Development projects never occur in a vacuum; other aspects of the socio-economic, political and ecological environment are simultaneously changing, and could actually be the cause of the change (or apparent lack of change) in the project’s outcome variable. This workshop is designed to give the analyst the background to conduct a quasi-experimental evaluation, which statistically isolates the impact of the development project on the target variable, holding other factors constant.

After a brief review of simple linear regression, this workshop focuses on one of the most useful empirical techniques in evaluation: multiple regression. The power of multiple regression is its ability, in a statistical sense, to estimate the impact of one variable (the development project; ie. a new hospital) on the target variable (ie. child mortality), holding constant other factors (ie. nutrition, and/or literacy). Throughout the workshop, SPPS statistical software is used to analyze data.

Not only will participants estimate multiple regressions, they will learn how to interpret the results, and equally important, understand the assumptions which are implicitly being made, when multiple regression is used.

Participants will work in teams to develop and test a variety of regression models (including ‘difference in differences’ models) using data from several impact evaluations conducted for the World Bank.

If the regression assumptions are not fulfilled, the results can be misleading. The final section of the course is concerned with how to test whether these regression assumptions have been violated and, if they are violated, how the regression can be modified to improve the reliability of the results.

**DETAILED SCHEDULE (TIMES ARE APPROXIMATE)**

**MONDAY, JUNE 30**

9:30-10:30 am REVIEW OF SIMPLE LINEAR AND NON-LINEAR REGRESSION/ INTRODUCTION TO USING SPSS

10:45 am-12:30 pm INTRODUCTION TO MULTIPLE REGRESSION

2:00-4:00 pm Problems Part II - students work on problems using SPSS; problems are then discussed

4:00-5:30 pm First case study using regression analysis in evaluation - students are divided into 2-3 person teams who will build and estimate a regression model to evaluate a job training program.
TUESDAY, JULY 1

9:00-10:30 am Second case study using regression analysis in evaluation - students are divided into 2-3 person teams who will build and estimate a regression model to evaluate a job training program.

10:50-12:30; 2:00-3:00 Case study 3 - Larger teams work to evaluate a farm school project. The model is estimated in several ways, including a ‘difference in the differences’

3:20-5:00 Classical Assumptions of Ordinary Least Squares Regression - Lecture discussion of the underlying and implicit assumptions of least squares regression. What can be done to test for the validity of these assumptions, and what to do when the assumptions are violated?

5:00 pm Course Evaluation