Challenging the Under-representation of women in mathematics: The York Tensor Scholars Program.

Research shows that not belonging is a prevalent theme among undergraduate students of mathematics (Solomon, 2007) especially members of underrepresented groups such as women who, because of social and historical realities, may struggle to build a mathematics identity (Walkerdine, 1998). Yet, supportive environments can counter such realities (Oswald & Harvey, 2001). The York Tensor Scholars Program, funded by the MAA and AAUW, is a mathematics circle for undergraduate students aiming to (1) increase the enthusiasm, confidence, and performance in mathematics of women (2) develop peer support and (3) challenge traditional perceptions of mathematicians while directing students to graduate programs/ professions in mathematics. Students attend monthly talks given primarily by female mathematicians and later meet with the speaker in a social setting. I discuss the program and results from a research study exploring the effect of participation on students. Results show a broadening of students’ definition of mathematics and while many students express an initial discomfort in attending social gatherings fearing they will have nothing in common with the mathematicians, results show a shift in such views for the better. (Received September 17, 2013)