management, and Strategic Meeting Management. It’s all capped with a thesis. Not surprisingly, students who tackle the program can expect some

interesting job opportunities after, and sometimes before, graduation.

“The goal is to put students in director-level positions in tourism organizations,” Cecil said. “Mainly around helping them with business strategies, data and research, to elevate how the organization makes decisions using solid research and analysis.”

The need for such sophisticated metrics has grown right along with the size and complexity of the tourism industry. For instance, more than three decades ago Indianapolis civic leaders decided to market the city as an amateur sports mecca. Research was of course done on the topic, but not a lot – simply because the data didn’t exist. The city succeeded in part because it was an “early adopter” in a field that was otherwise mostly empty.

But that’s far from the case today. In the US everyone from first-tier cities to rural counties and tiny towns vie for a portion of the tourism pie. Succeeding requires data-driven knowledge of the market. To do otherwise invites disaster.

“You see a lot of communities jumping into different strategies to develop tourism,” Bahamonde said. “Some have spent millions in developing various projects, and data is both guiding these decisions and being used to evaluate their effectiveness.”

“People want to make solid decisions and those decisions should be based on good data, good input, and getting the key stakeholders’ feedback on what should be done,” Cecil added. “If you’re going to do any new attraction facility, there must be a market analysis piece



↑ The experience IUPUI students gain from being involved in major events, like the Super Bowl, make them more marketable as employees.

and a needs assessment piece. People aren’t willing to use their tax dollars anymore just on a good feeling.”

Which explains why Jinkins, who graduates this year (and is far into the home stretch on his thesis) was being tapped by municipalities almost from the moment he started the program. In the summer of 2012, shortly after he began his studies, the northern Indiana town of Whiting asked him to help develop a tourism plan for the community.

“This program was directly responsible for me getting that opportunity,” Jinkins said.

He’s writing his thesis about an aspect of the sports and tourism industries that indirectly illustrates the need for his services – the current national boom in youth sports parks. Counties and small towns around the country are building top-flight athletic facilities in hopes of turning them into regional amateur sports meccas. Trouble is, they sometimes do it without the sort of upfront statistical analysis that helps them determine if building, say, 20-diamond



softball park in the middle of North Dakota is economically sustainable.

“Small communities are looking for something that will draw people and spend more dollars in their county and town, and they’re using sports to do it,” Jinkins said.

Using all available marketing information and data can help guard against an “If you build it they will come” mentality. In other words, simply creating an expensive facility and hoping that crowds, financing and the necessary ancillary infrastructure will follow.

“I will tell you that in my research on youth sport complexes that there is very little standardization around the measures consultants use to predict success,” Jinkins said “It is even more challenging to find solid information on the impact of such facility development.”

The Master of Science in Event Tourism program is an attempt to bring measurement and metrics to something that most people might not realize

needs it. In actuality, however, there’s lots of data available – and lots of questions to apply it to.

“There’s all sorts of studies being done about the economic impact and sociocultural impact of tourism on a community,” Cecil said.

The program’s Indianapolis location is a definite plus, given that the city pretty much wrote the book on event tourism by bringing in everything from US Olympic trials to the Super Bowl to numberless NCAA championship events, including eight (so far) NCAA Men’s Division I Basketball Tournament Final Fours. IUPUI has aligned itself with numerous area tourism organizations to provide students with hands-on experience ranging from high-level volunteer positions to part-time and even full-time work. Its long list of partners, many of whose offices sit within walking distance of the IUPUI campus, includes the Indiana Sports Corporation, the Indiana Convention Center, the 500 Festival and Visit Indy.

“We have a core group of partners that our students can work directly with,” Cecil said. “We have so many opportunities within a mile or two radius of campus. We’re unique in that way. Other campuses can’t offer opportunities like we can at IUPUI.”

The program’s graduates for the most part haven’t strayed far from Indianapolis, having been quickly snapped up by central Indiana agencies. But as the number, and aspirations, of grads increases, that could change.

“There are always going to be opportunities here,” Cecil said. “But I can tell you that our students are also looking

outside of Indianapolis. We’re hoping to position these individuals as a real benefit to communities.”

Cecil and Bahamonde agree that the program’s graduates are “all over the board” when it comes to after-degree employment – everything from convention and visitors bureaus to offices of economic development. Some have even become entrepreneurs who plan to start their own businesses.

“There’s a variety of career paths, but the common thread is that they bring a unique business lens to the organization, and that helps create good strategy,” Bahamonde said.

Interestingly, there are only a handful of programs worldwide that focus on event tourism – and only one other in the United States. For anyone equipped with the knowledge to use data to help develop tourism, this spells opportunity.

“There’s a lot of data that comes into these tourist organizations, and right now there’s not someone that has a great background in data analysis or in collecting good data and knowing how to use it for decision making,” Cecil said.

For his part, Jinkins isn’t quite sure what he’ll do when he wraps up his thesis this summer. He might work at IUPUI. Or perhaps seek a full-time position elsewhere. He’s also been asked to consult with various communities about tourism development, and also to help found a tourism-related business.

But whatever he decides, the ball is in his court. ■



BRANCHING OUT

A new IUPUI community education program helps job skills take root among the economically disadvantaged.

In many ways Dan Vernon seems like an ideal candidate for the educational programs created by IUPUI's Office of Family, School, and Neighborhood Engagement. Part of the Office of Community Engagement, it offers mostly not-for-credit classes designed to give Indianapolis's most economically disadvantaged residents a chance to join the job market by receiving entry-level training in a diverse grab bag of skills and professions.

