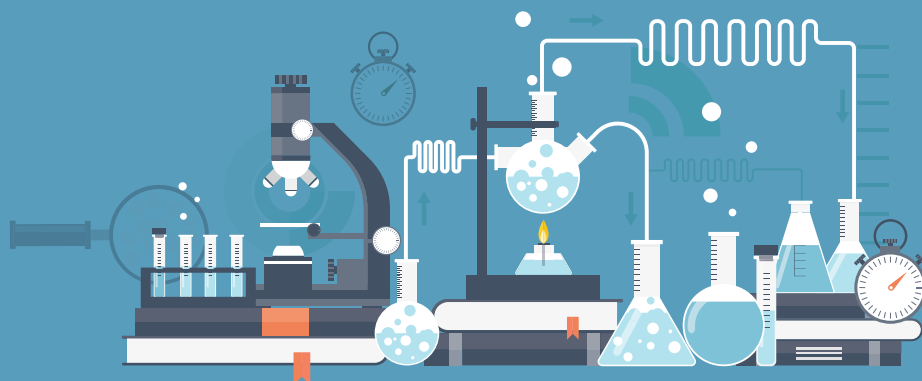


A unique fellowship program turns students and professionals into STEM teachers, transforming both their own lives and those of the students they influence.



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 were 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 Marrs, 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.

Marrs 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 Marrs 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.