



**PUBAFRS 8782**  
**Seminar in Policy Modeling**  
**3 Credit Hours**  
**Spring 2017**  
**Page Hall 240**

|                     |                      |
|---------------------|----------------------|
| <b>Instructor</b>   | Stéphane Lavertu     |
| <b>Days/Time</b>    | Wednesdays, 9am-noon |
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| <b>Office Hours</b> | By appointment       |

**COURSE OVERVIEW**

This course serves as an introduction to research design in the social sciences—particularly as it applies to research on public policy and management topics. The course will cover topics such as the generation of research questions; theory development and testing; experimental, quasi-experimental, and non-experimental research designs; defining and measuring concepts; quantitative and qualitative data collection; and causal inference. The course places particular emphasis on causal explanation and the statistics of causal inference because this is the dominant paradigm in the social sciences and understanding it is critical to forging a successful research career.

Learning will take place via readings outside of class, discussion of those readings in class, and the completion of a research design and final exam. It is important to note that the reading load, as well as the content of the readings, will sometimes be quite challenging. That is because I want students to know what they should aspire to master if they wish to become top researchers in the field. The idea is that students will revisit difficult readings and, hopefully, have a good grasp of them by the time they finish their PhDs. It is important to keep this in mind whenever reading assignments seem excessively difficult or inaccessible. Students will learn by struggling through readings and discussing them in class. Part of my job is to make sure that you grasp their main points and importance.

**LEARNING GOALS AND OBJECTIVES**

After completing this course, students should be able to do following:

- 1) Formulate research questions of interest to the field
- 2) Generate research designs appropriate for answering those questions
- 3) Explain why those designs are appropriate given applicable constraints
- 4) Describe the dominant research paradigm as it applies to public policy and management research
- 5) Critically assess the quality of public policy and management research with respect to this paradigm



## BASIS FOR ASSESSMENT

### *Participation (20% of Final Grade)*

Informed participation is necessary for the success of this seminar. Students are required to complete and contemplate the readings before class, and they are required to demonstrate this preparation by contributing meaningfully to seminar discussions. Every week, I will document each student's contribution as having been good, adequate, or inadequate. To get full participation credit, students will need to have received a rating of "good" more often than not, and they cannot have received a rating of "inadequate." Please remember that the reading load, as well as the content of the readings, will sometimes be quite challenging. When that is the case, I will look for evidence that you tried hard to understand readings. Thus, I expect you to have read carefully, but I do not expect you to have mastered the content. That said, please let me know if you have concerns about the readings (or any other assignment). I'm here to help.

### *Research Proposal (40% of Final Grade)*

Doctoral students at the Glenn College must defend a research proposal before they can begin focusing on their dissertation. To simulate this process, you are required to complete a research proposal for this course. Like the dissertation proposal, students must formulate a problem, situate it in the appropriate literature, provide a conceptual framework/theory, and offer a research design for interrogating that framework/theory—including specific plans for data collection and analysis. I will grade the proposals based on the rubric doctoral committees use to evaluate dissertation proposals. Specific guidelines will be discussed during the first class. We will discuss your proposals as a class during the last couple of weeks of class.

### *Final Exam (40% of Final Grade)*

Doctoral students at the Glenn College must pass candidacy exams before reaching the dissertation stage. The "research design" component requires students to critically evaluate and justify the design of a research project they have already commenced (e.g., a first-year paper) and to discuss how they might extend that research with a subsequent study. To simulate this process, I will distribute a research article and give you one week to read and critique it (e.g., in terms of the importance of the research question, the quality of the theoretical contribution, external vs. internal validity, etc.). You will also be required to offer a design for a follow-up study to extend this research. Grading will be based on the rubric used for the candidacy exam, which I will distribute the first week of class. Please note that you are prohibited from discussing any part of the take-home exam with anyone but me during the examination period.

### *Grading Scale*

|    |         |    |         |     |      |
|----|---------|----|---------|-----|------|
| A  | 93-100  | C+ | 77-79.9 | E < | 59.9 |
| A- | 90-92.9 | C  | 73-76.9 |     |      |
| B+ | 87-89.9 | C- | 70-72.9 |     |      |
| B  | 83-86.9 | D+ | 67-69.9 |     |      |
| B- | 80-82.9 | D  | 60-66.9 |     |      |



## TEXTS

The following texts are required. I recommend that you purchase the first and that you use the free online version of the second, though feel free to purchase a hardcopy if you prefer. All other readings are available on Carmen.