But Vernon isn't a student. He's the teacher.

A former gang member who by his own account was once just a "knucklehead running the streets," he managed to pull himself up by his own bootstraps. A decade ago he signed on as a gofer with Green Arbor Tree Experts, an Indianapolis company that provides full-service tree care. Slowly, a job he took out of desperation turned into a career, and a road to personal redemption.

"It's become a career path," said Vernon, who's now the company's general manager. "When I came here it wasn't out of any love for trees. It was out of a love for food. My family needed to eat. But I fell in love with trees, tree care and the science behind it."

Today he spreads that love by teaching an urban forestry class to those interested in following in his footsteps. For \$50 students attend a six-session program that



↑ Instructor Dan Vernon, left, shows his students the ropes (and trunks and branches) of the tree care business.

imparts the basics of the tree care industry – enough to enable graduates to show potential employers that they already know a thing or two about the trade.

Because when it comes to landing an entry-level position in almost any industry, experience – any experience – offers a huge advantage.

“I get guys all the time who want work but have no experience,” Vernon said. “I would kill to have someone who knows the equipment I use and can go pick it out of the truck, who knows how to be safe on the job site and properly change the chain on a chainsaw. Those are things our students could do right away, instead of having to learn them on the job.”

Vernon got his teaching gig – and his students got a leg up in the urban forestry trade – thanks to the auspices of IUPUI’s Community Learning Sites and Workforce Development effort, helmed by director Myron C. Duff, Jr. Urban forestry is just one of an assortment of classes helping the unemployed or underemployed gain the knowledge necessary to blaze a path into the world of work.

“The nature of our program, and my specific responsibility, is to develop work skills or job skills programs for impoverished neighborhoods,” Duff said.

The program focuses its attention on Indianapolis’s Martindale Brightwood neighborhood, along with the North East Corridor and the Near West and Near East portions of downtown. Besides urban forestry, the current academic lineup includes a Patient Access Specialist Program, a 30-hour fast-track

class designed to prepare students for entry-level jobs in the medical field, such as registration, financial counseling and insurance verification.

“The first group that went through the patient access specialist program was so grateful that we would even consider putting on a program that they could participate in,” Duff said.

He plans to expand his offerings in the near future by initiating classes that are both highly practical and highly innovative. The marquee effort is a Pharmacy Technician Course that begins this fall. The 40-hour program prepares students to become technicians under the supervision of registered pharmacists and focuses on learning medical terminology, reading and interpreting prescriptions, and learning dosage calculations.

The price of the course is a fairly high \$895 plus an additional \$150 for books. However applicants can participate in programs sponsored by Work One to defray the cost. And in exchange they get to participate in an industry-recognized, accredited program that culminates in the acquisition of a state license.

“The instructor is typically a licensed pharmacist or certified pharmacy technician,” Duff said. “Those don’t come cheap.”

The pharmacy technician program’s relatively high price makes it somewhat of an outlier among Duff’s cost-conscious offerings. Most of the courses, including urban forestry, cost no more than \$50. They’re mostly taught in area public libraries and schools, usually by volunteer instructors.

“We try to recruit instructors who are more concerned about the work than the pay,” Duff said. “What that does is allow us to keep the cost of the class low. Though we do want people to pay for the classes, because we believe they will have more of an investment when they have to pay something out of their own pockets.”

He’s also interested in developing programs that might offer a route into the work world for students burdened with criminal records. Indeed, one of the things that interested him about the urban forestry class was the fact that the industry was known for giving ex-offenders a chance.

The class got its start because Duff, who in addition to his academic duties was also a full-time pastor, met Vernon about a decade ago through his church work.

“We were talking about his new position maybe a year ago,” Vernon said. “I kind of have a heart for this city, just like him. He asked if I’d be willing to teach a class like this, and I was.”

Another course that’s in the early stages of development is a program to teach the fundamentals of basketball and football officiating. As with urban forestry, Duff sees it as a chance to offer something a little different – and perhaps more eye-catching and appealing – from the typical, run-of-the-mill programs for the disadvantaged.

“We really try to find very unique programs that aren’t typically done,” he said. “Normally in underserved neighborhoods you’ll find things such as woodworking and welding. Very typical programs. What we try to do is find things that will make an individual employable, but also something that’s unique to that particular population. We try to take a different angle.”

One thing that’s entirely conventional, however, is the effort’s laser-like focus on helping the disadvantaged reach the first rung on the job ladder. To accomplish this, Duff is looking into developing an administrative assistant program and a course for human resources assistant positions.

“These would be entry-level programs designed to get people into the workforce, where they can make more than minimum wage and also earn benefits,” Duff said.

The reaction to these new options has been strong. The second patient access specialist class includes 15 students, more than double the number who took the course the first time. And the urban forestry program will kick off its second edition this summer. Duff says he sees big things ahead.

“I’m hoping that in five years we’ll be in a position to offer 10 to 20 classes all over the city, and in the majority of our underserved neighborhoods,” he said. “We will have a larger staff and be able to accommodate more of the things we want to do.”

As for Vernon, he sees himself continuing to teach the fundamentals of tree care. The advantages, he thinks, are obvious – both for the graduates and for his industry.

