Capstone: Applied Research in Public Finance and Policy

This course synthesizes material from the prerequisite courses in economics, finance and statistical methods in an integrative project centered on a regression-based, empirical analysis of a current, policy relevant issue in public policy. Students will work in teams to design and perform a research study developed with a concern for data availability and feasibility. Emphasis will be placed on the construction of the data set, the methodology, and the presentation of the research in both oral and written form. The development of effective and efficient teams that utilize and build upon the experience, skills and interests of team members is an integral part of the successful completion of the course.

Prerequisites: P11.2140 (Public Economics and Finance) must be completed before enrolling in this course. P11.2902 (Multiple Regression and Introduction to Econometrics) must be completed by the end of the fall semester. In addition, P11.2875 (Estimating Impacts in Policy Research) would provide very helpful background.

The full class will meet periodically throughout the fall and spring. Although the full class won't meet every week, you should hold the Wednesday 6:45-8:25 slot open for meetings with your professor, or your team, every week.

The purpose of this course is to guide students through the design, performance and presentation of a well-specified, policy-relevant empirical research project. The written report that is the end product of this research carries the greatest weight in determining the grade; however, each student's final grade will also depend upon their class and team participation, the interim reports, and the presentations made both in class and at the end event. Both the research project and the report will be completed as part of a team.

There are no specific required books, but everyone should have a recent public economics or public finance book (e.g., the required text for P11.2140, either by Harvey Rosen or Jonathan Gruber). You may also find it useful to consult a recent econometrics or statistics book such as Peter Kennedy's *A Guide to Econometrics*. And you might benefit from using a writing guide, such as Strunk and White's *Elements of Style*. 
Meeting schedule for fall 2010

September 8  Class meets. Overview of course. Begin team formation and project definition.
September 15  No class meeting.
September 22  Class meets. Complete team formation and project definition. Discussion of research proposals and papers.
September 29  Team meetings with instructor, by appointment, this week or next.
October 6  No meeting.
October 13  Class meets. First project description due. Discussion of data issues.
October 20  No meeting.
October 27  Class meets. Second project description and work plan due.
November 3  No meeting.
November 10  No meeting.
November 17  Class meets. Progress reports.
November 24  No meeting.
December 1  No meeting.
December 8  Class meets. Interim report due. Group presentations.
December 15  No meeting (Monday schedule).
Deliverables for the fall term

First project description (3-5 minute oral presentation; 5-10 minute discussion by class; 1 page written) [October 13]
An informal presentation that covers the following:
- Your area of interest
- 2-4 researchable and policy-relevant questions that you may tackle (note that research questions are typically of the form “How much does X influence Y”, or “To what extent do changes in X change Y”?)
- Data source(s) for the project – what are the possibilities?
- Weaknesses, pitfalls, and potential problem areas – what strategies will you use to address these?

You may use PowerPoint, overheads or handouts as needed.

Second project description (10 minute oral presentation and 10 minute discussion by class; 3 pages written) [October 27]
A presentation that covers as much as possible of the following:
- Context: policy/management background for your research problem
- Research question (or questions, if you haven’t settled on a single question)
- Causal model: identifies your independent and dependent variables of interest, and notes any important covariates that you’ll include in your model
- Design: type of design (cross sectional, pre-post with comparison, panel, etc); identification of unit of analysis.
- Data source: describes the information that you’ll be using. Is specific about how you’re going to get the data. Then, insofar as possible, provides information about the sample that you’ll be using in your analyses. Notes the number of cases, number of years.
- Measures: states how you will operationalize your IV, DV, covariates.
- Analysis plan: describes the analytic approach you will be using. Discuss your plan for multivariate work.
- Identification of weaknesses, pitfalls and problem areas, and strategy for addressing these. Many of these are likely to be related to your data source and measures. Pay attention to your sample size and data quality and assess the likelihood of getting the datasets and variables that you want to have.

You may use PowerPoint, overheads or handouts as needed.
Work plan (2 pages written) [October 27]
- Identifies team members who will take primary responsibility for: lit search, data acquisition, preliminary data management, initial descriptive analyses, detailed analyses including multivariate work, preparation of tables, and drafting of each section of the report. The team should be satisfied that those taking primary responsibility have the requisite skills, or have a strategy for acquiring them.
- Includes tentative timeline for these tasks.

Progress report (3-5 minute oral presentation; 5-10 minute discussion by class; 3 pages written + tables) [November 17]
- Brief (1 minute) recap of what you’ve told the class up until now
- Progress in any of the areas from your second project description
- If available, descriptive statistics (numbers of cases; means; frequencies) from your sample. Don’t neglect these – they are basic but important!
- Identification of weaknesses, pitfalls and problem areas, and strategy for addressing these – See the note on second project description, above.

You may use PowerPoint, overheads or handouts as needed.

Interim report (15-20 minute presentation; 5-10 minute discussion by class); 5+ pages written + tables [December 8]
- Discussion of research question, conceptual framework/causal model, methods (design, data source and sample, measures, analytic approach) – in your oral report, highlight progress rather than recapping old news – but in your written report, summarize where you are.
- Literature review and bibliography.
- Presentation and discussion of basic descriptives, bivariate findings, and multivariate findings, as available.
- Identification of weaknesses, pitfalls and problem areas, and strategy for addressing these.

You may use PowerPoint, overheads or handouts as needed.

The first draft of the full report will be due in March. An oral presentation to the capstone class of your research work and findings will be scheduled during April. Participation in the school-wide end event (including both an oral presentation and the creation of a Powerpoint slide show and/or "poster board") is also required. Dates for all spring events and deadlines will be announced at the beginning of the spring term.
Learning objectives

The research capstone integrates and enhances learning in several areas: research methods for analyzing and reporting data, knowledge of a content or issue area, and process skills in project and team management. Learning objectives are:

A. Research
Students should demonstrate the ability to:
• identify and implement appropriate data analysis methods for their project;
• situate their project and findings in the broader related literature;
• draw appropriate conclusions based on their findings;
• communicate their work effectively both orally and in writing.

B. Content
Students should:
• understand the policy context for their project;
• be familiar with specialized vocabularies required to perform the project successfully;
• be aware of critical research related to their content area;
• be capable of positioning and evaluating their project within its broader policy context.

In addition, Wagner Capstone Workshops will provide training aimed at enhancing your skills and expertise in:

1. Project Management
Students should demonstrate the ability to:
• frame and refine the research question;
• develop a research work plan with timelines and deliverables;
• monitor their progress against the work plan;
• revise the work plan as necessary.

2. Team Management
Students should demonstrate the ability to:
• understand group formation and development;
• understand the importance of interpersonal dynamics and team norms;
• develop clear task descriptions for team members;
• manage team assignments and accountability;
• advocate points of view and negotiate differences of opinion;
• solicit and offer feedback;
• appreciate and learn from cultural differences.