

School of Social Work  
1350 University Avenue  
Madison, WI, 53706

**Social Work 952, Ph.D. Proseminar in Applied Quantitative Data Analysis  
Fall 2015 Syllabus**

Monday 8:30-11:30, Social Work 114

Professor: Dan Meyer

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Offices: 212 Social Work (263-6335) and 3434 Social Science (262-7336).

Office hours: Thursday 8:30-9:30, Social Work

### **I. Description**

The course focuses on giving graduate students skills in applied quantitative data analysis. This course fulfills a requirement for a seminar in applications of research methods for the PhD in social welfare and is open to advanced MSW students and interested graduate students from other departments with instructor consent.

### **II. Course Objectives and overview**

The course is built around each student completing a quantitative research paper on a topic of their choosing; ideally, the paper will be submitted for publication in a peer review journal after completion of the course. The course has the following objectives: (1) to increase students' knowledge of methodological problems and issues faced in applied quantitative research; (2) to give students hands-on experience in all phases of a quantitative analysis research paper, from the proposal to selecting data and methods, to analyzing results, to writing the paper; (3) to introduce students to a variety of statistical techniques that may be appropriate for their current or future research; and (4) to give students experience in presenting their own research and acting as a discussant for the research of peers.

Course activities consist of: (1) joint reviews of students' proposals for their papers, as if the class were a review panel; (2) an overview of selected quantitative analysis approaches and methods; (3) ongoing discussions of topics that arise while doing quantitative research; and (4) class presentations of final papers with discussants, as if the class were a professional conference session.

This course is most relevant for students who have two of the following in place: (a) a research question; (b) familiarity with a dataset that can be used to answer the question, and (c) statistical programming skills. The instructor will provide a dataset if a student needs one.

### **III. Texts and reading material**

There are no required textbooks. Required readings will be posted on the class web site at Learn@UW or available from the web. However, I highly recommend that you include research, statistics, and programming texts in your personal library.

#### IV. Assignments and evaluation

Academic misconduct and plagiarism. Academic honesty is a critical requirement for graduate study. Please review the School of Social Work guidelines on plagiarism – <https://socwork.wisc.edu/files/Plagiarism.pdf> If a student intentionally misrepresents another’s work as their own, the student will receive no credit for the assignment and a final semester grade no higher than a C. Other penalties may be assigned consistent with School and University policy.

Grades: 45% final paper and preliminary products; 10% discussant for peer paper; 45% homework and class participation. This is a graduate seminar; the expectation is that the seminar will provide a collaborative learning environment.

Final paper and preliminary products: The final product will be a 20-30 page research paper that uses quantitative analysis. The paper should include a discussion of the significance of the research question, a literature review, a description of data and methods, specific hypotheses that are tested, quantitative results, limitations, and conclusions and next steps. The paper is due at **9 a.m., December 18**. Turning in a paper after this date will cause you to receive an incomplete. Papers may be turned in without grading penalty until **9 a.m. on January 4** (papers turned in after this date will accrue significant penalties). The goal for this paper is a journal-ready manuscript. It should have the same components as the near-final paper (see below), the same style requirements and the same page constraints. With your final paper, I also want: (a) a one-page memo that outlines how close you think this is to submission to a journal, and, if it’s not yet ready (I assume this will be all of you), what you think **must** be done prior to submission, and what you think **should** be done but is probably not required; (b) a “revises and resubmit memo to the editor” that outlines the revisions have been made from the near-final (and why) and which comments from reviewers have not been addressed (and why); (c) any homeworks or preliminary products that were not turned in electronically – and, even if they were, any of these on which I gave you handwritten feedback.

