### ECON GR6307:

# Public Economics and Development

December 26, 2023

Time/Place: Wednesdays 10.10-12. In room 1101 in the IAB.

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Office Hours: Fridays 4.45-5:45 PM. Students *must* signup beforehand using this link. Meetings are 20 mins long, so please come prepared. Meeting slots tend to fill up so if you want to talk about something with a specific deadline (an upcoming colloquium presentation, or an assignment for class) you need to plan ahead, it's very hard for me to add extra slots at the last minute.

### 1 Course Description and Objectives

This course covers a range of challenges faced by governments in low- and middle-income countries. The course will cover both applied theory papers and empirical papers applying the latest empirical methods. We will cover four broad topics.

- 1. Applied Welfare Analysis: We'll start with a little bit of tooling up on the theory behind modern applied welfare analysis. We'll cover the sufficient statistics approach and the measurement of marginal welfare impacts of policy changes.
- 2. Taxation: Tax systems in rich countries look very different from those in poor countries. How should tax systems be designed in the presence of high levels of tax evasion and informality? How much tax evasion is there? How can governments reduce tax evasion?
- 3. Anti-Poverty Programs: Targeted transfers to poor household are a huge part of government spending in low- and middle-income countries. How should these programs be designed? Should they be monetary or in-kind transfers? Should they be means-tested? If so, how will eligibility be determined?
- 4. Personnel Economics of the State: The government is the largest employer in most countries, but public service delivery is notoriously inefficient. How can governments attract honest,

capable and motivated workers? How will the government monitor and incentivize their workers?

#### 1.1 Course Materials

I am publishing all the course materials in a github repository: https://github.com/michaelcbest/GR6307—Public-Economics-and-Development. The folder contains both pdfs and source code for all the materials. The folder "0-Admin" contains this course outline as well as the reading list ("GR 6307 - Syllabus"). I will be updating the materials as we go, so make sure to check back regularly to see if there are updates.

In the syllabus, I will mark the absolutely required readings with two stars (\*\*). Each week, there will also be a reading with one star and the date (\*M/DD). Each week, you are required to prepare *one* 6-slide (excluding the title slide) discussion of this papers and bring it with you to class on a USB drive. The model here is to imagine you are discussing the paper at a conference. So you should spend 1-3 slides summarizing the main findings of the paper, but assume everyone else has read it, so highlight only things you find particularly interesting and worth discussing more. Then use your remaining slides to make 2-3 points about the paper that are things you think could be done even better. Try and be constructive, it's easy to point out flaws in papers, it's much more difficult, but much more useful, to think of ways to do things better.

I will randomly call on someone to present their discussion each week, and then we'll discuss the paper as a group. NB the randomization will be with replacement, so don't think that you can't be called more than once!

I'm sure there are typos in my slides. If you spot one, please point it out. Or even better, fix it and send me a pull request! If you're unfamiliar with github and version control, you can learn more about it here: https://guides.github.com/activities/hello-world/. It's a great tool, especially for collaborative projects (basically every tech product you use is built using this).

#### 2 Evaluation

You will be evaluated in 5 ways

- 1. Referee report (see section 3). [20%]
- 2. Replication (see section 4). [20%]
- 3. Data Exercise (see section 5). [20%]
- 4. Virtual paper (see section 6). [30%]
- 5. Class participation [10%]

You will receive letter grades for exercises 1–3. I will give you more detailed feedback on your virtual paper.

#### 3 Referee Report(s)

Pick ONE of the following two papers: Felipe Lobel - Who Benefits from Payroll Tax Cuts? Market Power, Tax Incidence and Efficiency *or* Justine Knebelmann, Victor Pouliquen & Bassirou Sarr - Discretion versus Algorithms: Bureaucrats and Tax Equity in Senegal. Write a referee report for this paper assuming that the paper has been submitted to the *Journal of Public Economics*, the main field journal in public economics.

A referee report includes two items:

- 1. An anonymous report which briefly summarizes the key contributions of the paper and then discusses constructively the main issues with the paper (why some assumptions or arguments are not convincing or clearly presented, how the paper could be improved). The length of this report should be between 2 or 3 pages of typed text, 12 pt font, and 1.5 line spacing. I will share your reports with the authors, since they could be helpful to them as they revise the papers for submission. Therefore, please **DO NOT put your name on the pdf** you upload in canvas (and make sure it's not in the header metadata either)! This is a very useful resource on how to write good referee reports.
- 2. A letter to the editor with a recommendation on whether the paper should be published. The recommendation should be briefly justified (the length of the letter should be between 10 and 15 lines of typed text). This one *should* include your name please so I know who wrote it;)

This referee report will be due on 2/16. Please upload your referee report in courseworks by 5pm.

## 4 Replication Exercise

The idea here is for you to get your hands dirty with some real data to do two things. First, to play with the data but with the reassurance of knowing what the answer "should" be when you run a certain regression so you don't need to agonize about all the decisions you made to get there. Second, to see how many agonizing decisions go into producing the small number of tables/figures you see in a finished paper.