- Angrist, Joshua D. and Jorn-Steffen Pischke. 2009. *Mostly Harmless Econometrics: An Empiricist's Companion*, Princeton, NJ: Princeton University Press.
- Trochim, William M. The Research Methods Knowledge Base, 2nd Edition. Internet WWW page, at URL: <<http://www.socialresearchmethods.net/kb/>> (version current as of October 20, 2006). **[FREE]**

[If you prefer a hardcopy, you can purchase the updated, textbook version: Trochim, William M. K. and James P. Donnelly. 2006. *The Research Methods Knowledge Base, 3rd Edition*. Mason, OH: Atomic Dog Publishing.]

The following texts are optional. They are often used in research design classes and could be useful resources.

- Bickman, Leonard, and Debra J. Rog. *The SAGE Handbook of Applied Social Research Methods, Second Edition*. Sage 2009.  
Available free through OSU library:
  1. Go to <http://library.ohio-state.edu/screens/databases.html>
  2. Search for "Sage Research Methods Online."
  3. Log in first using your OSU lastname.# and password if prompted to do so.
  4. Click *Sage Research Methods online*.
  5. Title search for "The SAGE Handbook of Applied Social Research Methods."
- Gerring, John. 2012. *Social Science Methodology: A Unified Framework. 2nd edition*. New York, NY: Cambridge University Press.
- Shadish, William R., Thomas D. Cook, and Donald T. Campbell. 2002. *Experimental and Quasi-Experimental Designs for Generalized Causal Inference* Boston, MA: Houghton Mifflin
- Yin, Robert K. *Case Study Research: Design and Methods 5th Edition*, Thousand Oaks: Sage

NOTE: Students can access textbook information via the Barnes & Noble bookstore website: [www.shopOhioState.com](http://www.shopOhioState.com) as well as from their BuckeyeLink Student Center. This information is disseminated by B&N to all area bookstores. You may buy from a store of your choice and/or shop for books (always use ISBN# for searches) online.



## SCHEDULE

### **Week 1 (1/11). Research Questions and the Basics of Social Scientific Inquiry**

- Knowledge Base, Foundations (read all):  
<http://www.socialresearchmethods.net/kb/intres.php>
- Knowledge Base, Designing Designs for Research:  
<http://www.socialresearchmethods.net/kb/desdes.php>
- Angrist and Pischke (Chapter 1)
- Sample Comprehensive Exam Question
- Research Proposal Guidelines
- Sample Dissertation Proposal
- Dissertation Proposal Evaluation Form

#### Further Reading:

- Gerring, John. 2012. *Social Science Methodology: A Unified Framework*. 2nd edition. New York, NY: Cambridge University Press. (Chapter 2)

### **Week 2 (1/18). Role of Theory and Causal Explanation in Empirical Inquiry**

- Lave, Charles A. and James G. March. 1975. *An Introduction to Models in the Social Sciences*, Lanham, Maryland: University Press of American. Chapter 1 (pages 1-42). (Might be better to assign through Chapter 2, page 84, but I don't have PDF yet)
- Sutton, Robert I. and Barry M Staw. 1995. "What Theory is Not" *Administrative Science Quarterly* 40(3): 371-384.
- Weick, Karl E. 1995. "Comments on 'What Theory is Not, Theorizing Is'" *Administrative Science Quarterly* 40(3): 385-390.
- DiMaggio, Paul J. 1995. "Comments on 'What Theory is Not'" *Administrative Science Quarterly* 40(3): 391-397.
- Rogowski, Ronald. 2010. "How Inference Neglects Theoretical Anomaly," Brady and Collier, Chapter 5 (pages 89-99)

#### Further Reading:

- Lavertu, Stéphane and Donald P. Moynihan. 2013. "The Empirical Implications of Theoretical Models: A Description of the Method and an Application to the Study of Performance Management Implementation" *Journal of Public Administration Research & Theory* 23(2):333-360.
- Heckman, James J. 2005. "The Scientific Model of Causality" *Sociological Methodology* 35(1):1-97



