Measuring PRISE's Success

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When I sat down to figure out what I was going to say in these remarks, I found myself struggling. How can I possibly describe all that PRISE has given me since the start of that first summer in 2006? Luckily, however, economics provides a simple solution to just this sort of problem: When you can't describe something well, you should just quantify it!

PRISE gave me three fantastic summers (first as a PRISE fellow, then as a program assistant, and then as "head tutor" for the inaugural PRIMO class). PRISE supported my first work with Noam Elkies, who ended up being my advisor all throughout college, and is now my frequent collaborator and close friend. That alone is pretty significant—but it's not *statistically* significant. I needed more data!

I went to Facebook to try and enumerate all my friendships that started at PRISE—and then eventually gave up when the number cleared 50. I cross-referenced that subsample with the set of articles I've read recently, and realized that I follow at least eight fields of science that I only know about because of my PRISE classmates.

Conclusion: The empirical evidence clearly suggests that for me, PRISE has been a huge success. That said, I should be a bit more rigorous, somehow: How can we measure PRISE's success more generally?

One natural option is to look at PRISE's long-term impacts. Without access to Greg's large-scale survey, I had to do my own straw poll. But the preliminary results look great:

- Charlie Nathanson, who studied housing price dynamics at PRISE and was the closing dinner speaker my year, later stayed at Harvard to pursue a PhD in the same area (with the same advisor!), and is now a professor at Northwestern University. That's about as linear a success story as you could have: PRISE jump-started the research work that Charlie continues to this day.
- Stella Lee has a similar success story. She conducted biophysics research at PRISE, and went on to have her PRISE mentor advise her undergraduate thesis. She then completed the Harvard–MIT joint program in Health Sciences and Technology, and is now an orthopedic surgery resident at MGH.
- Isabel Vogt worked on "non-enzymatic and ribozyme-catalyzed primer extension" during PRISE 2011. She loves research—and has remained a researcher—but has switched fields since PRISE: She is now a math PhD student at MIT, studying arithmetic geometry.

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- And that's a huge success for PRISE. The program helped Isabel explore different STEM fields—and eventually become a researcher.
- And finally, there are students like Michael Segal. Michael was my roommate during PRISE 2006; he studied "complex mechanisms of genetic regulation." He later got into venture capital, and spent time as an entrepreneur and product manager. In my view, Michael's outcome is a PRISE success, as well. PRISE was an integral step in Michael's career path, helping him realize that his preferred vector of impact is through business, rather than research. Michael is currently in Silicon Valley, backing young tech companies that are changing how we live our daily lives.

So: The within-student longitudinal data suggests that PRISE is a huge success. The "macro" growth trend data support this finding, too. In the years since PRISE 2006, undergraduate research at Harvard has expanded tremendously and—one might even say—taken over. Leverett House turns into a research village over the summer, with not only "research in science and engineering," but also "social sciences" (BLISS), "markets and organizations" (PRIMO), and "humanities and arts" (SHARP). We owe much of this growth, of course, to Greg Llacer, who spearheaded PRISE from the beginning and now runs Harvard's Office of Undergraduate Research and Fellowships. (Greg is truly a force of nature—almost every time I talk with him, I learn about some other major career or honor he's held—and his energy is completely inexhaustible. From all the classes of all the programs: Thanks, Greg! We're so lucky to have you at the helm.)

But now, do you know what I think is in some sense the greatest indicator of PRISE's success? More than a macro trend, it's a culture shift: At Harvard these days, undergraduate research feels normal. Five years ago, I would often have to suggest summer research to students as an option; now, the students I advise almost always suggest it themselves. There's of course selection bias, but for the students I work with the question is not "Should I do PRISE (or BLISS, or PRIMO, or SHARP)?"—but instead, "Which summer?"

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