Master Seminar: Empirical Research in Public Economics, Nr. 26972-01

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Place WWZ

Sprache English

Credits 6 CP

Duration 1 Semester; every spring semester

Master MEPP; MBE (Module: Markets and Public Policy)

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Goals and contents

In this master seminar, students familiarize themselves with a published paper in the field of public or environmental economics and gain practical experience with data management and analysis. The skills acquired will be useful in the context of writing the master thesis, as well as in students' subsequent careers.

The task is to replicate and extend the assigned paper. Articles will be suggested, but students are free to propose their own paper that they wish to replicate, subject to approval by Prof. Hintermann. The extension can focus on a subsample, include additional explanatory variables, employ an alternative methodology and/or use additional data. The seminar paper should provide additional intuition, and investigate the robustness of the results in the original work. Since the focus of this seminar is empirical, previous knowledge of statistical software packages (such as Stata or R, depending on the paper) will be helpful. Although we will assist the students in writing the seminar paper, we cannot provide a guided introduction to these software packages.

Structure of the seminar

After the papers have been assigned, students have 3 weeks to determine what replication and extension they would like to carry out. During this time, students should carefully read the paper, check whether the required data is readily available, and think about possible extensions. If insufficient data is available for a meaningful replication exercise, a different paper will have to be

selected. Students present their plan for the extension in a short presentation focusing on the following questions: What will the seminar paper do, how will it be done, and why is this interesting?

The next step is to carry out the planned replication and extension analysis. The results are presented in a series of 45-minute-presentations. The quality of a seminar not only depends on the written papers and on the presentations, but also on the discussion that the presentations generate. To encourage participation, each student is assigned as a discussant to two other papers, for which he or she has to provide feedback after the presentation (naturally, students are invited to comment on all presentations, even if they are not an official discussant). Students are expected to incorporate the feedback received during their presentation into the final seminar paper, along with written comments by Prof. Hintermann and the assistants.

Students will be assigned a direct supervisor, with whom they meet at least once during the semester. One meeting should take place between the paper outline and the main presentation. A second meeting is optional, and could either take place before the paper outline, or after the main presentation. The assignment of the supervisor will depend on the selected paper.

The final grade for the seminar is a weighted average of the outline (10% weight), presentation (20%), participation (20%) and seminar paper (50%).

Seminar paper

The seminar paper should be as detailed as necessary and as concise as possible. No important information should be omitted, but at the same time, only things that are relevant should be included. Writing a short paper more difficult than writing a long paper *with the same scientific content*. Recognizing what is important, and what is not, is a difficult task and requires a profound understanding of the topic at hand.

The seminar paper should be organized into an introduction, a description of the extension, an analysis and a conclusion. Each section is briefly described in the following.

Introduction

The seminar paper should start with a summary of the assigned paper, using students' own words, and a brief discussion of the main results. The introduction points out potential shortcomings or problems in the paper (this may be difficult, given that the listed papers are published in top economics journals). What are the main assumptions required to generate the results, and how likely are these to hold?

The introduction also mentions any subsequent articles that build on the paper to be replicated and briefly mentions their main contribution (Web of Science and Google Scholar can be used to identify articles at cite a particular paper; this is called "reverse lookup"). A special focus should be placed on the articles that extend the paper at hand or make a comment about it, and less on

those that simply cite the paper but essentially do something very different. An overview of this later work will help to give ideas about possible extensions. Articles that build on the paper and which are particularly relevant for the extension can be briefly mentioned in the introduction and then discussed in more detail in the section that describes the extension (see below).

Description of the extension

Next, the paper defines and describes the replication and extension tasks to be carried out, including a reason for why the proposed extensions are interesting. If the extension uses different data than the original paper, then these data should be described in terms of their source, summary statistics etc. and compared to the original data used in the paper. If other articles have been written based on the original paper, and these are relevant for the extension, the key elements of these subsequent papers can be discussed here too. This section should also describe the main results of the extension. Do any results change qualitatively, relative to the main paper?

Analysis

In this section, the actual replication exercise and the extension are carried out. Depending on the nature of the paper and the extension, this could be done in one or several chapters. For example, if the extension consists in estimating a regression with a subset of the data or including different explanatory variables, it makes sense to present the replication and the extension within the same table or figure (or a table placed right next to the original table) to facilitate comparison. If the extension consists in a different analysis, then a separate section would be more appropriate. Students should choose the format that makes most sense to them.

In principle, students should try to replicate all tables and figures in the main text of the original paper. If a paper contains a large number tables and figures, but only a subset of those are relevant for the proposed extension, then a replication of this subset will be sufficient (which results have to be replicated and which can be skipped has be agreed on with the direct supervisor). In general, Tables and figures in the appendix of the original paper do not have to be replicated, unless they are important for the extension.

