Project Proposal- Big picture

- Goal: apply concepts from class to your own research idea.
- This will involve:
  - Coming up with a topic (due Tuesday March 27 on Moodle forum)
  - Writing a literature review
  - Writing a population regression model
  - Proposing data sources
  - Discussing threats to validity
- The final proposal (4-8 double spaced pages) will be due Tuesday May 1.

Topic

- Central question/hypothesis of interest
  - Examples:
    - Do smaller class sizes improve student achievement?
    - Does a larger asset transfer in a micro-entrepreneurship program improve the outcomes of low-income individuals?
    - When is foreign exchange intervention effective?
- Choose something that interests you!
- Post in the Moodle forum (top of Moodle page for the course) by Tuesday March 27.
- At the time of posting, you should have already performed some preliminary research into your topic
  - Does literature exist on it?
  - What does the existing literature say?
  - Why is this an interesting question to think about?
  - What would your hypothesis contribute to our understanding of the topic?

Literature Review

- In the proposal, you will delve deeper into the existing literature
- Discuss a number of related academic articles
  - Three articles, at a minimum
  - After that, the number will vary considerably based on your chosen topic
  - Discuss why the article is relevant
    - Model specification
    - Useful results/relationships
  - Critique the article
    - Omitted variables
    - Poor assumptions
- Synthesize how the articles are related to your proposal, don't just summarize them!

Population Regression Function

- Specify an appropriate population regression function based on the literature and your hypothesis
- Requires identifying hypothesis
- What variables should be included
- Consider the functional form
    - Linear
    - Quadratic
    - Logged
    - Binary dependent variable
    - Time series vs. panel data vs. cross sectional

Propose Data Sources

- After specifying variables, identify potential sources
- You don't need to actually collect the data, but you must ensure that it exists!
  - Cleaning data can be messy and time consuming
  - but also, it's important to understand what data exists and where

Threats to Validity

- Because you will not be actually collecting data and analyzing in Stata, you will not be able to test your hypothesis.
- However, you can still discuss threats to validity (will discuss shortly after spring break)
- Includes
    - internal validity
    - external validity
    - potential biases
    - possible misspecification of model
- Researchers can spend years specifying models- it is assumed that a model you come up with over the course of a couple of months will not be ideal
- What is important is that you can discuss the potential problems of the model

What to do now

- Start brainstorming a topic
  - What is a question you would be interested in answering?
- Start cursory research on the topic
- Talk with me about it
- Post on Moodle by Tuesday March 27
  - I will be "approving" topics on Moodle and providing feedback for ways to revise the topic