



## Meet Dr. Maura Borrego

Deputy Editor, *Journal of Engineering Education*

Maura specializes in engineering education research. She has been awarded National Science Foundation grants to study factors that support successful transfer of Hispanic engineering students from two-year to four-year institutions, engineering undergraduate student resistance to active learning, how engineering instructors make decisions about their teaching, learning in graduate engineering research groups, interdisciplinary education and teamwork.

Maura is a member of the Graduate Studies Committee for STEM Education and holds an appointment in Curriculum & Instruction. She previously served as a Program Director at the National Science Foundation and an associate dean and director of interdisciplinary graduate programs. Her research awards include U.S. Presidential Early Career Award for Scientists and Engineers (PECASE), a National Science Foundation CAREER award, and two outstanding publication awards from the American Educational Research Association for her journal articles.

Maura is Deputy Editor for *Journal of Engineering Education* and serves on the board of the American Society for Engineering Education as Chair of Professional Interest Council IV. All of her degrees are in Materials Science and Engineering. Her M.S. and Ph.D. are from Stanford University, and her B.S. is from University of Wisconsin-Madison.



## We asked Maura

### How or why did you choose Engineering as a career path / area of study?

*I liked math and science and am a practical person. Solving problems using engineering really suits my personality and interests.*

### What inspires you about Engineering?

*Engineering is great training for solving all kinds of problems. There are lots of jobs in engineering where you can help people, the environment, etc. Or with an engineering degree you can move into other professions and be very successful using the critical thinking and teamwork skills that an engineering degree affords.*

### What challenges do women face in the Engineering professions / academia?

*"The local context in which you are working makes a big difference. If there are a lot of women, it's easier to value the types of leadership and skills women bring, and to be sensitive to work-life balance. But I have also worked in engineering settings where there are not too many women but my colleagues are still very supportive."*

### What is the ratio of female to male in your workplace / faculty?

*In my academic department, the proportion of women is smaller among the faculty than among students (which is around 30%). The higher you go up the rank, the fewer women there are who have the level of education and experience to qualify for the positions, but that is slowly changing*

### What is the most exciting thing about your job?

*I do engineering education research because I want engineering students to have a better experience than I had. So I love working on research with my graduate and undergraduate students and seeing other students in class.*

### What does a typical day in your job involve?

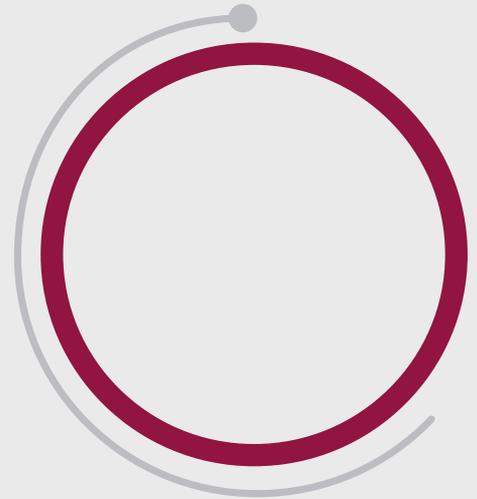
*There's no such thing! I spend some time teaching and preparing for class, but I also supervise my students in their research (lots of meeting and reading over their work), writing proposals to launch more research projects, and service work like my Deputy Editor job with Wiley's *Journal of Engineering Education*.*

### What would you say to girls in school / college who may be considering Engineering as a career choice / study option?

*Engineering is so much broader than what you've heard about it! There's a fairly narrow set of engineering activities that we do with K-12 students to teach them a little about what engineering is. But it's so much more. Engineering doesn't happen in a bubble; engineers are involved in all sectors of our economy and central to solving all kinds of problems*

### Do you think the perception of Engineering as a male-dominated career can be changed, and if so, how?

*All of us need to become more aware of all the ways that engineering is based on masculine ways of working. Young engineers in the US who are more competitive, take more risks, and are more focused on their individual success do well in engineering and reproduces the perception that engineering is male-dominated. We need ways to break this down and make more visible some of the alternative traits such as cooperation and coordination that are important to the success of projects but not always rewarded in our current engineering work settings.*



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#inspirationalengineers

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