- Hempel, Carl G. and Paul Oppenheim. 1948. "Studies in the Logic of Explanation" *Philosophy of Science*, 15(2): 135-175.
- Chetty, Raj. 2008. "Sufficient Statistics for Welfare Analysis: A Bridge Between Structural and Reduced-Form Methods" NBER Working Paper Series, Working Paper #14399
- Salmon, Wesley C. 1970. "Statistical Explanation" in *Nature and Function of Scientific Theories*, ed. Robert G. Colodny, pp. 173-231, Pittsburgh, PA: University of Pittsburgh Press.
- Scriven, M. (1975). "Causation as explanation" *Nous* 9, 3-10.

### Week 3 (1/25). Experimental Research Designs

- Knowledge Base, Design (read from Internal Validity through Experimental Design): <http://www.socialresearchmethods.net/kb/design.php>
- Angrist and Pischke (Chapter 2)
- Dennis, Michael L. 1990. "Assessing the Validity of Randomized Field Experiments: An Example from Drug Abuse Treatment Research" *Evaluation Review* 14(4):347-373.
- Heckman, James J. and Jeffrey A. Smith. 1995. "Assessing the Case for Social Experiments" *Journal of Economic Perspectives* 9(2):85-110.
- Moulton, Stephanie, J. Michael Collins, Căzilia Loibl, and Anya Samek. 2015. "Effects of Monitoring on Mortgage Delinquency: Evidence From a Randomized Field Study" *Journal of Policy Analysis and Management* 34(1): 184-207
- Dormady, Noah. 2014. "Carbon Auctions, Energy Markets & Market Power: An Experimental Analysis" *Energy Economics* 44: 468-482.
- Keele, Luke. 2015. "The Statistics of Causal Inference: A View from Political Methodology" *Political Analysis* 23(3): 313-335.

#### Further Reading:

- Shadish, Cook, and Campbell (Chapters 1-3; 8-10)

### Week 4 (2/1). Selection on Observables: Sample Selection, Missing Data, and Heterogeneous Effects

- Knowledge Base, Sampling (read all): <http://www.socialresearchmethods.net/kb/sampling.php>
- Knowledge Base, Quasi-Experimental Design (Nonequivalent Groups Design only): <http://www.socialresearchmethods.net/kb/quasnegd.php>
- Angrist and Pischke (Chapter 3)
- Konisky, David M. and Christopher Reenock. 2013. "Case Selection in Public Management Research: Problems and Solutions" *Journal of Public Administration Research & Theory* 23(2): 361-393.



- Lall, Ranjit. 2016. "How Multiple Imputation Makes a Difference" *Political Analysis* 24:414-433.

Further Reading:

- Heckman, James. "The Common Structure of Statistical Models of Truncation, Sample Selection and Limited Dependent Variables and a Simple Estimator for Such Models," *Annals of Economic and Social Measurement*, 1976, pp. 475-492
- Heckman, James. 1977. "Sample Selection Bias as a Specification Error" NBER Working Paper 172.
- King, Gary, James Honaker, Anne Joseph, and Kenneth Scheve. 2001. "Analyzing Incomplete Political Science Data: An Alternative Algorithm for Multiple Imputation." *American Political Science Review* 95(1): 49-69.

**Week 5 (2/8). Selection on Unobservables: Panel Methods**

- Angrist and Pischke (Chapter 5)
- St.Clair, Travis and Thomas D. Cook. 2015. "Difference-in-Differences Methods in Public Finance" *National Tax Journal* 68(2):319-338.
- Greenbaum, Robert T., Daniele Bondonio, and Tricia L. Petras. 2016. "Disasters and Relief Assistance: Empirical Evidence on the Resilience of U.S. Counties using Dynamic Propensity Score Matching" Working paper. Accessed August 28, 2016.
- Kogan, Vladimir, Stéphane Lavertu, and Zachary Peskowitz. 2016. "Performance Federalism and Local Democracy: Theory and Evidence from School Tax Referenda" *American Journal of Political Science* 60(2): 418-435.

