



MOR 604: RESEARCH METHODS

Spring 2012

Instructor: Feng Zhu
Location: Hoffman Hall 506
Time: Mondays 4:00-6:30pm
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Office hours: By appointment

This course provides doctoral students a foundation for conducting independent, scholarly, management research. It is of value to not just strategy students, but also others who are interested in publishing in top-tier management journals in other fields. The course will be particularly useful for those who are in the early stage of the doctoral programs.

The course has two main goals. The first is to provide a survey of common methods in management research. We will discuss the relative strengths and weaknesses of various statistical methods, and some of the practical problems that arise in the application of these methods. The second is to develop a clear understanding of the conceptual difficulties associated with establishing causality in empirical work, and to present a set of tools that could help you establish causality.

By developing a good understanding of various research methods, this course will help you improve your design of empirical projects.

Prerequisites

This course is designed to complement a graduate-level course in econometrics. We will emphasize intuition and eschew proofs. However, the course will not shy away from technical material in either the readings or discussion.

Assignments and Grading

Class participation: 25% of grade. Attendance is mandatory. Class discussion is a critical component of the seminar. You will be expected to complete the readings assigned before class and come to class with comments and questions. You will also be expected to lead class discussions.

Empirical exercise: 25% A series of empirical exercises, including one exercise to replicate a paper.

One referee report: 10% of grade. You will be asked to write a 3-4 page referee report for a working paper.

Research paper: 40% of grade. At the end of the semester, you will submit a written research paper (30%) and also present it to the class (10%). The paper can be based on the best research idea you have come up during the semester or it can be a further development of an existing early stage paper. It is expected that you will turn this work into a publishable paper after this class. This 25-40 page research paper should look like a high-quality empirical paper. It is possible that some projects require lengthy data collection. In that case, you should at least know what the data are like and how you can obtain the data so that the paper can be as specific as possible about the implementation.

Textbooks

There is no required textbook for the class. We will use the Wooldridge text as a “standard reference” and will also read a few chapters from Angrist and Pischke's book. You should feel free to consult other books for similar topics.

Wooldridge: Wooldridge, Jeffrey M. 2001. *Econometric Analysis of Cross Section and Panel Data*. MIT Press, Cambridge, MA.

MHE: Angrist, Joshua D., Jörn-Steffen Pischke. 2008. *Mostly Harmless Econometrics*. Princeton University Press, Princeton, NY.

Course Schedule

(Readings are subject to change. * indicates required readings)

Session	Date	Topic and Readings
1	09-Jan	Overview of the process of doing empirical research: From idea generation to execution *Goolsbee, Austan, Chad Syverson. 2008. How do incumbents respond to the threat of entry? The case of major airlines. <i>Quarterly Journal of Economics</i> 123(4) 1611–1633.
2	23-Jan	Guest Lecture by Scott Wiltermuth (Topic and readings TBD)
3	30-Jan	Panel data *Simon, Daniel. 2005. Incumbent pricing responses to entry. <i>Strategic Management Journal</i> 26(13) 1229–1248. *George, Lisa M., Joel Waldfogel. 2006. The "New York Times" and the Market for Local Newspapers. <i>American Economic Review</i> 96(1) 435–447. Bowen, Harry P., Margarethe F. Wiersema, 1999. Matching method to paradigm in strategy research: Limitations of cross-sectional analysis and some methodological alternatives. <i>Strategic Management Journal</i> 20(7) 625–636. MHE Chapter 3 MHE Chapter 5.1 and 5.3 Wooldridge Chapters 10 and 11
4	06-Feb	Event studies and weighted least square *Dranove, David, Neil Gandal. 2003. The DVD vs. DVIX standard war: Network effects and empirical evidence of preannouncement effects. <i>Journal of Economics and Management Strategy</i> 12(3) 363–386. *McWilliams, Abigail, Donald Siegel. 1997. Event studies in management research: Theoretical and empirical issues. <i>Academy of Management Journal</i> 40(3) 626–657. *Meznar, Martin B., Douglas Nigh, Chuck C. Y. Kwok. 1994. Effect of Announcements of Withdrawal from South Africa on Stockholder Wealth. <i>Academy of Management Journal</i> 37(6) 1633–1648. Dickens, William T. 1990. Error components in grouped data: Is it ever worth weighting? <i>Review of Economics and Statistics</i> 72(2) 328–333. *Stiroh, Kevin J. 2002. Information technology and the U.S. productivity revival: What do the industry data say? <i>American Economic Review</i> 92(5) 1559–1576.
5	13-Feb	Guest Lecture by Scott Wiltermuth (Topic and readings TBD)

6 27-Feb Endogeneity problem

*Bloom, Nick, Tobias Kretschmer, John Van Reenen. 2011. Are family-friendly workplace practices a valuable firm resource? *Strategic Management Journal* 32(4) 343–367.

