Consumer Science 999

Causal Models for Household Economic Wellbeing

Spring 2012
Wed 10:00 - 11:30 AM

Room: 7401 Social Science

Course Syllabus

Instructor: J. Michael Collins, jmcollins@wisc.edu
Instructor: Jason Houle, jnhoule@wisc.edu

Resources: Learn at UW `learn@uw.wisc.edu` will be the main resource for this course.

Prerequisites: Graduate student status.

Text:
Required background texts include Angrist and Pischke's (2009) *Mostly Harmless Econometrics*; Allison's (2009) *Fixed Effects Regression Models*; Rabe-Hesketh and Skrondal's (2008) *Multilevel and Longitudinal Modeling Using Stata*; Cameron and Trivedi's (2009) *Microeconmetrics Using Stata*; and Hansen's (2012) *Econometrics* available at `http://www.ssc.wisc.edu/~bhansen/econometrics/Econometrics.pdf`.

Course Overview:
This course is designed for PhD students to provide an applied research opportunity to learn causal models from econometrics and program evaluation. Topics include panel models, instrumental variables (IV), reduced form, fixed effects, propensity scores and hierarchical linear modeling (HLM). The course

will include weekly programming assignments using STATA. Course readings and problem sets will focus on household economic wellbeing and other dimensions of household wellbeing (i.e. physical health, mental health, and stress). Each session will begin with an overview of the topic provided by the instructor, followed by a discussion of the assigned readings and review of STATA programming files for that week.

Assignments: Assignments will primarily be each week's programming do.files in Stata and that will serve as a problem set with 8 in total. The final paper will be an applied analysis exercise. The final paper is worth 60 percent of the course grade and the 8 problem sets each 5 percent. The final paper will be divided between a 20 point literature review and methods draft due in week 10 and a 40 point final paper. Comments will be provided on the preliminary draft to incorporate in the final draft.

Grading Policy: In this class we will adhere to University grading standards and policies of academic misconduct. See `students.wisc.edu`. Students must be cautious to avoid plagerism defined in the UW bylaws as 'using another person's ideas, words, or research and presenting it as one's own by not properly crediting the originator.' For more information on what is considered plagerism and how to avoid it, see The Writing Center's handout at `students.wisc.edu`.

Accommodations: Your success in this class is important. If there are circumstances that may affect your performance in this class, we can work together to develop strategies for adapting assignments to meet both your needs and the requirements of the course. The McBurney Disability Resource Center provides resources for students with disabilities. You will need to provide documentation of disability to them in order to receive official university services and accommodations. 263-2741 and location of McBurney Center, 702 W. Johnson, Suite 2104, `www.mcburney.wisc.edu`.

Course Outline:

Week 1 Course Introduction

- Ashraf, N., Karlan, D., and Yin, W. (2006). Tying Odysseus to the

Mast: Evidence from a Commitment Savings Product in the Philippines. *Quarterly Journal of Economics*, 121 (2), 635-672.

- Winship, C. and Morgan, S. (1999). The Estimation of Causal Effects from Observational Data. *Annual Review of Sociology* 25, 659-706.

- **Assignment Due**: Select data set and basic topic/question of interest.

Week 2 Background on Stata

- Cameron and Trivedi's *Microeconmetrics Using Stata* Review Chapter 1 and Chapter 2 (section 2.3 and 2.4 only)

- Hansen's *Econometrics* Chapter 1 and Appendix A

- **Assignment Due**: Obtain data and read into Stata. Create a do.file.

- **Assignment Due**: Review linear and matrix algebra exercises in *Textbook Name* Chapter 1 p. 1-45.

Week 3 Panels

- Allison's *Fixed Effects Regression Models*

- Angrist and Pischke's *Mostly Harmless Econometrics* Chapter 5

- Allison, P. (1990). Change Scores as Dependent Variables in Regression Analysis. *Sociological Methodology*, 20, 93-114.

- **Assignment Due**: Create descriptive tables using esttab and/or tabout.

- **Assignment Due**: Review linear and matrix algebra exercises in *Textbook Name* Chapter p. 46-95.

Week 4 Fixed Effects and Random Effects

- Allison *Fixed Effects Regression Models*

- Johnson, D. R. (1995). Alternative Methods for the Quantitative Analysis of Panel Data in Family Research: Pooled Time-Series Models. *Journal of Marriage and the Family*, 57, 1065-1077.

- Schnittker, J. and John, A. (2007). Enduring Stigma: The Effect of Incarceration on Health. *Journal of Health and Social Behavior*, 48, 115-130. NOTE: Compare to Massoglia in Wk 9

- Stata instructional video: `http://www.youtube.com/watch?v=MMijkK4t9UE`

- **Assignment Due**: Fixed effect models in Stata using NLSY79

Week 5 Instrumental Variables

- Angrist and Pischke's *Mostly Harmless Econometrics* Chapter 1, 2, and 4 (p. 113-149).

