



Editorial

In this issue of GST there are five papers and a book review, all of which focus in different ways on the attraction and retention of women into STEM. The papers cover a wide geographical spectrum, from Bangladesh, to Germany, the United States and Canada.

In the first paper *Gender Competitiveness and Intentions to Pursue STEM Fields* authors [Riegle-Crumb, Peng and Buontempo](#) examine whether and how a preference for competition is related to gendered patterns of future STEM expectations among a sample of U.S. high school students. Results of regression analyses reveal that female students' relatively lower preference for competition (compared to male students) significantly contributes to their lower expectation of majoring in two historically male-dominated fields, physical science and engineering. Additional results revealed an interaction between gender and competitiveness for expectations to major in computer science, such that while girls' expectations significantly increase with their level of competitiveness, boys' decisions to pursue computer science are unrelated to their preference for competition.

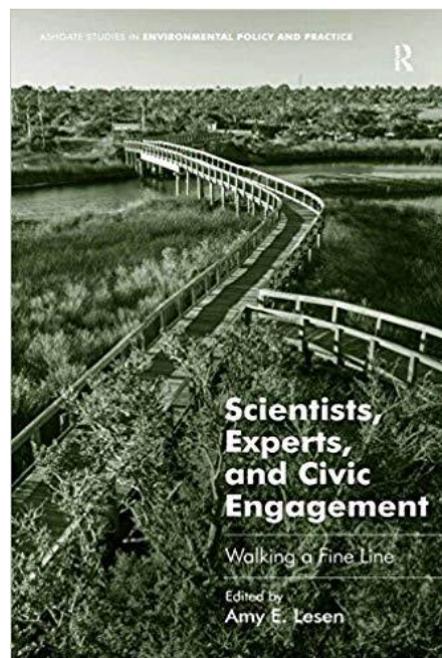
The next paper, *Applying a Gender Lens to the Predictors of High-tech Career Intentions among Engineering Students in Bangladesh*, by [Saifuddin, Dyke and Rasouli](#), reports on research with engineering undergraduate students in Dhaka, Bangladesh, which suggests that both female and male students were attracted to high-tech when they viewed it as a challenging career. Gender role stereotypes also, however, influenced the career intentions of both women and men and they observe that the gendering of high-tech work influenced both women and men. The results contradict previous findings that female students perceive high-tech work as boring, uncool, and nerdy but support previous findings on the negative effect of gender stereotyping.

[Hughes and Roberts](#) paper *The Role of STEM Self-Efficacy on STEM Identity for Middle School Girls after Participation in a Single-Sex Informal STEM Education Program*, focuses on the role that an informal STEM education camp in the United States has on middle school girls' STEM identity. The authors conducted a linear regression and hierarchical linear modeling analysis to determine the role that the program had on 145 female participants. The results indicate that a crucial component to STEM identity is girls' levels of openness to challenge. The study indicates that informal STEM education programs should provide students with chances to be challenged in a way where they see these challenges as opportunities to grow rather than opportunities to fail

In *It's What You Call It: Gendered Framing and Women's and Men's Interest in a Robotics Instruction Task*, [Morton, Kmec and Taylor](#) consider how the context of robotics activities might impact men's and women's perceptions of robotics tasks. Their study is a survey experiment of 132 men and women focusing on a robotics instruction task scenario, differently described as feminine (teaching the robot), masculine (programming the robot), or gender neutral (training the robot). They found that women are more interested in most of the robotics instruction tasks than are men, and that framing the robotics instruction task scenarios as feminine produces worse outcomes for women. They also conclude that both men and women who think instructing robots to perform tasks is beneficial to society are significantly more likely to have interest in the robotics tasks, thus challenging the idea that women are necessarily more motivated by the social impact of technology.

The final paper, *Selective Incivility, Harassment, and Discrimination in Canadian Sciences & Engineering: A Sociological Approach*, by [Dengate, Peter and Farenhorst](#), is a sociological examination of harassment and discrimination amongst STEM faculty from 12 Canadian universities; asking if female (and racialized female faculty in particular) are more likely to experience mistreatment at work than their white, male colleagues. Analyses of survey data indicated that women were significantly more likely to be mistreated by their co-workers and students than male faculty. Moreover, harassment and discrimination were associated with greater professional marginalization for women, including delayed advancement. They found mixed evidence with respect to race: racialized women reported less co-worker and student mistreatment than their white female counterparts, but these results were only marginally significant; and racialized men reported significantly more harassment and discrimination than white men.

The issue concludes with a book review of [Scientists, Experts, and Civic Engagement: Walking a Fine Line](#) by [Martha McCaughey](#)



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