“In the spring tree companies are flooded with guys looking for work,” he said. “When I have to pick two out of ten guys that ask for jobs, I’m going to lean toward the ones who already know what the industry is about.” ■





BODY AND SOUL

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IUPUI's Biomedical Engineering undergrads
learn to meld hard science with health
care and human compassion.

IUPUI senior Katie Wight, who's working toward a bachelor's degree in Biomedical Engineering, describes the Senior Design project on which she's collaborating as "pretty cool." But in fact it's designed to be anything *but* cool. Wight, along with a team composed of four other Biomedical Engineering seniors, is developing a device that could significantly improve the lives of newborns in sub-Saharan Africa – a solar-powered baby hammock/warmer.

Infant hypothermia is a big issue in this region. The problem inspired Wight and the rest of the team to design a "thermo regulator for neonates" – or, in layman's terms, a heated sling that monitors a child's temperature and provides auxiliary warmth when necessary. The battery-operated device can be charged by a solar panel, and will

be rugged enough to withstand rough treatment and require nothing more than diluted bleach solution for cleaning.

Creating such a system sounds like a tall order for anyone, let alone a group of busy college students. But Wight and her cohorts aren't like most students. The 22-year-old Fort Wayne native is an Adam W. Herbert Presidential Scholar, a member of IUPUI's Honors College, and formerly part of a virtual international research team focused on hip care and sponsored by the northern Indiana musculoskeletal health care company Zimmer Orthopaedic Products. So designing a piece of technology that could potentially save numberless young lives is just part of the program.

The Biomedical Engineering program, to be exact.

"That's the type of project I want to work on," Wight said. "Actually working with the body to improve the health of people. I love Biomedical Engineering and that's what I want to keep doing."

She's not alone in her desire. The program, begun in 2004, graduates approximately 35 students each year, some of them among the university's top academic performers. They're highly sought after by everyone from medical device companies to research centers.

"When I'm speaking with employers, I use a football analogy to describe the potential worth of these Biomedical Engineering students," said Ed Berbari, Ph.D., Professor of Medicine and Chair of Biomedical Engineering. "I tell them that you draft the best athlete, not the person who seems best for a given position. I tell them that the biomedical engineer is the best athlete, and by that I mean the smartest student. The one who's going to be able to solve a variety of problems for them – and they recognize that talent."

Biomedical Engineering is one of IUPUI's newest engineering departments, teaching such cutting-edge body/machine interfaces as orthopedic biomechanics, cardiovascular instrumentation, medical imaging, biomaterials, molecular engineering and tissue engineering. Put (very) simply, the field uses high technology to improve bodily function.

If one device sums up Biomedical Engineering, it's likely the cardiac pacemaker – a bundle of high-tech microprocessors embedded in the chest and charged with regulating the heart. It encompasses the many challenges



inherent in a field that combines such disparate tasks as Mechanical Engineering and healthcare.

What makes the work particularly challenging is that the human body absolutely hates having artificial devices placed inside it. Devices designed to do this have to be both highly sophisticated and extremely rugged.

The objectives of IUPUI's undergraduate Biomedical Engineering program are to integrate engineering and life sciences into a single curriculum that equips graduates to both meet those technical challenges and pursue myriad career paths. Those paths could include anything from working for medical device companies or life science-related industries, to pursuing advanced degrees in Biomedical Engineering, engineering or life sciences, to entering advanced programs in medicine, law, business or other areas.

Currently there are just north of 150 students enrolled in IUPUI's Biomedical Engineering undergraduate program. And the field is rapidly expanding. Nationally, the number of undergraduate programs has doubled in the last five years.

"I started as a graduate student in Biomedical Engineering in 1971," Berbari said. "At that time there were maybe half a dozen Biomedical Engineering programs. Today there are over 100 undergraduate Biomedical Engineering programs to choose from. They keep popping up."

Students begin their classwork by taking the same basic science and mathematics courses that all entry-

level engineers tackle. But they also add biology and additional physiology classes to their schedules.

"We train our students to look at problems in health care and life sciences so they can make contributions to fields such as the medical device industry," Berbari said. "That's probably the primary job market for our students, although they tend to go into places we don't expect."

They certainly do. Berbari says that Biomedical Engineering undergrads are among IUPUI's top academic performers, making graduates enticing to more than just medical device makers.

"Because we combine the traditional engineering background with a broader view of how to apply this skill to life sciences, the kind of student we attract tends to be very broadly interested," said Karen Alfrey, Ph.D., Associate Chair of Biomedical Engineering and Director of the Undergraduate Program.

"They don't just love one specific area. They love the math, the physics, the biology and the chemistry. And they're looking to use their skills in those areas in a way that directly benefits human health."

Because they're so broadly trained, graduates can pursue some very unexpected career paths.

"It's always fascinating to hear back from the alumni on what they're doing," Alfrey said. "Sometimes they'll find their way into jobs that we had not necessarily envisioned as something a traditional engineer might do. The people who employ them might not have considered engineers for those roles either, but having gotten them,

they realize their value and get very excited about recruiting more."

While all biomedical programs are inherently "hands on," the IUPUI program has a leg up when it comes to practical training.

"Because the IU School of Medicine is here, I often tell people that that's really our ace in the hole," Berbari said. "We have resources here for our students that are rather extraordinary, compared to the other engineering schools in our state that don't have that direct access."

Indeed, there are literally hundreds of opportunities at the IU School of Medicine for Biomedical Engineering students to participate in practical work. Alfrey recently asked participants in the junior-level class she teaches to raise their hands if they'd participated in some sort of internship, research or experiential learning through the programs offered by the department.

