STATISTICAL METHODS FOR RESEARCH USING STATA

3-Day Professional Development Workshop

East Asia Training & Consultancy Pte Ltd invites you to attend a three -day professional development workshop, reviewing statistical methods for research using Stata to analyse the course databases. Stata is the well-known statistics and econometrics software package developed by StataCorp (USA). Stata is a statistical software package that offers a broad range of statistics to professional researchers in many disciplines. Stata is particular useful to professionals working in areas of business, social science, health and medical research, education, economics and science.

COURSE DESCRIPTION

The comprehensive 'hands-on' workshop will provide an in depth look at how Stata can be used for statistical research in business, government, education, healthcare, and science. Every stage in the research project will be discussed. The first half-day will be devoted to providing participants with an overview of Stata; the final half-day will consist of participants leaning how to write their own statistical tests as well as how to construct Iteratively Re-weighted Least Squares (IRLS) and Maximum Likelihood commands. Participants will also learn how to develop simulated data sets of a specified distribution. During the main part of the course, discussion will emphasize the use of research models such as logistic regression, count response regression models, categorical response models, panel/longitudinal models, and mixed effects models for understanding the specific goals of a research study.

WHO SHOULD ATTEND

This course is of value for Stata & non-Stata users as well. It is a course on research design and appropriate tests and models. We'll teach non-Stata users the basics of Stata so that you can implement these methods into your research, but you can also translate many methods into your own preferred software application; eg. SAS, SPSS, S-Plus/R, Genstat. In other words, this course is suitable to researchers across many disciplines as well as users of most any software. Case studies are from business, social science, health and medical research, education, and science.

FEE & REGISTRATION

The fee includes extensive course materials, data-sets, lectures, lunches, morning and afternoon coffee/tea breaks, receptions and the opportunity to network with researchers, economists and biostatisticians across the various industries in Asia. This is a "hands-on" workshop. Participants are required to bring their own laptops.

The number of participants is restricted. Please register early to guarantee your place. Please complete the official registration form and fax to (65)-62506369 or email it to us at stata@eastasiatc.com.sg to reserve your place. Confirmation will only be made upon receiving full payment. Further instructions will be sent to confirmed participants.

COURSE OUTLINE

SESSION 1, DAY 1, AM (2.5 hrs)
Overview of Stata

User interface, help system, file management, working with do-file editor
Updating program and accessing user-written routines
Data management: basic principles of organization and transformation
Data management tools and data validation
Introduction to graphics
Producing publication-quality output

SESSION 2, DAY 1, PM (3.5 hrs)
Research design

Data size considerations
Selecting appropriate model and test
Sample size and power analysis
Distribution tests and transformations
Exact statistics
Computation of precision / standard errors
Basics of ANOVA

SESSION 3, DAY 2, AM (2.5 hrs)
Regression and generalized method of moments (GMM) estimation

Basics of regression methodology
Regression with indicators (ANOCOVA)
Instrumental variables (IV) models
IV-GMM modeling and diagnostics
Nonlinear least squares models

SESSION 4, DAY 2, PM (3.5 hrs)
Maximum likelihood estimation and limited dependent variables models

Maximum likelihood techniques; Wald, LM, LR tests
Binary response models: logit and probit
Models for proportions data
Ordinal response models: ordered logit and probit

SESSION 5, DAY 3, AM (2.5 hrs)
Models for count data and categorical response data

Poisson and negative binomial regression
Extended count data models
Proportional odds models
Multinomial logit models
Discriminant analysis
Data organization for survival-time models
Overview of nonparametric survival techniques
Cox proportional hazards model
Parametric survival models

SESSION 6, DAY 3, PM (3.5 hrs)
Models for longitudinal / panel data and survival-time data

Fixed effects / random effects models
Seemingly unrelated regressions models
Dynamic panel data (DPD) models
Generalised estimating equations (GEE) models
Basics of mixed and multilevel models
Conditional mixed process models