

Economics 245

Empirical Methods

Fall 2014

Reading List (not updated entirely)

Items with asterisks (***) in front are required reading.

Cameron and Trivedi is shorthand for **Microeconometrics**, by Colin Cameron and Pravin Trivedi.

Deaton is shorthand for **The Analysis of Household Surveys**, by Angus Deaton.

MHE is shorthand for **Mostly Harmless Econometrics**, by Angrist and Pischke.

- Data and using data

- *** Freedman, D. “**Statistical Models and Shoe Leather**”. *Sociological Methodology* **21**, 1991, 291–313.
- *** Kennedy, P.E. “**Sinning in the Basement: What Are the Rules? The Ten Commandments of Applied Econometrics.**” *Journal of Economic Surveys* **16**:4, 2002, 487–620.
- *** Duncan, G.T. and G. Kalton. “**Issues of Design and Analysis of Surveys across Time.**” *International Statistical Review* **55**:1, 1989, 97–117.
- Bound, J., Brown, C., and Mathiowetz, N. “**Chapter 59 Measurement Error in Survey Data,**” in J.J. Heckman and E. Leamer, eds., *Handbook of Econometrics, Volume 5*, Amsterdam: North-Holland. 2001. 3705–3843.
- Deaton, A. “**Chapter 33 Data and Econometric Tools for Development Analysis,**” in Jere Behrman and T.N. Srinivasan, eds., *Handbook of Development Economics Volume 3, Part 1*, Amsterdam: North-Holland. 1995.
- Cameron and Trivedi. Chapters 24 (Stratified and Clustered Samples), 26 (Measurement Error Models), and 27 (Missing Data and Imputation).
- Deaton. Chapter 1 (The Design and Content of Household Surveys). Chapter 2, sections 1 (survey design and regressions) and 2 (The econometrics of clustered samples).

- Weighting and Unit Non-Response
 - *** Kalton, Graham and Ismael Flores-Cervantes. “[Weighting Methods.](#)” *Journal of Official Statistics* **19**: 2, 2003, 81–97. (Click on full text in menu to left of abstract.)
 - *** U.S. Census Bureau. [Current Population Survey Design and Methodology Technical Paper 66, Chapter 10, Weighting and Seasonal Adjustment for Labor Force Data](#), 10-1–10-16.
 - *** U.S. Census Bureau. [Public Use Microdata Sample 2000 Census Technical Documentation, Chapter 5 Sample Design and Estimation.](#)
 - [Survey Nonresponse.](#) Robert Groves, Don Dillman, John Eltinge, and Roderick Little, eds. Wiley. 2001.
- *** Solon, Gary, Haider, Steven, and Jeffrey Wooldridge, “What are we weighting for?” NBER WP 18859. 2013.
- Item Non-Response
 - Langerman, Lawrence, Land, Kenneth, and Pieper, Carl. “[An Empirical Evaluation of the Predictive Mean Matching Method for Imputing Missing Values.](#)” *Sociological Methods Research* **26**:3, 1997, 3–33.
 - Quality Measures: American Community Survey. Sample size and Data Quality. [Item Allocation Rates \(Item non response\)](#). Go up 1 level of links, and the same site has other interesting information about response rates, and coverage rates, sample sizes..
 - Shafer, Joseph. “[Multiple Imputation: A Primer.](#)” *Statistical Methods in Medical Research* **8**, 1999, 3–15.
 - Rubin, Donald. “[Multiple Imputation After 18+ Years.](#)” *Journal of the American Statistical Association* **91**: 434, 1996, 473–489. (Same issue has a number of comments by other statisticians.)

