Each year, 33% of students enrolling at 4-year institutions are placed into remedial non-credit bearing (NCBR) mathematics courses. National data has shown these students are significantly less likely to persist in STEM majors and significantly less likely to complete a college degree. In response to promising data from other states, the California State University system is eliminating all NCBR mathematics courses beginning in Fall 2018 and placing students directly into supported credit-bearing courses. In this study, we investigate the impacts of both models on student attitudes toward mathematics and student persistence in STEM. We follow two cohorts of STEM-intending students through their freshman year, with one cohort consisting of students placed into NCBR mathematics courses and the other cohort consisting of students placed into supported credit-bearing courses. In this talk, we present preliminary findings from interviews with our first cohort, including students’ perceptions of their placement and the value of their NCBR course, as well as the impact of the course on students’ beliefs about their own mathematics ability. (Received February 03, 2018)