Conclusion

The conclusion highlights the main results of the extension and discusses their implications. Do the results raise doubts about the main findings of the original paper, or do they confirm them? Were any of the results not replicable? What can we learn from the exercise? Are there other extensions that would be worthwhile (why?), but which could not be carried out due to time constraints or data availability?

Bibliography

The bibliography contains the papers cited in the seminar paper. At the very least, the bibliography includes the paper that the replication is about, but if other articles are cited in the seminar paper then these have to be listed here too. The bibliography style can be chosen by the student.

Timeline

February 20, 10:15-12:00, JBH HG S15: Kickoff meeting

During this meeting, the structure of the seminar will be explained and the papers assigned.

March 21, 14:15-18:00, JBH HG S13: Presentation of paper outline

In the second meeting of the seminar, students present the outline of their seminar paper. Before this date, all students should have verified that the necessary data and code is available. This requires (i) reading the instructions, typically in a "Readme" file, (ii) downloading the required data and (iii) get the replication code to run. To download the data and codes, student may have to create an account with Open ICPSR, which is free of charge. If it turns out that data or code is missing, or that the code does not run for some reason, students should contact their supervisor immediately. If the problem cannot be solved, a different paper will be assigned.

There are 30 minutes per student, divided into 20-25 minutes of presentation and the remainder for discussion. The presentation should address the following questions: What are the main results of the paper? How will the paper be extended? In what sense could this alter the main results or conclusions of the original paper, or enhance our intuition about the underlying mechanisms? If preliminary results already exist, they could be presented as well. Feedback received during the presentation should be incorporated into the subsequent analysis.

May 8: Presentations

This period is reserved, but we will likely not need the entire time and will shorten accordingly. Each student has 45 minutes consisting of 20-25 minutes for the actual presentation, followed by comments by the discussants and then the general audience. As a rule of thumb, one slide requires about 2-3 minutes, so it will be difficult to finish a presentation that has more than 12 slides. The main results of the replication/extension exercise should be finished for this presentation. All seminar participants are expected to attend all presentations and to actively participate in the discussion. Comments and feedback received should be incorporated into the seminar paper.

June 19, 23:59: Submission of the seminar paper

The paper has to be submitted electronically to B. Hintermann. The codes and data used for the replication and extension should be submitted too. Where this is impractical, a link to the data source can be provided instead.

List of papers

Altindag, O., Erten, B., & Keskin, P. (2022). Mental health costs of lockdowns: Evidence from age-specific curfews in Turkey. *American Economic Journal: Applied Economics*, 14(2), 320-43. (Code in Stata and R).

Bell, B., Costa, R., & Machin, S. (2022). Why does education reduce crime? *Journal of Political*

Economy, 130(3), 732-765. (Code in Stata).

Bursztyn, L., Egorov, G., & Fiorin, S. (2020). From extreme to mainstream: The erosion of social norms. *American Economic Review*, 110(11), 3522-48. Code in Stata.

Chang, T. Y., Graff Zivin, J., Gross, T., & Neidell, M. (2019). The effect of pollution on worker productivity: evidence from call center workers in China. *American Economic Journal: Applied Economics*, *11*(1), 151-72.

Douenne, T., & Fabre, A. (2022). Yellow vests, pessimistic beliefs, and carbon tax aversion. *American Economic Journal: Economic Policy*, 14(1), 81-110. (Code in R; code and survey data in French).

Hanna, R., Duflo, E., & Greenstone, M. (2016). Up in smoke: the influence of household behavior on the long-run impact of improved cooking stoves. *American Economic Journal: Economic Policy*, *8*(1), 80-114. Code in Stata.

He, J., Liu, H., & Salvo, A. (2019). Severe air pollution and labor productivity: Evidence from industrial towns in China. *American Economic Journal: Applied Economics*, *11*(1), 173-201.

Henry, E., Zhuravskaya, E., & Guriev, S. (2022). Checking and sharing alt-facts. *American Economic Journal: Economic Policy*, 14(3), 55-86. (Code in Stata)

Levinson, A., & Silva, E. (2022). The Electric Gini: Income Redistribution through Energy Prices. *American Economic Journal: Economic Policy*, 14(2), 341-65. (Code in Stata).

Mayda, A. M., Peri, G., & Steingress, W. (2022). The Political Impact of Immigration: Evidence from the United States. *American Economic Journal: Applied Economics*, 14(1), 358-89. (Code in Stata).

Smith, A. C. (2016). Spring forward at your own risk: Daylight saving time and fatal vehicle crashes. *American Economic Journal: Applied Economics*, *8*(2), 65-91. Code in Stata.

Yang, Jun, Avralt-Od Purevjav, and Shanjun Li. *2020.* The Marginal Cost of Traffic Congestion and Road Pricing: Evidence from a Natural Experiment in Beijing. *American Economic Journal: Economic Policy*, *12 (1): 418-53*. (Code in Stata).