- Measurement Error

- * Bollinger, Chris and Barry Hirsch. “Match Bias from Earnings Imputations in the Current Population Survey: The Case of Imperfect Matching.” *Journal of Labor Economics* **24:3**, 2006, 483–520.
- *** Bollinger, Chris and Barry Hirsch. “Is Earnings Nonresponse Ignorable?”. *Review of Economics and Statistics*, **95:2**, 2013, 407–416.
- *** Hausman, Jerry. “Mismeasured Variables in Econometric Analysis: Problems from the Right and Problems from the Left” *Journal of Economic Perspectives* **15:4**, 2001, 57–67.
- * Black, Dan, Sanders, Seth, and Taylor, Lowell. “Measurement of Higher Education in the Census and Current Population Survey” *Journal of the American Statistical Association* **98:463**, 2003, 545–554.
- Bollinger, Chris and Amitabh Chandra. “Idiogenic Specification Error: A Cautionary Tale of Cleaning Data” *Journal of Labor Economics* **23:2**, 2005, 235–257.
- ** Hyslop, R. and Guido Imbens. “Bias from Classical and Other Forms of Measurement Error.” *Journal of Business and Economic Statistics* **19:4**, 2001, 475–481.
- *** SKIM Meyer, B., Mok, W., and Sullivan, J. “The Under-Reporting of Transfers in Household Surveys: Its Nature and Consequences,” NBER Working Paper 15181, 2009
- Student presentation. *** Hoykayem, Charles, Christopher Bollinger, and James Ziliak. “The Role of CPS Nonresponse on the Level and Trend in Poverty,” Working paper, 2014.
- Manski, C. and Molinari, F. “Rounding Probabilistic Expectations in Surveys” *Journal of Business and Economic Statistics* **28:2**, 2010, 219–231.
- ** Meyer, Bruce and Nikolas Mittag. “Misclassification in Binary Choice Models” *Census CES WP 13-27*, 2013.

- Attrition

- *** Fitzgerald, John, Gottschalk, Peter, and Moffitt, Robert. “An Analysis of Sample Attrition in Panel Data: The Michigan Panel Study of Income Dynamics.” *Journal of Human Resources* **33**:2, 1998, 251–299. (Note that this volume of the JHR has other articles on attrition in panels, and discusses the NLSY and SIPP as well.)
- Experiments and Causal Effects
 - MHE Chapter 2
 - Ashenfelter, Orley and Card, David. “Using the Longitudinal Structure of Earnings to Estimate the Effect of Training Programs.” *Review of Economics and Statistics* **67**: 4, 1985, 648–660.
 - LaLonde, Robert. “Evaluating the Econometric Evaluations of Training Programs with Experimental Data.” *American Economic Review* **76**:4, 1986, 604–620.
 - Heckman, James J. and Hotz, V. Joseph. “Choosing Among Alternative Nonexperimental Methods for Estimating the Impact of Social Programs: The Case of Manpower Training” *Journal of the American Statistical Association* **84**: 408, 1989, 862–874. (Note there are also 2 comments and a rejoinder.)
 - *** Angrist, Joshua and Pischke, Victor. “The Effects of High Stakes High School Achievement Awards: Evidence from a Randomized Trial” *American Economic Review* **99**:4, 2009, 301–331.
 - Angrist, J. ”Treatment Effects.”, *New Palgrave Dictionary of Economics*. 2008.
 - Angrist, J. and A. Krueger. “Chapter 23 Empirical Strategies in Labor Economics,” in O. Ashenfelter and D. Card, eds. *Handbook of Labor Economics, Volume 3a*, Amsterdam: North-Holland, 1999, 1277–1366.
 - Heckman, J., R. LaLonde, and J. Smith. “Chapter 31 The Economics and Econometrics of Active Labor Market Programs,” in O. Ashenfelter and D. Card, eds. *Handbook of Labor Economics, Volume 3a*, Amsterdam: North-Holland, 1999, 1865–2097.

- Imbens, G. “Nonparametric Estimation of Average Treatment Effects Under Exogeneity: A Review.” *Review of Economics and Statistics* **86**:1, 2004, 4–29. (Note that the rest of the entire volume of ReStat is about matching.)
- Heckman, James, and Navarro-Lozano, Salvador. “Using Matching, Instrumental Variables, and Control Functions to Estimate Economic Choice Models.” *Review of Economics and Statistics* **86**:1, 2004, 30–57.
- Duflo, Esther, Rachel Glennerster, and Michael Kremer. “Using Randomization in Development Economics Research: A Toolkit”, in *Handbook of Development Economics*, volume 4, 2008.
- Student presentation. *** Banerjee, Abhijit, Esther Duflo, and Richard Hornbeck. 2014. “(Measured) Profit is Not Welfare: Evidence from an Experiment on Bundling Microcredit and Insurance.”