To do this, go through our syllabus and pick a paper to try and replicate (you can also pick another paper on a related topic, but check with me first please). Most recent papers also post replication data/code on the authors' websites, the journal's website or both. Download the replication code and data. There will be a readme file that explains what all the pieces of code and data are and how to use them to replicate the paper's results. Read this first, before you start playing with the code and data, it will save you time. Run the code to replicate the paper's results. Double-check you get the same thing as in the paper.

Then, prepare a replication report in which you detail

1. Where you got the code/data from and what issues, if any, you had in replicating the paper's findings.

- 2. One interesting robustness check. For example, this can be robustness to the criteria used to build the sample that's used for analysis. Many decisions fo into constructing the sample that's used for the analysis, how robust are the findings to making other sensible choices? How sensible are the choices that the paper makes? Or it could be robustness to statistical methods. For example using logit instead of a linear probability model, or using randomization inference instead of asymptotic standard errors. What are the advantages and weaknesses of the methods used in the paper versus other possibilities? Or it could be robustness to adding additional controls (or removing controls you suspect could be bad controls).
- 3. One interesting extension. Do some new analysis with this data. Does the model in the paper have an additional prediction you can test? Can you write a model that delivers an additional prediction you can test? Can you bring in additional data that allows you to test additional predictions to get at mechanisms? Is there a subsequent paper whose findings should replicate in this sample?
- 4. A summary of what you learned from the exercise. Reflect on how this exercise will change the way you approach analyzing data in your own research.

This report will be due on 3/8. Please upload the report in courseworks as a pdf by 5pm

#### 5 Data Exercise

The idea here is for you to work on a data-based project that is a bit less structured than a replication, but where you still have a bit of guidance on how to proceed. That is, there is no "right" answer to the problem, but you have a concrete starting point and direction. For this exercise, please do one of the following:

- 1. MVPF. The team at Policy Impacts are building a library of policies for which good research can allow us to estimate an MVPF. Look through the policies for which they already have an MVPF and then generate a new estimate of the MVPF of an interesting policy. This can be either using different estimates than those used for a policy that is in their library, or for a new policy that isn't in their library. You don't necessarily have to produce all the estimates yourself, you can pull together estimates from existing work and incorporate them into the MVPF framework. Then, you can submit it to the team to be included in their library: https://www.policyimpacts.org/submit-research.
- 2. Indian Elite Bureaucrats. The Trivedi Centre for Political Data at Ashoka University recently published data on the universe of Indian Administrative Service officers. You can find it here. Use this data to do something interesting. This doesn't have to have cast-iron identification, interesting descriptive work is still very interesting as long as you are clear about what we can and cannot learn. You might want to try merging this data with other data sources. A great resource for other fascinating datasets on India is SHRUG.

This exercise will be due on 4/12. Please upload your pdf in courseworks by 5PM.

## 6 Virtual Paper<sup>1</sup>

The assignment here is not to finish a paper, it is to have a viable plan for a paper. I'd rather that you get 50% of the way toward a project that you're excited to continue after the semester finishes than that you complete a less ambitious paper in the timeframe of one semester.

You will formulate an original research idea, develop a practical plan for executing the idea, and take initial steps in the execution. The paper may take the following form:

- 1. Introduction: What is the specific question and why is the question of interest?
- 2. Literature Review / Contribution: How does your paper fit into the broader literature? What is the potential contribution of this paper relative to the existing literature? What do we learn about the world that we didn't know before your paper?
- 3. Theoretical Motivation: This could be actual theory or just a sketch of the relevant theory that underlies your question.
- 4. Data: What data would you use to answer/address this question? Why are the data well suited to the question?
- 5. Empirical Methodology: How would you use the data to answer your question? Be explicit about identification and causality, keeping in mind that the same set of empirical facts can often support many theories. Depending on the nature of your question and the ease of accessing and using the data, I may ask you to make significant progress in the actual implementation of your proposed empirical work.
- 6. Falsification Tests: What other specifications, tests and investigations could either bolster or cast doubt upon the primary tests of your hypotheses?
- 7. Preliminary Results: The extent of the results provided will differ across students based on the project and discussions with me.

This paper will be due on 5/10. Please upload your paper in courseworks as a pdf by 5PM.

<sup>&</sup>lt;sup>1</sup>Thanks to Owen Zidar for the name "Virtual Paper" and the guidelines

# 7 Schedule

Meeting	Date	Agenda
1	1/17	Applied Welfare Analysis
2	1/24	Applied Welfare Analysis
3	1/31	Taxation 1
4	2/7	Taxation 2
5	2/14	Taxation 3
	2/16	Referee report due
6	2/21	Taxation 4
7	2/28	Anti-Poverty 1
8	3/6	Anti-Poverty 2
	3/8	Replication Exercise due
9	3/27	Anti-Poverty 3
10	4/3	Anti-Poverty 4
11	4/10	Personnel 1
	4/12	Data Exercise due
12	4/17	Personnel 2
13	4/24	Personnel 3
14	5/1	Personnel 4
	5/10	Virtual Paper due