Further Reading:

- Shadish, Cook, and Campbell (Chapters 4-6)

**Week 6 (2/15). Selection on Unobservables: IV and RD Designs**

- Knowledge Base, Quasi-Experimental Design (RD Design only): <http://www.socialresearchmethods.net/kb/quasird.php>
- Angrist, Joshua. 2006. "Instrumental Variables Methods in Experimental Criminological Research: What, Why and How." *Journal of Experimental Criminology* 2(1): 23-44.
- Carlson, Deven and Stéphane Lavertu. 2016. "Charter School Closure and Student Achievement: Evidence from Ohio" *Journal of Urban Economics* 95:31-48.
- Kogan, Vladimir, Stéphane Lavertu, and Zachary Peskowitz. 2016. "Direct Democracy and Administrative Disruption" Working Paper (R&R at JPART), Accessed October 2016.





Further Reading:

- Lee and Lemieux, *Journal of Economic Literature* 48 (June 2010): 281–355
- Angrist and Pischke (Chapter 4, 6)
- Shadish, Cook, and Campbell (Chapter 7)

**Week 7 (2/22). Concepts and Measurement**

- Knowledge Base, Measurement (Construct Validity through Levels of Measurement): <http://www.socialresearchmethods.net/kb/measure.php>
- Adcock, R. and D. Collier, “Measurement Validity: A Shared Standard for Qualitative and Quantitative Research,” *American Political Science Review*, 2001, pp. 529-546
- Jackman, S. “Measurement,” in J. Box-Steffensmeier, H. Brady, and D. Collier, eds., *The Oxford Handbook of Political Methodology*
- Selin, Jennifer L. 2015. “What Makes an Agency Independent?” *American Journal of Political Science* 59(4):971-987.
- [TBD: example from OB literature]

Further Reading:

- A. Kaplan, *The Conduct of Inquiry: Methodology for Behavioral Science*, chs. 1-2
- W. Shadish, T. Cook, and D. Campbell, *Experimental and Quasi-Experimental Designs*, pp. 64-82, 341-373
- Ragin, C. *Fuzzy-Set Social Science*, ch. 6

**Week 8 (3/1). Collection and Analysis of Survey Data**

- Knowledge Base, Survey Research: <http://www.socialresearchmethods.net/kb/survey.php>
- Fernandez, Sergio, William Resh, and Tima Moldogaziev, and Zachary Oberfield. 2015. “Assessing the Past and Promise of the Federal Employee Viewpoint Survey for Public Management Research: A Research Synthesis” *Public Administration Review* 75(3): 382-394.
- Favero, Nathan and Justin Bullock. 2015. “How (Not) to Solve the Problem: An Evaluation of Scholarly Responses to Common Source Bias.” *Journal of Public Administration Research and Theory* 25(1): 285-308.
- Favero, Nathan. 2016. “What’s Really Happening Here? Effectively Using Surveys to Learn about Organizations.” *Public Performance & Management Review* 40(1): 145-157.



### Week 9 (3/8). Observational Data, Big Data, and Social Science Research

- Knowledge Base, Unobtrusive Measures:  
<http://www.socialresearchmethods.net/kb/unobtrus.php>
- Mergel, Ines, R. Karl Rethemeyer, and Kimberley Isett. 2016. "Big Data in Public Affairs" *Public Administration Review* DOI: 10.1111/puar.12625.
- Clark, William Roberts, and Matt Golder. 2015. Big Data, Causal Inference, and Formal Theory: Contradictory Trends in Political Science? *PS: Political Science and Politics* 48(1): 65-70.
- Grimmer, Justin and Brandon Stewart. 2013. "Text as Data: The Promise and Pitfalls of Automatic Content Analysis Methods for Political Documents" *Political Analysis* 21(3): 267-297.
- Sammii, Cyrus, Laura Paler, and Sarah Zukerman Daly. 2016. "Retrospective Causal Inference with Machine Learning Ensembles: An Application to Anti-recidivism Policies in Columbia" *Political Analysis* 24:434:446
- [TBD] Workman Chapter on Machine Learning and Coding Regulations]

### Week 10 (3/15). Spring Break

### Week 11 (3/22). Qualitative Research in a Quantitative world

- Knowledge Base, Qualitative Measures (all sections):  
<http://www.socialresearchmethods.net/kb/qual.php>
- H. Brady and D. Collier, eds., *Rethinking Social Inquiry: Diverse Tools, Shared Standards (selections to be determined)*