"Easily two-thirds of the students indicated that they've already done so," she said.

Steve Higbee, Ph.D., Lecturer and Coordinator for Undergraduate Research for IUPUI's Department of Biomedical Engineering, says the two biggest student-participation programs are the Life-Health Sciences Internship program (LHSI) and the Multidisciplinary Undergraduate Research Institute (MURI), which is run through the Center for Research and Learning at IUPUI.

"These are excellent training programs that are often first steps for students," Higbee said.



↑ Ed Berbari describes biomedical engineering as engineering for the body and for the health of mankind.

Participants in both programs receive a modest remuneration for their work – roughly \$1,500 per semester for LHSI and \$1,500 for the full academic year from MURI.

“It’s movie and pizza money,” Berbari said. “It rewards them for their efforts and it’s very much appreciated by the faculty sponsors to have the students feel that they get something out of it as well.”

The biggest project of every Biomedical Engineering undergrad’s career is undoubtedly the Senior Design course, the undergraduate program’s two-semester capstone. Each Senior Design class is broken up into five to seven teams (depending on class size) and works with faculty and corporate sponsors to develop a tool or product to meet a perceived need. Midwest Orthotics sponsors at least one team every year. IU School of Medicine labs also regularly participate.

Students are expected to offer up a “deliverable” – a working prototype of the device they set out to create.

“That’s a key aspect of the class, because it’s more of an engineering project than a science-based research project,” Berbari said. “It’s part of the accreditation process, and a requirement for the students to have this kind of experience.”

Those projects can range from a specialized piece of equipment for a particular lab to items with a larger scope. Such as, for instance, the solar-powered, computerized baby hammock that Wight’s team is working on.

Female engineering students like her are still a pronounced minority in most programs, but Berbari and Alfrey report that Biomedical Engineering attracts far more women.

“Of the engineering disciplines, Biomedical Engineering stands out as likely having the most female students,” Berbari said. “Female students may compose 5 to 10 percent on any typical engineering program. In Biomedical Engineering we’re at 30 to 35 percent.”

Alfrey chalks it up to the people-focused nature of the field, which she believes

attracts a different sort of student – both male and female. She thinks this because for years she’s asked students who take her own upper-level class to assess their own perceived strengths. The results seem somewhat unorthodox for a group of engineers, who are often stereotyped as caring more about machines than other humans.

“Having high achievement and high analytical skills comes up, which you would expect from engineers,” she said.

“But they also tend to score higher on empathy and harmony – the sense of working with others to find solutions to problems.”

Wight says that’s the sort of attitude that drew her to the program. She’d been considering Chemical Engineering until she talked with Berbari.

“He described it to me as engineering for the body and for the health of mankind,” she said. “When I thought about it like that – that what I’d be working on would help the human body and make people’s lives better – that’s what really attracted me to Biomedical Engineering.”

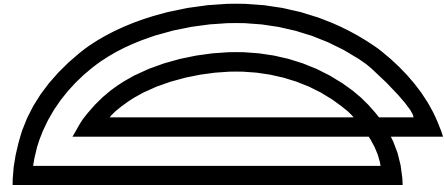
That outlook, along with the eclectic training necessary to succeed in a field that combines the disparate realms of engineering and medicine, can make Biomedical Engineering graduates a hot commodity.

“Certainly because they are high-achieving and broadly educated, they’re doing a really good job of finding their niche once they go off into companies,” Alfrey said. ■





WINNING



A new program helps IUPUI students develop the skills to succeed before, during and after college.

College undergraduates face plenty of challenges and lifestyle adjustments, from juggling coursework to learning to get around on a university campus. The new IUPUI Career EDGE program, which debuts this fall, aims to lighten their load by providing practical strategies to help students stay organized, attain their educational goals and get a good start in the world of work.

“First and foremost, we want to help our students be successful in whatever happens after graduation, whether it’s pursuing

“WE WANT TO GIVE STUDENTS A CAREER EDGE. THE WORD **EDGE** IS AN ACRONYM TO DESCRIBE FOUR DISTINCT YET RELATED PHASES OF THIS PROCESS – **E**XPLORATION, **D**EVELOPMENT, **G**RADUATION AND **E**MPLOYMENT.”



a graduate or professional degree or getting a job,” said Stephen P. Hundley, Ph.D. Chair and Professor, Department of Technology Leadership & Communication in the School of Engineering and Technology, and Associate Vice Chancellor for Strategic Initiatives, Office of the Executive Vice Chancellor & Chief Academic Officer, IUPUI.

Perhaps the most important step toward that goal is assisting students in gaining, while still in school, the proper mix of skills and practical experience to help them put their diplomas to good use. Those skills include critical thinking, speaking and writing well, problem solving, teamwork and a firm understanding of the nature of our globally connected world.

“There was a lot of input for the EDGE program from local business communities that desire graduates to be better-prepared to hit the ground and be able to succeed and compete not only in Indiana, but in any context they choose,” Hundley said.

The EDGE program is one portion of a larger effort, financed by a \$5 million Lilly Endowment grant, to improve Indiana’s economic competitiveness by enlisting the resources of the various Indiana University campuses statewide. EDGE is designed to offer a roadmap and instruction manual to help students (among other things) think about how best to gain practical experience in their fields of study via internships and other options, while also tutoring them in such vital professional skills as networking and resumé preparation.

