

FUNDAMENTALS OF STATA DO-FILE PROGRAMMING

CODE D-IN16

WHO SHOULD ATTEND?

People with previous programming skills in other software or people who have been using Stata for a while, and do not know how useful a little bit of programming is in Stata.

COURSE REQUISITES

It is expected that individuals wishing to follow this course have a familiarity/working knowledge of Stata. Participants are not however, required to have any programming experience in Stata or in other statistical packages.

COURSE LEADER

CHRISTOPHER F. BAUM

Professor of Economics and Social Work Boston College

The underlying objective of this course is to illustrate the ways in which some very basic programming tools can be easily implemented in Stata in order to facilitate, automate, replicate and personalize both data analysis/management and data presentation. To this end participants are provided with a core set of programming tools and techniques, that are prerequisites for a more effective, time saving use of the software.

During the course, participants will be shown how to write, modify and develop do files (Stata programs). At the end of the two days, it is expected that participants are able to personalize existing Stata commands and develop their own do files in order to organize their workload in a more automated, flexible, reproducible manner. This would allow them, for example, to ultimately be in a position to delegate the more repetitive tasks of data management, data analysis and data presentation in Stata.

In common with TStat's course philosophy, each individual session is composed of both a theoretical component (in which the techniques and underlying principles behind them are explained), and an applied (hands-on) segment, during which participants have the opportunity to implement the techniques using real data under the watchful eye of the course tutor. Throughout the course, theoretical sessions are reinforced by case study examples, in which the course tutor discusses and highlights potential pitfalls and the advantages of individual techniques.

PROGRAM

SESSION 1: PROGRAMMING: SOME FUNDAMENTAL CONCEPTS

- Do and ado files in Stata
- Data types: Working with Dates and Time, Time Series Operators, Factor Variables
- Debugging the *capture* command
- Protecting your data with preserve and restore
- Guidelines for writing programs in Stata

SESSION 2: PROGRAMMING STATA DO-FILES -Some Basic Programming Commands and Tools

- Local macros
- Global macros
- Transformation of string and numeric variables
- Recoding discrete and continuous variables
- Recoding missing variables
- Generate and egen functions
- Local and global macros
- Extended macro functions and list functions
- Scalars and matrices

FUNDAMENTALS OF STATA DO-FILE PROGRAMMING

- Temporary variables and tempnames
- Looping commands: forvalues and foreach
- **by**, **statsby**, **rolling** and other prefix commands
- Transforming data with reshape
- Combining datasets with append and merge

SESSION 3: PROGRAMMING CONCEPTS AND TOOLS IN ACTION

- Tabulating and computing statistics across a set of variables and groups
- Computing durations and aggregating transactions data
- Summarizing group characteristics over observations
- Adding aggregate characteristics to micro observations

- Reusing results: return and ereturn commands
- Accessing estimation results and margins

SESSION 4: AUTOMATION Do-file programming makes life a lot easier

- Storing results in matrices
- Stata's **post** and **postfile** commands
- Automating estimation output the user-written commands estout, tabout, saveresults
- Automating graphical output

LOGISTICS

The course will be held in Frankfurt am Main on the 7th and 8th of June 2016, from 9:00 am to 5:00 pm.

REGISTRATION FEES

Academic € 975,00 • Commercial € 1300,00 • Students € 650,00

All fees are subject to VAT (applied at the current Italian rate of 22%).

The number of participation is limited to 10. Places, will be allocated on a first come, first serve basis.

The course fee covers: course materials and a temporary licence of Stata valid for 30 days from the beginning of the course; light lunch and coffee break. The course materials comprise the theoretical handouts, along with the Stata do-files, ado-files and data-sets required to replicate all the empirical demonstrations implemented in the course sessions under the guidance of the course leader.

Please note:

- A 15% discount will be applied to all additional participants from the same company or institution enrolling on the same course.
- TStat's Training Packages: individuals attending more than one of our training courses during the course of 2016 are entitled to a 15% discount off subsequent course fees.

Individuals interested in attending the training course, must return their completed registration forms either by email (training@tstat.eu) or by fax (+39 0864 206014) to TStat by the 25th of May 2016.

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