- **MHE Chapter 3**

- Linear regression, selection on observables, matching, propensity scores
 - *** Rosenbaum, P. and Rubin, D. “The Central Role of the Propensity Score in Observational Studies for Causal Effects.” *Biometrika* **70**:1, 1983, 41–55.
 - *** Heckman, J.J., Ichimura, H., and Todd, P. “Matching as an Econometric Evaluation Estimator.” *Review of Economic Studies* **65**:2, 1998, 261–294.
 - *** Smith, J.A., and Todd, P. “Does Matching Overcome LaLonde’s Critique of Nonexperimental Estimators?” *Journal of Econometrics* **125**:1–2, 2005, 305–353. (Also see the comment from Rajeev Dehejia and Smith and Todd’s rejoinder in the same volume of the journal. These are all linked to at [Jeff Smith’s web page](#).)
 - Useful practical guide. Caliendo, M. and S. Kopeinig. “Some Practical Guidance for the Implementation of Propensity Score Matching.” *Journal of Economic Surveys* **22**:1, 2008, 31–71.

- Useful practical guide. Abadie, A., Drukker, D., Herr, J., and Imbens. G. “Implementing Matching Estimators for Average Treatment Effects in Stata.” *The Stata Journal* **4**, 2004, 290–311.
- Abadie, A., and Imbens. G. “Large Sample Properties of Matching Estimators for Average Treatment Effects.” *Econometrica* **74**, 2006, 235–267.
- Abadie, A., and Imbens. G. “On the Failure of the Bootstrap for Matching Estimators” *Econometrica* **76**:6, 2008, 1537–1557.
- Hirano, K., Imbens, G., and Ridder G. “Efficient Estimation of Average Treatment Effects Using the Estimated Propensity Score.” *Econometrica* **71**, 2003, 1161–1189.
- Abadie, A., and Imbens, G. “Bias-Corrected Matching Estimators for Treatment Effects” *Journal of Business and Economic Statistics* **29**:1, 2011, 1–11.
- Talks about cross-validation. There are a bunch of other interesting papers in this special issue. Galdo, J., Smith, J., and Black, D. “Bandwidth Selection and the Estimation of Treatment Effects with Unbalanced Data” *Annals of Economics and Statistics*. **91/92**:, 2008, 189-216.
- Argues FS behavior of weighting is worse. Frolich, M. “Finite -Sample Properties of Propensity-Score Matching and Weighting Estimators.” *Review of Economics and Statistics* **86**:1, 2004, 77–90.
- Argue reweighting does well if overlap is good. Busso, M., DiNardo, J., and McCrary, J. “New Evidence on the Finite Sample Properties of Propensity Score Matching and Reweighting Estimators”, IZA DP 3998 (2009). Forthcoming, *Review of Economic and Statistics*.
- Shaikh, A., Simonsen, M., Yildiz, N., and Vytlacil, E. 2009. “A Specification Test for the Propensity Score Using Its Distribution Conditional on Participation.” *Journal of Econometrics* **151**:1, 33–46.
- Chabe-Ferret, Sylvain. “Matching vs. Differencing when Estimating Treatment Effects with Panel Data: The Example of the Effect of Job Training Programs on Earnings.” Toulouse

School of Economics Working Paper, 2012.

- Zhao, Zhong. “Using Matching to Estimate Treatment Effects: Data Requirements, Matching Metrics, and Monte Carlo Evidence.” *Review of Economics and Statistics*, 2004. **86**:1, 91–107.
- Huber, Martin, Michael Lechner, and Conny Wunsch. 2013. “The Performance of Estimators Based on the Propensity Score.” *Journal of Econometrics*. **175**, 1–21.
- *** Caliendo, Marco, Robert Mahlstedt, and Oscar Mitnik. “Unobservable but Unimportant? ...”. IZA DP 8337.
- Flores, Carlos and Oscar Mitnik. 2013. “Comparing Treatchnets across Labor Markets: An Assessment of Nonexperimental Multiple-Treatment Strategies.” *Review of Economics and Statistics* **95**:5, 1691–1707.
- Lechner, Michael. 2008. “A Note on the Common Support Problem in Applied Evaluation Studies.” *Annales D’Economie et De Statistique*. 218-235.
- Hainmueller, Jens. 2012. “Entropy Balancing for Causal Effects: A Multivariate Reweighting Method to Produce Balanced Samples in Observational Studies.” *Political Analysis*. Also see code and stata discussion at web.stanford.edu/~jhain/ebalancepage.html.
- Non dichotomous treatments.
 - * Imbens, Guido. 2000. The role of the Propensity Score in Estimating Dose-Response Functions. *Biometrika* 87, 706–710.
 - * Cattaneo, Matias. 2010. Efficient Semiparametric Estimation of Multi-Valued Treatment Effects under Ignorability. *Journal of Econometrics* 155, 138–154. (Note there is a Stata Journal 2013 article by him, Drukker, and Holland which discusses a canned command.)