“We want to give students a career edge,” Hundley said. “The word EDGE is an acronym to describe four distinct

yet related phases of this process – exploration, development, graduation and employment.”

The Exploration portion of the program aims to give IUPUI students – or students at any IU campus – the ability to assess their personal needs, values, interests and level of preparation, and then determine from that assessment what sorts of majors, minors and/or certificates they might want to pursue to fulfill them.

“The exploration piece really helps people even before they visit our campuses,” Hundley said. “They will get a deeper understanding of their backgrounds and the opportunities afforded to them by an IU education.”

The program’s Development piece challenges students to obtain practical, experiential learning opportunities as early as possible in their academic careers. The reason for such an approach is obvious: the earlier a student gets a real taste of the field he or she is studying for, the more marketable they will become to potential employers. Alternatively, the earlier they get real-world experience, the earlier they can decide if a career path that seemed attractive in the abstract is really the one they want to pursue.

“They’re getting those early experiential learning opportunities so they can clarify that this is the right path they’re on,” Hundley said. “We have to get those students early, so they have opportunities to get that experience, reflect on that experience, improve what they’re doing and sharpen their skills and their direction.”

The Graduation portion of the EDGE program stresses the benefits of students completing their studies in a timely manner. The Indiana Commission for Higher Education has made a point of encouraging institutions of higher learning to help their students avoid delaying graduation. There are several economic benefits to this promptness. Studies show that both starting salaries and lifetime earnings tend to be higher for those who finish on time.

“We want to stress the benefits of timely graduation,” Hundley said. “It will help them, it will help the institution. And it will help our communities and our businesses by having more college-educated employees available.”

The final “E” in EDGE stands for employment. It’s the ultimate goal of the program, and the reason it places so much emphasis on practical experience. The first four EDGE learning “modules” will be deployed across the IU system in the fall of 2015, with four more offered in 2016 and another four in 2017. These self-contained units are designed to serve as standalone programs that students can tackle independently, though optimally they can be integrated into a series of courses throughout the entire curriculum of various degree programs.

First-year courses will focus on career development and exploration – an emphasis that Dr. Kathy Johnson, Associate Vice Chancellor for Undergraduate Education, thinks extremely important. Those first-year courses will be followed up with additional modules in later academic years, culminating in capstone courses so that students concluding their studies will have a touch point with the EDGE program.

The first modules will focus on such practical topics as resumé development and gaining a better understanding of one’s personal interests and educational options. There’s also a module devoted to parallel planning – developing alternative ways to reach educational goals if a student’s first approach doesn’t pan out. Essentially how to develop a Plan B, though both Johnson and Hundley are loathe to call it that.

“The parallel planning module is really intended for students who are planning to enter very highly competitive, admission-based degree programs,” Johnson said. “Things like business, nursing, engineering, radiography. The goal of that module is to make it normal for students to not just think of only

one path to their goal. They should have at least a couple of different paths available. For example, we might have them do some research about other ways to get into nursing, or to explore other programs aligned with healthcare professions.”

The modules will also address some fairly mundane topics so that IUPUI academic counselors won’t have to. Because repeating the same information to hundreds of different students isn’t the most efficient use of their time.

“We’ve heard from a lot of advisors that they spend a great deal of time repeatedly having the same conversations with students,” Johnson said. “We’re hoping to offload some of those routinized tasks, such as how to put together a resumé, into modules that students would be expected to do before they even meet with a career advisor, so that the advisor’s time is spent more productively on personalized attention for that student.”

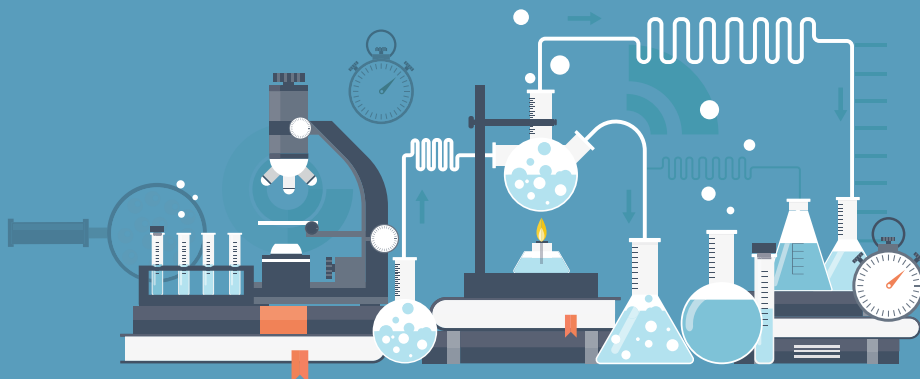
The fourth of the first four EDGE modules to be deployed this fall focuses on helping students prepare for “experiential” learning – things like internships, which will allow them to get real-world experience in their fields of study. The EDGE program’s creators believe such practical experience can’t come too early in the typical student’s college career.

“The module helps them prepare to go to a career fair, helps them to prepare their ‘elevator speech,’ helps them network with a variety of people in their sphere of influence,” Hundley said.

Within a few years, Hundley and Johnson hope that all incoming students will be able to access the EDGE program as part of their admissions and orientation process. And that a growing cadre of faculty will integrate EDGE materials into their coursework.

