Laurie Lenz* (Laurie.Lenz@marymount.edu), 2807 N. Glebe Road, Arlington, VA 22207. Online homework systems and student outcomes: Results of a two year study. Preliminary report.

Marymount University is a small, private, liberal arts college located in Arlington, VA. The mathematics department at Marymount offers two remedial algebra courses in addition to a variety of college level classes that satisfy the liberal arts core mathematics requirement. Historically, students taking these courses have a very high rate of failure. We are constantly searching for new ways to help these students succeed, and many instructors have expressed interest in, or are already using, automated online homework systems. These systems include instant feedback, immediate assistance with problems, and unlimited attempts at solving each type of problem. We wanted to investigate the effect, if any, of these systems on the success rates of students using them. In 2005 and 2006 we recruited several faculty members teaching the remedial and core courses for participation in a study using the online homework system that is operated by Pearson/Addison-Wesley as a supplement to its textbooks. We taught several sections using traditional textbook homework and the remainder of the sections using the online system. We collected and compared data on the homework, as well as the final grades, for the students in all sections. We will present our analysis of this data at the Joint Meetings. (Received September 16, 2007)