# Workshop in Methods

Social Science Research Commons
Karl F. Schuessler Institute for Social Research

# Reproducible Results and the Workflow of Data Analysis

## Dr. J. Scott Long

Distinguished Professor and Chancellor's Professor of Sociology and Statistics, Indiana University

Many disciplines are paying increasing attention to reproducible results. The fundamental idea is that other scientists should have access to your data and be able to obtain the same results—this is reproducibility. More generally, your results should be robust so that other scientists can confirm your findings using other data. Increasingly journals require authors to provide their data and analysis file before a paper is accepted to verify that that results. Producing reproducible results is highly dependent on your workflow for data analysis. This workflow encompasses the entire process of scientific research: Planning, documenting, and organizing your work; creating, labeling, naming, and verifying variables; performing and presenting statistical analyses; preserving your work; and ending with reproducible results. Most of the work in statistics classes focuses on estimating and interpreting models. In "real world" research projects, these activities may involve less than 10% of the total work. Professor Long's talk is about the other 90% of the work. An efficient workflow saves time, introduces greater reliability into the steps of the analysis, and generates reproducible results.

## Friday, August 26, 2016, 1-2:30pm

Social Science Research Commons Grand Hall, Woodburn Hall 200

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