1158-97-292   **Mario Banuelos*** (`mbanuelos22@csufresno.edu`). *Investigating Resampling Methods in Upper Division Math Courses.*

In the context of supervised learning, researchers rely on a variety of practices to validate models. Resampling methods provide a means to assess trained models' performance on unseen data, known as testing data. Rather than providing a set of procedures for students to follow after training their models, students will investigate the effects of different validation metrics with respect to model testing. Specifically, I will discuss two different collaborative approaches in upper division math courses to explore validation set splits and bootstrapping data. Students explore the fraction of testing and training splits in regression problems and how that affects the test mean squared error. For the bootstrap activity, students work in groups to answer specific questions about calculating standard errors for linear regression estimates. Both activities are implemented in RStudio and overall student feedback will also be discussed. (Received March 03, 2020)