

1077-D5-1201 **Brandon Milonovich*** (bamilono@syr.edu). *Exploring regressions through Geometer's Sketchpad and Microsoft Excel*. Preliminary report.

Students often have difficulty in understanding what a regression is, especially once students are taught more complicated regressions beyond that of the linear nature. The scope of this lesson can be modified for most grade levels, including lower level undergraduate courses. Students begin by exploring their own environment to find a line or curve to fit and will work through the lesson working with real world data and making immediate sense of the mathematics involved. Students begin with a very simple example demonstrated by the teacher and move to finding their own examples in linear and quadratic regressions, and eventually aim to discover more complicated approaches and curves. By working hands on with dynamic software, students can develop a personal connection to the mathematics they are doing which research shows to help develop better connections between concepts and allows learning to have more depth, and be maintained for a much longer period of time. (Received September 17, 2011)