ECON 1960 - Thesis Structure

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Polished proposal - Due 12/16

- 12-to-15 pages, double spaced, 1-inch margins, 12 point font
- Proposal should ideally become Sections 1-5 of thesis
- Submit to your advisor and Kelsey Thorpe by 12/16

Honors Thesis - Due 4/18

- Double-spaced, 1-inch margins, 12 point font
- 24 to 30 pages of text, 40 to 50 pages total
- References/Bibliography followed by Tables and Figures
- Submit to your advisor and Kelsey Thorpe by a date agreed with your advisor, and obtain approval no later than 4/18

Applied Micro

- Title page, Acknowledgments, Abstract
- Introduction
- Motivation and Background
- Data description
- Empirical/Econometric Methods, Hypotheses tested
- Results/Findings
- Implications, Competing Hypotheses (robustness), Caveats
- Conclusion
- References, Appendices, Tables and Figures

Macro

- Title page, Acknowledgments, Abstract
- Introduction
- Toy Model/Motivation
- Model
- Empirical Results
- Implications, Competing Hypotheses (robustness), Caveats
- Conclusion
- References, Appendices, Tables and Figures

Theory/Econometrics

- Title page, Acknowledgments, Abstract
- Introduction
- Set-up/Model (with theorem and proposition)
- Theorems and Proposition
- Empirical Application
- Conclusion
- References, Appendices (proof), Tables and Figures

Experimental/Econometrics

- Title page, Acknowledgments, Abstract
- Introduction
- Model
- Experiment design
- Results
- Simulation
- Empirical Application
- Conclusion
- References, Appendices (proof), Tables and Figures

Introduction

- Most important section of the paper
- Treat it like the only section that reader will read
- Summarizes key questions, contributions and results
- Motivate why the study is interesting and worth spending time/attention on
- Contract between you and the reader; the reader agrees to be excited about your paper, provided the paper delivers what the introduction promises
- Nice guide for writing economics introductions here

Main Text Writing Guide[1]

- Write the body of your paper as if you were writing it for a robot; don't try to convince the robot you are right, just state your assumptions, methods, and findings
- Be linear: If the robot encounters concepts that have not yet been defined, it breaks
- Be clear: If the robot encounters concepts that do not make sense, it breaks
- Be plain: The robot does not understand fancy talk and is not impressed by it
- Be formal: The robot has no problem with mathematics as long as it is correct

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[1]See Shapiro, 2022 for more details

Motivation and Background

- Highlights why research question is salient and/or of interest
- Provide stylized facts rather than just narratives
    - e.g. according to XXX et al (2018) more than 75% of the gender wage gap remains unexplained by notable observables
- Include institutional features that are directly relevant to understanding the question
- Focus on trends, descriptive graphs where possible

Experiment Design

- Explain the incentives of your experiment participants
  - What's in their information set?
  - What can they optimize over?
  - What's out of their control but can affect their outcomes?
- Sometimes useful to give an example of the interface
- Be clear about what is simplified/assumed away
- If multiple experiments
  - Introduce the first experiment
  - Discuss what are the issues emerged from the first experiment that led to a (better-designed) second experiment
- Predictions

Data Description

- Describe source, variables of interest in analysis along with units
  - i.e. From XXX we extract vote share information at the constituency-election level and candidate characteristics at the candidate-election level
- Document every key decision made in processing the data for the eventual analysis sample
  - e.g. we drop all constituencies with < 1000 voters from our sample due to issues with data collection in small rural constituencies
- Detail how linkages were made and merges/matches were conducted, especially if there are ambiguous keys
- Include useful summary statistics, balance tests, CDFs/PDFs and descriptive trends/maps that help the reader better understand the data and topic at large

Empirical Specification

- Quantify hypothesis by mapping research question in introduction to data variables and mathematical/statistical equation(s)

$$y_{it} = \sum_{m=-7}^{7} \beta_m z_{i,t-m} + X_{it} + \alpha_i + \gamma_t + \epsilon_{it} \tag{1}$$

- $z_{i,t-m}$ is a dummy variable for the leads and lags of treatment status for a given unit i
- The identifying assumption is that:

$$E[\epsilon_{it}|z_{i,t-m}, X_{it}, \alpha_i, \gamma_t] = 0 \tag{2}$$

- Identify threats to identification and how they can be addressed
  - e.g. pre-trends testing, balance test ex-ante to treatment etc.

Results and Robustness

- Quantify results
    - i.e. from Table IV, we see that treatment X increased annual income by almost $2700, which is a 9% increment from the average
- Contextualize results
    - i.e. our finding of an effect size of 13pp is lower than XXX (2023)'s similar coefficient likely due to the fact that we believe we are taking a more conservative approach due to assumptions X, Y and Z
- Show robustness checks for concerns about:
    - Data decisions
    - Identification issues
    - Placebo tests
- Explore mechanisms but provide necessary caveats where data is limited

Conclusion

- Reiterate introduction, assure that the contract with the reader is fulfilled
- Detail areas for further research that's not within the scope and/or are limited by your data sources
- Include back of the envelope calculations that reinforces impact/implication of your findings
  - i.e. using the method in XXX (2022) our estimated beta implies a welfare gain of $3800 per year, which is almost 18% of the baseline average income of the population of interest