WORKSHOP

MICROECONOMETRICS USING STATA

Frankfurt am Main, 30-31 January - 1 February 2019

Microeconometrics using Stata offers participants with a comprehensive applied and theoretical overview of the principle methodologies implemented in the analysis of microeconomic data. More specifi cally, the course focuses on instrumental variable analysis, non-linear least squares estimation, binary variable models, multi-nominal models, Tobit models and count data models, panel data models, IV estimators and GMM estimators. Although the course is entitled “Microeconometrics using Stata”, as the examples discussed relate to economic data, the techniques developed through the courses can of course are extensively implemented in other social sciences.

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.

At the end of the course, participants are expected to be able to autonomously implement the theories and methodologies discussed during the workshop.

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

It is assumed that course participants have at some point followed a basic course in econometrics or statistics. Previous exposure to Stata or other statistical software packages would also be an advantage.

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PROGRAM

SESSION I: PRELIMINARY TOPICS

1. Stata 15 – a quick review
2. Linear and non-linear models in Econometrics
3. Estimators and tests for linear models with endogenous variables: Instrumental Variables and Generalized Method of Moments (***ivregress, ivreg2, gmm, treatreg***)
4. Estimators and tests for non-linear models
5. Estimating marginal effects with margins

SESSION II: COUNT MODELS

1. The Poisson model
   - Estimators: Non-Linear Least Squares (nl), GMM (gmm), Maximum likelihood (poisson)
2. Endogenous regressors (***gmm and ivpoisson***)
   - Overdispersion: the Negative Binomial Model (***nbreg***)

SESSION III: DISCRETE DEPENDENT VARIABLE MODELS

1. Univariate models
   - Linear Probability Model, Probit and Logit (***regress, probit, logit***)
   - Ordered models (***oprobit, ologit)***
2. Multivariate models
   - Bivariate and multivariate Probit models (***biprobit, mvprobit, cmp***)
   - Multinomial models
3. (Conditionally) independent latent heterogeneity in probit models
   - Estimation of average partial effects
4. Endogenous regressors in probit models
   - The control function approach (CFA) to continuous endogenous regressors: test and estimation
   - Bootstrap standard errors and covariance matrix in the CFA
   - Maximum likelihood estimation with continuous endogenous regressors (***ivprobit***)
   - A multivariate probit solution to binary endogenous regressors (***biprobit, mvprobit, cmp***)

SESSION IV: PROBIT AND LOGIT PANEL-DATA MODELS

1. The ancillary parameter problem in non-linear models with correlated latent heterogeneity (LH)
2. Logit and probit panel data models with LH
   - Models with independent LH: Random effect models (***xtlogit, xtprobit***)
   - Models with correlated LH: Fixed effect models
   - The Chamberlain-Mundlak approach for probit models
   - The Fixed effect logit model (***xtlogit***)

SESSION V: MODELS WITH CENSORING AND SAMPLE SELECTION *(TIME PERMITTING)*

1. Censoring
2. Tobit models: ML and Two-step Least Squares (***tobit***)
3. The CFA to continuous endogenous regressors: test and estimation
4. Maximum likelihood estimation with continuous endogenous regressors (***ivtobit***)
5. Panel data tobit models with LH
6. Sample selection
   - Tests and corrections a la Heckman (***heckman***) for linear models
   - Tests and corrections for linear panel-data models
   - Attrition in panel-data models: Inverse Probability weighting (***IPW***)
   - Bootstrap standard errors with IPW

https://www.tstattraining.eu/training/microeconometrics-stata/

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USEFUL TEXTS

- Wooldridge, (2010) Econometric Analysis of Cross Section and Panel Data, MIT Press
- Cameron e Trivedi, (2009) Microeconometrics Using Stata, StataPress
- Cameron e Trivedi, (2005) Microeconometrics: Methods and Applications, Cameron e Trivedi, Cambridge University Press

REGISTRATION FEES

Students*: € 735.00
Academic: € 1225.00
Non-Profit/Public Research Centres: € 1513.00
Commercial: € 1800.00

*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: teaching materials (handouts, Stata *do files* and datasets to used during the course), a temporary licence of Stata valid for 30 days from the beginning of the workshop, light lunch and coffee breaks.

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

REGISTRATION DEADLINE

Individuals interested in attending this workshop must return their completed registration forms by email (training@tstat.eu) to TStat by the 14th January 2019.

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

WORKSHOP CODE

D-EF13

DATE AND LOCATION

Frankfurt am Main, 30-31 January - 1 February 2019

CONTACTS

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