- Instrumental variables

- MHE Chapter 4

- Abadie, A. “Bootstrap Tests for Distributional Treatment Effects in Instrumental Variable Models.” *Journal of the American Statistical Association* **97**, 2002, 284–292.
- *** Angrist, J., Imbens, G., and Rubin, D. “Identification of Causal Effects using Instrumental Variables.” *Journal of the American Statistical Association* **91**: 434, 1996, 444–455.
(See also comments and rejoinder.)
- Imbens, G. and Angrist, J. “Identification and Estimation of Local Average Treatment Effects.” *Econometrica* **62**: 2, 1994, 467–475.
- Inoue, A, and Solon, G. “Two Sample Instrumental Variables Estimators” *Review of Economics and Statistics* **92**, 2010, 557-561.
- Angrist, J., and Imbens, G. “Two Stage Least Squares Estimation of Average Causal Effects in Models with Variable Treatment Intensity.” *Journal of the American Statistical Association* **90**: 430, 1995, 431–442.
- * Heckman, J., Urzua, Sergio, and Vytlačil, E. “Understanding Instrumental Variables in Models with Essential Heterogeneity.” *Review of Economics and Statistics* **88**:3, 2006, 389–432.
- * Florens, J., Heckman, J., Meghir, C. and Vytlačil, E. “Identification of Treatment Effects Using Control Functions in Models with Continuous Endogeneous Treatment and Heterogeneous Effects,” *Econometrica*, **76**:5, 2008, 1191-1208.
- * Vytlačil, E. “Independence, Monotonicity, and Latent Index Models: An Equivalence Result,” *Econometrica*, **70**:1, 2002, 331-341.
- Angrist, J. and A. Krueger. “Instrumental Variables and the Search for Identification: From Supply and Demand to Natural Experiments.” *Journal of Economic Perspectives* **15**:4, 2001, 69–85.
- Angrist, J., Graddy, K., and Imbens, G. “The Interpretation of Instrumental Variables Estimates in Simultaneous Equations Models with an Application to the Demand for Fish.” *Review of Economic Studies* **67**:3, 2000, 499–527.

- Imbens, G., and Rubin, D. “Estimating Outcome Distributions for Compliers in Instrumental Variables Models.” *Review of Economic Studies* **64**:5, 1997, 555–574.
- *** Flores-Lagunes, A. “Finite Sample Evidence of IV Estimators under Weak Instruments.” *Journal of Applied Econometrics* **22**, 2007, 677–694.
- Conley, T., Hansen, C., and Rossi, P. “Plausibly Exogenous.” *Review of Economics and Statistics* **94**, 2012, 260–272.
- * Moreira, M. and Poi, B. “Implementing Conditional Tests with Correct Size in the Simultaneous Equations Model.” *The Stata Journal* **3**:1, 2003, 57–70. (Also available from [http://www.fgv.br/professor/mjmoreira.](http://www.fgv.br/professor/mjmoreira))
- Baum, C., Schaffer, M., and Stillman, S. “Enhanced Routines for Instrumental Variables/Generalized Method of Moments Estimation and Testing.” *Stata Journal* **7**:4, 465–506.
- Kleibergen, F. “Pivotal Statistics for Testing Structural Parameters in Instrumental Variables’ *Econometrica* **70**:5, 2002, 1781–1803.
- Andrews, D., Moreira, M., and Stock, J. “Optimal Two-Sided Invariant Similar Tests for Instrumental Variables” *Econometrica* **74**:3, 2006, 715–752.
- Finlay, K., and Magnusson, Leandro. “Implementing Weak-Instrument Robust Tests for a General Class of Instrumental-Variables Models” *The Stata Journal* **9**:3, 2009, 398–421.
- Angrist, J. “Estimation of Limited Dependent Variable Models with Dummy Endogenous Regressors: Simple Strategies for Empirical Practice.” *Journal of Business and Economic Statistics* **19**:1, 2001, 2–16. (See also many comments in same issue.)
- *** Bound, J., Jaeger, D., and Baker, R. “Problems with Instrumental Variables Estimation When the Correlation Between the Instruments and the Endogeneous Explanatory Variable is Weak,” *Journal of the American Statistical Association* **90**: 430, 1995, 443-450.
- Hotz, V.J., Mullin, C., and Sanders, S. “Bounding Causal Effects Using Data from a Contaminated Natural Experiment: Analysing the Effects of Teenage Childbearing.” *Review of Economic Studies* **64**:4, 1997, 575–603.

