1135-G1-733 **Cynthia Oropesa Anhalt*** (canhalt@math.arizona.edu) and **Ricardo Cortez** (rcortez@tulane.edu). *A Report on Prospective Teachers' Development of Content Knowledge in Mathematical Modeling and the Use of Reflections to Promote the Emergence of Mathematical Knowledge for Teaching.*

Recent infusion of mathematical modeling in k-12 has generated research and teacher preparation activity to understand the modeling process as content and to develop mathematical knowledge for teaching (MKT) modeling. For mathematics majors in teacher preparation programs, this new activity is aligned with CUPM (2015) cognitive and content modeling recommendations. Given that most prospective teachers (PTs) are not familiar with mathematical modeling, there is an urgent need to design ways for them to simultaneously develop modeling content knowledge and MKT. This presentation focuses on PTs' development of specific modeling competencies that indicate both the possession of content knowledge and the practice of "modeling thinking" as a cognitive goal for PTs to develop MKT. We report on the implementation of a mathematical modeling module in secondary teacher preparation courses that emphasizes multiple solution paths to open-ended problems and assumption making to develop modeling competencies combined with reflections on teaching. We will present results from studies with PTs using theoretical frameworks for MKT (Ball, Thames, and Phelps 2008, Journal of Teacher Education, 59(5), 389-407) and competencies (Maaß 2006, ZDM, 38(2), 113-142). (Received September 13, 2017)