*Hamilton, Barton H., Jackson A. Nickerson. 2003. Correcting for endogeneity in strategic management research. *Strategic Organization* 1(1) 51–78.

*Stern, Scott. 2004. Do Scientists Pay to Be Scientists? *Management Science* 50(4): 835-853.

*Bertrand, Marianne, Antoinette Schoar, 2003. Managing With Style: The Effect Of Managers On Firm Policies. *Quarterly Journal of Economics* 118(4): 1169-1208.

MHE Chapter 4

Wooldridge Chapter 5

7 05-Mar Instrumental variable

*Zentner, Alejandro. 2006. Measuring the effect of file sharing on music purchases. *Journal of Law and Economics* 49(1) 63–90.

*Qian, Yi. 2008. Impacts of entry by counterfeiters. *Quarterly Journal of Economics* 123(4) 1577–1609.

Murray, Michael P. 2006. Avoiding Invalid Instruments and Coping with Weak Instruments. *Journal of Economic Perspectives* 20(4) 111-32.

Shaver, J. Myles. 1998. Accounting for endogeneity when assessing strategy performance: Does entry mode choice affect FDI survival? *Management Science* 44(4) 571–585.

Angrist, Joshua D. 2001. Estimations of limited dependent variable models with dummy endogenous regressors: Simple strategies for empirical practice. *Journal of Business & Economic Statistics* 19(1) 2–16.

Stock, James H., Francesco Trebbi. 2003. Retrospectives who invented instrumental variable regression? *Journal of Economic Perspectives* 17(3) 177–194.

8 19-Mar Natural and field experiments

*Zhang, Xiaoquan (Michael), Feng Zhu. 2011. Group size and incentives to contribute: A natural experiment at Chinese Wikipedia. *American Economic Review*. 101(4) 1601-1615.

*Azoulay, Pierre, Joshua G. Zivin, Jialan Wang. 2010. Superstar extinction. *Quarterly Journal of Economics* 125(2) 549-589.

Natividad, Gabriel, Even Rawley. 2011. Firm Focus and Performance: A Natural Experiment. Working paper.

*Seamans, Robert, Feng Zhu. 2011. Technology Shocks in Multi-Sided Markets: The Impact of Craigslist on Local Newspapers. Working paper.

Bertrand, Marianne, Esther Duflo, Sendhil Mullainathan. 2004. How much should we trust differences-in-differences estimates? *Quarterly Journal of Economics* 119(1) 249–275.

Murray, Fiona, Scott Stern. 2007. Do formal intellectual property rights hinder the free flow of scientific knowledge? An empirical test of the anti-commons hypothesis. *Journal of Economic Behavior & Organization* 63(4) 648–687.

*Bloom, Nicholas, Benn Eifert, Aprajit Mahajan, David McKenzie, John Roberts. Does management matter? Evidence from India. Working paper.

Tucker, Catherine, Juanjuan Zhang. 2010. Growing two-sided networks by advertising the user base: A field experiment. *Marketing Science* 29(5) 805-814.

Cai, Hongbin, Yuyu Chen, Hanming Fang. 2009. Observational learning: Evidence from a randomized natural field experiment. *American Economic Review* 99(3) 864–882.

Blank, Rebecca M. 1991. The effects of double-blind versus single-blind reviewing: Experimental evidence from The American Economic Review. *American Economic Review* 81(5) 1041–1067.

Lecture notes and video on difference-in-differences estimation at
<http://www.nber.org/minicourse3.html>

MHE Chapter 5.2

9 26-Mar **Limited dependent variables**

*Suarez, Fernando. 2005. Network effects revisited: The role of strong ties on technology selection. *Academy of Management Journal* 48(4) 710–720.

Lieberman, Marvin B. 1990. Exit from declining industries: ‘Shakeout’ or ‘stakeout’? *RAND Journal of Economics* 21(4) 538–554.

*Lerner, Josh, Feng Zhu. 2007. What is the impact of software patent shifts? Evidence from *Lotus v. Borland*. *International Journal of Industrial Organization* 25(3) 511–529.

*Hoetker, Glenn 2007. The use of logit and probit models in strategic management research: Critical issues. *Strategic Management Journal* 28(4) 331–343.

*Zelner, Bennet A. 2009. Using simulation to interpret results from logit, probit, and other nonlinear models. *Strategic Management Journal* 30(12) 1335–1348.

