Jacksonville State University redesigned its developmental mathematics program from assessment based on a high stakes placement score into a placement “path” that uses a personalized learning plan to guide students in obtaining the math skills they need. At orientation, students take an online assessment using EdReady, an open source project sponsored by the Gates Foundation, the Hewlett Foundation, and member organizations. If the assessment identifies deficiencies, online learning materials are provided that have been designed specifically for JSU’s courses. Students who are unable to complete the process independently enroll in a course that provides instruction, tutoring and continued assessment of the students’ progress. The program was initiated in Fall 2015 with a control group placed by a traditional standardized test. Students placed by EdReady were significantly more likely to pass their subsequent math classes with grades of C or better. The results were especially pronounced for STEM majors. They were also significantly less likely to fail, to withdraw from class or to receive grades of incomplete. This presentation describes the process of changing the university culture of high stakes placement testing and offers evidence for a successful, low cost alternative. (Received September 15, 2016)