1135-AE-2965   **Nathan Tintle*** (`nathan.tintle@dordt.edu`), 498 4th Ave NE, Department of Mathematics and Statistics, Sioux Center, IA 51250. *Broadening the impact and evaluating the effectiveness of simulation-based curricula for introductory statistics.*

The demands for a statistically literate society are increasing, and the introductory statistics course "Stat 101" remains the primary venue for learning statistics for the majority of high school and undergraduate students. Our group has developed and implemented one of the first cohesive curricula that (a) emphasizes the core logic of inference using simulation-based methods in an intuitive, cyclical, active-learning pedagogy, and (b) emphasizes the overall process of statistical investigations, from asking questions and collecting data through making inferences and drawing conclusions. In this talk, I will highlight two primary efforts taken over the last five years as part of an NSF-funded project. First, we have been working to expand implementations of simulation-based curricula for introductory statistics by (a) conducting a series of professional development workshops involving hundreds of instructors, and (b) developing and supporting an online learning community, which have provided free resources to hundreds more. Second, we are evaluating students' attitudes, conceptual understanding, and learning trajectories in simulation-based curricula through a large scale, multi-site assessment project involving over 10,000 students and 200 instructors. (Received September 26, 2017)