

Doctorate/PhD Program  
Law and Economics of Money and Finance  
Empirical Law and Economics  
Abrams and Klick

Exam

27 August 2011

Please email answers to [jklick@law.upenn.edu](mailto:jklick@law.upenn.edu)

1. What is an omitted variable bias and under what conditions does it arise? (10 points)
2. How do randomized experiments avoid omitted variable biases? (10 points)
3. Describe some problems that do arise in randomized experiments. (10 points)
4. Read Jonathan Klick and Alexander Tabarrok (2005), "Using Terror Alerts to Estimate the Effect of Police on Crime," *Journal of Law and Economics*, 48(1): 267-279 available at <http://www.law.upenn.edu/fac/jklick/48JLE267.pdf> .
  - a. Describe the identification strategy used to estimate the causal effect of police on crime. (10 points)
  - b. Discuss ways in which the causal estimate may still suffer from omitted variable bias. (10 points)
  - c. Discuss reasons why, even if the causal estimate does not suffer from a bias, its results may not generalize to other jurisdictions. (10 points)
5. Event studies are commonly used to determine causation in securities fraud cases where it is required that the fraudulent statement leads to a statistically significant effect on the firm's return. It is the case that such event studies require that the efficient market hypothesis holds in the semi-strong form and that the strong form does not hold. Why is this the case? (10 points)
6. It is often suggested that clustering standard errors will lead to an increase in the magnitude of the standard error estimate. Explain why this is not necessarily true. (10 points)
7. Explain why effect heterogeneity necessarily implies model misspecification. (10 points)
8. Choose one question to count double. Note that if you choose question 4, you must specify either 4.a, 4.b, or 4.c.