Introduction to Applied Empirical Methods

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Assumed Background

- This class is targetted towards researchers interested in empirical work
- The course assumes quite a bit of exposure to econometrics material already
  - I assume the first year sequence here at Yale
- This is not because the material is deeply technical, but because I want to be able to assume some basic fluency in statistical concepts

Requirements

- There are no exams, I will be assigning problem sets on a (quasi) weekly basis.
- You can use any computer package you wish to use. Solutions will be handed out written in R.
  - See syllabus for details
- There are no required readings, but the papers listed in the syllabus are relevant to the material we will cover in class.
- I also highly recommend the following texts:
  - Angrist and Pischke, Mostly Harmless Econometrics
  - Hansen, Econometrics
  - Miller and Aronow, Foundations of Agnostic Statistics
  - Cunningham, Causal Inference: The Mixtape, https://mixtape.scunning.com/
  - Imbens and Rubin, Causal Inference for Statistics, Social, and Biomedical Sciences

Important caveat

- In the end, this is a graduate course targetted at making you a good empirical researcher
- My goal is to exposed to a wide range of empirical methods, and understand how they connect.
  - We will not drill down deeply into some material
  - I am happy to discuss it more outside of class
- I will also emphasize how to communicate the econometrics underlying your research ideas
  - This includes good graphic design!

Structure of the course

- Six parts, first three are “structure” (12 lectures), second three parts are on different “bespoke” methods (12 lectures)
- We will begin with an overview on the structure for causal inference
- N.B. I am keeping everything on the github repo and will update you via Canvas notifications!

Introductions!