“I think career advisors are excited that this will be a new resource,” Johnson said. “There are similar products available commercially, but I think what’s exciting about this program is that it’s focused on our students and our degree programs on the campuses of Indiana University. Ultimately we hope that this is going to translate into more students being more successful in having internship experiences and getting placed in jobs. That, in my mind, is the most important outcome.” ■

A unique fellowship program turns students and professionals into STEM teachers, transforming both their own lives and those of the students they influence.



Life Lessons

John and Jordan Skomp could have used their scientific knowledge to land lucrative jobs with big corporations or medical facilities. After all, they both possess undergraduate chemistry degrees, which the two 25-year-olds obtained from IUPUI a couple of years ago. But instead they decided to do something more important—impart their love for science onto the newest generation of Hoosiers by becoming teachers.

They owe their career choice to The Woodrow Wilson Indiana Teaching Fellowship at IUPUI, a program designed to train and then place STEM teachers in the Indiana middle and high schools that need them most.

“I decided I wanted to go into teaching because it’s something I’ve always wanted to do,” John said. “You can make a really big difference. With kids, they’ve got their whole lives ahead of them and you can still have an influence.

They can make choices that will make a difference in their lives.”

The couple, who were married while still at IUPUI, made their own fateful career decision while still pursuing their chemistry degrees. They both decided, practically at the same time, that they wanted to be teachers. And they were both accepted at the same time by the Woodrow Wilson program.

“I had always been interested in teaching because of some of the influential teachers I had in high school,” Jordan said. “One was my chemistry teacher, which is one of the reasons I went into chemistry. I always wanted to help people and have a positive influence on them, and I felt I’d have a bigger influence on students than I would on, say, customers or patients. And I wanted a lifestyle that would put my family first, which would be teaching rather than the medical field. So that’s what I decided to do.”

The couple is wrapping up their second year as educators, she at Avon High School as a chemistry instructor, he at Cascade High School as a chemistry and physics instructor.

“I really enjoy it,” Jordan said. “I would say that my first year probably went as smoothly as it could have, and that has a lot to do with the Woodrow Wilson program.”

She endeavors to teach kids about chemistry, but on a larger scale she also wants to teach them about how to think scientifically. So she works on developing critical thinking skills, along with organization and planning, effective communication, working in groups, even how to take summarized notes.

“I think science is exciting, but I also understand that the majority of my students probably aren’t going to do something in the science field,” Jordan said. “And that’s okay. My goal is not to make more scientists per se, but to help set them up with skills that they can use long-term.”

That’s also the goal of the Princeton, New Jersey-based Woodrow Wilson National Fellowship Foundation, which seeks to infuse new talent from the



STEM fields—science, technology, engineering and mathematics—into high-need secondary schools. So far training programs have been set up in Indiana, Michigan, Ohio, New Jersey and Florida. While a portion of the participants nationwide are youngsters like the Skomps who recently completed college undergraduate degrees, a healthy percentage are professionals from other fields embarking on second careers in education.

The Fellowship strives to supercharge the way its participants learn about teaching, by emphasizing (and providing) extensive classroom experience. In 2008, Indiana, bolstered by a \$10 million Lily Endowment grant, became the first state to adopt the program, offering it at IUPUI, Purdue University, Ball State University and the University of Indianapolis.

It took a full year of prep work to figure out how to restructure the schools' current teaching programs to accommodate the Fellowship. But a bit of fortuitous timing gave IUPUI a leg up. In 2006 the school formed the Urban Center for the Advancement of STEM Education (UCASE), a joint venture between the School of Science and the School of Education to develop better STEM teacher preparation.

Only they weren't yet called STEM teachers back then. The effort was so fortuitously timed that it came online just as the STEM term was coined—and as interest in what it represented exploded nationally. Indeed, the original UCASE acronym stood for Urban Center for the Advancement of Science Education. Not surprisingly, the "Science" was quickly changed to "STEM."

Other campuses had to initiate a conversation between their science and education schools in order to assemble a Woodrow Wilson program, but at IUPUI that dialogue had already begun, thanks to UCASE. All the necessary players already had seats at the table, which eased the development of coursework for the first cohort of Fellows, who entered their classrooms in the summer of 2009.

The Woodrow Wilson Indiana Teaching Fellowship at IUPUI is a one-year Master's Degree program that prepares highly qualified applicants to become STEM teachers for Indiana students in high-need schools. Participants earn a full MS degree from IUPUI in one of three areas: MS Education from the IU School of Education, MS Math from the Purdue School of Science, or MS Technology from the Purdue School of Engineering & Technology. The program begins with an extensive summer workshop, followed by a full year of teaching in an urban setting via an Urban Teacher Residency.

"It's analogous to medical school," said Kathy Marris, Director of the Woodrow Wilson Indiana Teaching Fellowship Program and Associate Dean, School of Science. "A future physician would be prepared for the discipline by doing a clinical residency. In this case our Fellows begin in a middle school classroom on day one of the academic year, then change in January and go to a high school classroom. They get a full year of teaching experience in an urban setting."

Since working at a paying job is out of the question during such an intensive program, each Fellow receives a \$30,000 fellowship. In return they're



expected to teach three years of science, mathematics or engineering technology at a high-need Indiana secondary school. But many, if not most of the program's 300-plus graduates, plan to spend far more time than that in classrooms.

Marris said program graduates are roughly divided into two groups. The first—recent college grads moving immediately into teaching—is represented by the Skomps. Their numbers are large and growing. But more than half of the Woodrow Wilson participants are what Marris calls "encore career fellows," who started their work lives in a different field but now want to enter teaching.

