## ECON GR6307:

# Public Economics and Development Wednesdays, 10.10-12, Room 1102

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**Instructor: Michael Best** Department of Economics

Email: michael.best@columbia.edu

Office Hours: Wednesdays 3–4:15 in 1105A IAB.

Students *must* signup beforehand at https://tinyurl.com/ybywuefw

## 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. 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?
- 2. 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?
- 3. 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?
- 4. Building State Capacity with big data and new technology: Most policy problems involve prediction of a counterfactual (what if we raise tax rates?) or a state of the world (how much poverty is there?). How can machine learning methods help governments make these

predictions? Can new technologies be used to monitor government workers and increase their productivity and/or effort?

#### 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 few readings with one star (\*MM/DD). Each week, you are required to prepare *one* 6-slide (excluding the title slide) summary of one of these papers and bring it with you to class on a USB drive. I will randomly call on someone to present their summary each week. NB the randomization will be with replacement, so don't think that you can't be called more than once! The summary should take the form of a general overview outlining why the paper is interesting/important, how the authors approached their question, the methods/data they used, and their main results (copy the tables into your slides).

This is the first year I'm teaching the course, so I'm sure there will be 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/helloworld/. 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 4 ways

- 1. Team-score in the debate (see section 3) [20%]
- 2. A referee report (see section 4) [20%]
- 3. Either a second referee report, or a virtual paper (see section 5). [40%]
- 4. Class participation [20%]

You will receive letter grades for referee reports. If you choose to write the virtual paper, I will give you more detailed feedback.

#### 3 Debate

In our 6th meeting, we will have a debate. The motion we will debate is

#### "This house believes that Mexico should implement a universal basic income."

In our first meeting, I will randomly assign you into two teams: "For" and "Against" stratifying by whether or not you think you would be able to get by using a code manual in Spanish plus Google Translate. For full transparency and replicability, you can find the code I will use here.

Your team will have the following 6 weeks to prepare your arguments. This is not a high-school debate, I'd like it to be much more scientific than that. That is, you should support your argument at every point with evidence, both empirical and theoretical. If it were me, I think I would approach it as follows (though feel free to approach it however you think best).

- 1. Write down a conceptual framework within which to think about this question. This framework should allow you to pinpoint the key behavioral responses that will inform your answer (what *would* happen if Mexico implements a UBI), and the normative framework you use to weigh all the pros and cons (the *should* part of the argument).
- 2. Gather up as much existing evidence as you can and summarize it.
- 3. Gather up as much relevant data as you can and start to analyze it to see if you can learn about the key empirical objects you need to answer the question.

In our 6th meeting, each team will have 40 minutes to present their argument. The opposing team may ask questions, but not prevent the presenters from finishing their arguments. At the end of the debate, each team must provide the other team with

- 1. Their presentation slides (including source code if in LaTeX/LyX)
- 2. The data they used for their empirical analysis
- 3. Replication code for their empirical analysis

Then, in our 7th meeting, each team will have 15 minutes to present a rebuttal of the other team's argument. This rebuttal should engage critically with the other team's analysis. Point out key assumptions in the model which you think are incorrect and how an extended model would provide a better answer. Look through the empirical analysis and find key decisions about data cleaning that can drive the answers. Do more robustness checks of the main results to see if they are stable, etc.

Ultimately, this is a class in economics, not in debate style, so the actual answer *for* or *against* the UBI isn't important. What's important is to show how you can take a concrete policy question, apply economic reasoning to it, and come up with evidence to support/contradict the policy. Also, I hope that it will show us how fragile our conclusions can sometimes be to seemingly small assumptions along the way.

#### 3.1 UBI Resources

- OECD Policy Briefing: Basic income as a policy option: Can it add up? https://www.oecd.org/els/emp/Basic-Income-Policy-Option-2017.pdf and accompanying technical report: https://www.oecd.org/els/soc/Basic-Income-Policy-Option-2017-Brackground-Technical-Note.pdf.
- Y-combinator: https://basicincome.ycr.org/
- IMF Fiscal monitor October 2017: https://www.imf.org/en/Publications/FM/Issues/2017/10/05/fiscal-monitor-october-2017
- Survey data on Mexico: http://www.inegi.org.mx/biinegi/

## 4 Referee Report(s)

All students will write a referee report on either Edoardo Teso, Emanuele Colonnelli, and Mounu Prem, "Patronage in the Allocation of Public Sector Jobs" or Jeffrey Weaver, "Jobs for Sale: Corruption and Misallocation in Hiring". This referee report will be due on 3/28. Please send the referee report to me as a pdf by 5pm.

If you choose to do a second referee report rather than the research proposal, you will write it on either Michael Callen, Saad Gulzar, Ali Hasanain, Muhammad Yasir Khan, and Arman Rezaee, "The Political Economy of Public Sector Absence" or Juan Carlos Suarez Serrato, Xiao Yu Wang and Shuang Zhang, "The Limits of Meritocracy: Screening Bureaucrats Under Imperfect Verifiability". This report will be due on 4/18. Please send the report to me as a pdf by 5pm.

A couple of useful resources for writing referee reports:

- Jonathan Berk, Campbell R. Harvey, and David A. Hirshleifer, "Preparing a Referee Report: Fuidelines and Perspectives"
- A template

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

If you are a PhD student, I *strongly* recommend you do the virtual paper rather than the second referee report. 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?

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

- 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.

### 6 Schedule

Meeting	Date	Agenda
1	1/17	Taxation 1
2	1/24	Taxation 2
3	1/31	Taxation 3
4	2/7	Anti-Poverty 1
5	2/14	Anti-Poverty 2
6	2/28	Debate + Taxation 4
7	3/21	Rebuttals + Personnel 1
8	3/28	Personnel 2
9	4/4	Personnel 3
10	4/11	Personnel 4
11	4/18	Data & Technology 1
12	4/25	Data & Technology 2