## GEORGETOWN CENTER FOR ECONOMETRIC PRACTICE TRAINING COURSE: PROGRAM EVALUATION

## **Course Description:**

This course provides a basic introduction to the main econometric policy evaluation methods and their application in a wide range of substantive empirical investigations of current economic research. The introductory material will be covered in the morning lectures and then complemented by computer work in the afternoon to consolidate the material covered in the lectures.

## **Course Objectives:**

Participants will understand:

- how to articulate policy evaluation in analytic terms
- how econometric evidence is used to justify causal claims about public policies and programs
- how to evaluate when assumptions used to justify causal claims are likely to be violated
- how to estimate the causal impact of policy interventions

In addition to the formal lectures, the course will also introduce participants to the toolkit for applied analysis based on the software package, Stata (<a href="www.stata.com">www.stata.com</a>). Led by an experienced tutor, these sessions will be guided and 'hands on' – while basic familiarity with this software is desirable, it is not essential.

## Instructor:

Professor Francis Vella will deliver the course. Professor Vella (<a href="http://www9.georgetown.edu/faculty/fgv/">http://www9.georgetown.edu/faculty/fgv/</a>) received his PhD from the University of Rochester in 1990 and is currently a Professor and the Edmond Villani Chair in Economics in the Economics Department at Georgetown University. His field of research is in the development and application of microeconometric methods.

DAY 1	8:00 to 9:00 am	Registration and Coffee/Breakfast Pastries
	9:00 to 9:55 am	Welcome Brief refresher of fundamental econometric theory, including the link between economic theory and econometric estimation What do we mean by policy evaluation What is the 'evaluation problem' and how is do we 'solve' it empirically?
	10:00 to 10:55 am	The logic of causal inference Quasiexperimental design and research design credibility Nonexperimental methods
	11:00 to 11:55 am	Instrumental Variables
	12:00 to 12:55 pm	LUNCH
	1:00 to 1:55 pm	Regression Discontinuity Difference in Differences
	2:00 to 4:30 pm	Application lab – Stata OR Advanced Material Lectures
DAY 2		
	9:00 to 9:55 am	Control Function Estimation Selection on Observables versus Selection on Unobservables
	10:00 to 10:55 am	Experimental policy evaluation, Rubin Causal Model, LATE Selection on observables: Regression, Propensity score matching
	11:00 to 11:55 am	Selection on unobservables: Partially identified models and bounds on treatment effects Inference, with applications to treatment effects
	12:00 to 12:55 pm	LUNCH BREAK
	1:00 to 4:30 pm	Application lab – Stata OR Advanced Material Lectures

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