Hagnýtar hagmælingar með einstaklingsgögn

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Doktorsnemum býðst námskeiðið **Applied Micro-econometrics** undir hans leiðsögn í ágúst – HAG561.

Course Overview and Learning Objectives
This course is an introduction to a few key issues and methods in applied micro-econometrics. We begin with discussion of the seminal article by LaLonde (1986) in the *American Economic Review* and the introduction of the potential outcomes framework in applied micro-econometrics. We will discuss the excitement generated by propensity score matching, an early application of the potential outcomes framework embraced by economists, and the subsequent tempering of enthusiasm. We next turn to instrumental variables. We start with Angrist and Kruger's (1991) paper that used quarter of birth to instrument for schooling in an earnings equation which lead to insights on weak instruments and finite sample bias. In the third class we present the derivation of the local average treatment effect (LATE) and it application to two large-scale randomized field experiments in the US, the Moving to Opportunity and Oregon Health Insurance lottery.

The module is targeted at students at the advanced Masters' level as well as students in Ph.D. programs. The learning objectives are for students to become sufficiently familiar with these methods to be able to apply them in their own research, as well as to be able to evaluate the quality of other research using these methods.

Each class will involve readings in which students will be called upon to answer questions from the readings along with a computer lab. Students are expected to bring a laptop with Microsoft Excel and the data analysis and solver modules included and the statistical software available to them – preferably, but not necessarily Stata 12.0 or higher.

Class 1: The Limits of Non-Experimental Methods & Propensity Score Matching

Readings:

LaLonde, R. (1986) “Evaluating the Econometric Evaluations of Training Programs with Experimental Data,” *American Economic Review* 76(4):604-619.

Angrist, J. and J.-S. Pischke (2010) “The Credibility Revolution in Empirical Economics: How Better Research Design is Taking the Con out of Econometrics,” *Journal of Economic Perspectives* 24(2):3-33.

Dehejia, R. and S. Wahba (1999). “Causal Effects in Non-experimental Studies: Reevaluating the Evaluation of Training Programs,” *Journal of the American Statistical Association*_ 94(448): 1053-1062.

Smith, J. and P. Todd (2005). “Does matching overcome LaLonde’s critique of nonexperimenal estimators?” *Journal of Econometrics.* 125: 305-353.

Computer lab 1

Class 2: Instrumental Variables and Finite Sample Bias

Angrist, J. D. and Krueger, A. B. (1991) "Does Compulsory Schooling Attendance Affect Schooling and Earnings," *Quarterly Journal of Economics* 106(4):976-1014.

Bound, J., Jaeger, D.A., and Baker, R.M. (1995) "Problems with Instrumental Variables Estimation when the Correlation between the Instruments and the Endogenous Variable is Weak," *Journal of the American Statistical Association* 90(430):443-450.

Computer lab 2

Class 3: LATE and Randomized Field Experiments in Economics

Readings

Morgan, Stephen and Christopher Winship. 2007. *Counterfactuals and Causal Inference*. (New York: Cambridge University Press). Chapter 7

Angrist, J., G. Imbens, and D. Rubin (1996) "Identification of Causal Effects Using Instrumental Variables." *Journal of the American Statistical Association* 91(434):444-454.
(See also comments by Moffitt and Heckman).

Kling, J., J Leibman and L. Katz (2007) "Experimental Analysis of Neighborhood Effects," *Econometrica* 75(1):83-120.

Sarah L. Taubman, Heidi L. Allen, Bill J. Wright, Katherine Baicker, Amy N. Finkelstein1. (2014).
Medicaid Increases Emergency-Department Use: Evidence from Oregon's Health Insurance
Experiment. *Science.* 343, 263.
http://www.sciencemag.org/content/343/6168/263.full.pdf?keytype=ref&siteid=sci&ijkey=GoMYHyTTSQ4.Q

Appendix:
www.sciencemag.org/cgi/content/full/science.1246183/DC1

Computer Lab 3