



PROGRAMMING AN ESTIMATION COMMAND IN *STATA* AND *MATA*

(COURSE IN ENGLISH)

DATE AND VENUE: Bologna, 12 Novembre 2010 – VII Italian *Stata* Users Meeting

OBJECTIVE OF COURSE: To illustrate how to program an estimation command in *Stata* and *Mata* and how to make an estimation command work with all the standard *Stata* post-estimation commands. After providing an introduction to *Stata* and *Mata* programming, the class focuses on *Stata/Mata* programming by developing two commands, one for linear regression and one for Poisson regression. These simple estimators are used so that participants can grasp all the details of implementing linear and non-linear estimation commands in *Stata* and *Mata*. Post-estimation commands will also be developed.

POTENTIAL AUDIENCE: Researchers who wish to program *Stata* commands for new methods that they develop or use.

PREREQUISITES: Participants do not need a background in *Stata* or *Mata* programming, but they should be familiar with how to use *Stata* estimation commands like *-regress-* and *-probit-* and with English language.

DURATION: The course will start at 9.00 am and finish at 6.00 pm, making a total of 7.5 teaching hours.

CHARACTERISTICS: The course is, by its very nature, highly interactive. Students will be given an overview of the theoretical underpinnings, then proceed, under supervision, to apply these techniques.

DOCUMENTATION: Course material includes session hand-outs, *do-files* and databases required for all the empirical applications.

COURSE OUTLINE

SESSION I

- 📌 A quick introduction to *Stata* do-file programming
- 📌 An introduction to *Stata* ado-file programming and to syntax

SESSION II

- 📌 A *Stata* program that implements the ordinary least-squares (OLS) estimator
- 📌 Writing a certification script



SESSION III

- ✚ An introduction to Mata programming basics
- ✚ Making our OLS program use Mata

SESSION IV

- ✚ An introduction to Mata programming (optimize)
- ✚ A Stata/Mata program for Poisson regression
- ✚ Making predict and margins work with our command

TEXTS AND REFERENCES:

- ✚ *Maximum Likelihood Estimation with Stata*, 3rd Edition, Gould, W. J. Pitblado, and W. Sribney. 2006, Stata Press.
- ✚ *Programming Reference Manual*, 2009, StataCorp, College Station, Stata Press

CERTIFICATE: Upon completion of the course, participants will be provided with a Certificate for Course attendance if required.

CREDITI ECM: TStat will apply to the Ministry of Health, for ECM credits under the "Commissione Nazionale di Formazione Continua" program for the following disciplines: *Medico, disciplina Igiene, epidemiologia e sanità pubblica, Cardiochirurgia, Malattie Infettive, Medicina del Lavoro e Sicurezza degli Ambienti di Lavoro, e per le figure di Biologo, Chimico e Farmacista.*

PARTICIPATION FEE: The cost of the course is € 375,00 and include coffee breaks, light lunch and the registration quote for first day of the Stata Users Meeting.

TERMS AND CONDITIONS: individuals wishing to enrol on this course, must complete an official registration form and send it to TStat at least 5 days before the beginning of the course.

ORGANIZED BY

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