Imputation Techniques in SAS(R)

Code:	BA2PB
Length:	1 days
URL:	View Online

Concentrating on the needs of those relatively new to the use of multiple imputation tools in SAS, this course provides a general introduction to using the MI and MIANALYZE procedures for multiple imputation and subsequent analyses with imputed data sets.

Skills Gained

- recognize the type of missing data patterns that exist in your data sets

- analyze imputed data sets using standard SAS procedures

- use PROC MIANALYZE to correctly analyze output from imputed files and subsequent procedure output from standard SAS procedures

- use real-world data sets in the virtual lab to obtain experience running SAS imputation procedures.

Who Can Benefit

- Analysts, data managers, and other data professionals working with data sets with missing data

Prerequisites

- Before attending this course, you should

- have a solid understanding of the SAS DATA step, which can be gained by attending the SAS(R) Programming I: Essentials course or the SAS(R) Programming II: Manipulating Data with the DATA Step course, or have equivalent experience

- have an intermediate knowledge of statistics, which can be gained by attending either the Statistics I: Introduction to ANOVA, Regression, and Logistic Regression course or the Statistics II: ANOVA and Regression course, or have equivalent academic training.

Course Details

Missing Data Issues

- types of missing data and how to identify sources and patterns of missing data

- why missing data occurs, and what to do about it

Introduction to Multiple Imputation Using SAS

- comparison of simple and multiple imputation approaches

- discussion of why multiple imputation is a preferred approach

- PROC MI and PROC MIANALYZE

Overview of Three-Step Process

- multiple imputation using PROC MI

- analysis of imputed data sets using standard SAS procedures

- use of PROC MIANALYZE for accounting for variability introduced during multiple imputation and analysis of output from standard SAS procedures

Practical Examples of Multiple Imputation

- common examples of multiple imputation and analysis of imputed data sets using public release data from the Longitudinal Survey of Aging (a complex sample survey data set)

- examples that cover typical imputation needs and subsequent analysis of imputed data using descriptive and regression approaches

- output from the imputation step and the analysis of imputed data sets