



Workshop

INTRODUCTION TO MICROECONOMETRICS

Florence, 26-29 August 2019

TStat's Introduction to Microeconometrics workshop offers participants an applied and theoretical introduction to the principle methodologies implemented in the analysis of microeconomic data. More specifically, the course focuses on linear regression techniques, instrumental variable analysis and GMM estimators, qualitative dependent variable models (the Logit and Probit estimators) and the issue of censoring and sample selection (the Tobit model). Although the course is entitled "Introduction to Microeconometrics", the techniques developed throughout the courses are easily implemented in a variety of research contexts, in both public health and the social sciences, where micro data is becoming increasingly more available.

The Workshop opens with an **optional** one day introductory course (Module A) to the statistical package Stata, during which participants will be provided with the necessary tools to enable them to use Stata independently and actively participate in the applied empirical Lab sessions during the course of the workshop.

In common with TStat's training 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.

TARGET AUDIENCE

Researchers and professionals working in biostatistics, economics, epidemiology, finance, psychology, social and political sciences needing to acquire the necessary statistical requisites required to independently conduct empirical analysis using micro data.

COURSE REQUISITES

Introductory knowledge of econometrics and/or statistics.

WORKSHOP CODE

I-SS10 Module AB

DATE AND LOCATION

Florence, 27-29 August 2019
CISL Studium Center
Via Della Piazzola, 71
I-50123 Florence
<http://www.centrostudi.cisl.it>

INTRODUCTION TO MICROECONOMETRICS

PROGRAM

MODULE A (26.08)

STATA IN JUST ONE DAY!

SESSION I: INTRODUCTION GETTING STARTED

1. Stata's GUI
2. File types in Stata
3. Working interactively in Stata
4. Saving output: the log file
5. Interrupting Stata
6. Loading Stata databases
7. The Log Output File
8. Saving databases in Stata
9. Exiting the software

SESSION II: PRELIMINARY DATA ANALYSIS

1. A preliminary look at the data: *describe*, *summarize* commands
2. Abbreviations in Stata
3. Stata's syntax
4. Summary statistics
5. Statistical Tables: *table*, *tabstat* and *tabulate* commands

SESSION III: DATA MANAGEMENT

1. Renaming variables
2. Selecting or eliminating variables
3. The *count* command
4. *sort* command
5. Creating sub-groups: the prefix *by*
6. Creating new variables: *generate*
7. Operators in Stata
8. The command *assert*
9. Missing values in Stata
10. Modifying variables: *replace*, *recode*
11. Creating Labels: variable labels and value labels
12. Creating dummy variables

SESSION IV: IMPORTING DATA FROM SPREADSHEETS

1. *Import Excel* and *Export Excel* commands
2. The *insheet* and *outsheet* commands
3. Reading in Text Data Files
4. Issues to watch out for when importing data
 - Missing values
 - String variables
 - Date variables
5. Redefining missing values
6. *dstring* command
7. *tostring* command
8. dealing with "messy" strings

SESSION V: GRAPHICS A BRIEF INTRODUCTION

1. Stata's syntax for two way graphs
2. Saving and exporting graphs
3. Useful *graph* commands
4. Personalizing a graph
5. Stata's Graph Editor

<https://www.tstattraining.eu/training/intro-microeconometrics>

INTRODUCTION TO MICROECONOMETRICS

APPENDIX A:

1. Useful to know

APPENDIX B: MORE ADVANCED ISSUES (TIME PERMITTING)

1. *do files*
2. Merging data bases
3. *e-class* and *r-class* variables
4. *collapse* command
5. *preserve* command
6. *restore* command

MODULE B (27.08-29.08)

INTRODUCTORY ECONOMETRICS

SESSION I: ORDINARY LEAST SQUARES (OLS) ESTIMATION

DAY 1: THE LINEAR REGRESSION MODEL

1. OLS Estimation in Stata

SESSION II: QUALITATIVE EXPLANATORY VARIABLES

1. OLS estimation in the presence of qualitative explanatory variables
2. Including factor variables in the estimation process
3. Fixed-effect panel-data models

SESSION I: INSTRUMENTALS VARIABLES ESTIMATORS

DAY 2: ENDOGENEITY AND INSTRUMENTAL VARIABLES ESTIMATORS

1. Endogeneity and bias in OLS estimators
2. Instrumental variables and GMM estimators
3. Implementation in Stata

SESSION II: TESTS AND ROBUSTNESS

1. Testing for exogeneity
2. Tests of over-identifying restrictions
3. Testing for weak instruments
4. Tests and robustness in Stata

SESSION I: BINARY DEPENDENT VARIABLE

DAY 3: LIMITED DEPENDENT VARIABLE MODELS

1. Binary outcome models
2. Goodness of fit and specification tests
3. Implementation in Stata

SESSION II: CENSORED AND SELECTION MODELS

1. Selection models
2. Implementation in Stata

INTRODUCTION TO MICROECONOMETRICS

USEFUL TEXTS

- Mostly Harmless Econometrics: An Empiricist's Companion, Joshua D. Angrist e Jorn-Steffen Pischke (2008) Princeton University Press.
- Microeconometrics Using Stata, Colin Cameron and Pravin K. Trivedi (2010) Stata Press.

REGISTRATION FEES

MODULES A and B (4 days)

Students*: € 1485.00

Academic: € 1755.00

Non-Profit/Public Research Centres: € 1935.00

Commercial: € 2115.00

MODULE B (3 days)

Students*: € 1115.00

Academic: € 1318.00

Non-Profit/Public Research Centres: € 1450.00

Commercial: € 1587.00

*To be eligible for student prices, participants must provide proof of their full-time student status for the current academic year.

Fees are subject to VAT (applied at the current Italian rate of 22%). Under current EU fiscal regulations, VAT will not however applied to companies, Institutions or Universities providing a valid tax registration number.

Please note that a *non-refundable deposit* of €100.00 for students and €200.00 for Academic, Non-Profit/Public Research Centres and Commercial participants, is required to secure a place and is payable upon registration. The number of participants is limited to 15. Places will be allocated on a first come, first serve basis.

Course fees cover: i) teaching materials (copies of lecture slides, databases and Stata routines used during the summer school; ii) a temporary licence of Stata valid for 30 days from the day before the beginning of the school; iii) half board accommodation (breakfast, lunch and coffee breaks) in a single room at the CISL Studium Centre or equivalent (4 nights for Modules A and B, 3 nights for Module B). Participants requiring accommodation the night of the final day of the school, are requested to contact us as soon as possible.

To maximize the usefulness of this summer school, we strongly recommend that participants bring their own laptops with them, to enable them to actively participate in the empirical sessions.

Individuals interested in attending this summer school must return their completed registration forms by email (training@tstat.eu) to TStat by the **1st August 2019**.

Further details regarding our registration procedures, including our commercial terms and conditions, can be found at <https://www.tstattraining.eu/training/intro-microeconometrics>.

COURSE LEADERS

Una-Louise BELL
TStat Training

Giovanni BRUNO
Bocconi University

CONTACTS

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