

1086-N1-676

Jessica Ellis* (ellis3@rohan.sdsu.edu) and **Chris Rasmussen**. *Students' Differing Experiences in Calculus I*.

The number of students completing degrees in STEM continues to fall short of the demand for workers in these fields and hence is a national problem of great importance. Not only are too few students pursuing STEM fields, but also many who originally intend to pursue these fields leave after their experiences in introductory STEM courses. Based on data gathered in a national survey, we present an analysis of 5381 STEM intending students enrolled in introductory Calculus in Fall 2010, over 12% of whom switched out of a STEM trajectory after their experience in Calculus I. When asked why these students no longer intended to continue taking Calculus (an indicator of continuing their pursuit of a STEM major), 31.4% cited their negative experience in Calculus I as a contributing factor. In order to better understand the nature of students' classroom experience in Calculus I, we analyze student and their instructor survey responses on various aspects of their classroom experience in Calculus I (e.g. time spent lecturing, working in small groups, using technology, etc.). The analysis focuses on how students' perceptions of their Calculus I instruction relate to their persistence in Calculus, using the instructor's description of the class as basis for this comparison. (Received September 10, 2012)