

## Fixed, Random, and Mixed Effects: Modern Approaches to Dealing with Nested, Clustered, Panel, and Longitudinal Data

## Dr. John Poe

Postdoctoral Scholar, Center for Public Health Services and Systems Research University of Kentucky

Researchers often get contradictory advice from professors, colleagues, reviewers, and textbooks on how to deal with clustering across time and space. Economists argue strongly for "fixed effects" models. Psychologists and statisticians more typically push for "mixed effects" models. Most applied researchers in the social sciences are told to use a Hausman test to decide between fixed and random effects. This is complicated by the fact that different disciplines, articles, and books use very different terminology and notation to describe models. This lecture will walk participants through the basic problems of clustered data and translate the solutions from economics. psychology, and statistics into a common language. We will focus on how to make practical decisions on model choices for linear and nonlinear models, what problems can crop up, and how to describe/justify your methods to different audiences.



- Friday November 2, 2018 2-4pm
  - Social Science Research Commons Grand Hall Woodburn Hall 200

p go.iu.edu/wim