1135-VA-632 **Alison Reddy*** (ared@illinois.edu), 1409 W. Greeen Street, Department of Mathematics, Urbana, IL 61801. *Predictive Analytics and Intangibles: Using data to improve student success and retention rates in core mathematics courses.* Preliminary report.

Students arrive at the University of Illinois with diverse mathematical backgrounds, and diverse mathematical and psychosocial identities. In 2007 the Department of Mathematics at Illinois implemented a new placement program and the use of predictive analytics to improve success in core mathematics courses and to improve retention rates in the STEM disciplines and on campus in general. Data is also collected to identify to what extent tangible and intangible characteristics and / or commonalities help or hinder student success and retention. The qualitative and quantitative evaluation of student data can be used for (1) improving what we measure and why, (2) targeted support for students (holistic and intrusive advising, mentors, tutors, workshops, support programs), (3) planning for personnel needs (academic advisors, mentors, tutors, workshop presenters, other support staff) for students, and (4) the continuation and future development of services for student success, retain and improved pathways to graduation. Collected data will be shared. (Received September 11, 2017)