Betty Mayfield* (mayfield@hood.edu), Dept. of Mathematics and Computer Science, Hood College, 401 Rosemont Ave., Frederick, MD 21701, and Kerry J Strand (strand@hood.edu), Dept of Sociology and Social Work, Hood College, 401 Rosemont Ave, Frederick, MD 21701. The effect of unconventional teaching strategies on college women’s attitudes and persistence in mathematics.

Significant gender differences persist in the election of mathematics courses and math-related majors in college. Recent research suggests that part of the blame lies with conventional pedagogical approaches and that alternative approaches – emphasizing practical applications, collaborative problem-solving, and group work – make mathematics more understandable and appealing to all students, particularly women. By means of questionnaires administered to 355 traditional-age female college students, we examine the relationship between alternative teaching strategies in high school math classes and two categories of outcome variables: math-related attitudes and math-persistence in college. Multivariate analysis shows that experience with “female-friendly” pedagogy is positively related to students’ math-related attitudes and that these attitudes predict math-persistence in college. However, our data also indicate that alternative teaching strategies have no discernible direct effect on students’ choices of mathematics courses or of math-related majors in college. (Received October 02, 2000)