What do you see as the benefits for undergraduates at Purdue from being involved in research?

I think it’s one of the most important and exciting dimensions of Purdue today that I hope will be even larger tomorrow. I have now met thousands of undergraduates, and when I ask them what is rewarding and interesting, they mention their research projects. I think, in part, because they have a hand in choosing or designing them; I think, in part, because they are working in a team; I think, in part, because of the longer-term and more in-depth nature as opposed to the weekly coursework, but I’m really struck by how central it seems to be to their overall academic experience and how memorable it seems to be. As you know, about half of our undergraduates report having at least one research experience. We believe this is significantly more than most other schools, and I want to see that number increase as fast as we can all agree to further separate us from our competition. When I ask myself how do we make certain that Purdue remains strong and attractive to great students in a world where they’ll have more and more alternatives to residential, long-term higher education as we’ve known it, I come back to research and team- and project-based learning and to the things where we believe that we are pushing out ahead of the field. The kind of experiences, learning, and preparation that I believe our students are getting in these research programs, it seems to me, will be very difficult, maybe impossible, to be duplicated in any other setting, online or otherwise.

Closely related to this, at least for many of our undergraduate researchers, is the question of entrepreneurism and the translation of learning into goods and services for the betterment of society. We made a change to give the intellectual property (IP) rights to the students for anything that their research produces. There must be a few schools somewhere that have done that, but I don’t know where they are right now. To me it only made common sense. We want to encourage the research, and we certainly want to encourage an entrepreneurial mind-set among our undergraduates, graduates, and faculty. I noticed that anytime I mention it anywhere else, people burst into applause and are surprised, so I think it’s at least unusual, if not unique. But I think it fits with the overall commitment this university has to this being a big part of everyone’s education here.
What advice would you give undergraduate researchers to be “translators” of their research so others can understand the significance of their work?

I always have stressed, long before coming here, to students, including little ones, the importance of mastering the English language. Regardless of your field of study, a facility with writing is invaluable, and sadly, too many young people today don’t have it. That’s compounded if you’re dealing with a highly complicated technical subject that your audience might be encountering for the first time. So, what does that mean? Take advantage, absolutely, of opportunities to write in English and to partake in our communication courses here. I recently spoke of this to the new graduates at commencement. I talked about technologists and engineers who can explain things and liberal arts graduates who grasp enough that they can help explain things. This is so important because science and technology are driving so many more outcomes in this world than before. There is an enormous premium on people who can help others understand what’s going on, understand trade-offs, the pros and the cons. It’s very easy, for instance, for people to go out and alarm somebody about the risks or dangers of science, real or fictional. So people who do understand and who, through research, are leading the growth of knowledge, and then can help people put these things in perspective and see all the upsides, are going to be the most important citizens that we have.

Purdue undergraduates go on to be leaders in the world in all fields. How do you see Purdue’s undergraduate research impacting the community, state, nation, world, and beyond?

I think it’s astonishing how advanced much of the research is. I spent some time at the Undergraduate Research Poster Symposium, and they had to drag me out of there because every poster was fascinating, and for many of them, I needed someone to walk me through so I would have even a rudimentary sense of what had been learned and what its applications might be. So, again, back to the IP policy, some of these research projects can have an immediate impact, but all of them will be useful in terms of the better education for the individuals who do the work. A lot of this research has the possibility to translate immediately into new goods, services, and jobs for a better society, so my attitude is to make that as likely and easy as possible.

What is it like to be president of an R1 research institution with state-of-the-art facilities, renowned professors, and driven students?

It’s just thrilling, really. When I say, and I mean it, that I can’t think of another university in which I would have been interested in this job, the reason is that I saw Purdue as such a unique opportunity that is very much bound up in the topic we are discussing. To be at the forefront of knowledge (particularly, though not exclusively, in the science and technological disciplines) and to be offering a uniquely rigorous and rounded education—with research being part of the rounding and part of the rigor—meant that I could not resist the chance to come help if I could.

What is your vision for continuing to recognize undergraduate research and increase that number so more students can have research opportunities?

As all of these comments surely imply, I want to do all we can, first to encourage us as an academic community to get as close to 100% as possible. I don’t know why we shouldn’t embrace, as a fairly near-term goal, that every student undertake at least one project while here. In terms of encouraging it, make me an offer—I’m ready. It is such a point of pride for our school and so important in maintaining Purdue as a place where outstanding students will want to come and see value in that they can’t find anywhere else.

Are there any last thoughts you would like to share with JPUR readers?

Congratulations on reading JPUR, this outstanding publication. Your choosing to do so shows that you also understand how exciting and distinctive this feature of a Purdue education is, and I hope you will join me in encouraging students you know to take advantage of it and that you’ll let us know other ways that we, as a university, might foster it and enhance it.


Interviewer

Elizabeth Hudson is a 2013 graduate from the College of Liberal Arts where she studied professional writing and American studies. She has served as the journal coordinator for this volume of JPUR, a business writing consultant in the Purdue Writing Lab, and a resident assistant in Shreve Hall. Hudson is currently pursuing a career in editing or writing.