- *** Altonji, J., Elder, T., and Taber, C. “An Evaluation of Instrumental Variables Strategy for Estimating the Effects of Catholic Schooling.” *Journal of Human Resources* **40**:4, 2005, 791–821.
- *** Angrist, J., and Fernandez-Val, I. “ExtrapoLATE-ing: External Validity and Overidentification in the LATE Framework”, NBER WP 16566, 2010.
- * Heckman, J. “Building Bridges between Structural and Program Evaluation Approaches to Evaluating Policy.” *JEL* **48**:2, 356–98, 2010.
- * Deaton, A. “Instruments, Randomization, and Learning about Development.” *JEL* **48**:2, 424–455, 2010.
- * Imbens, G. “Better late than nothing: Some comments on Deaton (2009) and Heckman and Urzua (2009).” *JEL* **48**:2, 399–423, 2010. Comments on Deaton and Heckman and Urzua.
- Panel data, Differences, and Fixed Effects
 - *** MHE Chapter 5
 - ** Meyer, B. “Natural and Quasi-Experiments in Economics.” *Journal of Business and Economic Statistics* **13**:2, 1995, 151–161.
 - ** Rosenzweig, M. and Wolpin, K. “Natural ‘Natural’ Experiments in Economics”, *Journal of Economic Literature*, **38**, 827–874.
 - *** Abadie, A., Diamond, A., and Hainmueller, J. “Synthetic Control Methods for Comparative Case Studies: Estimating the Effect of California’s Tobacco Control Program”, JASA, 2010.
 - ** Conley, T. and Taber, C. “Inference with “Differences in Differences” with a Small Number of Policy Changes.” *Review of Economics and Statistics* **93**, 2011, 113–125.
 - Athey, S., and Imbens, G. “Identification and Inference in Nonlinear Difference-in-Differences Models.” *Econometrica* **74**:1, 2006, 235–267.

- Garlick, Rob. [Academic Peer Effects with Different Group Assignment Rules: Residential Tracking versus Random Assignment](#), Mimeo, 2014.
 - McKinnish, T. [“Welfare-Induced Migration at State Borders: New Evidence from Micro-Data.”](#) *Journal of Public Economics* **91**: 3–4, 2007, 437–450.
 - *** Application paper. Gruber, J. and McKnight, R. [“Controlling Health Care Costs Through Limited Network Insurance Plans: Evidence from Massachusetts State Employees”](#) NBER WP 20462, 2014.
- Distributional methods
 - Local linear regression.
 - * Fan, J. “Local Linear Regression Smoothers and Their Minimax Efficiencies,” *Annals of Statistics*. **21**:1.
 - Quantile regression: Basics
 - * *** MHE Chapter 7
 - * *** Koenker, R., and Hallock, K. [“Quantile Regression: An Introduction”](#) *Journal of Economic Perspectives* **15**:4, 2001, 143–156.
 - * *** Angrist, J., Chernozhukov, V., and Fernandez-Val, I. [“Quantile Regression under Misspecification, with an Application to the US Wage Structure.”](#) *Econometrica* **74**:2, 2006, 539–563.
 - * Chernozhukov, V., Fernandez Val, I., and Melly, B. “Inference on Counterfactual Distributions.” MIT Working Paper 8–16. 2008.
 - * Heckman, J., Smith, J., and Clements, N. [“Making the Most Out of Programme Evaluations and Social Experiments: Accounting for Heterogeneity in Programme Impacts”](#) *Review of Economic Studies* **64**:4, 1997, 487–535.
 - * Poirier, D., and Tobias, J. [“On the Predictive Distributions of Outcome Gains in the Presence of an Unidentified Parameter”](#) *Journal of Business and Economic Statistics*

21:2, 2003,258–268.

