

Description of Multilevel Modeling Workshop

University of Kentucky, May 23-25, 2011

The goals of the MLM workshop are: (1) to highlight the core theoretical and statistical issues that accompany multilevel and hierarchical data; (2) to emphasize the unique substantive opportunities that accompany the multilevel modeling framework; (3) to introduce and secure an understanding of the range of different models that fall under the multilevel modeling umbrella. The class will cover topics such as unobserved heterogeneity; complete pooling, partial pooling and no pooling modeling approaches to multilevel data; the simple "variance components" model; the random intercept (aka, "random effects") model; substantive and statistical issues surrounding fixed versus random effects models; modeling causal heterogeneity via the random coefficient model; cross-level interactions; multilevel modeling applications to time-series cross-sectional and panel data; and beyond. The workshop will focus on linear models as well as nonlinear models for binary, ordinal, nominal, and other non-continuous dependent variables. For each model discussed, a special focus will be placed on interpretation of effects, assessing goodness of fit, model comparison, and generating post-estimation quantities of interest for richer substantive interpretation. The workshop will feature extensive use of applied data examples and will expose workshop participants to the full suite of commands available in Stata software for estimating multilevel models. Comparisons to additional software packages will be explored and discussed.