This workshop covers the problem of missing data that is common to social science research. Topics include patterns and mechanisms of missing data as well as conventional and modern missing data treatments, focusing particularly on the use of maximum likelihood and multiple imputation. Missing data treatments will be applied to various statistical models, such as multiple regression and factor analysis. Workshop participants will learn when a given missing data treatment is suitable and how such methods can be implemented using Mplus software. No previous experience with Mplus is necessary.

Day 1:
Topics include (a) goals of missing data analysis; (b) missing data mechanisms; (c) traditional, but often problematic, missing data treatments, (d) introduction to maximum likelihood estimation, and (e) using Mplus to implement maximum likelihood treatment of missing data.

Day 2:
Topics include (a) incorporating auxiliary variables into missing data analysis, (b) handling non-normality with maximum likelihood estimation, and (c) implementing maximum likelihood treatment of missing data with categorical variables. Each of these topics will be integrated with the use of Mplus.

Day 3:
Topics include (a) a preview of multiple imputation, (b) an introduction to Bayes estimation, and (c) multiple imputation.

Day 4:
Topics include (a) implementing multiple imputation with Mplus, and if time allows (b) an introduction to missing data treatments when data are missing not at random.