10 02-Apr **Sample selection**

*Kalnins, Arturs. 2007. Sample Selection and Theory Development: Implications of Firms' Varying Abilities to Appropriately Select New Ventures. *Academy of Management Review*, 32(4): 1246-64.

*Tucker, Catherine, Juanjuan Zhang, Ting Zhu. 2009. Days on market and home sales. NET Institute Working paper No. 09-16.

*Greenstein, Shane, Feng Zhu. 2012. Collective Intelligence and Neutral Point of View: The Case of Wikipedia. Working paper.

Wooldridge Chapter 15, pp. 603-621

MHE Chapter 2

11 09-Apr Matching

*Jaffe, Adam B., Manuel Trajtenberg, Rebecca Henderson. 1993. Geographic Localization of Knowledge Spillovers as Evidenced by Patent Citations. *Quarterly Journal of Economics* 108(3) 577-598.

*Thompson, Peter, Melanie Fox-Kean, 2005. Patent Citations and the Geography of Knowledge Spillovers: A Reassessment. *American Economic Review* 95(1) 450-460.

*Henderson, Rebecca, Adam Jaffe, Manuel Trajtenberg. 2005. Patent Citations and the Geography of Knowledge Spillovers: A Reassessment: Comment. *American Economic Review* 95(1) 461-464.

*Thompson, Peter, Melanie Fox-Kean, 2005. Patent Citations and the Geography of Knowledge Spillovers: A Reassessment: Reply. *American Economic Review* 95(1) 465-466.

*LaLonde, Robert J. 1986. Evaluating the econometric evaluations of training programs with experimental data. *American Economic Review* 76(4) 604-620.

*Dehejia, Rajeev H., Sadek Wahba. 2002. Propensity Score Matching Methods for Non-experimental Causal Studies. *Review of Economics and Statistics* 84(1): 151-161.

Smith, Jeff and Petra Todd. 2005. Does matching overcome LaLonde's critique of nonexperimental estimators? *Journal of Econometrics* 125(1-2) 305-353.

Smith, Jeffery A., Petra E. Todd. 2001. Reconciling Conflicting Evidence on the Performance of Propensity-Score Matching Methods. *American Economic Review Papers and Proceedings* 91(2) 112-118.

Altonji, Joseph G., Todd E. Elder, Christopher R. Taber. 2005. Selection on observed and unobserved variables: Assessing the effectiveness of Catholic schools. *Journal of Political Economy* 113(1) 151-184.

*Sun, Monic, Feng Zhu. 2011. Ad Revenue and Content Commercialization: Evidence from Blogs. Working paper.

MHE 68-90

12 16-Apr Regression discontinuity design and survival analysis

*Lee, David S., Thomas Lemieux, 2010. Regression Discontinuity Designs in Economics. *Journal of Economic Literature* 48(2) 281-355.

Imben, Guido W., Thomas Lemieux. 2010. Regression discontinuity designs: A guide to practice. *Journal of Econometrics* 142(2) 615-635.

*Kerr, William R., Josh Lerner, Antoinette Schoar. The Consequences of Entrepreneurial Finance: Evidence from Angel Financings. Working paper.

Luca, Michael. 2011. Reviews, Reputation, and Revenue: The Case of Yelp.com. Working paper.

*Mitchell, Will. 1991. Dual clocks: Entry order influences on incumbent and newcomer market share and survival when specialized assets retain their value. *Strategic Management Journal* 12(2) 85–100.

Echambadi, Raj, Barry Bayus, Rajshree Agarwal. 2009. Entry timing and the survival of startup and incumbent firms in new industries. Working paper.

Taylor, Alva, Constance E. Helfat. 2008. Organizational linkages for surviving technological change: Complementary assets, middle management, and ambidexterity. Tuck School of Business Working Paper No. 2008–53.

Audretsch, David B., Talat Mahmood. 1995. New firm survival: New results using a hazard function. *Review of Economics and Statistics* 77(1) 97–103.

Dowell, Glen, Anand Swaminathan. 2006. Entry timing, exploration, and firm survival in the early U.S. bicycle industry. *Strategic Management Journal* 27(12) 1159–1182.

*Srinivasan, Raji, Gary L. Lilien, Arvind Rangaswamy. 2004. First in, First out? The effects of network externalities on pioneer survival. *Journal of Marketing* 68(1) 41–58.

*From the Editors. 2002. Replication, meta-analysis, scientific progress, and AMJ's publication policy. *Academy of Management Journal* 45(5) 841–846.

VanderWerf Pieter A., John F. Mahon. 1997. Meta-analysis of the impact of research methods on findings of first-mover advantage. *Management Science* 43(11) 1510–1519.

MHE: 251-259

13 23-Apr Research paper presentations