- Gale Paper in American Economic Journal

- **Assignment Due**: Prepare for IV by recoding variables and using the reshape command.

Week 6 Instrumental Variables

- Angrist and Pischke's *Mostly Harmless Econometrics* Chapter 4 (p. 150-218)

- Rugh, J., and Massey, D. S. (2010). Racial Segregation and the American Foreclosure Crisis. *American Sociological Review*, 75, 629-652.

- Conley, T.G., Hansen, C.B., and Rossi, P.E. (2012). Plausibly Exogenous. *The Review of Economics and Statistics*, 94(1), 260-272.

- Recommended: Lusardi, A., Mitchell, O. S. (2007). Baby Boomer retirement security: The roles of planning, financial literacy, and housing wealth. *Journal of Monetary Economics*, 54(1), 205-224.

- **Assignment Due**: IV model in Stata using NLSY79 and state law variables - ivreg2 and ivregress

Week 7 Regression Discontinuity

- Angrist and Pischke's *Mostly Harmless Econometrics* Chapter 6

- Imbens, G.W. (2009). *Better LATE than nothing: Some comments on Deaton (2009) and Heckman and Urzua (2009).* Available at `http://www.economics.harvard.edu/faculty/imbens/files/bltn_09apr10.pdf`

- Lemieux, T. and Milligan, K. (2004). *Incentive Effects of Social Assistance: A Regression Discontinuity Approach* (NBER Working Paper No. 19541). National Bureau of Economic Research.

Week 8 Propensity Scores

- Guo, S. and Fraser, M.W. (2010). *Propensity Score Analysis: Statistical Methods and Applications.* Thousand Oaks: SAGE Publications.

- Harding, D. (2003). Counterfactual Models of Neighborhood Effects: The Effect of Neighborhood Poverty on Dropping Out and Teenage Pregnancy. *American Journal of Sociology*, 109, 676-719.

Week 9 Propensity Scores

- Massoglia, M. (2008). Incarceration as Exposure: The prison, infectious disease, and other stress-related illnesses. *Journal of Health and Social Behavior*, 49, 56-71. NOTE: Compare to Schnittker in Week 4

- Benjamin, D. J. (2003). Does 401(k) eligibility increase saving?: Evidence from propensity score subclassification. *Journal of Public Economics*, 87(5-6), 1259-1290.

- Iacus, S.W., King, G., and Porro, G. (2012). Casual Inference without Balance Checking: Coarsened Exact Matching. *Political Analysis*, 20, 1-24. doi:10.1093/pan/mpr013

Week 11 Multilevel Models (Overview)

- NIH Office of Behavioral and Social Sciences Research. Multilevel modeling e-Source chapter. `http://www.esourceresearch.org/tabid/305/default.aspx`

- Elliott, W., Jung, H. and Friedline, T. Math Achievement and Childrens Savings: Implications for Child Development Accounts, *Journal of Family and Economic Issues*, 31(2) 171-184.

- **Assignment Due**: Complete all exercises within the NIH e-chapter.

Week 12 Multilevel Models

- Rabe-Hesketh and Skrondal's *Multilevel and Longitudinal Modeling Using Stata*, Chapter 2, pp. 51-85.

- Diez-Roux, A. (2000). Multilevel Analysis in Public Health Research. *Annual Review of Public Health*, 21, 171-192.

Week 13 Multilevel Models (Context Effects and Longitudinal)

- Browning, C. R. and Cagney, K. A. (2002). Neighborhood Structural Disadvantage, Collective Efficacy, and Self-Rated Physical Health in an Urban Setting. *Journal of Health and Social Behavior*, 43, 383-399.

- Helson, R., Jones, C. and Kwan, V. S. Y. (2002). Personality Change Over 40 Years of Adulthood: Hierarchical Linear Modeling of Two Longitudinal Samples. *Journal of Personality and Social Psychology*, 83, 752-766.

Week 14 Standard Errors and Non-OLS Models

- Stango, V., and Zinman, J. (2009). Exponential Growth Bias and Household Finance. *The Journal of Finance*, LXIV (6), 2807-2849.

- Stango, V., and Zinman, J. (2011). Fuzzy Math, Disclosure Regulation, and Market Outcomes: Evidence from Truth-In-Lending Reform. *The Review of Financial Studies*, 24(2), 506-533.

- Madrian, B. C. and Shea, D. F. (2001). The power of suggestion: Inertia in 401(k) Participation and Savings Behavior. *The Quarterly Journal of Economics*, CXVI(4), 1149-1186.

Week 15 Course Wrap-Up

- **Assignment Due**: FINAL PAPER

Note: all readings subject to change. Suggestions for required or recommended readings are encouraged.