

Introduction to Stata

Lecturer: Michele Slocovich

Lingua

English

Course Description and Objectives

The course aims to introduce participants to the basic tools of Stata program for analyzing business and economics data. An overview of the main Stata functions will be provided as well as the application of these functions with real data examples.

The course has two main objectives:

- At first, the Stata structure and philosophy will be presented
- Then the course will demonstrate the potentialities of the software for analyzing data by making use of many different examples

Upon successful completion of this course, the student will be able to:

- Produce basic descriptive analyses by means of simple statistical tables, measures and graphs
- Estimate a linear regression model

Every session will intermix the presentation of syllabus topics followed by examples and in class exercises.

Important notice: The course presents the software Stata with its main features; therefore, it does not represent a “substitute” of a formal statistics course. Details of any statistics methodology will not be presented.

Audience

The course is open to all Bocconi students. In particular:

- Those who will be involved in projects requiring the analysis of a dataset
- Students who will need Stata to prepare their final thesis work

Prerequisites

It is required that course participants have already attended at least introductory statistics (30001 Statistics) and computer science (30424 Computer science, 30330 Computer skills)

Duration

16 hours

Calendar

Lecture	Date	Time	Room
1	Thu 08/11/2018	18.00 - 19.30	Info U01
2	Mon 12/11/2018	18.00 - 19.30	Info U01
3	Thu 15/11/2018	18.00 - 19.30	Info U01
4	Tue 20/11/2018	18.00 - 19.30	Info U01
5	Thu 22/11/2018	18.00 - 19.30	Info U01
6	Tue 27/11/2018	18.00 - 19.30	Info U01
7	Thu 29/11/2018	18.00 - 19.30	Info U01
8	Tue 04/12/2018	18.00 - 19.30	Info U01

Syllabus of the course

Lesson Topics	References
1 Introduction to Stata <ul style="list-style-type: none"> - Course organization - First sample session - The help tool - Log-file and do-file - File formats in Stata 	Chapter 1, 2, 14
2 Data management <ul style="list-style-type: none"> - File creation, file import - Importing data from another software (e.g. Excel) - Managing data formats (numeric, string) - Managing variables (e.g. drop, keep, etc.) - Quantifiers: <i>if</i>, <i>in</i>, <i>by</i> - Commands for descriptive and exploratory analysis (describe, list, summarize, tabulate) 	Chapter 2, 5
3 Working with Data <ul style="list-style-type: none"> - Create and modify variables - Managing missing data - Merging files - Exporting data and results in other formats - Weighting data 	Chapter 2, 6

Lesson Topics	References
4 Regression and hypothesis testing <ul style="list-style-type: none"> - Commands correlate, regress - Main tools for hypothesis testing and confidence intervals checking (<i>table, ttest, anova and other comparison methods</i>) 	Chapter 6, 7
5 Graphics <ul style="list-style-type: none"> - Commands histogram, twoway scatter, twoway line, twoway connected - Other graphical commands (box, pie, bar, qqplot) - Using menu vs line commands - Saving, exporting, modifying graphs - Time formats 	Chapter 3
6 Beyond simple regression I <ul style="list-style-type: none"> - Scatter plots, confidence bands and other graphical tools to represent relations (regression) - Diagnosing regression commands - Robust regression - Overview of time series: lagged variables, usage 	Chapter 7, 12
7 Beyond simple regression II <ul style="list-style-type: none"> - Panel data: setup and regression - Overview of IV - Programming with Stata: hands on 	Chapter 13, 14
8 General recap and final test	

Suggested Bibliography

Hamilton, L. C., *Statistics with STATA: Version 12, 8th Edition*, Cengage, 2012.

Software

Stata version 14 or 15 (differences are not relevant to course contents)

Available seats

110