Several preliminary products will lead up to this:

- a one-page proposal abstract is required: this should include ~2 sentences on why your topic is important, a statement of the research question, including the dependent variable and key independent variables and 1-2 sentences on the data you’re planning to use, the sample, and the main statistical method (about 1 page in total) **due September 18, 9 am**.
- a working proposal is required, including a discussion of the significance of the research question, a very brief literature review, data, methods, and limitations (maximum 5 single-spaced pages without references), **due October 1, 9 am**.
- a memo that describes whether (and how) the final paper will differ from the proposal abstract is required, due **November 6, 9 am**.
- an OPTIONAL draft of the introduction and literature review. If this is turned in by **November 6, 9 am** you will receive my feedback on these sections.
- a draft of the results section. This should generally not exceed 5 double-spaced pages, with tables not counting in this number, due **November 13, 9 am**
- a required “near-final” paper (**due Friday at 8 a.m. the week before the presentation**). A full paper is due, and a journal submission is the model of what I am looking for. “Near-final” means you get an opportunity to sharpen and improve it later, it does **not** mean an incomplete version is acceptable. It should include an abstract, a discussion of the significance of the research question, a literature review, a description of data and methods, specific hypotheses that are tested, quantitative results, limitations, conclusions, and implications for policy and/or practice

(and, obviously, references and tables). Footnotes are acceptable. Format should be a standard research paper, one inch margins, 11- or 12-point font, double-spaced. Any common style is acceptable for references. Note: If you have more than 25 pages of 11-point text (excluding tables), you have too much material for a single article.

Discussant for peer paper: the last weeks of the course will be a mock conference, with students presenting papers and acting as discussants. Information on the discussant role, as well as more detail on all preliminary products, will be distributed.

Homework: There will be two homework assignments. These will be focused on each student's project; for example, one assignment will be to provide a cross-tabulation between the student's dependent variable and their key independent variable, and a very short discussion of what they learned.

Class Participation: Because much of the learning occurs during the class time, students are required to attend every class or to receive approval in advance for not attending. In addition, students are expected to have carefully and critically read all assigned readings, and to be prepared to discuss them.

## **V. Expectations of Students and Instructor**

Students are expected to:

- attend each class session (or receive approval in advance for non-attendance), actively participate in the in-class discussions. (If you cannot attend class, you are not only responsible for gaining permission in advance, but also for knowing what occurred and getting any handouts).
- carefully and critically read all required readings before coming to class
- complete all assignments by the due dates and times (thus you are expected to plan your life so that you can make the required deadlines in the course)
- inform the instructor during the first week of the semester of any special accommodations needed for meeting class expectations (as approved by the McBurney Center)
- be respectful of other class members--a diversity of views and opinions may be articulated during discussions.

The instructor is expected to:

- assure that course objectives are being met
- hold regular office hours and be available to students to answer questions through email during business hours
- give reasonable guidance on preparing for assignments
- be open to discussing concerns about the course
- evaluate and return assignments in a timely manner.

## **VI. Course content, with readings (tentative)**

### **Class 1, September 14: Overview of course**

*One-page proposal abstract due to the dropbox Friday, September 18, 9 am.*

**Class 2, September 21: Mock review panel 1: of the abstracts submitted, which ones should we invite to submit a more detailed proposal?**

Read all one-page proposals

Readings on what makes a good proposal (Learn@UW)

**Class 3, September 28: Descriptive analyses and measurement issues**

Maria Cancian and Daniel R. Meyer. 2004. "Alternative Measures of Economic Success among TANF Participants: Avoiding Poverty, Hardship, and Dependence on Public Assistance." *Journal of Policy Analysis and Management*, 23:531-48, 2004.

Marcia J. Carlson, and Lawrence M. Berger. 2013. "What Kids Get from Parents: Packages of Parental Involvement across Complex Family Forms." *Social Service Review*, 87(2):213-49.

Chi-Fang Wu, Maria Cancian, and Daniel R. Meyer. 2008. "Standing Still or Moving Up? Evidence from Wisconsin on the Long-Term Employment and Earnings of TANF Participants." *Social Work Research* 32(2):89-103.

***Working proposal due Thursday, October 1, 9am***

**Class 4, October 5: Mock review panel 2: evaluating all working proposals**

Read all working proposals

***Homework 1 (on variable construction) for some students will be due Friday, October 9, 9 am***

**Class 5, October 12: Evaluating working proposals, continued**

Read remaining working proposals

***Homework 1 (on variable construction) for remaining students will be due Friday, October 16, 9 am***

**CLASS 6, 7, and 9 FEATURE SPEAKERS** presenting one of their own papers in which they use a particular statistical technique. They will present: a) a brief review of the question, data, and findings, (b) a more extended discussion of the method, including why a particular statistical method was chosen (instead of a simpler approach), and some of the advantages and disadvantages of conducting the chosen type of analysis, and (c) a discussion of some of the hidden decisions made in this particular piece of empirical research, some of the difficulties encountered, and how they were solved.