"Maybe they've had a very successful career," she said. "Maybe they did something very worthwhile. But they desire to make an even bigger difference by becoming a teacher."

Sheila Pritchett, a Woodrow Wilson Fellow and teacher at Indianapolis's Arsenal Technical High School, has already put in a great deal of public service, having served in the U.S. Army from 1983 to 2003. After retiring she earned a bachelor's degree in biology. But instead of launching a private

sector career, she reconsidered a childhood ambition she'd put aside long ago—teaching.

Her interest resurfaced in the Army, where she worked as a microbiology lab technician. Five of those years were spent teaching the job to new recruits, many of whom were fresh from high school.

"There were a lot of skills that were lacking," Pritchett said. "I thought that I should go into teaching and maybe make a difference. Maybe find better ways to give them the skills they need to make it in life."

Pritchett relocated from San Antonio, Texas to Indianapolis where she worked briefly at the Richard L. Roudebush VA Medical Center and at a research building on the IUPUI campus. There that she spotted a brochure for the Woodrow Wilson program. She turned in her application just days before the deadline and was taken into the 2010 class.

Just as she hoped—and just as the program intends—she's brought both her intense, hands-on teacher training and her previous Army experience to bear on the problem of effectively educating her students.

"The main thing I took from the Army is discipline," Pritchett said. "When I grew up we had discipline in our household. And in the military I had 20 years of discipline."

She uses those resources to address some of the problems she saw as a military instructor, and still sees today as a teacher—kids who are academically unprepared to cope with the real world.

“In the military I noticed that some of the students struggled with reading,” Pritchett said. “And I’m finding that’s still true today.”

This academic year she’s overseeing three freshman study skills classes, giving her a golden opportunity to impart some much-needed life skills. And she isn’t wasting it. Among a great many other things, she’s hooked the kids up with a typing tutor so they can find their way around a computer keyboard; provided instruction on using Microsoft Office; even had them do book reports.

“I try to challenge them in every area,” Pritchett said. “I’m trying to prepare them because these kids are our future. I’m trying to give them everything I can so that they’ll be productive.”

Of course Pritchett has more on her plate than teaching study skills. She also teaches advanced, college prep-level science courses as part of Indiana Project Lead the Way, a suite of technology education courses designated by the Indiana Department of Education and available at some 300 Hoosier schools. In her case, she offers biomedical courses with serious-sounding names such as Medical Interventions and Biomedical Innovations, designed to help high schoolers move seamlessly into college-level training. Some even offer college credit.

“The biomedical sciences are for anyone who wants to go into any type of health care field,” Pritchett said. “There’s four years of it, and they can take a class beginning with their freshman year.”

She has the Woodrow Wilson program, which offers certification in Project Lead the Way, to thank for her current



post. But that’s not the Fellowship’s only special feature. It also offers an education perk that sets it apart from other programs around the country—an option for Dual Certification in Special Education. But students have to work hard for it. Fellows with the requisite desire and stamina take an additional five classes during the one-year program (along with their internships and coursework) to become dual certified.

Marrs strongly encouraged Pritchett (along with most of the other Fellows) to learn to teach Project Lead the Way.

“I’m glad I listened to her,” Pritchett said.

For her part, Marrs is happy that the Woodrow Wilson Fellowship has attracted so much attention from such a diverse pool of candidates. For instance, in a profession still dominated by women, about 40 percent of the Fellows are male. And teachers of color, often poorly represented in STEM teaching, make up between 10 and 25 percent of each new class.

Each year the Fellowship attracts more candidates than the 12 to 20 (depending on funding) that they can accommodate. Awhile back that lineup of eager pupils included a Portland-based Intel software

engineer who left her lucrative position, moved to Indianapolis, became a Fellow and is now a high school science teacher.

“I remember talking to her on the phone and asking, ‘Do you really want to do this?’” Marrs said.

Indeed she did, as have many other Fellows who think making a difference in the lives of kids is worth far more than money. The roster of their former careers is all over the map, from medicine to the military. But they all have one thing in common: a desire to help their students.

“Teaching changes your life,” Marrs said. “You are really making a difference in the lives of many children. Often these are students who just simply don’t have somebody in their life that they can count on for a good experience.”

Both John and Jordan Skomp say they became interested in science thanks to their own high school teachers. Now they, like the other Woodrow Wilson Fellows, are paying it back. John already hears from former students who’ve moved on to college, telling how they’re putting his instruction to good use. But he’s also helping kids on an even more basic level, in the same way teachers have for generations.

“I had a kid who didn’t have the best home life in the world,” he recalled. “He asked me to come to one of his soccer games and I said sure. I didn’t think it was that big of a deal, but afterward he said, ‘Thank you Mr. Skomp. I’ve never had anyone watch me play soccer.’” ■



Alumni Updates



Thomas F. Fisher, PhD, OTR, CCM, FAOTA

IU School of Health and Rehabilitation Sciences, BS, 1977

It's said that recognition by your peers is the highest form of flattery. That is certainly true for Thomas Fisher, who was recently awarded the 2014 School of Health and Rehabilitation Sciences Distinguished Alumni Award for his life's work in promoting the occupational therapy (OT) profession. A graduate of the IU OT Class of 1977, Dr. Fisher has worked tirelessly as a practitioner, educator, researcher and local/national advocate for occupational therapy. His tenure with the Indiana OT Association has overseen dramatic improvements to the OT scope of practice, including the 2014 Indiana House Bill 1045. Dr. Fisher's efforts have also been felt at the national level in the American OT Association, in which he has served various committees and an appointment as vice president. As chair of the IU Department of Occupational Therapy, Dr. Fisher has built the academic program into the top 15% of OT programs nationally; with students consistently score above the national board examination average.

