

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

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Sprache	English
Credits	6 CP
Duration	1 Semester; every fall semester
Master	MEPP; MBE; MSD
Syllabus Version	13. 10. 2024

Goals and contents

In this master seminar, students familiarize themselves with a paper published 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 first replicate and then 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 take different forms, including effect heterogeneity or moderation, employing an alternative methodology and/or using 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. Students with no experience at all are strongly encouraged to take one of the introductory courses provided in the beginning of the semester.

Structure of the seminar

Once the papers have been assigned, students should carefully read the paper, check whether the required data is actually available, and think about possible avenues for extensions. Students present their plan for the extension in a short presentation focusing on the following questions: What exactly will the extension be, 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 presentations. 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 public economics research group. To increase the quality of the discussion, each student is assigned as a discussant to two other papers, for which he or she has to provide feedback after the presentation.

Students will be assigned a direct supervisor among the research group, with whom they meet at regularly during the semester. One meeting should take place between the paper outline and the main presentation, and another after the main presentation and before the submission of the final paper. Additional meetings can be scheduled if needed.

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. This means that no important information should be omitted, but at the same time, only things that are relevant should be included. Recognizing what is important, and what is not, is a difficult task and requires a profound understanding of the topic at hand. Besides the quality of the replication and extension, the exposition is an important attribute when grading the paper.

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

Start by providing a brief summary of the assigned paper, using your own words (not text from the original paper or from AI), and a brief discussion of the main results. The introduction should also mention any subsequent articles that build on the assigned paper (Web of Science and Google Scholar can be used to identify articles that cite the assigned paper). A special focus should be placed on the articles that build on the assigned the paper, and less on those that simply cite the paper but essentially do something very different. An overview of this subsequent work will also help generate ideas about possible extensions.

Description of the extension

Next, define and describe the replication and extension tasks to be carried out, including a reason for why the proposed extensions are interesting. If the extension uses additional data, then these 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 assigned 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. Choose the format that makes most sense to you.

In principle, the goal is 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 been 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? What can we learn from your analysis? 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 assigned paper, but if other articles are cited then these have to be listed here too. The bibliography style can be chosen by the student.

Timeline of the seminar

Thursday, 19. 9. 2024, 16:15-18:00, JBH HG S14: Kickoff meeting

During this meeting, the structure of the seminar is explained and the papers are assigned.

Tuesday, 15.10. 2024, 14:15-18:00, JBH HG S14: 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 (depending on the journal in which the paper was published), 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 25 minutes per student, divided into 15 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.

Students should send in their presentation (in whatever format) no later than 2 hours before the seminar. No materials other than the presentation need to be handed in.

Thursday, 21. 11. 2024, 8:30-12:00: Presentation day 1 (Students 1-4)

Monday, 25.11. 2024, 14:15-16:45: Presentation day 2 (Students 5-7)

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. In my experience, one slide requires 1-3 minutes, so you should probably stay below 15 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.

Again, students are asked to send in the presentation at least 2 hours prior to the seminar, but no other materials need to be handed in.

January 6, 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

Selected papers:

- Andersson, J. J. (2019). Carbon taxes and CO2 emissions: Sweden as a case study. *American Economic Journal: Economic Policy*, 11(4), 1-30. (Code in Stata and R). (Supervisor: Jakob Roth)
- Autor, D., Dorn, D., Hanson, G., & Majlesi, K. (2020). Importing political polarization? The electoral consequences of rising trade exposure. *American Economic Review*, 110(10), 3139-3183. (Code in Stata). (Supervisor: Léo Picard)
- Carlino, G., Drautzburg, T., Inman, R., & Zarra, N. (2023). Partisanship and fiscal policy in economic unions: Evidence from US states. *American Economic Review*, 113(3), 701-737. (Code in Stata). (Supervisor: Léo Picard)
- Chong, A., Cohen, I., Field, E., Nakasone, E., & Torero, M. (2016). Iron deficiency and schooling attainment in Peru. *American Economic Journal: Applied Economics*, 8(4), 222-255. (Code in Stata). (Supervisor: Roman Sieler)
- 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). (Supervisor: Jakob Roth)
- Gu, Y., Jiang, C., Zhang, J., & Zou, B. (2021). Subways and road congestion. *American Economic Journal: Applied Economics*, 13(2), 83-115. Code in Stata. (Supervisor: Laura Schwab)
- LoPalo, M. (2023). "Temperature, Worker Productivity, and Adaptation: Evidence from Survey Data Production." *American Economic Journal: Applied Economics*, 15 (1): 192–229. (Code in Stata and Python) (Supervisor: Roman Sieler)

Not selected this year:

- Axbard, S., & Deng, Z. (2024). Informed enforcement: Lessons from pollution monitoring in china. *American Economic Journal: Applied Economics*, 16(1), 213-252. (Code in Stata).
- Chen, Y. & Whalley, A. (2012). Green Infrastructure: The Effects of Urban Rail Transit on Air Quality. *American Economic Journal: Economic Policy*. 4 (1), 58–97. (Code in Stata).
- Duranton, G. & Turner, M.A. (2011). The Fundamental Law of Road Congestion: Evidence from US Cities. *American Economic Review*, 101 (6), 2616–52. (Code in Stata).
- Hintermann, B., Schoeman, B. M., Molloy, J., Götschi, T., Castro, A., Tchervenkov, C., Tomic, U. & Axhausen, K. W. (2024). Pigovian transport pricing in practice . WWZ Working Paper Nr. 2021/11, updated. R&R at Review of Economic Studies (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).