**Class 6, October 19: Hierarchical Linear Models. Speaker: Katherine Magnuson.**

Katherine Magnuson and Lawrence M. Berger. 2009. "Family Structure States and Transitions: Associations with Children's Well-Being during Middle Childhood." *Journal of Marriage and Family* 71: 575-91.

Katherine Magnuson. 2007. "Maternal Education and Children's Academic Achievement during Middle Childhood." *Developmental Psychology* 43(6): 1497-1512.

**Homework 2 (on relationships between independent and dependent variables) for some students due Friday October 23, 9am**

**Class 7, October 26: Fixed-Effect, Random-Effect, Instrumental Variable, and Propensity Score Matching Methods. Speaker: Lonnie Berger.**

Lawrence M. Berger, Jennifer Hill and Jane Waldfogel. 2005. "Maternity Leave, Early Maternal Employment and Child Health and Development in the US." *Economic Journal* 115:F29-F47.

Lawrence M. Berger, Maria Cancian, and Daniel R. Meyer. 2012. "Maternal Re-Partnering and New-Partner Fertility: Associations with nonresident Father Investments in Children." *Children and Youth Services Review* 34:426-36.

**Homework 2 (on relationships between independent and dependent variables) for remaining students due Friday October 30, 9am**

**Class 8, November 2: Typical difficulties in conducting empirical research**

J.E. Miller, 2008. "The Goldilocks Principle: Avoiding Pitfalls in Interpretation of Regression Coefficients." Social Science Research Network (SSRN) eLibrary. Available online at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1153573](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1153573).

Studenmund, AH. 2011. *Using Econometrics: A Practical Guide*. Boston: Addison-Wesley. 6th Edition. Chapter 11: Running Your Own Regression Project, Practical Advice for Your Project (p. 383 – 393). **AND** A Regression User's Checklist and Guide, (p. 395 – 400).

**Required memo describing changes between proposal & paper due Friday, November 6, 9 am**

**Optional assignment (draft of introduction and lit review of final paper) due Friday, November 6, 9 am**

**Class 9, November 9: Structural Equation Models. Speaker: Jan Greenberg**

Jan S. Greenberg, Marsha Mailick Seltzer, Jinkuk Hong, and Gael I. Orsmond. 2006. "Bidirectional Effects of Expressed Emotion and Behavior Problems and Symptoms in Adolescents and Adults with Autism." *American Journal on Mental Retardation* 111(4):229-49.

Jason K. Baker, Leann E. Smith, Jan S. Greenberg, Marsha Mailick Seltzer, and Julie Lounds Taylor. 2011. "Change in Maternal Criticism and Behavior Problems in Adolescents and Adults with Autism across a 7-Year Period." *Journal of abnormal Psychology*. 120(2):465-75.

**Required results draft due Friday, November 13, 9am**

**Class 10, November 16: Typical difficulties in empirical research and presenting results**

Readings to be announced

This week may involve individual meetings with students instead of our normal Monday time

**CLASS 11-14 FEATURE STUDENT PRESENTATIONS IN A MOCK CONFERENCE. “Near-final” papers are due by Friday at 8 am the week before the presentation. Each student is required to read all the papers that will be presented every week. Each student will be assigned to be a formal discussant of one or more papers.**

**Class 11, November 23: Mock conference I**

Papers by: Catherine Doren, Victoria Faust, Hana Lee, Isabel Pike

**Class 12, November 30: Mock conference II**

Papers by Molly Costanzo, Youhang Her, Ariane Ophir, Melody Waring

**Class 13, December 7: Mock conference III**

Papers by Kristinn Arsaelsson, Yonah Drazen, Vanessa Rios Salas, Aziz Tursunov

**Class 14, December 14: Any remaining presentations or techniques. Brunch at 1141 Elizabeth Street**

**FINAL PAPER DUE December 18, 9 am (or January 4, 9 am)**