### Week 12 (3/29). Case Studies, Mixed-Methods Research, and the Future of Causal Inference

- Eisenhardt, Kathleen M. and Melissa E. Graebner. 2007. "Theory Building from Cases: Opportunities and Challenges" *Academy of Management Journal* 50(1):25-32
- Flyvbjerg, Bent. 2006. "Five Misunderstandings about Case-Study Research" *Qualitative Inquiry* 12(2):219-245.
- Birdsall, Chris. 2016. "The Synthetic Control Method for Comparative Case Studies: An Application Estimating the Effect of Managerial Discretion Under Performance Management" *Internal Public Management Journal*
- Wang, Weiji. 2016. Exploring the Determinants of Network Effectiveness: The Case of Neighborhood Governance Networks in Beijing" *Journal of Public Administration Research & Theory* 26(2)375-388.





- Athey, Susan and Guido W. Imbens. 2016. “The State of Applied Econometrics – Causality and Policy Evaluation” Working Paper.

Further Reading:

- Abadie, Alberto, Alexis Diamond, and Jens Hainmueller. 2007. “Synthetic Control Methods For Comparative Case Studies: Estimating the Effect of California’s Tobacco Control Program” Working Paper 12831.
- Braumoeller, Bear F., and Goertz Gary. 2000. The methodology of necessary conditions. *American Journal of Political Science* 44(4):844–58.
- Thiem, Alrik. 2016. “Standards of Good Practice and the Methodology of Necessary Conditions in Qualitative Comparative Analysis” *Political Analysis* 24: 478-484.
- Yin, Robert K. *Case Study Research: Design and Methods 5th Edition*, Thousand Oaks: Sage.
- Keele, L., Tingley, D., and Yamamoto, T. (2015). “Identifying Mechanisms behind Policy Interventions via Causal Mediation Analysis.” *Journal of Policy Analysis and Management*. 34(4): 937–963.

**Week 13 (4/5). Reflection: What is the Best Way to Design Research?**

- (Review) Knowledge Base, Designing Designs for Research:  
<http://www.socialresearchmethods.net/kb/desdes.php>

**\*DUE: Research Proposals**

**Week 14 (4/12). Discussion of Student Research Proposals**

**Week 15 (4/19). Discussion of Student Research Proposals**

**Week 16 (4/26). Take-home Exam Due**

**\*\*\*\*\*IMPORTANT NOTICES BELOW – PLEASE READ!!!\*\*\*\*\***



### ***STUDENT MENTAL HEALTH***

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing. If you or someone you know is suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the **Office of Student Life Counseling and Consultation Services (CCS)** by visiting [ccs.osu.edu](http://ccs.osu.edu) or calling 614-292- 5766. CCS is located on the 4th Floor of the Younk Success Center and 10<sup>th</sup> Floor of Lincoln Tower. You can reach an on call counselor when CCS is closed at 614--292--5766 and 24 hour emergency help is also available through the 24/7 National Suicide Prevention Hotline at 1-800--273--TALK or at [suicidepreventionlifeline.org](http://suicidepreventionlifeline.org)

### ***ADA Statement***

Students with disabilities that have been certified by the Office for Disability Services will be appropriately accommodated and should inform the instructor as soon as possible of their needs. The Office for Disability Services is located in 150 Pomerene Hall, 1760 Neil Avenue; telephone 292-3307, TDD 292-0901; <http://www.ods.ohio-state.edu/>.

### ***ACADEMIC INTEGRITY (ACADEMIC MISCONDUCT)***

The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the University's [Code of Student Conduct](#), and that all students will complete all academic and scholarly assignments with fairness and honesty. Failure to follow the rules and guidelines established in the University's Code of Student Conduct may constitute "Academic Misconduct." Sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the University.

In the Ohio State University's [Code of Student Conduct](#), Section 3335-23-04 defines academic misconduct as: "Any activity that tends to compromise the academic integrity of the University, or subvert the educational process." Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the University's [Code of Student Conduct](#) is never considered an "excuse" for academic misconduct.