1135-N1-777 **Beth Chance*** (bchance@calpoly.edu), **Nathan Tintle** and **Stephanie Mendoza** (stephanie.2014@yahoo.com). *Student Gains in Conceptual Understanding in Introductory Statistics With and Without a Curriculum Focused on Simulation-Based Inference.*

Using "simulation-based inference" (SBI) such as randomization tests as the primary vehicle for introducing students to the logic and scope of statistical inference has been advocated with the potential of improving student understanding of statistical inference, as well as the statistical investigative process as a whole. Moving beyond the individual class activity, entirely revised introductory statistics curricula centering on these ideas have been developed and tested. In this presentation we will discuss three years of cross-institutional tertiary-level data in the United States comparing SBI-focused curricula and non-SBI curricula (roughly 15,000 students). We examine several pre/post measures of conceptual understanding and student attitudes in the introductory algebra-based course, using hierarchical modelling to incorporate student-level, instructor-level, and institutional-level covariates. (Received September 17, 2017)