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Sandra Laursen* (sandra.laursen@colorado.edu) and **Marja-Liisa Hassi**. *Leveling the Playing Field: Benefits for Women of Inquiry-Based Approaches in the Undergraduate Mathematics Classroom.*

Programs to mentor women mathematics students often identify women who demonstrate interest and talent for mathematics based on their performance in coursework. Yet traditional teaching approaches are known to disproportionately discourage women from pursuing further study of mathematics—filtering out women with high mathematics potential before they have opportunities for individual mentoring. We will share evidence from a large, mixed-methods study of inquiry-based learning (IBL) in college mathematics courses that suggests that IBL approaches can foster women’s success. Students from IBL courses reported higher gains on self-report measures of cognitive, affective, and collaborative growth than did their peers in lecture-based courses. Yet the results show a substantial gender gap: while women reported significantly lower gains from lecture-based courses than did their male classmates, those taking IBL courses reported gains equal to their male classmates. Thus inquiry-based courses appear to close the gender gap in student gains and level the playing field for women. We will draw on other data from our study and on the literature on stereotype threat to explore reasons for this positive effect of IBL courses for women. (Received September 25, 2012)