– Quantile IV

- * *** Abadie, A., Angrist, J., and Imbens, G. “Instrumental Variables Estimation of the Effect of Subsidized Training on the Quantiles of Trainee Earnings” *Econometrica* **70**: 1,2002, 91–117.
- * *** Chernozhukov, V., and C. Hansen “An IV Model of Quantile Treatment Effects.” *Econometrica* **73**:1, 2005, 245–261.
- * Brandsen, B., M. Frolich, and B. Melly. “Quantile Treatment Effects in the Regression Discontinuity Design,” *Journal of Econometrics* **168**: 2, 2012, 382-395.

– Decompositions

- * * * * DiNardo, J., N. Fortin, and T. Lemieux. 1996. “Labor Market Institutions and the Distribution of Wages, 1973-1992: A Semiparametric Approach,” *Econometrica* **64**: 5, 1001–1044.
- * ** Firpo, S., Fortin, N., and T. Lemieux. 2009. “Unconditional Quantile Regressions,” *Econometrica* **77**: 3, 952-973.
- * * Fortin, N. T. Lemieux, and S. Firpo. “Chapter 1 Decomposition Methods in Economics,” in O. Ashenfelter and D. Card, eds. *Handbook of Labor Economics, Volume 4*, Amsterdam: North-Holland, 2011, 1–102.
- * ** Chernozhukov, V., I. Fernandez-Val, and B. Melly. 2013. “Inference on Counterfactual Distributions”, *Econometrica* 81:6, 2205–2268.
- * Kline, Pat. 2011. “Oaxaca Blinder as a reweighting Estimator,” *American Economic Review* 101:3, 532-537.
- * * Gelbach, Jonah. Forthcoming. “When Do Covariates Matter, and Which Ones and How Much?” *Journal of Labor Economics*.
- * * Fairlie, Robert. 2005. “An Extension of the Blinder-Oaxaca Decomposition Technique to logit and probit Models,” *Journal of Economic and Social Measurement*, **30**:4, 305–

– Regression Discontinuity

- * *** MHE Chapter 6
- * Imbens, G. and T. Lemieux. “Regression Discontinuity Designs: A Guide to Practice.” *Journal of Econometrics* **142**:2, 2008, 615–635.
- * Lee, D. and T. Lemieux. “Regression Discontinuity Designs in Economics.” *Journal of Economic Literature* **48**:2, 2010, 281–355.
- * Card, D., Lee, D., Pei, Z, and Weber, A. “Nonlinear Policy Rules and the Identification and Estimation of Causal Effects in a Generalized Regression Kink Design” NBER WP 18564, 2012. (Also see Yingying Dong’s slides on another approach.)
- * Dong, Y. and Lewbel, A. “Identifying the Effect of Changing the Policy Threshold in Regression Discontinuity Models, Forthcoming, *Review of Economics and Statistics*.
- * Imbens, G., and Kalyanaraman, K. “Optimal Bandwidth Choice for the Regression Discontinuity Estimator.” *Review of Economic Studies* **79**:3, 2011, 933–959.
- * Barreca, A., Lindo, J., and Waddell, G. “Heaping Induced Bias in Regression-Discontinuity Designs, NBER WP 17408, 2011.
- * Dong, Y. “Regression Discontinuity Applications with Rounding Errors in the Running Variable”, *Journal of Applied Econometrics* 2014.
- * *** Borghans, L., A. Gielen, and E. Luttmer. Social Support Substitution and the Earnings Rebound: Evidence from a Regression Discontinuity in Disability Insurance Reform. NBER WP 18261. 2012.

– The bootstrap, permutation tests, and randomization inference

- * ** Chapter 11, Cameron and Trivedi.
- * Efron, B. and R. Tibshirani. **An Introduction to the Bootstrap** 1993, Chapman and Hall.
- * Politis, D., Romano, J. and M. Wolf. **Subsampling**. 1999. NY, NY: Springer-Verlag.

