Quantitative Comprehensive Examination

All PhD students in the School of Public Policy are required to take a quantitative comprehensive exam before advancing to candidacy. This examination tests a student’s knowledge of econometric research methodology and his/her ability to conduct independent research. The comprehensive exam was prepared by this year by Dr. Jerome Dugan. Specific details for this year's examination procedures and dates are given below.

General Requirements

Students are required to submit a research paper and give an oral presentation. Submitted research papers are expected to apply solid econometric methodology to a research question of interest, using a carefully compiled or chosen dataset. There are no page limits, but submitted papers should be no less than 20 pages and no more than 50 pages (excluding appendices). Papers should be well written and edited before submission.

Structure of Paper

Student research papers should follow a logical structure, using section labels that are succinct and clearly describe the contents. The following are some general guidelines for the structure of your research paper. Depending on question being studied and the research methods employed, papers may deviate from these guidelines. If in doubt, please consult the guidelines for a major research journal in your area of study or contact Dr. Dugan for direction. Regardless of the guidelines used, every paper at minimum should contain the following sections:

Introduction
The introduction should grab the reader’s attention. It should include a short literature review and a framing of the policy issue involved. The introduction should also motivate the paper and provide the relevant background for the policy being discussed. The following questions must also be clearly addressed: (1) Why is this question interesting? (2) What have others done? (3) What does your analysis contribute?

Data
Students must clearly identify the data used in their research papers. Students must describe the data that is being used, the source of the data, when the data was collected. In addition, students need to identify why they are using the data and what advantage this dataset has over any other datasets.

Methodology
The methodology section should present your econometric specification, explaining the techniques used (e.g., linear regression, instrumental variables, fixed effects, differences-in-differences) and why the technique was selected. Clear explanations for why particular variables were included or excluded must be given. Moreover, the potential weaknesses and strengths of the research approach must be discussed.
Results
The results section should present the regression results. Please do not simply cut and paste Stata output. Regression results should be properly formatted into an easily readable table. Also, it is not enough to simply present the table. In explaining the results, the following questions must be addressed: (1) what do they mean? (2) Are they large or small? (3) Are they statistically and/or economically significant? If in doubt, please consult a research journal in your area of study or contact Dr. Dugan for direction.

Conclusions
What have you found with your analysis? Summarize your results, key contributions, policy implications, directions for future research, etc. In your paper, be careful about identifying and discussing whether you are uncovering a causal relationship or simply a correlation. Why or why not? What are the caveats we should note in your analysis? A good empirical paper acknowledges the caveats upfront.

Structure of Oral Presentation
Presentations will be 25 minutes each, with 15 minutes to present, and 10 minutes for questions from Dr. Dugan, based on the content of the student’s presentation and paper. Use PowerPoint (or LaTeX Beamer, if you know how that works). Students are advised to provide Dr. Dugan with an advanced copy of their presentation to insure their presentation meets the minimum requirements.

Timeline
1. Please contact Dr. Dugan to set up a 30-minute meeting to discuss your planned paper topic and methods by Wednesday, September 4. Dr. Dugan will be available for face-to-face or phone meetings from September 4 through September 11. It is strongly encouraged that students meet early in case they need follow-up meetings.
2. Please email Dr. Dugan a draft of your paper by October 16. The student’s paper will be returned with comments by October 31. In addition to these comments, the student will receive additional comments/revisions after their presentation.
3. Final papers must be emailed to the (jdugan@umd.edu) by November 15. Presentations of the papers will be held on (tentatively) November 22.

Grading
Students will be graded on a "pass/fail/revise" scale. A grade of "pass" indicates that the student has successfully completed the quantitative comprehensive exam. If the student is asked for revisions, a revised paper will be due one month after the examination date, by December 20. Revisions may be minor, and require only the resubmission of a revised paper. Alternatively, if the requested revisions are more substantial, a second oral examination in addition to the submission of a revised paper will be required. If the student does not successfully complete the quantitative comprehensive exam after the second oral examination, the exam will be graded as a "fail."