

1116-Q5-1627      **Sepideh Stewart\*** (sstewart@math.ou.edu), 601 Elm Ave, Norman, OK 73019, and **Stacy Reeder** (reeder@ou.edu), 820 Van Vleet Oval, Norman, OK 73019. *Investigating calculus students' struggles with algebra*. Preliminary report.

For several years, the US has been steadily falling behind many other industrialized nations in terms of the production of STEM graduates. Students who lack a solid understanding of high school Algebra tend to struggle in college level courses and may subsequently be deterred from pursuing STEM field degrees. College instructors within STEM fields may rightfully view the mathematics that follows the initial step(s) in their higher level courses as “just Algebra”, but in reality, this missing foundation may be the downfall for many college students. In this research, a team of mathematics educators, mathematicians, teacher trainers, high school teachers, cognitive psychologists and mathematics graduate students are committed to bring the matter under scrutiny. The purpose of this project is to identify common algebraic errors students make in college level mathematics courses that plague their ability to succeed in higher level mathematics. The identification of these common errors will aid in the creation of a model for intervention. The findings of this investigation will inform university level mathematics instructors on ways to support student algebraic understanding for success in courses such as Calculus. (Received September 20, 2015)