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**Seminar**

Speaker: **Professor Michael Sobel**  
**Columbia University**

Title: **Does Marriage Boost Men's Wages? Identification of Treatment Effects in Fixed Effects Regression Models for Panel Data**

Time: **3:20 – 4:20pm, Wednesday, April 3, 2013**

Place: **552 Hill Center**

**Abstract**

Social scientists have generated a large and inconclusive literature on the effect(s) of marriage on men's wages. Researchers have hypothesized that the wage premium enjoyed by married men may reflect both a tendency for more productive men to marry and an effect of marriage on productivity. To sort out these explanations, researchers have used fixed effects regression models for panel data to adjust for selection on unobserved time-invariant confounders, interpreting coefficients for the time-varying marriage variables as effects. However, they did not define these effects or give conditions under which the regression coefficients would warrant a causal interpretation. Consequently, they failed to appropriately adjust for important time-varying confounders and misinterpreted their results. Regression models for panel data with unobserved time-invariant confounders are also widely used in many other policy-relevant contexts and the same problems arise there. This article draws on recent statistical work on causal inference with longitudinal data to clarify these problems and help researchers use appropriate methods to model their data. A basic set of treatment effects is defined and used to define derived effects. Causal models for panel data with unobserved time-invariant confounders are defined and the treatment effects are reexpressed in terms of these models. Ignorability conditions under which the parameters of the causal models are identified from the regression models are given. Even when these hold, a number of interesting and important treatment effects are typically not identified.

**KEY WORDS:** Causal inference; Fixed effects; Longitudinal data; Marriage premium; Unobserved confounders; Unobserved variables

**\*\* Refreshments will be served at @2:50pm in Room 502 Hill Center \*\***

