ECON GR6307:
Public Economics and Development
Wednesdays, 10.10-12, Room 1101 IAB

January 22, 2019

Instructor: Michael Best
Department of Economics
Email: michael.best@columbia.edu
Office Hours: Wednesdays 2:00–3:00 & 3:30–4:00 in 1112 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 (*M/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 second 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/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 4 ways

1. Referee report 1 [20%]
2. Referee report 2 / Replication [20%]
3. Virtual paper (see section 5). [40%]
4. Class participation [20%]

You will receive letter grades for referee reports. I will give you more detailed feedback on your virtual paper.

3 Referee Report(s)

All students will write a referee report on either Juliana Londoño-Velez & Javier Ávila-Mahecha - "Can Wealth Taxation Work in Developing Countries? Quasi-Experimental Evidence from Colom-

bia" or Katy Bergstrom & William Dodds - "The Targeting Benefit of Conditional Cash Transfers". This referee report will be due on 2/20. Please send the referee report to me as a pdf by 5pm. 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 send me (and make sure it's not in the header metadata either)!

If you choose to do a second referee report rather than the replication exercise, you will write it 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 report will be due on 4/3. Please send the report to me as a pdf by 5pm.

Here are a couple of useful resources for writing referee reports:

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

4 Replication Exercise

If you are a PhD student, I ***strongly*** recommend you do the replication exercise rather than the second referee report. 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.

5 Virtual Paper[1]

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?

[1] Thanks to Owen Zidar for the name "Virtual Paper" and the guidelines

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	1/23	Taxation 1
2	1/30	Taxation 2
3	2/6	Taxation 3
4	2/13	Taxation 4
5	2/20	Anti-Poverty 1
6	2/27	Anti-Poverty 2
7	3/6	Anti-Poverty 3
8	3/13	Anti-Poverty 4
9	3/27	Personnel 1
10	4/3	Personnel 2
11	4/10	Personnel 3
12	4/17	Personnel 4
13	4/19?	Data & Technology 1
14	5/1	Data & Technology 2