James T. Burns

IU Robert H. McKinney School of Law, J.D. 1975

James T. Burns received a Distinguished Alumni Award from the IU Robert H. McKinney School of Law alumni association. A magna cum laude graduate of the law school, he currently works as senior counsel at Ice Miller LLP. Before going into private practice, he spent 28 years at Eli Lilly and Company, retiring as the company's assistant general counsel. He also served as general counsel at Elizabeth Arden, Inc., and at Elanco Products Company in New York City. He has been active as an alumnus of the school, volunteering his time to work with students. He also has been instrumental in coordinating the annual CLE program, which generates scholarship funds. Burns has been a member of law school's Board of Visitors since 1999, and has served as the board's chair.

90s

Gil Holmes

IU McKinney School of Law, J.D. 1999

Gil Holmes received a Distinguished Alumni Award from the IU Robert H. McKinney School of Law alumni association. Well before attending law school, he served in the United States Army and is a decorated veteran of the Vietnam War, retiring at the rank of Lieutenant Colonel. He also worked as director of personnel for the Indianapolis Museum of Art, Department Head for Transportation Services in the Human Resources Division at Methodist Hospital, Commissioner of the Indiana Bureau of Motor Vehicles (BMV) and Chairman of the BMV Commission, Second Vice President and Director of Facilities and Services for Corporate Procurement for Lincoln National Corporation in Fort Wayne, President and CEO for IndyGo, and Executive Director of the American Civil Liberties Union of Indiana. He also is the founder and president of Gil Holmes Associates, a management consulting firm. Holmes was honored for his career in public interest law by the IU McKinney student group Equal Justice Works in 2011. In addition he was named a Kentucky Colonel in 1989 and a Sagamore of the Wabash in 1996.

Nicole D. Harper, PhD

IU School of Informatics and Computing, BS, 1999

Nicole Harper is currently a Director of Revenue Management at St. Vincent Health in Indianapolis, Indiana covering areas including Training & Development, Process Improvement, Clinical Documentation Improvement and Case Management. Dr. Harper has over 15 years of experience in the health care field with specific focus in Health Information Management and Revenue Cycle Operations. She holds certifications as a registered Health Information Administrator, Certified Coding Specialist-Physician Office, and is certified in Clinical Documentation Improvement. She is also trained in Lean Six Sigma and Adaptive Design Methodologies.



Nicole serves on the board of the Indiana Health Information Management Association (IHIMA) as the President Elect and has enjoyed her time as an approved AHIMA Trainer for ICD-10 as well as adjunct faculty for the Health Information Technology Program at Ivy Tech, ITT Technical College, Martin University and Indiana University Purdue University Indianapolis.

00s

Jennifer Walthall

IU School of Medicine, MD, 2000

IU Richard M. Fairbanks School of Public Health, MPH, 2013

Dr. Walthall was recently named the Deputy Health Commissioner, Director for Health Outcomes in the Indiana State Department of Health. Walthall graduated from the IU School of Medicine in 2000, and is currently an Associate Professor of Emergency Medicine and Pediatrics at Indiana University School of Medicine, as well as the Division Chief for Pediatric Emergency Medicine and the Program Director for the Emergency Medicine and Pediatrics Residency at Riley Hospital for Children. After working in clinical medicine for a number of years, she applied to the IU Richard M. Fairbanks School of Public Health's graduate program, earning her Master in Public Health in 2013. Walthall believes her combination of clinical medicine and public health training made her an ideal candidate for the Deputy Commissioner position, and they will be instrumental in her success in the job.

10s

Jane Chu Ph.D. 2012

Lilly Family School of Philanthropy

Jane Chu serves as the 11th chairman of the National Endowment for the Arts, an independent agency of the federal government that has awarded more than \$4 billion to support artistic excellence, creativity and innovation for the benefit of individuals and communities.

Prior to her position at NEA, Chu served as the president and CEO of the Kauffman Center for the Performing Arts in Kansas City, Missouri, overseeing a \$413-million campaign to build the center. As the performance home of the Kansas City Ballet, Kansas City Symphony, and Lyric Opera of Kansas City, the Kauffman Center has hosted more than one million people from all 50 states and countries throughout the world since its grand opening in September 2011.

She was a fund executive at the Kauffman Fund for Kansas City from 2004 to 2006, and vice president of external relations for Union Station Kansas City from 2002 to 2004. Previously, she was vice president of community investment for the Greater Kansas City Community Foundation from 1997 to 2002. Chu also served as a trustee at William Jewell College and on the board of directors of the Ewing Marion Kauffman School and the Greater Kansas City Chamber of Commerce.

Chu was born in Shawnee, Oklahoma, but was raised in Arkadelphia, Arkansas, the daughter of Chinese immigrants. She studied music growing up, eventually receiving bachelor's degrees in piano performance and music education from Ouachita Baptist University and master's degrees in music and piano pedagogy from Southern Methodist University. Additionally, Chu holds a master's degree in business administration from Rockhurst University and a PhD in philanthropic studies from Indiana University, as well as an honorary doctorate in music from the University of Missouri-Kansas City Conservatory of Music and Dance.



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