

SHORT COURSES

□ MARGINAL EFFECTS

□ January 24, 2023, 14:00-18:00 (GMT), online

Marginal Effects are used to interpret regression parameters. They can be computed as “what if” predictions of model outcomes under different scenarios and are conceptualized as numerical derivatives or incremental changes. This class reviews parameter interpretation using analytical and numerical derivatives and focuses on the many uses of marginal effects to express findings in different metrics and scales. Computation of standard errors is also discussed. Extensive Stata, R code, and a book chapter are available.

□ REGRESSION DISCONTINUITY DESIGNS

□ January 26, 2023, 14:00-18:00 (GMT), online

Regression Discontinuity Design is a method designed to establish causal effects when a continuous variable is used to assign treatment to some observations. The class covers the theory and application of parametric and non-parametric methods to estimate regression discontinuity designs, including multiple examples and Stata code. Both sharp and “fuzzy” regression discontinuity are discussed. The class includes an introduction to Kernel-weighted local polynomial smoothing. Extensive Stata code is provided.



Marcelo Coca Perrailon

Associate Professor at the University of Colorado Anschutz Medical Campus, where he codirects the doctoral program in Health Economics and is also a President’s Teaching Scholar. His course materials on statistics/econometrics are used all over the world. He is working on a textbook titled “Health Services Research and Program Evaluation: Causal Inference and Estimation” to be published by Cambridge University Press.

□ MISSING DATA

□ March 27 & 28, 2023, 10:00-12:00 (GMT), online

Missing data is pervasive in health economic studies. The major concern is that the individuals for whom data are missing tend to be systematically different from those individuals with complete information in ways that are related to the decision problem at hand. In practice, health economic studies tend to restrict their analysis to complete records. Not only this results in important loss of information and efficiency, but also leads to biased inference. While multiple imputation (MI) approaches for handling the missing data are now widely available, recent reviews suggest that this approach has yet to permeate practice in the health economics field. This course offers an in-depth description of MI methods for addressing missing data in health economic studies. The course starts by providing an overview of the typical missing data mechanisms in health economic applications and the key principles of MI. The course will then describe more advanced approaches for appropriately handling more complex outcome distributions and data that are missing not at random, which are prevalent in health economic studies. We will illustrate MI methods across a range of case studies using Stata software. The course assumes little or no familiarity with missing data or MI methods.



Manuel Gomes

Associate Professor at University College London. His main research interests are the development, assessment and translation of statistical methodology in health economics, and his contributions span across several areas, including statistical methods for the economic analysis of cluster trials, missing data methodology, and econometric evaluation using large-scale electronic health records. He has been recently awarded a NIHR Advanced Fellowship to exploit target trial emulation, a causal inference framework for estimating treatment effects using real-world data, in health technology assessment and policy evaluation.

Participants who wish to have hands-on experience should have Stata software installed on their computers.

Register [here](#) until January 17 for the January courses, or until March 20 for the Missing Data course only. Spots will be allocated on a first come, first served basis. Registrations from outside Health Economics are also welcome.

Fees	Each course
APES members	40€
Non-members	50€

2 courses: 15% discount; 3 courses: 30% discount