

Final Project Proposal

The aim of a proposal is to define a research topic and outline a pre analysis plan. A good research design is a procedure for generating answers to questions. Strong designs yield answers that are close to their targets, but weak designs can produce answers that are biased, imprecise, or just irrelevant. Assessing whether a design is strong requires having a clear sense of what the question to be answered is, and understanding how the empirical information generated or collected by the design will lead to reliable answers.

There are many common social science research designs. However, in this final project, we will center on experimental designs that answer causal questions.¹

A good proposal:

- Begins with a well-defined topic.
- Motivates and argues for the importance of the topic.
- Demonstrates that the author is well acquainted with the relevant literature.
- Outlines a compelling methodological approach.

The proposal will loosely follow the [Journal of Development Economics template](#). This template is intended to assist you in the preparation of your submission.

¹If you prefer an observational design with causal questions, please talk to the professor.

(Insert study title here)

Authors: Provide name of all authors

Date of latest draft: MM/DD/YYYY

Abstract

Limit the abstract content to a maximum of 150 words. An abstract is often presented separately from the article, so it must be able to stand alone. Use the following questions to guide you:

- What is/are the research question(s) of this study and why is it important for the urban economics literature?
- What is the main outcome variable; what is/are the secondary outcome variable(s) (if any) and what is the intervention?
- What kind of methodological framework will the study use to address the research question?

Keywords: Provide up to six keywords in for indexing purposes.

JEL codes: Provide up to six codes from those available [here](#).

1 Introduction

This section addresses the proposal's research question: background, importance and relevance. Write this section following *Keith Head's formula*. To help you write this section keep in mind these guiding questions:

- What is the main problem/question motivating the study? Why is this question important for the field of urban economics?
- How has this question been addressed thus far in the relevant literature? What are the competing theories for explanation of this question? How is this study different from prior research on this problem/question?

Moreover, the proposal should contain at least five relevant references when reviewing the relevant literature. At least one of those references must be from a **top ten journal** publishing original research. A top ten journal in economics is hard to define. However, we will use the h5-index rankings since it produces a good approximation. For example, on October 2023, these were: American Economic Review, The Review of Financial Studies, Journal of Political Economy, The Quarterly Journal of Economics, The Journal of Finance, The Review of Economic Studies, Econometrica, Journal of Public Economics, the Review of Economics and Statistics and the Journal of Development Economics.²

2 Research Design

Given our focus on experimental designs, to define the model, we have in mind a fixed set of units from which we will conduct our experiment. Under the model, each unit has two latent

²I've excluded the Journal of Economic Perspectives since its purpose is not to publish novel research but to "*bridge the gap between the general interest business and financial press and standard academic journals of economics*"

potential outcomes: a treated potential outcome and an untreated potential outcome. Next, we need to define whether you are interested in the ATE, CATE, or any other inquiry.

For this section please answer the following questions. If they don't apply provide a reason.

2.1 Hypotheses

- What are the main outcomes of interest? Which outcomes are primary to the analysis, which are secondary, and why?
- How will the main outcomes of interest be defined in your dataset? If applicable, how will they be aggregated?
- Please include all hypotheses which will be tested, linking each outcome specifically to how it will be measured.

2.1.1 Basic methodological framework / identification strategy

- What is the basic methodological framework of the study (RCT, pre-post, simple comparison, difference-in-difference etc.)? Why is it suitable to address this research question?

2.1.2 Intervention

- What type of an intervention does the study involve?
- What are the main characteristics of this population?
- What is the unit of analysis for this sample (individuals, organizations, etc.)?
- How will individual observations be assigned to treatment and control conditions?
- How is participation in the program defined for the purpose of your study?

- Are there multiple treatment arms involved and if so, are they exclusive or overlapping?
- If applicable, what observations will be blinded (masked) after assignment to interventions and how? If blinding is not possible, what measures will be taken to minimize the potential for performance and expectancy biases (e.g. keeping participants unaware of trial hypotheses, measuring participant and provider expectations of benefit at baseline, etc.)?
- Ethics: different realizations of the data from the same data strategy may differ in their ethical implications. Are there any ethical concerns you should take in consideration before designing your study?

2.1.3 Sample and statistical power

- What are the related effect sizes reported in the literature?
- What is the effect size you expect you will be able to detect?
- What are your assumptions about your alpha-level?
- What are your assumptions about your statistical power?
- What are your assumptions about variability in your effect size?
- How many sites will you have?
- How many people will you have in each site?
- What share of the variance do you expect to predict with your covariates?

2.2 Design diagnosis

This section should show your design diagnosis and evaluate the properties of your previous research design. To diagnose the configuration, please use as “diagnosands”: bias, statistical power,

and the root-mean-squared error.

Redesigning is the process of systematically varying aspects of the data and answer strategies to understand their impact on the most important “diagnosands”.

Before redesigning:

- Establish the most critical design decisions.
- Justify why these are the more important design parameters and what restrictions you face in their implementation.
- Show how the “diagnosands” change as result of the redesign exercise.

3 Interpreting Results

- Depending on the outcome of the test(s), how will you interpret the results in the light of competing theories?
- How do they contribute to the urban economics literature?
- What are the potential implications for policy?

4 References

Include all the references cited in the text.

Additional Guidelines

- Please turn a document in a **.pdf** file. I **strongly** encourage you to use L^AT_EX, which is a standard in most economic papers. It is also free and is available for most operating systems.
- The document should not be longer than 15 (fifteen) pages and include, at most, 8 (four) eight (tables and/or figures).³ Bibliography and exhibits don't count towards the page limit. You are welcome to add an appendix, but the main document must be self-contained. Specifically, a reader should be able to follow the analysis in the paper and be convinced it is correct and coherent from the main text alone, without consulting the appendix.
- Along with your document, you should turn in a compressed file that contains the *main* script(s) and a README file that details the file contents and instructions to run the code.
- **Group Work.** You can work in groups of up to **three** members. These members can be the same that you worked during the semester or not. However, students in the PEG or Ph.D. program are **strongly** encouraged to do it by themselves. **Take this opportunity to lay the groundwork for your dissertation.**⁴

³Reference parameters: letter size, one and a half space, margins 2.5 cm, font size 12.

⁴If you change group or are working alone please communicate this before **November 22**