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**Chris Rasmussen\***, San Diego State University. *Who chooses not to persist in Calculus and why?*

The transition from high school to college mathematics is one of the most critical junctures in the preparation of individuals to meet the mathematical demands of the 21st century in science, technology, engineering, and mathematics (STEM). Even while more students are taking more advanced mathematics in high school than ever before—including over half a million each year who study calculus while in high school—the percentage of all college students in 4-year undergraduate programs who are enrolled in mathematics at the level of calculus or above has decreased steadily over the past decades. Moreover, a substantial percentage of students who enroll in Calculus I intending to take more Calculus end of deciding not to continue in Calculus. This represents a huge loss to the nation in terms of the need for more students to pursue a major in one of the STEM disciplines. In this presentation I examine the characteristics of STEM intending students who begin their post secondary studies with Calculus I and either persist or switch out of the Calculus sequence, and hence either remain or leave the STEM pipeline. The data used for this analysis comes from a unique, in depth national survey aimed at identifying characteristics of successful programs in college Calculus. (Received April 10, 2012)