

1125-N1-2310 **Rachel Elizabeth Keller*** (rakeller@vt.edu) and **Estrella Johnson**. *Student support resources in first-year mathematics: Are they helping?*

The PCAST report has identified a critical shortage of STEM graduates and cited poor experiences in Calculus as a major factor in attrition of STEM-intending students. The present research reports trends in the pass rate across the introductory sequence (Precalculus, Calculus I, Calculus II) and investigates the viability of various student supports and resources with regard to reducing the rate of students who fail or withdraw. Using data collected from the NSF-funded Pathways Through Calculus project (DUE #1430540), the following research questions are investigated: Is there a relationship between robustness of support and pass rate? Can any relationships be identified between specific types of support and pass rate? Are these relationships invariant across institution types (i.e. MA versus PhD)? Preliminary results indicate that the quantity of available student supports and resources is uncorrelated with pass rate; however, when particular supports were considered individually, some significant relationships were seen. Of particular interest was the increase in pass rate by schools offering Calculus I in a differentiated format (i.e. some combination of Engineering Calculus, Elongated Calculus w/Precalculus, Calculus for non-Math majors, Honors Calculus, etc.). (Received September 20, 2016)