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Rebecca McGraw*, 1700 N Indigo Dr, Tucson, AZ 85745. *Aspects of covariational reasoning and related thinking in the work of pre-service middle/high school teachers.*

Reasoning about functions and function relationships across representations and contexts remains central to both high school and college mathematics. Researchers have found that difficulties with particular aspects of this content, namely challenges with constructing and interpreting graphs, can create obstacles to success across STEM fields (Oehrtman, Carlson, & Thompson, 2008). In this talk, I will focus on the work of several undergraduate students who were preparing to become middle/high school teachers at the time of the study. These students completed multiple problems that were designed specifically to elicit thinking about key ideas (e.g., how changes in speed of a variable in motion are reflected in the shape of the graph). Based on my analysis of this data, I will discuss relationships between future teachers' mathematical thinking and aspects of their emerging MKT in this content area. I will also suggest avenues for further research as indicated by my own work and the current state of MKT research in this subarea. (Received September 08, 2020)