- * Andrews, D. W. K. and M. Buchinsky. 2000. “A three-step method for choosing the number of bootstrap repetitions.” *Econometrica* **68**:1, 2351.
 - * Horowitz, J. 2001. “The Bootstrap,” in *Handbook of Econometrics*, J.J., Heckman and E. Leamer, eds., volume 4, 3159-3228.
 - * Brownstone, D., and R. Valetta. “The Bootstrap and Multiple Imputation: Harnessing Increased Computing Power for Improved Statistical Tests,” *Journal of Economic Perspectives*. **15**:4, 2001, 129–141.
 - * Davidson, R. and MacKinnon, J. 2010. “Wild Bootstrap Tests for IV Regression.” *Journal of Business & Economic Statistics* **28**:1, 128-144.
 - * Davidson, R. and MacKinnon, J. 2006. “The Power of Bootstrap and Asymptotic Tests.” *Journal of Econometrics* **133**:2, 421-441.
 - * * Andrews, D. and P. Guggenberger. 2009. “Hybrid and Size-corrected Subsampling Methods.” *Econometrica* **77**:3, 721-762.
 - * Ho, D., and K. Imai. 2006. “Randomization Inference with Natural Experiments: An Analysis of Ballot Effects in the 2003 California Recall Election” *Journal of the American Statistical Association* **101**: 475. 888-900.
 - * Small, D., Ten Have, T., and Rosenbaum, P. 2008. “Randomization Inference in a Group-Randomized Trial of Treatments for Depression: Covariate Adjustment, Non Compliance, and Quantile Effects.” *Journal of the American Statistical Association* **103**:481.
 - * Fisher, R. 1935. **The design of Experiments**, Longdon: Oliver and Boyd.
- Standard Errors
- * *** MHE Chapter 7
 - * * Moulton, B.R. “Random Group Effects and the Precisions of Regression Estimates”, *Journal of Econometrics*, **32**, 1986, 385–397.
 - * Moulton, B.R. “An Illustration of a Putfall in Estimating the Effects of Aggregate

Variables on Micro Units”, *Review of Economics and Statistics*, **72**, 1990, 334–338.

- * * Bell, R. M., and McCaffrey, D.F., “Bias Reduction in Standard Errors for Linear Regression with Multi-State Samples,” *Survey Methodology*. :**2**, 2002, 169-179.
- * * Bertrand, M., Mullainathan, S., and Dufllo, E. “How Much Should We Trust Differences-in-Differences Estimates?” *Quarterly Journal of Economics* **119**, 2004, 249–275.
- * * Donald, S.G., and K. Lang. “Inference in Differences-in-Differences and Other Panel Data,” *Review of Economics and Statistics*, **89**:2, 2007, 221-233.
- * * * * Cameron, C., Gelbach, J., and Miller, D. “**Bootstrap-Based Improvements for Inference with Clustered Errors**”. *Review of Economics and Statistics*, **90**:3, 2008, 414–427.
- * ** Cameron, C., Gelbach, J., and Miller, D. “**Robust Inference with Multiway Clustering**”, *Journal of Business and Economic Statistics*. **29**:2, 2011, 238–249.
- * * Carter, A., Schnepel, K., and D. Steigerwald. “**Asymptotic Behavior of a t test robust to cluster heterogeneity**”. 2013.
- * * MacKinnon, J. and M. Webb. **Wild Bootstrap inference for Wildly Different Cluster Sizes** 2014.
- * * Barrios, T., Diamond, R., Imbens, G., and Kolesar, M. 2012. “**Clustering, Spatial Correlations, and Randomization Inference**”. *JASA* **107**:498, 578-591.

- Multiple Testing

- Anderson, Michael. “**Multiple Inference and Gender Differences in the Effects of Early Intervention: A Reevaluation of the Abecadarian, Perry Preschool, and Early Training Projects**”, *Journal of the American Statistical Organization* **103**:484, 1491–1495.
- Kling, J., J. Liebman, and L. Katz. 2007. “Experimental Analysis of Neighborhood Effects,” *Econometrica* **75**, 83–119.

- Bounding

- Lee, David. 2008. “Training, Wages, and Sample Selection: Estimating Sharp Bounds on Treatment Effects.” *Review of Economic Studies* **76:3**, 1071-1102.
- Manski, C. and J. Pepper. 2000. “Monotone Instrumental Variables: With an Application to the Returns to Schooling,” *Econometrica* **68:4**, 997-1010.
- Manski, C. 1997. “Monotone Treatment Response.” *Econometrica* **65:6**, 1311-1344.
- Manski, C. 1990. “Nonparametric Bounds on Treatment Effects,” *American Economic Review*, 319–323.
- Horowitz, J. and C. Manski. 1995. “Identification and Robustness with Contaminated and Corrupt Data,” *Econometrica*, 281–302.
- Application. Gunderson, C., D. Jolliffe, B. Kreider, and J. Pepper. 2012. “Identifying the Effects of SNAP on the Nutritional Health of Children when Program Participation is Misreported.” *Journal of the American Statistical Association*. **107:499**, 958–975.